Island County Solid Waste and Moderate-Risk Waste Management Plan

September 2014

Island County Public Works / Solid Waste Division
Courthouse, PO Box 5000
Coupeville, WA 98239-5000

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November 10, 2014

Joantha Guthrie, MPA
Manager, Solid Waste Division
Island County Public Works / Solid Waste Division
Courthouse, PO Box 5000
Coupeville, WA 98239-5000

RE: ***Ecology Approval of Island County's Solid Waste and Moderate-Risk Waste Management Plan, September 2014***

Dear Ms. Guthrie:

The Department of Ecology (Ecology) is pleased to approve *Island County's Solid Waste and Moderate-Risk Waste Management Plan*, submitted for final review and consideration on September 30, 2014.

This plan was submitted as a plan amendment to the 2008 *Island County Solid Waste and Moderate-Risk Waste Management Plan*. The County conducted a thorough review of all parts of this solid waste management plan, and this amendment is accepted as the five-year review and update required under RCW 70.95.110. We also greatly appreciate the update to the moderate risk waste management plan.

This Plan demonstrates Island County's continued commitment to reduction, recycling, and safe management of solid and moderate risk waste. Ecology commends you for taking a timely review of your previous plan and addressing all of the solid and hazardous waste planning elements in the Plan amendment. Your program goals are thorough, forward thinking, and strategic.

Sincerely,

Peter D. Christiansen
Section Manager

cc: Penny Ingram, Washington Utilities and Transportation Commission
Diana Wadley, WA Department of Ecology

Island County
Solid Waste and Moderate-Risk Waste Management Plan

September 2014

Prepared for

Island County, the Cities of Oak Harbor and Langley, and the Town of Coupeville

Prepared by

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Preface

This document was developed with the guidance of the Island County Solid Waste Advisory Committee whose participation is gratefully acknowledged. Committee members and their affiliation are identified below.

Island County Solid Waste Advisory Committee

Member	Affiliation
Joantha Guthrie, Chairman	Island County Solid Waste Division
Stan Berryman	City of Langley
Greg Cane	Town of Coupeville
Scott Sebelsky	Member-at-Large, Camano Island
Rick Blank	Member-at-Large, North Whidbey
Kelly Emerson	Island County Board of Commissioners
Helena Hennighausen	Island County Public Health
Sarah Schmidt	Member-at-Large, Central/South Whidbey
Steve Bebee	City of Oak Harbor
Janet Hall	Member-at-Large, Whidbey Island
Kent Kovalenko	Island Disposal, Inc.
Carlton Paulmier	Waste Management, Inc.
Dave Campbell	Island Recycling
Diana Wadley	WA Department of Ecology (ex-officio)

Special thanks to the SWAC members who served on the subcommittee that prepared the initial revisions to the previous plan, Rick Blank and Janet Hall, and to previous Island County staff Jerry Mingo and Dave Bonvouloir.

Section 1
Summary

This plan provides recommended strategies for managing solid waste generated in Island County, the Cities of Oak Harbor and Langley and the Town of Coupeville. Recommendations are provided for municipal solid waste, other special waste and moderate-risk waste.

A summary of the recommended strategies is presented in Table 1-1. The recommendations are estimated to cost Island County $1.1 million over the next six years.

Table 1-1
Summary of Recommendations
(2013 dollars in thousands)

Program Element	Recommendations	Six-Year Cost Estimate
Waste Reduction	Adult Education and Promotion	426
	Youth Education	120
	Financial Support for Reuse Organizations	45
Recycling	Implement Additional Curbside Recycling	--
	Promote Private Yard Waste Diversion	--
	Investigate Local Markets for Glass	--
	Investigate Local Markets for other Materials	--
	Continue to Pursue Co-Generation Options for Wood Waste	--
	Encourage Food Waste Composting	--
Collection	Promote Curbside Waste Collection Services	--
	Investigate Alternative Waste Collection Methods	--
Transfer	Upgrade the North Whidbey Drop Box Station	25
	Increase Capacity at the Camano Transfer Station	100
	Increase Capacity at the Bayview Drop Box Station	100
	Continue to Explore and Develop Increased Efficiencies at Camano Transfer Station	--
	Consider a New Transfer Station for Camano Island and/or Coupeville Site	--
	Increase or Modify Rates to Ensure Self-Sustaining Programs	--
Treatment and Disposal	Purchase Additional Buffer Areas	NA
	Investigate Off-Ramp Strategies	--
	Investigate Additional Methods for Densifying Waste	NA
Moderate-Risk Waste	Public Education for Household Hazardous Waste	60
	Education and Technical Assistance for Small Quantity Generators	74
Other Special Waste	Investigate Diversion Options for Demolition Debris	--
	Adopt Contingency Plan for Disaster Debris	--
	Alternative Collection Programs for Special Wastes	--
Administration	Maintain Target Balance for Working Capital	--
	Conduct Phase 2 of Benchmarking Study	40
Regulations	Discourage Illegal Dumping and Littering	60
	Promote and Enforce Secure Load Requirements	42
	Add Administrative Penalties to County Code, Increase Fines	--
	Total Estimated Six-Year Cost of Management Recommendations	$1,092

NA = Not Available, the activity could have significant cost but a reliable estimate is not available at this time.

The estimated costs shown in Table 1-1 are only for new or additional activities that are specifically addressed in this plan, and do not include the significant expenditures for the existing activities conducted by public agencies and private companies involved in Island County's solid waste system. In addition, recommendations such as implementing additional curbside recycling services may lead to significant additional costs for residents and others in the county.

Section 2
Introduction

Solid waste is divided into categories based on regulatory requirements and handling methods. In this plan, solid waste in divided into three categories: municipal solid waste, special waste and moderate-risk waste.

Municipal solid waste is the largest category of solid waste. It includes all garbage and recyclable materials that residents, businesses and institutions set out for collection or deliver to a waste receiving station.

The special waste category includes discarded materials that are often managed separately from municipal solid waste. Septage, demolition debris, land clearing waste, biomedical waste, appliances, electronics waste, tires and inert waste are examples of special waste materials.

Finally, moderate-risk wastes are hazardous wastes produced by households and businesses in small quantities. Examples of household hazardous waste include paints, solvents, pesticides, cleaners, adhesives, and used motor oil. Examples of businesses that generate moderate-risk waste include dry cleaners, auto repair shops, hospitals, dental service providers, printers and furniture repair shops.

2.1 Purpose

Washington State law assigns primary responsibility for managing solid waste and moderate-risk waste to local governments. Local governments are specifically required to maintain current solid waste management plans. The purpose of this plan is to provide guidance for solid waste and moderate-risk waste programs for the period 2014 through 2018, or longer if the plan continues to provide relevant guidance past 2018.

2.2 Planning Area

The planning area includes all incorporated and unincorporated areas of Whidbey and Camano Islands with the exception of Naval Air Station Whidbey Island, although the Naval Air Station may participate through a cooperative agreement. Unless noted otherwise, in this document “Island County” refers to all areas under the jurisdiction of Island County, the Cities of Oak Harbor and Langley, and the Town of Coupeville.

2.3 Planning Authority

This plan is intended to satisfy the participating jurisdictions’ responsibilities for maintaining a current solid waste management plan in accordance with Chapter 70.95 of the Revised Code of Washington (RCW), and to provide a local hazardous waste management plan in accordance with Chapter 70.105 RCW.

Cities and counties share the responsibility for developing and maintaining a local solid waste management plan. RCW 70.95.080 provides cities with three alternatives for satisfying their planning responsibilities:

- Prepare and deliver to the county auditor a city solid waste management plan for integration into the county solid waste plan;
- Enter into an agreement with the county to prepare a joint city-county plan; and
- Authorize the county to prepare a plan for the city for inclusion in the county plan.

The Cities of Oak Harbor and Langley and the Town of Coupeville have recently renewed their interlocal agreements with Island County regarding solid waste management. These agreements, which are now effective through 2019, authorize Island County to prepare a countywide solid waste management plan that includes the three municipalities.

2.4 Required Plan Elements

RCW 70.95.090 establishes requirements for local solid waste management plans. Local plans are required to include the following elements:

- An inventory and description of all solid waste handling facilities including any deficiencies in meeting current needs;
- The projected 20-year needs for solid waste handling facilities;
- A program for the development of solid waste handling facilities that meets all laws and regulations, takes into account the comprehensive land use plans of participating jurisdictions, contains a six-year construction and capital acquisition program and a plan for financing both capital costs and operational expenditures;
- A program for surveillance and control (to avoid or mitigate the negative impacts of improper waste handling);
- An inventory and description of solid waste collection operations and needs within each respective jurisdiction, including state collection franchise holders and municipal operations;
- A comprehensive waste reduction and recycling element;
- An assessment of the plan's impact on the costs of solid waste collection; and
- A review of potential areas that meet state criteria for land disposal facilities.

RCW 70.105.220 establishes the required elements for local hazardous waste management plans, which include:

- A plan or program to manage moderate-risk wastes including an assessment of the quantities, types, generators, and fate of moderate-risk waste in the jurisdiction;
- A plan or program to provide for ongoing public involvement and education including the potential hazards to human health and the environment resulting from improper use and disposal of the waste;
- An inventory of all existing generators of hazardous waste and facilities managing hazardous waste within the jurisdiction;
- A description of the public involvement process used in developing the plan; and
- A description of the eligible zones designation in accordance with RCW 70.105.225.

2.5 Planning Goals and Objectives

The goal of the planning process is to develop and maintain a solid waste management system that protects public health and the environment in a cost-effective manner. The specific objectives of this solid and moderate-risk waste management plan are to:

- Ensure convenient and reliable services for managing solid waste materials;
- Promote the use of innovative and economical waste handling methods;
- Encourage public-private partnerships for waste reduction and recycling programs;
- Emphasize waste reduction as a fundamental management strategy;
- Encourage the recovery of marketable resources from solid waste;
- Assist the State maintain its goal of a 50 percent recycling rate;
- Assist the State with its goal of an 80 percent used motor oil reuse and re-refining rate;
- Ensure compliance with state and local solid and moderate-risk waste regulations;
- Assist those who sell and use products containing hazardous ingredients to minimize risks to public health and the environment;
- Provide customers information and education to promote recommended waste management practices; and
- Support the State's Beyond Waste goals, especially for the five key initiatives:
  - increased diversion of organic materials,
  - increased use of green building methods,
  - improved management of small-volume hazardous wastes,
  - improved management of industrial wastes, and
  - measuring progress.

2.6 Roles of Local Government in the Planning Process

The Island County Public Works Department had the lead responsibility for amending this plan. The Cities of Oak Harbor and Langley and the Town of Coupeville participated in its development through membership on the Island County Solid Waste Advisory Committee. The municipalities were also responsible for adopting the revised plan after it had gone through the public review process.

2.7 Public Participation in the Planning Process

Public participation in the planning process centered on the Island County Solid Waste Advisory Committee (SWAC). Members of the committee are identified in the Preface. The SWAC met on February 15, 2013 to discuss the process for updating the plan. A subcommittee made up of four members met several times in early 2013 to review and discuss draft sections of the plan. The full SWAC met again on August 23, 2013 to review the revised plan, after which the plan was distributed for review by Ecology and others. Ecology's comments were received on December 24, and additional revisions were made to the plan in response to those comments. The SWAC met on March 14, 2014 to discuss the additional revisions, and this final plan was prepared based on the SWAC's input. Prior notices for all SWAC meetings were published in the Whidbey Examiner, Whidbey News Times, the South Whidbey Record and the Stanwood-Camano News.

The Board of Island County Commissioners appoints SWAC members. Members are selected to represent a balance of interests including citizens, public interest groups, business, the waste management industry and local elected public officials. The SWAC assists in the development of programs and policies concerning solid waste handling and disposal. The SWAC meets as needed to review and comment on proposed rules, policies and ordinances prior to their adoption.

The legislative bodies of Island County and the participating municipalities were responsible for adopting the final plan. Resolutions of adoption executed by the participating jurisdictions are included in Appendix D.

2.8 Disposition of Previous Management Plan Recommendations

This plan updates the 2008 *Island County Solid Waste and Moderate-Risk Waste Management Plan*. The recommendations from the previous plan are shown in Table 2-1, and the current status of each recommendation is characterized as ongoing or completed (or both). The 2008 Plan superseded the previous solid and moderate-risk waste plan (December 1999).

2.9 Summary of New Solid Waste Rules

Several new rules have been adopted since the previous solid and moderate-risk waste plan was developed. Several of the more important new rules and regulations are described below (not in order of priority).

2.9.1 Solid Waste Handling Standards

Chapter 173-350 of the Washington Administrative Code (WAC), which became effective on February 10, 2003, has been amended several times since it was first adopted. The most recent amendment was adopted March 25, 2013. This amendment addresses management of organic wastes at compost facilities, vermicomposters, anaerobic digesters and other conversion technologies.

2.9.2 State Beyond Waste plan

After several years of development, the Washington Department of Ecology released the combined statewide solid and hazardous waste management plan in November 2004. Commonly referred to as the “Beyond Waste plan,” this plan adopts a vision that society can transition to a point where waste is viewed as inefficient and most wastes have been eliminated. The Beyond Waste plan was updated in 2009 to further refine the goals and recommendations of the 2004 plan. The 2009 update also addressed additional solid and hazardous waste issues.

2.9.3 Separate Collection of Electronic Waste (“E-Waste”)

The E-Cycle Washington program went into operation on January 1, 2009. This program provides a free opportunity to recycle televisions, computers (monitors, base units and laptops), and “e-readers.” Island County participates in this program and is reimbursed by it for the cost of

Table 2-1
Summary of Previous Solid and Moderate-Risk Waste Management Plan Recommendations

	Status as of July 2013	
	Ongoing	**Completed**
Waste Reduction		
Adult Education and Promotion	x	
Youth Education	x	
Financial Support for Reuse Organizations	x	
Recycling		
Investigate Curbside Recycling	x	
Promote Private Yard Waste Diversion	x	
Investigate Single-Stream Recycling for Whidbey Island		x
Investigate Local Markets for Glass		x
Investigate Local Markets for other Materials		x
Continue to Pursue Co-Generation Options for Wood Waste	x	
Create Off-Site Recycling Area at Camano Transfer Station	x	
Investigate Food Waste Composting		x
Collection		
Promotion of Curbside Waste Collection Services	x	
Investigate Alternative Waste Collection Methods	x	
Transfer		
Upgrade the North Whidbey Drop Box Station		x
Upgrade Compactor and Storage Capacity at the Island County Solid Waste Complex and Camano Transfer Station		x
Increase Capacity at the Bayview Drop Box Station	x	
Continue to Explore and Develop Increased Efficiencies at Camano		x
Start Planning for a New Transfer Station for Camano Island	x	
Increase or Modify Rates to Ensure Self-Sustaining Programs	x	
Treatment and Disposal		
Purchase Additional Buffer Areas	x	
Investigate Development of Additional Monitoring Wells		x
Investigate Additional Methods for Densifying Wastes	x	
Moderate-Risk Waste		
Public Education for Household Hazardous Waste	x	
Education and Technical Assistance for Small Quantity Generators	x	
Other Special Waste		
Investigate Diversion Options for Demolition Debris		x
Adopt Contingency Plan for Disaster Debris		x
Alternative Collection Programs for Special Wastes	x	
Administration		
Maintain Target Balance for Working Capital	x	
Solid Waste Operational Assessment and Benchmarking Study		x
Regulation		
Discourage Illegal Dumping and Littering	x	
Promote and Enforce Secure Load Requirements	x	
Add Administrative Penalties to County Code, Increase Fines		x

Note: the above recommendations are from the 2008 Island County Solid Waste and Moderate-Risk Waste Management Plan.

collecting these materials. Future activities may include expanding the program to accept additional types of waste electronics.

2.9.4 Revenue-Sharing Agreements

State law (RCW 81.77.185) allows waste collection companies to retain up to 50 percent of the market revenues they receive for recyclables collected in the certificated areas. This provision was adopted to encourage investments in recycling and to provide motivation for increased recycling, whereas previously all market revenues were required to be used to offset expenses in the calculation of permissible rates and so certificated haulers had less incentive to maximize recycling. To implement this system, a proposal must be developed by the collection company and county, then submitted to the Washington Utilities and Transportation Commission (UTC) for approval. The county must certify that the proposal is consistent with their solid waste management plan. The proposal must demonstrate how the retained revenues will be used to increase recycling. The UTC has recently begun requiring more detailed budgets and reporting of results for this program.

Section 3
Background of Planning Area

This section presents a summary of the population, economy, land use, transportation, and environmental characteristics of Island County. It also discusses the "fatal flaws" associated with siting land disposal facilities in the planning jurisdiction. Fatal flaws are conditions that may affect, or in some cases prevent, the siting of solid waste facilities.

3.1 Population

The population of Island County has almost doubled over the past 30 years, growing from 44,000 residents in 1980 to 84,478 people in 2010. Historical population data for the cities and areas in Island County is shown in Table 3-1. The figures for 2000 and 2010 are from the U.S. Census, and figures for 2012 are an estimate based on recent population growth. Table 3-2 shows historical and projected population estimates for the county as a whole. The figures shown in Table 3-2 for 2015 and beyond are from the Office of Financial Management and are based on the "medium series" projections because those figures are most consistent with the projections used by the *Island County Comprehensive Plan*.

Table 3-1
Population Levels in Island County

City or Area	2000	2010	2012
Coupeville	1,723	1,831	1,880
Langley	959	1,035	1,055
Oak Harbor	19,795	22,075	22,200
Camano Island	13,339	15,650	15,811
Other Unincorporated	35,742	37,915	38,404
Total	71,558	78,506	79,350

Sources: Data is from the OFM, including the April 1, 2012 Population Estimates for Cities, Towns and Counties and the Estimates of Total Population for Selected Islands by County Parts. Data shown for "Other Unincorporated" is the difference (remainder) of the total population minus the other areas.

3.2 Economy

A major driving force for Island County's economy continues to be the Naval Air Station Whidbey Island (NASWI). The Naval base employs about 8,000 people directly and also creates many more associated jobs. Employment figures for 2010 and projected figures for 2020 are shown in Table 3-3. These figures are from the *Island County Comprehensive Plan*.

3.3 Land Use

The *Island County Comprehensive Plan* identifies the optimal use of land in the unincorporated areas of the County. The goal of that plan is to group future growth and development within

Table 3-2
Past and Projected Population for Island County

Year	Population
1960	19,368
1970	27,011
1980	44,048
1990	60,195
2000	71,558
2005	76,000
2010	78,506
2015	80,337
2020	82,735
2025	85,073
2030	87,621

Source: Washington State Office of Financial Management.

Table 3-3
Employment Levels for Island County

	Number of Employees	
Industry Group	**2010**	**2020**
Agriculture, Forestry, Fishing and Hunting	193	151
Construction	982	1,061
Manufacturing	1,425	663
Transportation, Communication and Public Utilities	699	179
Wholesale and Retail Trade	5,039	6,414
Finance, Insurance and Real Estate	955	1,151
Service	5,426	6,985
Government		
Federal Civilian	1,405	1,527
State and Local	4,163	4,960
Other	162	215
Military	8,000	8,000
Totals	28,449	33,345

Source: Island County Comprehensive Plan (1998, as amended 2011).

areas that are currently developed so as to preserve open space and other rural characteristics. According to the OFM, the cities of Oak Harbor, Coupeville and Langley comprise 9.06 square miles, or about 4.4 percent of the total land area. Most of the county is zoned residential (62 percent).

Land use policy is implemented through the zoning code (Chapter 17.03 of the Island County Code). The zoning code establishes six land use classifications: rural residential, residential, urban business center, agricultural, forest management, and non-residential. In addition to the land use classifications, overlay designations are used to protect sensitive features and areas such

as wetlands, steep and unstable slopes, fish and wildlife habitat, airport and aircraft safety, scenic corridors, water resources, critical drainage areas, and historic resources.

3.4 Transportation

Access to Whidbey Island is via State Highway 20 over Deception Pass from Skagit County, by ferry from Mukilteo in Snohomish County to Clinton on south Whidbey Island, and by ferry from Port Townsend to Keystone Harbor on central Whidbey Island. State Highways 20 and 525 are the major north-south surface transportation routes on Whidbey Island.

Access to Camano Island is provided by State Highway 532 from Stanwood in Snohomish County. There is no direct transportation route between Whidbey and Camano Islands.

Neither Whidbey nor Camano Islands are currently served by rail or barge transportation. The state highway and marine ferry system provide the only modes of public surface transportation for the planning area.

3.5 Environmental Characteristics

Whidbey and Camano Islands together have a land area of 206 square miles, with a few additional square miles contributed by the small islands that are included within Island County's boundaries (Ben Ure, Deception, Smith, Minor and Baby Islands). Whidbey Island is 40 miles long and from 1 to 10 miles wide. Camano Island is about 15 miles long and from 1 to 8 miles wide. Altogether, the two main islands have 200 miles of marine shoreline.

3.5.1 Climate

Island County has a temperate climate with cool, dry summers and mild, moist winters. The mean annual temperature is 50 degrees F. The coolest month, January, averages 38 degrees F and the warmest month, August, averages 61 degrees F. Precipitation is influenced by the rain shadow effect of the Olympic mountain range, and ranges from about 18 to 42 inches per year.

3.5.2 Geology

Island County lies within the Puget Sound lowland between the Cascade Range on the east and the Olympic Mountains on the west. The islands are generally composed of unconsolidated Pleistocene glacial and interglacial deposits that overlie Tertiary and older bedrock. The large difference in physical characteristics of the glacial deposits is due to differences in the mode of deposition. Advancing glaciers typically deposited a compact mixture of clay, silt, sand, gravel, and boulders as till. Retreating glaciers typically deposited course-grained sands and gravels.

3.5.3 Soils

The soils of Island County have developed under the influence of a moist marine climate. Most soils have developed under forest vegetation. Soil materials consist of glacial drift that varies considerably in texture, permeability and consistency. As a result, soil profiles are extremely variable throughout the County.

3.5.4 Topography

The relief of Island County is characterized by gently rolling hills except along certain shoreline areas where steep bluffs have been created by glacial rebound and wave action. A majority of the land area lies between 100 and 400 feet above sea level. Above 200 feet in elevation, the land rolls through upland hills and plains. Gentle ridges run along the elongated reaches of the islands. Fertile valleys, terraces and prairies, rising to about 100 feet above sea level, traverse several portions of Whidbey Island.

3.5.5 Surface Water

The gentle relief and relatively low rainfall conditions produce surface drainage systems that are not well developed. Individual drainage basins are small and generally flow only intermittently. Relatively impervious soil materials create local drainage impoundments forming small lakes, wetlands and lagoons. Island County has 37 lakes and ponds covering 971 acres and 415 acres of associated marsh and wetlands. Marine waters influence several of the lakes. Flooding occurs in the low-lying coastal areas.

3.5.6 Ground Water

Ground water provides the only source of potable water for all of Whidbey and Camano Islands except for the City of Oak Harbor and Naval Air Station Whidbey Island. The City of Oak Harbor and NASWI bring in potable water by pipeline. In 1982, the U.S. Environmental Protection Agency designated both Whidbey and Camano Islands as sole-source aquifers under the Federal Safe Drinking Water Act (Public Law 93-523).

3.5.7 Marine Water

Most tidally active waters lie off the shoreline of western Whidbey Island. These waters are directly influenced by the Pacific Ocean, the Straits of Juan de Fuca and Admiralty Inlet. Marine waters surrounding the eastern side of Whidbey Island are sheltered and channeled through Saratoga Passage and Deception Pass. Port Susan waters are nearly completely enclosed by Camano Island and the mainland.

The physical terrain associated with surface landforms and sea bottoms primarily affects mixing within these waters. Active tidal waters fluctuating within the deep-water troughs of the Straits of Juan de Fuca and Puget Sound pass over a shallow shelf within Admiralty Inlet. Water currents are rapid at this location.

The narrow channels of Deception Pass on the north and the opening between Whidbey and Camano Island to the south limit movement of water through Saratoga Passage and Skagit Bay. Water flow tends to be rapid at these openings, while circulation and water exchange within the inlet are relatively slow. Small bays within the inlet are further sheltered from these tidal currents. The mixing and exchange of waters within these coves occur primarily by wind action. Fresh water runoff from the Skagit River also flows into these areas and acts to dilute the surface salinity. Many of these areas are estuarial in nature and are extremely productive of various life forms.

The eastern shore of Camano Island abuts the estuarial water of Port Susan. The mouth of the Stillaguamish River empties into the northern, shallow reaches of the inlet. The southern portions of Port Susan are comparatively deep. The inlet, however, is nearly completely enclosed by landforms and two shallow sea bottom shelves which extend off the tip of Camano Island. Marine waters in this area mix only when tides are extreme.

Marine debris presents a continuing problem along all shorelines of Island County. Prevailing winds from the south and west direct the marine debris, including litter, into the coastal areas. It is generally the policy, with certain exceptions, of Island County to waive disposal fees for groups that collect litter.

3.6 Siting Land Disposal Facilities in the Planning Area

Land disposal facilities refer to landfills, land application sites, piles, and surface impoundments. The regulatory definitions for land disposal facilities are shown in Table 3-4.

Chapter 70.95 RCW requires that land disposal facilities be located in areas that are consistent with standards established by the Department of Ecology. Under that legislation, Ecology has developed siting standards for geology, ground water, soil, flooding, surface water, slope, cover material, capacity, climatic factors, land use and toxic air emissions. One of the standards for ground water prohibits the siting of MSW or limited purpose landfills over federally designated sole source aquifers. Both Whidbey and Camano Island have been designated sole source aquifers under the Federal Safe Drinking Water Act (Public Law 93-523). Hence, no new or expanded MSW or limited purpose landfills may be sited in Island County.

Table 3-4
Regulatory Definitions for Land Disposal Facilities

Disposal Facility	Definition
Municipal Solid Waste Landfill Unit	A discrete area of land or an excavation that receives household waste, and that is not a land application site, surface impoundment, injection well, or pile. A MSWLF unit also may receive other types of RCRA subtitle D wastes, such as commercial solid waste, nonhazardous sludge, conditionally-exempt small quantity generator waste, and industrial solid waste. Such a landfill may be publicly or privately owned. A MSWLF unit may be a new MSWLF unit, an existing MSWLF unit, or a lateral expansion.
Limited Purpose Landfill	A landfill which is not regulated or permitted by other state or federal environmental regulations that receives solid wastes limited by type or source. Limited purpose landfills include, but are not limited to, landfills that receive segregated industrial solid waste, construction, demolition and land clearing debris, wood waste, ash (other than special incinerator ash) and dredged material.
Inert Waste Landfill	A landfill that receives only inert wastes.

Table 3-4, continued
Regulatory Definitions for Land Disposal Facilities

Land Application Site	A contiguous area of land under the same ownership or operational control on which solid wastes are beneficially utilized for their agronomic or soil amending capability.
Pile	Any non-containerized accumulation of solid waste that is used for treatment or storage.
Surface Impoundment	A facility or part of a facility which is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials), and which is designed to hold an accumulation of liquids or sludges. The term includes holding, storage, settling, and aeration pits, ponds, or lagoons, but does not include injection wells.

Sources: Chapters 173-350-100 and 173-351-100 Washington Administrative Code.

Section 4
Waste Generation

This section presents waste quantity and composition estimates for solid waste generated in Island County. Solid waste is divided into three categories: municipal solid waste, other special waste and moderate-risk waste. These waste categories are discussed in the sections below.

4.1 Municipal Solid Waste

Municipal solid waste (MSW) includes rubbish, food waste, trash and all other post-consumer, non-hazardous solid waste generated in private households, offices and commercial business establishments. It also includes institutional and industrial waste that is disposed together with residential and commercial waste. For the purposes of Ecology's annual recycling survey, construction and demolition debris (C&D) is not included in the definition of MSW, but it is included here because it is largely managed along with other solid wastes.

4.1.1 Municipal Solid Waste Generation

Waste generation rate refers to the quantity of solid waste materials produced within a given period of time. Solid waste generation includes materials that are both recycled and disposed. Since 1999, Ecology has also collected data on the amount of "diverted" materials, which are materials that are diverted from disposal to a beneficial use. Examples of diverted materials include recovered asphalt and concrete and wood waste burned for energy (source-separated materials burned for energy are not defined as recycling).

Table 4-1 shows the amounts of materials from Island County that have been recycled, diverted, or disposed over the past ten years. As can be seen in the table, there have been substantial variations in the amounts of each type of material over the years. The most significant of these changes has been in the amounts disposed. Like almost every community in the nation, Island County has seen a large decrease in the amount disposed over the past five years due to the recession. Whereas most communities have seen disposed amounts begin to recover, however, Island County seems to be continuing to decrease.

The data in Table 4-1 also shows the variations that have occurred in the amounts recycled and diverted. The amount of recycled materials jumped up in 2004 due to a larger amount of textiles recycled (about 3,500 tons), as well as more ferrous metals, mixed paper and food waste. The smaller increase in recycling in 2008 is due to more ferrous metals being recycled (about 2,500 tons more than in 2006) and also more glass, wood, mixed paper and newspaper. The amount of diverted materials appears to have jumped up to a new level as of a few years ago. The large increase in diverted materials from 2006 to 2008 is primarily due to asphalt/concrete recycling (about 4,400 more tons in 2008 than in 2006) and other construction debris (1,500 tons). These increases could be the result of increased recycling of these materials, but could also be due to better reporting of existing practices.

Table 4-1
Recent Municipal Solid Waste Generation in the Planning Area

Year	Population	Amount Recycled, tons/year	Amount Diverted, tons/year	Waste Disposed, tons/year	Waste Generated, tons/year	Recycling/ Diversion Rate, %	Waste Generation Rate, lbs/pers/day
2000	71,558	18,862	1,712	33,379	53,953	38.1%	4.13
2002	73,151	19,909	1,649	44,744	66,302	32.5%	4.97
2004	74,549	29,846	2,515	48,159	80,520	40.2%	5.92
2006	77,189	19,501	4,016	55,840	79,357	29.6%	5.63
2008	78,544	24,355	9,188	47,191	80,734	41.5%	5.63
2010	78,506	19,860	10,703	45,990	76,553	39.9%	5.34
2011	78,800	20,352	9,531	43,691	73,578	40.6%	5.12
Percent of Total, 2011		27.7%	13.0%	59.4%			

Source; Ecology's annual recycling survey and annual disposal reports. The amount disposed includes C&D and a small amount of waste disposed outside of the County system, but does not include inert waste, asbestos, contaminated soil or other special wastes.

The amounts of recycled and diverted materials shown in Table 4-1 are based on the annual recycling survey conducted by Ecology. For that survey, Ecology collects data from processing facilities, collection companies, and public operations, using the data from these various sources to cross-check for unreported volumes, and allocates the tonnages of each material to each county in the state. Despite their best efforts, however, a portion of the tonnages cannot be allocated to a specific county. For 2011, the tonnages of recycled and diverted materials that could not be allocated to a specific county were 7.8% of the statewide total. If these tonnages are allocated to counties based on population (as is recommended by Ecology staff), an additional 7,726 tons could be allocated to Island County. This would increase Island County's recycling and diversion rate from 40.6% to 46.3%.

4.1.2 Municipal Solid Waste Planning Projections

The projection of future municipal solid waste generation shown in Table 4-2 is based on the 2011 per capita generation and diversion rates shown in Table 4-1 and the population projections shown in Table 3-2.

Table 4-2
Municipal Solid Waste Generation Projections (tons/day)

	Current (2011)	2020	2030
Population	76,000	82,735	87,621
Waste Generated	202	212	224
Amount Recycled	56	59	62
Amount Diverted	26	28	29
Waste Disposed	120 (a)	126	133

a) A small percentage of this amount, about 3%, does not go through the County's transfer stations.

Municipal solid waste generation varies with time. Waste generation typically peaks in the summer months and is at a minimum in the winter months. In 2012, the peak day occurred on Monday, October 13 (309 tons) and the largest amount received for any 7-day period occurred for the week beginning August 19 (1,223 tons). Projected municipal solid waste disposal rates for the annual average day, the peak week and the peak day are compared in Table 4-3.

Table 4-3
Municipal Solid Waste Disposal Projections [(a)]

	Year		
	Current (2012)	**2020**	**2030**
Annual Average, tons per day	114	120	127
Peak Week, tons per week	1,223	1,275	1,350
Peak Day, tons per day	309	322	341

a) These figures only include the amounts that are transferred through the County's facilities.

4.1.3 Municipal Solid Waste Composition

For planning purposes, composition data developed for Washington State can be used together with the waste disposal rates shown in Table 4-2 to provide estimates for the amount of materials disposed in Island County. The composition projection is presented in Table 4-4.

4.2 Other Special Waste

Certain types of solid waste that are routinely generated in households and businesses are managed separately from municipal solid waste. These waste materials include construction and demolition waste, land clearing debris, appliances, tires, auto bodies, biomedical waste, asbestos, e-waste and others. Septage and biosolids are also managed separately, but these are addressed by other plans. It should be noted, however, that about 70 percent of the households in Island County have septic systems.

There are no direct measurements of the quantities of many of the special wastes generated in Island County. Although Island County maintains records of materials delivered to its receiving facilities, much of this waste is managed outside the County system.

The following waste streams are discussed in greater detail in Section 11.

4.2.1 Construction, Demolition and Land Clearing Debris

Construction, demolition, and land clearing debris include materials that are bulky and resistant to rapid biochemical degradation. They are typically difficult to compact and have the potential to be managed outside of the municipal solid waste system, although construction and demolition waste is estimated to contribute 19.7 percent of the MSW tonnages. Generation of these materials is variable with respect to time. General economic conditions, construction activities and major storms all affect the rate at which these wastes are generated.

Table 4-4
Composition of Municipal Solid Waste Disposed in Island County

Category	Material	Percentage of Waste Disposed	Projected Quantity of Waste Disposed in Island County, tons per year		
			2011	2020	2030
Paper	Newspaper	1.0			
	Cardboard	2.5			
	Other Recyclable Paper	5.3			
	Compostable Paper	6.4			
	Remainder/Composite	1.9			
	Total Paper	17.3	7,560	7,940	8,410
Plastic	PET Bottles	0.6			
	HDPE Bottles	0.6			
	Other Plastic Pkg.	2.6			
	Film and Bags	5.6			
	Other Products	1.4			
	Remainder/Composite	0.7			
	Total Plastics	11.6	5,070	5,320	5,640
Glass	Clear Glass Containers	0.9			
	Green Glass Containers	0.3			
	Brown Glass Containers	0.3			
	Stoneware, Ceramics, Glassware	0.1			
	Remainder/Composite	0.5			
	Total Glass	2.1	920	960	1,020
Metals	Aluminum Cans	0.3			
	Tin Cans	0.6			
	Mixed Metal & Other	1.3			
	Other Non-Ferrous Metals	0.2			
	Other Ferrous Metals	1.8			
	Total Metals	4.2	1,840	1,930	2,040
Organics	Food	19.5			
	Yard Wastes	5.2			
	Manures	4.8			
	Other Organics	0.5			
	Total Organics	30.0	13,110	13,770	14,580
Consumer Products	Textiles	6.4			
	Furniture, Mattresses	3.2			
	All Other	1.5			
	Total Consumer Products	11.1	4,850	5,090	5,390
Other	Wood	10.4			
	Construction	9.3			
	Hazardous/Special Wastes	2.7			
	Residues	1.2			
	Total Other	23.7	10,360	10,880	11,520
Totals		100.0	43,690	45,885	48,595

Source: 2009 Washington Statewide Waste Characterization Study, Ecology 2010. Percentage figures are for the Northwest region, which includes Island, San Juan, Skagit and Whatcom Counties. Figures may not add up due to rounding.

4.2.2 Appliances

The latest data from the Department of Ecology's 2009 Waste Characterization Study indicates that virtually no appliances are disposed with the municipal solid waste stream. Instead, most discarded appliances are recycled. In 2012, 856 appliances (51.4 tons) were separately collected at County handling facilities and hauled away for recycling.

4.2.3 Tires

The Department of Ecology estimates that 0.3 percent of the municipal solid waste disposed statewide is used tires and other rubber products. Based on that data and the annual recycling survey, it appears that at least 75 percent of the used tires generated in the state are recapped, recycled or incinerated with energy recovery. In 2012, approximately 4,400 tires (55 tons) were delivered to County waste handling facilities and 394 tires were collected through special collection events, in addition to the amounts handled by tire retailers and installers. Tire retailers and installers generally recycle or dispose of tires through their companies.

4.2.4 Biomedical Waste

Biomedical waste includes a broad group of waste materials generated by medical and dental service providers, veterinary clinics, funeral homes and other related facilities. Biomedical waste includes the following waste materials:

- Cultures and stock of infectious agents and associated biological agents;
- Laboratory waste which has come into contact with cultures and stocks of infectious agents or blood specimens;
- Contaminated sharps such as needles, syringes, lancets and cover slips;
- Pathological wastes such as human tissue and anatomical parts;
- Human blood and blood products;
- Isolation wastes such as anthrax, smallpox and rabies;
- Surgical waste including soiled dressings and gloves;
- Animal carcasses exposed to pathogens; and
- Other waste identified by the local health officer as biomedical waste.

4.2.5 Asbestos

Asbestos is an insulating material that is considered a hazardous air pollutant. Any waste that contains more than one percent asbestos by weight is classified as asbestos waste. Asbestos waste is no longer accepted at County facilities (as of February 2004), and people with this waste are referred to the Northwest Clean Air Agency.

4.3 Moderate-Risk Waste

Moderate-risk waste refers to waste materials that have the characteristics of a hazardous waste (see Table 4-5) but are not regulated by the state or federal governments. Moderate-risk waste is exempt from state and federal regulation because it is classified as a household hazardous

Table 4-5
Characteristics of Hazardous Wastes

Waste Category	Characteristics
Ignitable	A liquid that has a flashpoint of less than 140 degrees F. A non-liquid capable of causing fire through friction, absorption of moisture, or spontaneous chemical change. An ignitable compressed gas or oxidizing agent.
Corrosive	A liquid with a pH of 2 or less, or 12.5 and above. A liquid that corrodes steel (SAE 1200) at a rate greater than 0.25 inch per year at 130 degrees F.
Reactive	An unstable substance that undergoes violent change without detonating, reacts violently with water, and/or forms explosive or toxic gases. A substance capable of detonation when subjected to strong force or heat.
Toxic	Substances that pose potential risks to human health as determined by standard testing procedures.
Listed Waste	Any substance listed by the Department of Ecology as being extremely hazardous or dangerous waste.

substance (household hazardous waste) or is generated by businesses in quantities below the threshold for regulation (small quantity generator waste).

The Hazardous Household Substances List developed by the Department of Ecology is shown in Table 4-6. All of these products become household hazardous wastes when they are discarded. Categorization of chemicals may be changed during the present planning period to reflect the international Global Harmonization System. At the time of this writing, the U.S. Department of Labor had recently adopted the international system.

Many businesses and institutions produce small quantity generator wastes. Small quantity generators produce hazardous waste at rates less than 220 pounds per month or per batch (or 2.2 pounds per month or per batch of extremely hazardous waste) and accumulate less than 2,200 pounds of dangerous waste on-site (or 22 pounds of extremely hazardous waste). Small quantity generators are conditionally exempt from state and federal regulation provided they are properly managing and disposing of their wastes. Small quantity generator options are listed in WAC 173-303-070(8)(b)(iii).

Other toxic wastes such as drug-contaminated demolition debris from illegal facilities may become a problem in the future.

4.3.1 Moderate-Risk Waste Generation

Island County waste receiving facilities collect moderate-risk wastes (MRW) generated in the planning area. Over the past five years, the number of individuals disposing moderate-risk waste at County facilities decreased while the quantity of waste disposed was increasing until 2012 (see Table 4-7). In May 2012, County facilities ceased accepting latex paint, which had previously accounted for 28% of the incoming materials. Customers with latex paint are now directed to reuse opportunities (if they have usable quantities of paint) or to solid waste disposal (since latex

Table 4-6
Hazardous Household Substances List

Substance or Class of Substance	Primary Hazards			
	Flammable	**Toxic**	**Corrosive**	**Reactive**
Group 1: Repair and Remodeling				
Adhesives, Glues Cements	•	•		
Roof Coatings, Sealants		•		
Caulkings and Sealants		•		
Epoxy Resins	•	•		•
Solvent Based Paints	•	•		
Solvents and Thinners	•	•	•	•
Paint Removers and Strippers		•	•	
Group 2: Cleaning Agents				
Oven Cleaners		•	•	
Degreasers and Spot Removers	•	•	•	
Toilet, Drain and Septic Cleaners		•	•	
Polishes, Waxes and Strippers	•	•	•	
Deck, Patio, and Chimney Cleaners	•	•	•	
Solvent Cleaning Fluid	•	•	•	•
Group 3: Pesticides				
Insecticides	•	•		
Fungicides		•		
Rodenticides		•		
Molluscides		•		
Wood Preservatives		•		
Moss Retardants		•	•	
Herbicides		•		
Fertilizers		•	•	•
Group 4: Auto, Boat, and Equipment Maintenance				
Batteries		•	•	•
Fluorescent Bulbs and CFLs *		•		
Waxes and Cleaners	•	•	•	
Paints, Solvents, and Cleaners	•	•	•	•
Additives	•	•	•	•
Gasoline	•	•	•	•
Flushes	•	•	•	•
Auto Repair Materials	•	•		
Motor Oil		•		
Diesel Oil	•	•		
Antifreeze		•		
Group 5: Hobby and Recreation				
Paints, Thinners, and Solvents	•	•	•	•
Chemicals (including Photo and Pool)	•	•	•	•
Glues and Cements	•	•	•	
Inks and Dyes	•	•		
Glazes		•		
Chemistry Sets	•	•	•	•
Pressurized Bottled Gas	•	•		•
White Gas	•	•		•
Charcoal Lighter Fluid	•	•		
Batteries		•	•	•
Group 6: Miscellaneous				
Ammunition	•	•	•	•
Asbestos		•		
Fireworks	•	•	•	•

** Added by SWAC on March 14, 2014.*

Table 4-7
Recent Moderate-Risk Waste Generation in the Planning Area

Year	Population	Number of Customers (visits) at County Facilities	Amount of Waste Handled (pounds)
2001	71,558	3,371	345,686
2005	76,000	2,663	493,027
2008	78,544	3,410	445,014
2009	78,737	2,785	395,079
2010	78,506	2,749	435,539
2011	78,676	2,578	496,647
2012	79,177	2,058	298,346

paint isn't actually a hazardous waste). There has also been a decline in MRW quantities across the state in recent years, which is thought to be the result of the poor economy as well as a reduction in the number of household stockpiles, and these factors could be contributing to the decline in 2012 in Island County as well.

Participation at the different Island County solid waste facilities has varied over the past five years. Participation figures for the four solid waste facilities (excluding motor oil) are shown in Table 4-8.

Table 4-8
Participation in Moderate-Risk Waste Program at the Four Solid Waste Facilities

Area	Number of MRW Customers at Island County Facilities				
	2008	2009	2010	2011	2012
North Whidbey	308	307	275	270	235
Central	1,750	1,352	1,192	1,127	720
Bayview	557	497	479	409	547
Camano	795	629	803	772	556

4.3.2 Moderate-Risk Waste Generation Projections

In 2010, a report prepared for the Department of Ecology (the *2009 Washington Statewide Waste Characterization Study*) estimated that 0.04 percent of the municipal solid waste stream in the northwest corner of Washington State (which includes Island County and three other counties) was hazardous waste. This figure, however, is significantly lower than results from other studies. For instance, a study conducted for Thurston County in the same time period found 0.15% hazardous waste in their waste stream.

Table 4-9 provides a projection of the amounts of MRW for the planning period based on 2012 quantities. The amount recycled/managed is based on the records of Island County (298,346 pounds of MRW) and population data from the OFM (79,350 residents). The disposed amount is

Table 4-9
Moderate-Risk Waste Quantity Planning Projections
(tons/day)

	Year		
	2012	**2020**	**2030**
Recycled/Managed	0.41	0.43	0.45
Disposed	0.05	0.05	0.05
Generated	0.46	0.47	0.50

based on Ecology's estimate of 0.04 percent of the waste stream and the County's waste disposal amount in 2012 (41,603 tons). Projections for 2020 and 2030 are based on the 2012 per capita rates and population projections (see Table 3-2). The amount generated is simply the sum of the amount recycled and disposed.

4.3.3 Moderate-Risk Waste Composition

Almost one-half of the moderate-risk waste collected in 2012 was used motor oil and old fuel. The composition of moderate-risk waste delivered to Island County collection facilities in 2012 is shown in Table 4-10.

Table 4-10
Composition of Moderate-Risk Waste Disposed in the Planning Area in 2012
(in percent)

Waste Material	Percent of Waste Disposed
Used Oil and Fuels	45.8
Oil Paint-Related	14.3
Non-Hazardous Liquids	11.4
Alkaline Batteries, Landfilled	5.8
Fluorescent Lamps	5.4
Antifreeze	4.3
Pesticides	2.8
Aerosols	1.6
Acids and Alkalines	1.2
Rechargeable Batteries	0.7
Other, Miscellaneous	1.2
Material Exchange	5.6
Total	100

Section 5
Waste Reduction

Waste reduction refers to any action that avoids the generation of waste or reduces the toxicity of waste before it reaches the waste stream. Other terms used to describe waste reduction include source reduction, waste prevention, waste minimization, and pollution prevention. Washington State law designates waste reduction as the highest priority waste management strategy. Means to affect waste reduction include:

- Reduce materials used in product manufacturing;
- Increase the useful life of a product through durability and reparability;
- Decrease the toxicity of products;
- Reuse a product; and
- Reduce consumer use of materials.

5.1 Existing Program Elements

Existing waste reduction elements of the solid waste program include diverting reusable items from disposal, education, unit-based garbage fees, backyard composting, and disposal subsidies for reuse organizations. These program elements are discussed below.

5.1.1 Re-sellable Items and Hard-to-Recycle Materials

In addition to a number of thrift stores and consignment shops throughout Island County, the County's contract recycler also maintains re-sell operations at both the Solid Waste Complex Recycle Center and at the Island Recycling Center near Freeland. An additional re-sell operation at the Solid Waste Complex was established in June of 2013 to divert from the waste stream usable or hard to recycle materials. The County had issued a Request for Proposals to local non-profit organizations and entered into a contract that provides access to a building in trade for specified waste reduction services, including:

- Placement of a part time employee or volunteer working at the tipping areas to direct cardboard, steel and traditional recyclables to the County's contract recycler;
- Recovery and sale of usable discarded or donated items in the supplied building; and
- Providing a disposal alternative for dimensional lumber, paints and hard-to-recycle materials such as electronic wastes that are not covered in the E-Cycle Washington system.

5.1.2 Adult Education Programs

The Solid Waste Division currently sponsors the WSU Waste Wise program. Administered by WSU Extension Island County, this program provides training in waste management for community volunteers. In exchange for the training, the participants agree to volunteer 15-25 hours for public service projects, recycling at special events and education. The volunteers have assisted with a wide variety of special projects involving composting, sustainable living practices, smart shopping, and waste generation surveys.

5.1.3 Student Education Programs

Education activities for students include classroom-based programs. For kindergarten through sixth grade students, site tours are also provided. For high school and college-level students, support is provided on an as-requested basis for students conducting research or writing reports.

5.1.4 Unit-Based Garbage Fees

All solid waste collection service providers in Island County have established unit-based fees for solid waste collection. All collection service providers also offer a minican level of service that is intended to promote waste reduction and recycling.

5.1.5 Backyard Composting

The Solid Waste Division, the WSU Waste Wise program and WSU Extension Island County offer technical assistance to consumers initiating backyard composting projects. Services include three compost demonstration sites and response to individual requests for information.

5.1.6 Disposal Subsidies for Reuse Organizations

The Solid Waste Division provides a 50 percent disposal discount for non-profit organizations that collect and resell used household products and clothing. The discount is intended to compensate for unusable items donated to the organizations.

5.2 Planning Issues

Waste reduction is the highest priority waste management strategy because it conserves resources, reduces waste management costs, minimizes pollution and promotes conservation. Waste reduction requires changes in production methods and consumption patterns and is influenced by national and international economies, factors that are typically beyond the control of local government. Measuring waste reduction is also difficult because waste generation fluctuates with many variables including economic conditions, seasonal changes and local weather. Measurements for waste reduction are more relevant when they reflect specific products or operations. Waste reduction strategies for consumers, businesses and government are discussed in the sections below.

5.2.1 Consumer Waste Reduction Activities

Consumer waste reduction activities are usually focused in three areas: yard and garden wastes, individual purchasing decisions, and promotion of product reuse.

Grasscycling

Grasscycling promotes a strategy where consumers leave grass clippings on the lawn rather than collecting them. The clippings provide nutrients and reduce the need for fertilizer. Grasscycling reduces the need for watering the lawn and may help suppress disease in turf grass.

Backyard Composting

Backyard composting promotes a strategy to compost yard, garden and food waste materials on-site rather than sending these materials to a central composting or disposal facility. Often participants are provided with "do-it-yourself" instructions or a subsidized composting container and instructions to promote the strategy.

Vermicomposting

Vermicomposting enables residents to turn food wastes into a nutrient-rich soil amendment through the use of worms. This is sometimes referred to as "worm boxing."

Waste Minimization

Waste minimization refers to waste reduction strategies that consumers may use for individual purchasing decisions. Specific waste minimization strategies include:

- Buying in bulk;
- Buying concentrates;
- Purchasing reusable products;
- Buying secondhand items;
- Avoiding over packaged items;
- Avoiding products containing hazardous ingredients;
- Borrowing or renting when possible;
- Purchasing durable and repairable products; and
- Using reusable shopping bags.

Promotion of Product Reuse

Use of second-hand products may be promoted by organizing swap meets, on-line reuse forums, or assisting organizations that sell used consumer products such as thrift shops. Sometimes durable containers for shopping or shipping are provided to encourage waste reduction.

5.2.2 Business Waste Reduction Activities

Manufacturers may use a number of internal strategies for waste reduction. Manufacturing processes may be redesigned or reconfigured to reduce waste. Products may be redesigned to increase durability, to facilitate reuse and repair, or may be reconfigured into smaller or more concentrated forms.

Business waste reduction programs are typically custom designed for each specific operation. However, a common approach for developing commercial programs includes the following components:

- Support and policy directives from management;
- A waste reduction team or coordinator;

- An accounting of materials purchased and waste produced;
- A reduction plan targeting specific materials or practices;
- Employee education; and
- Feedback and evaluation.

5.2.3 Institutional Waste Reduction Activities

At the institutional level, schools and governments may achieve waste reduction through waste audits of their operations and through procurement policies that make waste reduction a purchasing priority.

A waste audit is an assessment of how materials flow through an institution. It is an accounting of the quantity of materials purchased, used, recycled and disposed. Waste audits help identify the points at which changes in purchasing, consumption, or use can reduce or eliminate material. A waste audit typically includes the following elements:

- Description of current waste disposal characteristics;
- Identification of materials to target for waste reduction;
- Development of cost estimates and operating recommendations;
- Implementation of recommendations; and
- Monitoring of progress.

Waste disposal practices can be characterized through an examination of the quantity and composition of waste materials. Materials can be targeted based on quantity, the availability of alternative materials and the potential for reuse. Costs include avoided costs (savings) and implementation costs (both capital and operational). Avoided costs include materials purchase costs, disposal costs, and replacement costs.

Schools and government agencies may also preferentially purchase products that are durable, reusable and repairable, buy in bulk, and avoid the purchase of single-use disposable products. Institutions can also consider toxicity, packaging, resource use and disposal requirements when purchasing products. Finally, institutions may implement waste reduction activities associated with consumer and business programs such as on-site composting of yard and garden waste and changing office procedures to reduce paper consumption.

5.3 Alternative Waste Reduction Strategies

Six alternative waste reduction strategies are discussed below. The alternatives are not mutually exclusive.

5.3.1 Waste Reduction Alternative A-Regulation

Alternative A emphasizes rules to promote waste reduction. For example, yard and garden waste could be banned from disposal with municipal solid waste. The ban would require residents to compost on-site, subscribe to a yard waste collection service, or deliver their yard waste to a facility accepting it. Another waste reduction regulation could require businesses meeting certain

waste generation criteria to conduct waste reduction audits and submit waste reduction plans to a solid waste management authority. Under this alternative, the planning jurisdiction may also request state action to ban excessive packaging or products that generate unacceptable waste materials. Alternative A costs include those associated with notifying and reminding residents of the waste bans, labor to enforce the bans, and labor to review and respond to 100 business waste management plans submitted annually. Total annual costs are estimated at $100,000.

5.3.2 Waste Reduction Alternative B-Economic Incentives and Disincentives

Alternative B could adjust waste collection and disposal fees to emphasize waste reduction over recycling. The waste collection fee structure could be modified to charge separately for recycling services rather than include those costs in waste disposal fees. The total revenue collected may remain the same and the fees assessed for collection of recyclables could be less than the fees for waste disposal. The fee structure would be intended to send the message that waste reduction avoids waste management costs. Alternative B costs include capital improvements and additional labor at County receiving stations to collect separate payments for recyclable materials. No additional expenditures would be necessary for current collection service subscribers. Also under Alternative B, a new waste collection service level, the microcan, would be established. The microcan container would be 10-12 gallons in size and a new rate reflecting lower waste transport and disposal costs. Capital costs are estimated at $60,000 and annual operation and maintenance costs are estimated at $100,000.

5.3.3 Waste Reduction Alternative C-Adult Education and Promotion

Alternative C would continue educational outreach programs for adults. The adult education programs would focus around a trained community-oriented volunteer group such as the WSU Waste Wise program. Citizen volunteers would be trained to promote waste reduction and other recommended waste management strategies in residential and commercial situations. Formal arrangements for residents and businesses to request assistance from the volunteers would be established and promoted. The use of specific tools, such as the 2Good2Toss website, would be publicized. Costs associated with the adult education program are estimated at $71,000 per year and would continue through the planning period.

5.3.4 Waste Reduction Alternative D-Youth Education

Alternative D would conduct a youth education program annually. The youth education program would be directed at local school classrooms. Waste reduction strategies would be presented together with other local waste management information at both public and private schools. Tours would be combined with in-classroom visits after the tour to reinforce the messages and provide additional information. Costs associated with the youth education program are estimated at $20,000 per year.

5.3.5 Waste Reduction Alternative E-Financial Support

Alternative E would provide some direct financial aid to support waste reduction activities. Non-profit organizations collecting used household products could continue to be assisted with discounted disposal fees for donated items that are not reusable. In addition, a web page

consisting of a listing of organizations that promote waste reduction activities would be maintained. The web page would include thrift shops, repair businesses, tool rental businesses and other organizations. Costs associated with Alternative D include $7,500 per year for discounted disposal fees.

5.3.6 Waste Reduction Alternative F-Grants

Alternative F would provide grants to organizations, institutions or municipalities for various waste reduction programs. This alternative would allow partnerships with others that have similar interests, thus creating more cost-effective approaches, and would allow capitalizing on the energy or resources of other organizations. The cost of this option could vary widely depending on the amounts of the grants and activities targeted, but the first year or two could begin with a trial amount of $5,000 to $10,000.

5.4 Evaluation of Alternative Waste Reduction Strategies

The alternative waste reduction strategies were compared with respect to four evaluation criteria: consistency with the planning objectives, waste reduction potential, customer preferences and costs. The evaluation is discussed below.

5.4.1 Consistency with the Planning Objectives

All of the alternative strategies support the planning objective of emphasizing waste reduction as a fundamental waste management strategy. Alternative A-Regulation may not be consistent with the objective of ensuring convenient services for solid waste materials, but it would be consistent with the objective of increasing waste reduction. Customers may prefer yard waste recycling or even disposal rather than backyard composting and grasscycling. Alternatives C and D-Adult and Youth Education support the planning objective to provide customers with information and education to promote recommended waste management practices.

5.4.2 Waste Reduction Potential

Alternative A-Regulation would provide the most immediate waste reduction results because participation would be mandatory. All other alternatives promote waste reduction by encouraging changes in behavior or facilitating the recovery of used products. Behavioral changes require consumers to adopt and maintain an ethic of individual responsibility. Some consumers will respond to the conservation message while others may have difficulties understanding or relating to it.

5.4.3 Customer Preferences

Consumers typically prefer choice rather than mandates and lower costs rather than higher costs. Some customers may prefer the economic incentives of assessing separate charges for recycling and disposal although it would likely decrease recycling. Waste reduction education and promotion programs typically enjoy strong customer support. Direct financial support sometimes raises issues of fairness if an organization is perceived to receive benefits not available to similar organizations.

5.4.4 Costs

Alternative E has the lowest cost and so would be the most desirable option under a cost criterion. Alternative B is the most expensive option and could be highly unpopular with Island County residents.

5.4.5 Rating of Alternatives

The alternative waste reduction strategies are compared with respect to the evaluation criteria in Table 5-1. Alternative C-Adult Education and Promotion, Alternative D-Youth Education, and Alternative E-Financial Support are ranked highest in the evaluation. These three alternatives are recommended to be pursued (see Section 14.1).

Table 5-1
Summary Comparison of Alternative Waste Reduction Strategies

		Rating			
	Alternative	**Consistency with Planning Objectives**	**Waste Reduction Potential**	**Customer Preferences**	**Costs**
A	Regulation	L	M	L	M
B	Economic Incentives and Disincentives	M	L	L	M
C	Adult Education and Promotion	H	M	M	M
D	Youth Education	H	M	M	L
E	Financial Support	M	L	M	M
F	Grants	M	M	M	M

Note: Abbreviations are used above to show whether an alternative is rated high (H), medium (M), or low (L) for each criteria. A high rating is generally not good for the cost factor (although costs should always be weighed against the amount of impact anticipated), but high ratings are good for the other criteria.

Section 6
Recycling

This section identifies current recycling opportunities, summarizes the types and quantities of materials recycled, and prioritizes recyclable materials for collection in County programs. It also discusses relevant planning issues and develops and evaluates nine alternative strategies to modify the current recycling program.

6.1 Existing Recycling Program Elements

Existing collection services for recyclable materials include drop-off stations, residential curbside collection for residents of Oak Harbor, Coupeville and Camano Island, and commercial collection operations. These services are discussed below.

6.1.1 Drop-Off Stations

There are eight multi-material drop-off collection stations for recyclable materials in Island County. An additional recycle center is located on Naval Air Station Whidbey Island that is accessible by naval personnel. Seven of the civilian stations are located on Whidbey Island and one is located on Camano Island. The name, location, telephone number and hours of operation for each facility are shown in Table 6-1.

Table 6-1
Drop-Off and Buy-Back Centers in Island County

Facility	Address	Telephone	Hours
North Whidbey Drop Box	3151 Oak Harbor Road	360-675-6161	9:30 - 5:00 Tues, Sat, and Sunday
Oak Harbor Recycle Center	2050 NE 16th Ave	360-675-9193	10:00 - 5:00 Mon-Fri, 10:00 - 2:00 Sat
Christians Auto Recycling	615 Christian Road	360-675-8442	8:00 - 5:00 Mon-Sat
Mailliard Landing Nursery	3060 N Oak Harbor Road	360-679-8544	8:30 - 5:00 Mon-Sat
Island County Solid Waste Complex	20018 SR 20	360-679-7386	9:30 - 5:00 every day
Island Recycling	20014 SR 525	360-331-1727	9:00 - 5:00 Tues-Sun
Bayview Drop Box Station	14566 SR 525	360-321-4505	9:30 - 5:00 Mon, Wed, Sat, Sun
Camano Transfer Station	75 E Camano Hill Road	360-387-9696	9:30 - 5:00 every day

The drop-off stations accept a variety of secondary materials. The materials collected at each station are summarized in Table 6-2. In addition to the multi-material drop-off collection stations, there are several single material stations for newspapers, corrugated cardboard, and aluminum cans. There are three drop-off stations for glass in Oak Harbor. The Town of Coupeville maintains one location to drop off glass containers. The City of Langley operates a drop-off yard debris collection station at its wastewater treatment plant. Mailliard Landing Nursery accepts yard waste. Yard waste is accepted at the Island County Solid Waste Complex and is ground into a mulch product that is available to the public either at the Solid Waste Complex free of charge or via the contract grinding company at a retail price. Yard waste is also

Table 6-2
Summary of Materials Accepted at Drop-Off and Buy-Back Centers in Island County

	Transfer and Drop Box Stations				Oak Harbor Recycling	Christians Auto Recy.	Island Recycling
	Coupeville	N. Whidbey	Bayview	Camano			
Paper							
Newspaper	•	•	•	•	•		•
Corrugated Cardboard	•	•	•	•	•		•
Mixed Waste Paper (a)	•	•	•	•	•		•
Plastic							
Bottles / Jugs	•	•	•	•			•
Tubs	•	•	•	•			•
Glass							
Clear	•	•	•	•			•
Green	•	•	•	•			•
Brown	•	•	•	•			•
Ferrous Metals							
Steel Cans	•	•	•	•			•
Appliances, no cfc's	Fee			Fee		•	Fee
Appliances, w/cfc's	Fee			Fee			
Auto Bodies						•	•
Wire Ferrous	Fee			Fee		•	•
Other Ferrous	Fee	Fee	Fee	Fee		•	•
Non-Ferrous Metals							
Aluminum Cans	•	•	•	•	•	•	•
Aluminum Foil	•	•	•				•
Aluminum Scrap	•	• (b)	• (b)	•	•	•	•
Stainless Steel	•	• (b)	• (b)	•		•	•
Copper	•	• (b)	• (b)	•	•	•	•
Brass	•	• (b)	• (b)	•	•	•	•
Lead	•	• (b)	• (b)	•	•	•	•
Wire, Insulated	•	• (b)	• (b)	•	•	•	•
Other							
Electronics (c)	•	•		•			•
Yard and Garden	Fee			Fee			
Tires	Fee			Fee		Fee	Fee

(a) Mixed paper includes office paper, magazines, telephone books, catalogs and more.
(b) Small quantities only.
(c) E-Cycle Washington participant (for televisions, monitors, computer towers, laptops and electronic readers).

accepted at the Camano Transfer Station, which is hauled to a nearby composting facility in Stanwood. Wood waste of usable dimensions is accepted at the BaRC Re-tail used building materials facility at the Solid Waste Complex in Coupeville.

6.1.2 Curbside Collection Programs

Curbside recycle service is offered in the City of Oak Harbor, Town of Coupeville, Naval Air Station Whidbey Island base housing, and on Camano Island. The materials currently collected by these programs are summarized in Table 6-3.

The City of Oak Harbor provides weekly curbside collection of secondary materials for all single-family through fourplex dwelling units located within its jurisdiction. The City provides

Table 6-3
Summary of Materials Accepted by Curbside Recycling Programs in Island County

	Oak Harbor	Coupeville and Naval Air Station	Camano Island
Paper			
Newspaper	•	•	•
Corrugated Cardboard	•	•	•
Mixed Waste Paper	•	•	•
Shredded Paper (bagged)	•		
Frozen Food Boxes	•		•
Other Paper Food Containers			•
Plastic			
Bottles / Jugs	•	•	•
Tubs / Buckets		•	•
Plant Pots	•	•	•
Plastic Cups			•
Glass Bottles			•
Metals			
Aluminum Cans	•	•	•
Steel Cans	•	•	•
Scrap Metal	• (a)		•
Other	Motor oil and car batteries (a)		

(a) Placed next to cart.

service to multifamily dwellings that use rollcarts (but not those that have dumpsters) as well as businesses on a voluntary basis. The City of Oak Harbor also provides collection service for yard waste. The yard waste collection service is provided weekly from March 1 through November 30 and monthly from December 1 to February 28. Residents can purchase 30-gallon paper bags for $3.50 at two local stores and at city hall for prepaid service, or can sign up to receive a 95-gallon cart. The bags or cart are set out on the curb for collection and transported to Mailliards Landing Nursery. Recyclable materials collected by the City of Oak Harbor are placed in open-top trailers and transferred to the Island Disposal facility near the Coupeville Transfer Station, where some paper grades are separated and baled for marketing, while other commingled materials are transferred to Tacoma Recycling for processing and marketing. Island Disposal also collects (for a fee) corrugated cardboard and high-grade paper directly from individual businesses.

The Town of Coupeville contracts for every-other-week collection of recyclable materials with Island Disposal. The collection commingles plastic bottles, jugs, plant pots, tubs and buckets, cardboard, mixed paper, aluminum cans and steel cans. Service is provided to all single-family residents and to multifamily buildings upon request if cart placement and storage can be arranged. Glass containers may be dropped off at the Town of Coupeville Public Works Shop.

Military families residing in Naval Air Station Whidbey Island's base housing are provided with curbside recycling by Island Disposal, and the list of materials collected is the same as in the Town of Coupeville.

Camano Island residents may subscribe with Waste Management for the "All-in-One" every-other-week collection of mixed paper, cardboard, paper food containers, plastic bottles, jugs

tubs, glass bottles and jars, aluminum, steel cans, and clean scrap metal. Collected materials are hauled to the Cascade Recycling Center in Woodinville, Washington. The company reports that 33 percent of its residential customers on Camano Island subscribe to curbside recycling service.

6.1.3 Public Education and Promotion

The County's education and promotion of recycling is provided by the WSU Waste Wise program. The WSU Waste Wise program educates citizen volunteers and prepares them to provide assistance to residents and businesses. The volunteer participants are given training in waste management systems, waste reduction and recycling, community waste management issues and public speaking. The participants agree to volunteer for community activities that further the goals of the WSU Waste Wise program. Recent or ongoing recycling-related educational activities include:

- Assistance and education of residents and businesses about recycling and reuse opportunities;
- Maintaining 3 compost demonstration sites on Whidbey Island and one on Camano Island;
- Distributing waste management information at community events;
- Speaking to schools, businesses and community groups;
- Assisting school-related recycling projects;
- Assisting the State Parks with recycling and waste reduction; and
- Providing public education regarding waste-related issues.

The school education program is periodically revised to include in-classroom instruction upon request.

6.2 Designation of Recyclable Materials

This section prioritizes secondary materials for recovery from the municipal solid waste stream through County-sponsored collection programs.

6.2.1 Evaluation Criteria

Secondary materials are prioritized for County-sponsored recycling programs using four criteria: the potential for further waste stream reduction, materials handling requirements, market price and consumer preferences. The evaluation criteria are discussed below.

Potential for Waste Stream Reduction

Targeting waste materials that are disposed in the largest quantities has the greatest potential to increase the rate of recycling. Under this criterion, materials that are reported to comprise more than three percent (by weight) of the municipal solid waste stream (see Table 4-4) are assigned a high rating. Those materials that are reported to represent between one and three percent are assigned a medium rating and those materials that represent less than one percent of the waste stream are assigned a low rating.

Materials Handling Requirements

Collecting and preparing secondary materials for market requires equipment, facilities and labor. The costs of collection, processing and marketing are typically balanced with material sales revenues and avoided disposal costs. Under this criterion, those materials that are simple to collect and process are rated high. Those materials that require special collection procedures or extensive processing requirements are rated low. A medium rating is assigned to those materials that include characteristics of both the high and low rated materials.

Market Price

Markets for secondary materials are necessary for the continuing success of a recycling program. Material sales revenues are used to offset the costs of collecting, processing and marketing the materials. Market prices in March 2013 for volume (bulk) customers at Skagit Steel and Recycling in Burlington, Washington are summarized in Table 6-4. Under this criterion, those materials that have market prices greater than $0 per ton are assigned a high rating. Those materials that have a market price from $0 to $(35) per ton are assigned a medium rating and those materials with a market price less than $(35) are assigned a low rating.

Table 6-4
Market Prices for Bulk Secondary Materials in February 2013 at Skagit Steel and Recycling

Category	Material	Volume Purchase Price, $/ton
Paper	Newspaper	50
	Corrugated Cardboard	91
	Mixed Waste Paper	27
Plastic	PET Containers (#1)	140
	HDPE Containers, Natural (#2)	240
	LDPE Plastic Film, Clear	300
Glass	Clear Glass Containers	(60)*
	Brown Glass Containers	(60)
	Green Glass Containers	(60)
Ferrous Metals	Bulk Appliances	158
	Mixed Scrap	195
Non-Ferrous Metals	Aluminum Cans	1,000
	Clean Aluminum	900
	Other Non-Ferrous Metals	Varies

** ( ) = figure in parenthesis indicates that a fee is charged.*

Customer Preferences

Service-oriented enterprises must consider the desires of customers when establishing minimum levels of service. Satisfying customer preferences promotes participation. Under this criterion, the level of customer preference is based on the projected number of people wishing to recycle each material and their anticipated level of interest.

6.2.2 Evaluation of Materials

Potentially recyclable materials are compared with respect to the evaluation criteria in Table 6-5.

Table 6-5
Rating of Recyclable Materials

Category	Material	Diversion Potential	Handling Requirements	Market Price	Customer Preferences
Paper	Newspaper	M	M	H	H
	Corrugated Cardboard	H	M	H	H
	Mixed Waste Paper	H	M	H	H
Plastic	Containers	M	M	H	H
	Film	H	L	H	M
Glass	Clear Glass Containers	M	H	L	M
	Green Glass Containers	L	H	L	M
	Brown Glass Containers	L	H	L	M
Ferrous Metals	Steel Cans	M	M	M	H
	Appliances	L	L	H	H
	Mixed/Other Ferrous Metals	H	H	H	H
Non-Ferrous Metals	Aluminum Cans	L	M	H	H
	Non-Ferrous Metals	L	H	H	H
Organics	Yard Waste	H	L	M	H
	Food Waste	H	H	L	M
Construction Debris	Wood Waste	H	H	L	H
	Gypsum Drywall	M	M	L	L

Note: Abbreviations are used above to show whether each material is rated high (H), medium (M), or low (L) for each criteria.

6.2.3 Designation of Recyclable Materials

Based on the ratings in Table 6-5, the materials have been divided into three groups: high-priority, medium-priority and low-priority. A summary of the materials assigned to each category is presented in Table 6-6. This list should be used by County staff and others when evaluating existing and proposed recycling services, with greater emphasis and importance placed on those materials designated as high priority.

The list in Table 6-6 is the “designated recyclable materials” required by state planning guidelines, and this list should be used for guidance as to the materials that should be recycled in the future when possible. This list is based on existing conditions (collection programs and markets), and future markets and technologies may warrant changes in this list. The following conditions are grounds for additions or deletions to the list of designated materials:

- The market price for an existing material becomes so low that it is no longer feasible to collect, process and/or ship it to markets;
- Local markets and/or brokers expand their list of acceptable items based on new uses for materials or technologies that increase demand;
- New local or regional processing or demand for a particular material develops;

- No market can be found for an existing recyclable material, causing the material to be stockpiled with no apparent solution in the near future;
- The potential for increased or decreased amounts of diversion; and
- Other conditions not anticipated at this time.

Table 6-6
Designated Recyclable Materials

High-Priority Materials	Newspaper Corrugated Cardboard Ferrous Metals Aluminum Cans Other Non-Ferrous Metals Yard Debris
Medium-Priority Materials	Mixed Waste Paper Plastic Containers Plastic Film Clear Glass * Green Glass * Brown Glass * Steel Cans Appliances Food Waste Wood Waste
Low-Priority Materials	Gypsum Drywall

** Glass can be a problematic material for recycling due to the cost and its ability to cross-contaminate other materials. It should be recognized that alternatives may be needed for this material in the future, such as temporary or permanent deposition in an inert landfill, use as road base material, or use in other applications that may not be defined as recycling.*

The Solid Waste Advisory Committee (SWAC) will review the list of designated recyclable materials on an as-needed basis and changes in the list can be made by the Island County Solid Waste Manager without going through a formal amendment process. Any changes in the list proposed by others should be submitted to the SWAC for their discussion. Minor changes should be able to be addressed in about 60 to 75 days at most, depending on the schedule of SWAC meetings at the time of the proposed change. Should the SWAC conclude that the proposed change is a “major change” (what constitutes a “major change” is expected to be self-evident at the time, although criteria such as the length of the discussion and/or inability to achieve consensus could be used as indicators of what is a “major change”), then an amendment to the plan will be necessary.

6.3 Planning Issues

Management planning issues related to recycling are discussed below.

6.3.1 State Recycling Standards

Chapter 70.95 RCW requires solid waste planning jurisdictions to develop programs for the

collection of source-separated secondary materials from residences in urban and rural areas (see discussion in next subsection). In urban areas, the minimum recommended collection program includes curbside collection of source separated recyclable materials from single and multifamily residences. The City of Oak Harbor's curbside collection program provides collection of source-separated materials from single-family through fourplex dwellings. In rural areas, the minimum recommended program includes drop-off and/or buy-back collection services at all solid waste transfer, processing or disposal sites or at other convenient locations. Recycling opportunities for source-separated materials are offered at all solid waste receiving facilities. The curbside recycling service provided to residents in the Town of Coupeville and on Camano Island exceeds this recommendation.

Chapter 70.95 RCW requires monitoring programs for collection of source-separated waste from nonresidential sources when there is sufficient density to economically sustain a commercial collection program. Island County achieves this by working cooperatively with Ecology and utilizing the data they collect through the annual recycling survey.

Finally, a program to promote the concept of recycling is required. The planning jurisdiction promotes recycling by distributing waste management information at community events; providing speakers for schools, businesses and community groups; and assisting with recycling projects in schools, businesses and agencies. Information is distributed using telephone directories, newspapers, and web pages.

In summary, the existing urban and rural collection programs, nonresidential monitoring program, yard waste collection program, and education and promotion program meet or exceed the recycling service requirements in Chapter 70.95 RCW.

6.3.2 Urban and Rural Designations

Areas within the jurisdiction of the City of Oak Harbor are designated urban for recycling purposes. Areas annexed by the City of Oak Harbor become urban upon annexation, although services may be affected by the delay in transferring these areas from the certificated hauler to the city's collection services. All other areas within the planning jurisdiction are currently provided with a rural level of service. Any future changes in the urban and rural classifications, as established in the *Island County Comprehensive Plan*, should also be adopted for solid waste purposes, but the level of recycling service provided must also take into account other factors.

The areas currently designated as urban by the *Island County Comprehensive Plan* are shown in Figure 6-1. This map is provided for illustrative purposes only, and in the future the *Island County Comprehensive Plan* should be examined for any updates or revisions to these areas.

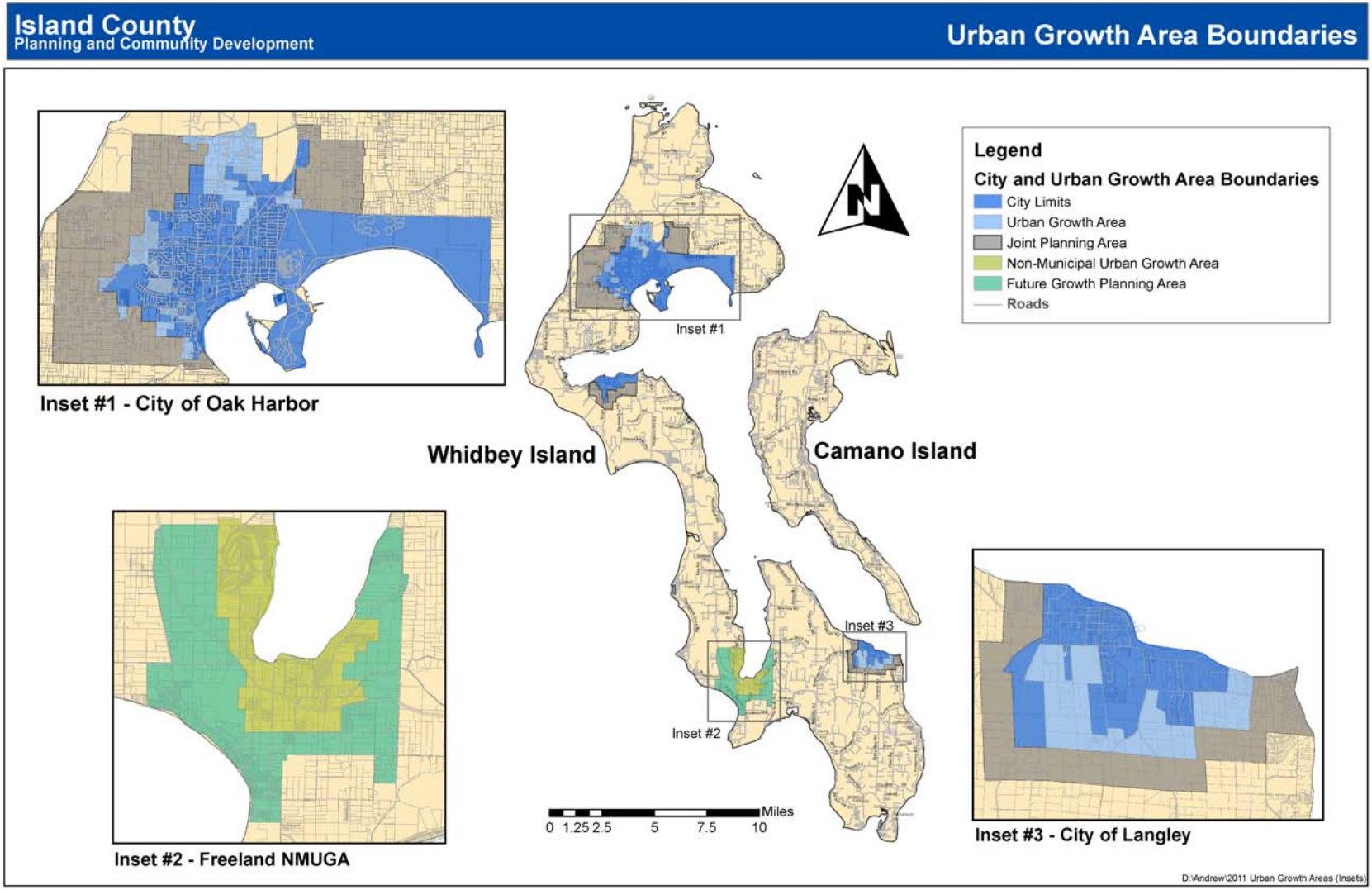
6.3.3 Recycling Service Providers

Private contractors provide recycling services at the drop box stations. Contract terms are typically five years and include a clause for one three-year extension.

6.3.4 Planning Survey

Planning surveys may be carried out in the planning period to gauge public opinion. For

Figure 6-1
Island County Areas of Urban Density



Source: Website for the Island County Planning and Community Development Department, effective as of 2011.

significant issues, formal scientific surveys based on accepted survey practices will be emphasized. For lesser issues, an informal customer poll may be considered.

6.3.5 Markets for Yard Waste

State legislation (RCW 70.95.090 (7)(b)(iii)) requires programs to collect yard waste where there are adequate markets or capacity for composted yard waste within the service area to consume the majority of the materials collected. The law implies that when cost-effective, source-separated yard waste should be processed into a compost product for beneficial use. Currently, curbside yard waste collection is available in the City of Oak Harbor and on Camano Island. Segregated yard waste is accepted at the Coupeville and Camano Transfer Stations, at the City of Langley wastewater treatment plant, and by two private companies (Mailliards Landing Nursery and Lenz Enterprise, which is in Stanwood but near Camano Island).

Yard waste program cost components include collection, transportation, processing, product storage, and product marketing and sales. The avoided costs for waste disposal also provide economic benefits for yard waste programs. Avoided disposal costs include collection, transfer, and transport and disposal costs for waste materials. There are three primary potential sources of revenue for yard waste programs: collection rates, tipping fees for yard waste disposal and sales revenues for the compost product.

Adequate markets are available when the tipping fees, product sales revenue, and avoided disposal costs exceed the yard waste program costs by an amount that an investor determines is a reasonable rate of return. The return reflects both financing costs and the risk profile of the specific operation. There are no known problems with current markets for reasonably-priced compost and related materials. Future market demand for compost is anticipated to be adequate, depending on the price of it relative to other soil amendments.

6.3.6 Recycling as a Waste Management Tool

Recycling means turning old products into new products. Recycling includes collecting unwanted products, processing them into new materials, manufacturing new products and using the new products. All four steps are necessary for recycling to occur.

Recycling has been the primary focus of municipal solid waste programs over the past few decades. Recycling has been promoted as a cost-effective alternative to waste disposal and as a means of resource conservation, pollution prevention, and reduced carbon emissions.

Unfortunately, recycling also has some drawbacks. Recycling can be more expensive than waste disposal. Recycling also has environmental costs. Collection, processing, transportation and remanufacture of recyclable materials all require the use of nonrenewable energy resources. All these activities generate pollution. Moreover, recycling is not an endless loop. There is always some loss of materials. The costs and benefits of recycling must be balanced with those of waste disposal to make recycling a useful waste management tool.

6.3.7 Duplication of Processing and Storage Facilities

Processing and storage facilities for recyclable materials are adequate on Whidbey Island. Three private firms (Oak Harbor Recycling, Island Recycling, and Island Disposal) and a federal agency (Naval Air Station Whidbey Island) operate multi-material processing and storage facilities. These facilities are expensive to construct and operate. Consolidation and/or specialization of these facilities could reduce the costs of recycling for ratepayers in the future.

6.3.8 Recycling Program Costs

Recycling activities cost the Island County Solid Waste Division $668,902 in 2012. There are no direct user charges for recycling. Recycling costs are recovered through a surcharge on municipal solid waste deliveries. In 2012, each vehicle using the transfer stations or drop box facilities to dispose of waste or yard debris was assessed a $4.49 surcharge to fund recycling services. This is expected to increase in the future due to increased transportation costs and other factors. The County may choose to redistribute recycle activity costs from a vehicle surcharge to solid waste tons as well as re-align costs among customers that have curbside recycling programs.

6.4 Alternative Recycling Strategies

The seven alternative strategies discussed below consider modifications to the current County waste recycling program.

6.4.1 Recycling Alternative A-Implement and Promote Curbside Recycling

Alternative A would implement curbside recycling services in the remainder of the county and then promote that service. Alternative A could include options for increasing recycling through various innovative approaches such as alternating weeks for garbage and recycling collection (see also Alternative C in Section 7.3.3), allowing customers to subscribe to collection services provided by state-certificated or other companies, or other approaches that prove feasible or negotiable.

When curbside recycling service is provided by the state-certificated waste collection companies, an implementation (service level) ordinance will be required. The ordinance will require a resolution by the Board of County Commissioners to establish collection of recyclable materials as a necessary service. That ordinance will need to specify which materials are to be collected (likely the typical curbside recyclables but excluding glass); how materials are to be collected (such as mixed, or single-stream); what collection frequency should be used (likely every-other-week to minimize costs); and establish other requirements.

The curbside recycling service would also include new tariffs (approved by the Washington Utilities and Transportation Commission, or UTC) and containers, and a “revenue share” component to allow the hauler to defray the cost of acquiring new equipment and to provide incentives to broaden participation and to expand the type, kind and volume of recyclable materials collected under the program. Upon adoption, the County ordinance would be forwarded to the UTC, which is the state agency that regulates the certificated (franchised)

garbage collection companies. The UTC would then direct Island Disposal, Inc. and/or Waste Management, as appropriate, to initiate collection of recyclable materials as a part of routine waste collection services. The UTC would continue to evaluate and approve rates for the services in the future.

It is estimated that the cost of collection services would increase by about $10 to $13 per month per residence to support every-other-week collection of recyclable materials, unless the alternating weekly schedule or other cost-saving measures were used. For the 5,000 residential customers in unincorporated Island County, the cost for this alternative could be up to $600,000 per year if the cost were $11 per household per month and the mandatory pay/voluntary participation approach is used.

6.4.2 Recycling Alternative B-Promote Private Composting

Alternative B would increase collection of yard waste by encouraging private companies to develop a collection and/or processing system for it. Island County could work with private companies to divert yard waste from disposal programs to a collection or processing facility, and to make sure those companies are properly permitted.

6.4.3 Recycling Alternative C-Investigate Local Markets for Glass

Alternative C encourages investigations into local markets and/or processing options for glass. Shipping glass off-island is not a cost-effective practice, due to the heavy weight and low market value for glass. A variety of local applications could be possible, including mixtures with asphalt or concrete to make roads, crushed glass as road and foundation base material, decorative and artistic applications, trench-marking, filtration, and various other uses. Cooperative efforts with other public departments or private companies, grant funds for glass crushers, and other approaches could be pursued.

6.4.4 Recycling Alternative D-Promote Local Markets for other Recyclable Materials

In addition to investigating options for glass markets (see Alternative C, above), this alternative addresses the investigation of local markets for other materials. Many materials, most notably plastics, typically require large-scale efforts and significant capital investments and so would not be conducive to local markets, but some materials and applications could be addressed through smaller-scale efforts.

6.4.5 Recycling Alternative E-Continue to pursue Co-Generation Options for Wood Waste

The collection of wood at the Island County Solid Waste Complex was terminated in 2011 due to the closure of the Everett, Washington co-generation plant. Alternative E is proposed as a method to explore other options for wood from Island County.

6.4.6 Recycling Alternative F-Create an Off-Site Recycling Area for the Camano Transfer Station

Alternative F would help to address delays and congestion that may develop at the Camano Transfer Station by diverting recycling traffic to a separate area. Originally addressed in a *Traffic Circulation Report* by Skillings-Connolly, Inc., this report assumed that the implementation of single-stream recycling would allow the use of two 105-yard trailers for collecting recyclable materials instead of the several smaller containers. In addition to expanding recycling capacity, a separate facility would maximize the use of the available capacity.

Costs for the four alternatives examined by the Skillings-Connolly report ranged from $20,620 to $117,115. The least-expensive option would require the use of stairs to reach the recycling containers because the containers would not be placed below grade, which is an obvious problem for safety reasons and may discourage recycling. The facility would need to be properly screened and attended to avoid visual impacts, litter problems and for access control.

6.4.7 Recycling Alternative G-Encourage Food Waste Composting

This alternative encourages the investigation of food waste composting from residential and commercial sources. Commercial sources are a priority because it easier to collect a larger amount and a cleaner stream from commercial sources than from residential sources. The cost of this option cannot easily be estimated at this time because this idea needs to be refined more and possibly tested through a pilot project. Residential food waste composting outside of curbside collection could be encouraged with emerging home-scaled units.

6.5 Evaluation of Alternative Recycling Strategies

The alternative recycling strategies are compared with respect to the evaluation criteria in the sections below.

6.5.1 Consistency with Planning Objectives

Two planning objectives relate directly to waste recycling: encouraging the recovery of marketable resources from solid waste and assisting the state to maintain its goal of a 50 percent recycling rate. Alternative E is inconsistent with both recycling-related objectives because it potentially reduces the total quantity of wood recycled, however replacing the carbon footprint of other fuels may make this alternative supportable. The other alternatives seek to increase the quantity of materials recycled, or support recycling in various ways. The other alternatives (exclusive of E) are rated high if they clearly support additional recycling, or medium if their feasibility or impact is uncertain.

6.5.2 Customer Preferences

Customers prefer choice rather than mandates and consistency rather than change. Alternatives A, B, E, F and G provide more convenience for recycling or composting customers.

6.5.3 Costs

Alternative A may increase the cost of collection services. Alternative F requires significant capital investment. Alternative G may also require significant investments to implement effectively. Other alternatives are more neutral in terms of cost impacts.

6.5.4 Rating of Alternatives

The alternative recycling strategies are compared with respect to the evaluation criteria in Table 6-7. Six of the alternatives (all but Alternative F) are highly rated overall and recommended to be pursued (see Section 14.2).

Table 6-7
Summary Comparison of Alternative Recycling Strategies

		Rating		
	Alternative	**Consistency with Planning Objectives**	**Customer Preferences**	**Costs**
A	Implement Curbside Recycling	H	H	H
B	Promote Private Yard Waste Diversion	M	H	L
C	Investigate Local Markets for Glass	M	M	L
D	Investigate Local Markets for other Materials	M	M	L
E	Continue to Pursue Co-Generation Options for Wood Waste	L	H	L
F	Create Off-Site Recycling Area at Camano Transfer Station	M	H	H
G	Encourage Food Waste Composting	H	H	H

Note: Abbreviations are used above to show whether an alternative is rated high (H), medium (M), or low (L) for each criteria. A high rating is generally not good for the cost factor (although costs should always be weighed against the amount of impact anticipated), but high ratings are good for the other criteria.

Section 7
Waste Collection

This section discusses existing collection services for municipal solid waste, identifies relevant planning issues, and develops and evaluates three alternative collection strategies.

7.1 Existing Program Elements

There are three solid waste collection service providers in Island County. The City of Oak Harbor provides collection services for residents and businesses located within its jurisdiction. Island Disposal, Inc. holds a certificate issued by the Washington State Utilities and Transportation Commission (UTC) to collect waste generated on Whidbey Island. Waste Management of Skagit County holds a certificate issued by the UTC to collect waste generated on Camano Island. The collection service providers, their mailing addresses and the current population density for each service area are shown in Table 7-1.

Table 7-1
Waste Collection Service Providers in Island County

Collection Service Provider	Address	Estimated Population Density of Service Area		
		2012 Population in Service Area[1]	Land Area, square miles	Density (people/square mile)
City of Oak Harbor	865 SE Barrington Drive Oak Harbor, W A 98277	22,200	9.7 [2]	2,289
Island Disposal, Inc.	P.O. Box 990 Coupeville, W A 98239	41,339	159.0	260
Waste Management	P.O. Box 546 Burlington, W A 98233	15,811	39.8	397

Notes: 1. *See Table 3-1. Figures for Island Disposal are based on the difference between the county total (208.5 square miles) minus the figures for other areas. All figures are estimates for the year 2012.*
2. *From the Office of Financial Management.*

Many residents and businesses haul their own waste ("self-haul") to the waste receiving facilities. Island County accepts waste from self-haul customers at the facilities located at North Whidbey, Coupeville, Bayview, and on Camano Island. Slightly more than half of the waste generated within the planning area is collected through the curbside programs and the rest is self-hauled. A sampling of current rates charged for collection and disposal services is shown in Table 7-2.

A fourth collection service operates on Naval Air Station Whidbey Island. A private company under contract to the federal government collects waste throughout the air base, brings it to a transfer station that they also operate, and from there it is shipped out through a waste export system separate from the waste export system used by the rest of the county.

Table 7-2
Garbage Collection Fees for 2012 [(a)]
(Dollars/Month for Weekly Collection)

	City of Oak Harbor	Island Disposal, Inc.	Waste Management
Residential			
Weekly Collection			
Minican (20 gallons)	14.53	13.75	15.50
One Can (35 gallons)	19.90	17.35	18.10
Two Cans (or 65-gallon cart)	33.36	25.12	27.30
Three Cans (or 95-gallon cart)	44.37	36.29	36.50
Extra Can	n/a	3.77	4.30
Biweekly Collection [(b)] One Can	n/a	13.38	11.70
Monthly Collection One Can	n/a	7.20	5.60
Recycling	free	n/a	9.40
Nonresidential 1 cubic yard	102.70	98.83	91.33
1.5 cubic yards		140.21	
2 cubic yards	175.21	182.87	142.42
3 cubic yards	246.25		193.39
4 cubic yards	314.24		244.92
6 cubic yards	419.55		338.04

(a) These fees are expected to increase in 2013 and beyond.
(b) Biweekly means every-other-week.

7.2 Planning Issues

This section discusses management issues associated with collection of municipal solid waste.

7.2.1 Service Provisions for Waste Collection

In municipalities, there are three alternatives possible for collecting solid waste: municipal collection, regulated collection and contract collection. Under the municipal collection service provision, waste collection is provided directly by employees of the municipality. The City of Oak Harbor uses this approach. Under the regulated service provision, a municipality relinquishes its right to collect solid waste to the private collection company holding a certificate issued by the UTC for service in that area. The regulated firm charges fees for services that are approved by the UTC. The City of Langley has selected the regulated collection provision. Under the contract service provision, the municipality pays a private contractor an amount determined by a competitive procurement process. The Town of Coupeville has selected the contract service provision.

Areas outside municipal boundaries have no choice with respect to collection service providers. The UTC grants exclusive rights to specific haulers to collect waste in unincorporated areas and approves the fees charged for the services.

7.2.2 Service Requirements

Waste collection service may be provided on a voluntary (subscription) or mandatory (compulsory) basis. Municipalities may designate the nature of the service requirements within their boundaries. Typically, the municipal and contract forms of municipal collection are mandatory while regulated collection is voluntary.

In unincorporated areas, waste collection may also be voluntary or mandatory. In either case, the UTC-designated collection company provides the service. Counties are permitted to establish mandatory collection service when they establish a solid waste collection district under Chapter 36.58A RCW. The legislative body of a county may establish a collection district after conducting a public hearing and finding that mandatory collection is in the public interest and necessary for the preservation of public health. Collection services are then provided by the UTC-certificated collection company. Service fees are also approved by the UTC.

7.2.3 Collection Frequency

In western Washington, solid waste collection service for residential customers is typically provided weekly although biweekly and even monthly collection is available. Collection schedules for nonresidential waste generators are based on the waste generating characteristics of the individual customer.

7.2.4 Collection Location

The most common point of collection for residential waste is on public streets. This location requires residents to set out their waste containers on the scheduled collection day. Both certificated haulers will, however, collect waste on private roads if the road meets minimum standards and the resident or the residential association signs a “hold harmless” agreement.

Waste collection for nonresidential generators varies with the waste generating characteristics of the business or institution. The collection site is typically located where accessible to the collection equipment.

7.2.5 Quantity Limitations

Limits are placed on the quantity of waste materials that are accepted for curbside collection. Waste quantities must not exceed the manual or mechanical lifting capabilities of the personnel and equipment used to collect the waste. In addition, certain materials may be excluded from collection because they pose a potential danger to collection crews or processing equipment or because there is a policy to manage certain materials separately from municipal solid waste.

7.2.6 Container Requirements

Waste materials for curbside collection are typically stored in metal or plastic containers ranging in size from about 20 to 32 gallons, although 64- and 96-gallon containers are common in automated collection systems. Containers for nonresidential waste are typically one to three cubic yards in size depending on the waste materials and collection equipment. Larger nonresidential storage containers may be connected to a stationary compactor to increase the density of the waste materials.

7.2.7 Rate Setting

Rate design considerations are markedly different under the municipal and contract provisions and the regulated collection provision. The municipal and contract provisions provide a municipality with wide discretion to implement local policy through garbage rates. Rate structures such as linear rates, where the cost for two cans per week for residential customers is double the cost of one can, can be used to encourage waste reduction and recycling. When a regulated collection company provides the collection service, a cost-of-service methodology is used and the UTC must approve the rates submitted by the regulated companies. For rates based on a cost-of-service approach, only the true marginal increase can be charged for additional cans. Island County has the authority to set disposal rates at all waste receiving facilities in the county.

7.2.8 Billing

Under the municipal and contract service provisions, the municipality typically invoices customers. The contractor may be assigned this responsibility under the contract service provision in some situations. Under the regulated collection service provision, the waste collection company typically bills the customer. Municipal enforcement authority is necessary when the municipality has established mandatory collection by the state-regulated collection company. Cash or check is the required form of payment at County waste receiving facilities although some larger generators are periodically invoiced. Debit or credit cards may be accepted in the future at the County facilities if this can be done at an acceptable cost, without causing delays and if approved by the Board of Island County Commissioners.

7.2.9 Complaints and Performance Monitoring

Service complaints and performance monitoring are the responsibility of the municipality under municipal service provisions and the waste collection company under the regulated service provisions. Under the contract service provision, either the municipality or the contractor may have the lead responsibility for responding to customer complaints. Island County is responsible for complaints and performance monitoring at its waste receiving facilities. Island County Public Health has regulatory oversight for most other solid waste matters.

7.3 Alternative Waste Collection Strategies

Three alternative collection strategies are discussed below for the unincorporated areas of the planning jurisdiction: mandatory collection service, promotion of voluntary curbside collection services, and alternating service schedules for waste collection and curbside recycling.

7.3.1 Collection Alternative A-Mandatory Collection Services in Unincorporated Areas

Alternative A considers the establishment of compulsory solid waste collection in the unincorporated areas of Whidbey and Camano Islands. Collection services would be provided under the regulated service provision. The UTC-designated collection company would provide the services at UTC-approved rates. Alternative A would reduce collection costs for existing collection service subscribers by reducing the travel distance and time between individual collection stops and spreading fixed costs over more customers. The level of service provided at the solid waste receiving facilities could be reduced to reflect fewer customers. About one-half of the households in unincorporated areas would begin paying monthly charges for collection services.

7.3.2 Collection Alternative B-Promotion of Voluntary Curbside Collection Services

Alternative B consists of promoting voluntary subscription service for routine garbage collection. The promotional efforts would focus on the cost savings associated with curbside collection. For example, delivering one can per week to a solid waste receiving facility costs three times as much as one can weekly curbside collection service in the unincorporated areas of the county.

7.3.3 Collection Alternative C-Alternative Collection Services for Garbage and Recycling

Alternative C consists of changing waste collection services, primarily to incorporate curbside recycling services (see Alternative A in Section 6.4.1). These changes may also include examining the feasibility of every-other-week garbage collection for single-family residential customers, with curbside recycling offered in the alternating weeks, or the garbage collection schedule may remain weekly. The alternating schedule for garbage and recycling has worked well for Olympia, Port Townsend and others. Using this approach, curbside recycling could be added at a minimum of additional cost, and at the same time participation in the recycling program would be encouraged. Another approach that could also be considered for this alternative is the idea of using a split vehicle to collect garbage and recyclables each week but in a different compartment of the same truck. The latter has been increasingly rejected due to efficiency considerations using automated recycle collection vehicles.

To accomplish this alternative, Island County may need to adopt an implementation (service level) ordinance requiring Island Disposal and Waste Management to offer curbside recycling, and requiring haulers to provide alternative services for single-family homes or to use other approaches as deemed desirable and feasible. For the certificated haulers, a revision in their tariffs would be required and the UTC would assist in setting the rates at an appropriate level. The implementation ordinance would need to describe the collection system, what commodities should be collected for recycling and the manner in which they should be collected, reporting requirements, and other important details.

7.4 Evaluation of Alternative Waste Collection Strategies

The collection alternatives are compared with respect to three evaluation criteria below. The criteria include consistency with the planning objectives, customer preferences and costs.

7.4.1 Consistency with Planning Objectives

The planning goal and one planning objective relate to the collection alternatives. The planning goal focuses on developing and maintaining a solid waste management system that protects public health and the environment in a cost-effective manner. The relevant planning objective is to ensure the availability of convenient and reliable services for managing solid waste.

Mandatory collection services ensure that waste materials are disposed on an ongoing basis. Piles of refuse are less likely to accumulate at homes and businesses because waste is collected regularly. Queuing lines for waste disposal at the solid waste facilities would also be reduced. Voluntary subscription for collection services would have similar benefits but at a reduced level.

Alternative collection services would presumably increase the availability and convenience of recycling services, although the exact form that these services would take is hard to predict at this time.

7.4.2 Customer Preferences

Customers typically favor voluntary rather than mandatory collection service because they prefer choice.

7.4.3 Costs

Increased subscription to collection services has the potential to reduce the unit costs of waste collection and disposal. With additional customers, the collection stops become closer together and the fixed costs can be spread over a larger customer base.

Under the mandatory service, self-haul customers would be required to begin paying for the curbside collection service. Their individual costs may increase or decrease depending on their previous use of the waste receiving facilities. Cost savings may accrue to the solid waste system from reducing the number of self-haul customers from the receiving stations.

Alternative collection methods might increase costs over the current cost for weekly garbage collection, although the exact impact is hard to predict until the services and approach are more fully defined.

7.4.4 Rating of Alternatives

The three alternatives are compared with respect to the evaluation criteria in Table 7-3. Alternatives B and C are recommended to be pursued further (see Section 14.3).

Table 7-3
Summary Rating of the Alternative Waste Collection Strategies

	Alternative	Rating		
		Consistency with Planning Objectives	**Customer Preferences**	**Costs**
A	Mandatory Garbage Collection Service in Unincorporated Areas	H	L	H
B	Promotion of Curbside Garbage Collection Services	M	H	L
C	Alternative Garbage Collection	H	M	M

Note: Abbreviations are used above to show whether an alternative is rated high (H), medium (M), or low (L) for each criteria. A high rating is generally not good for the cost factor (although costs should always be weighed against the amount of impact anticipated), but high ratings are good for the other criteria.

Section 8
Transfer

This section examines municipal solid waste transfer activities in the planning area.

8.1 Existing Program Elements

There are two solid waste transfer stations and two drop box stations permitted as disposal sites for municipal solid waste in Island County. The two transfer stations are the Island County Solid Waste Complex (near Coupeville) and the Camano Transfer Station. The two drop box stations are located near Oak Harbor and Bayview. A map showing the location of the transfer and drop box stations is presented in Figure 8-1, and the current fees charged at these facilities are shown in Table 8-1.

Table 8-1
Current Island County Solid Waste and Septage Fees (2012)*

Waste Type	Price/Unit
Solid waste, municipal or franchise hauler	$109/ton, plus $7.24base fee
Solid waste, self-hauled	$115.00/ton, plus $7.24 base fee and 3.6% utility tax
Construction/demolition waste	$136.00/ton, plus $7.24 base fee and 3.6% utility tax
Oversized, hard-to-handle materials	$170.00/ton, plus $7.24 base fee and 3.6% utility tax
Yard and garden debris	$80.00/ton, plus $7.24 base fee and 3.6% utility tax
Minimum charge (up to 40 pounds)	$11.00
Septage (Coupeville only)	$0.155 per gallon
Appliances	$21.50 each
Tires (auto and light truck)	$7.50 each
Other recyclables and household haz. waste	No charge

** Rates will rise in the future due to increased transportation costs and other factors.*

8.1.1 Island County Solid Waste Complex

The Island County Solid Waste Complex is located at 20018 State Route 20, approximately two miles southeast of Coupeville. The station is open seven days a week from 9:30 a.m. until 5:00 p.m. The station consists of a scale house and two 70-feet weigh scales, 1,200 feet of on-site access roads, a 7,800 square feet tipping floor enclosed in a metal building, a mechanical compactor with trailer loading capabilities, an emergency truck loading bay, a trailer storage area and employee facilities. There are 20 unloading positions where self-haul waste generators may deposit waste materials into up to five 105-yard open-top trailers away from the transfer station building.

8.1.2 Camano Transfer Station

The Camano Transfer Station is located at 75 East Camano Hill Road. The station is open seven days per week from 9:30 a.m. until 5:00 p.m. The station consists of a scale house and two weigh

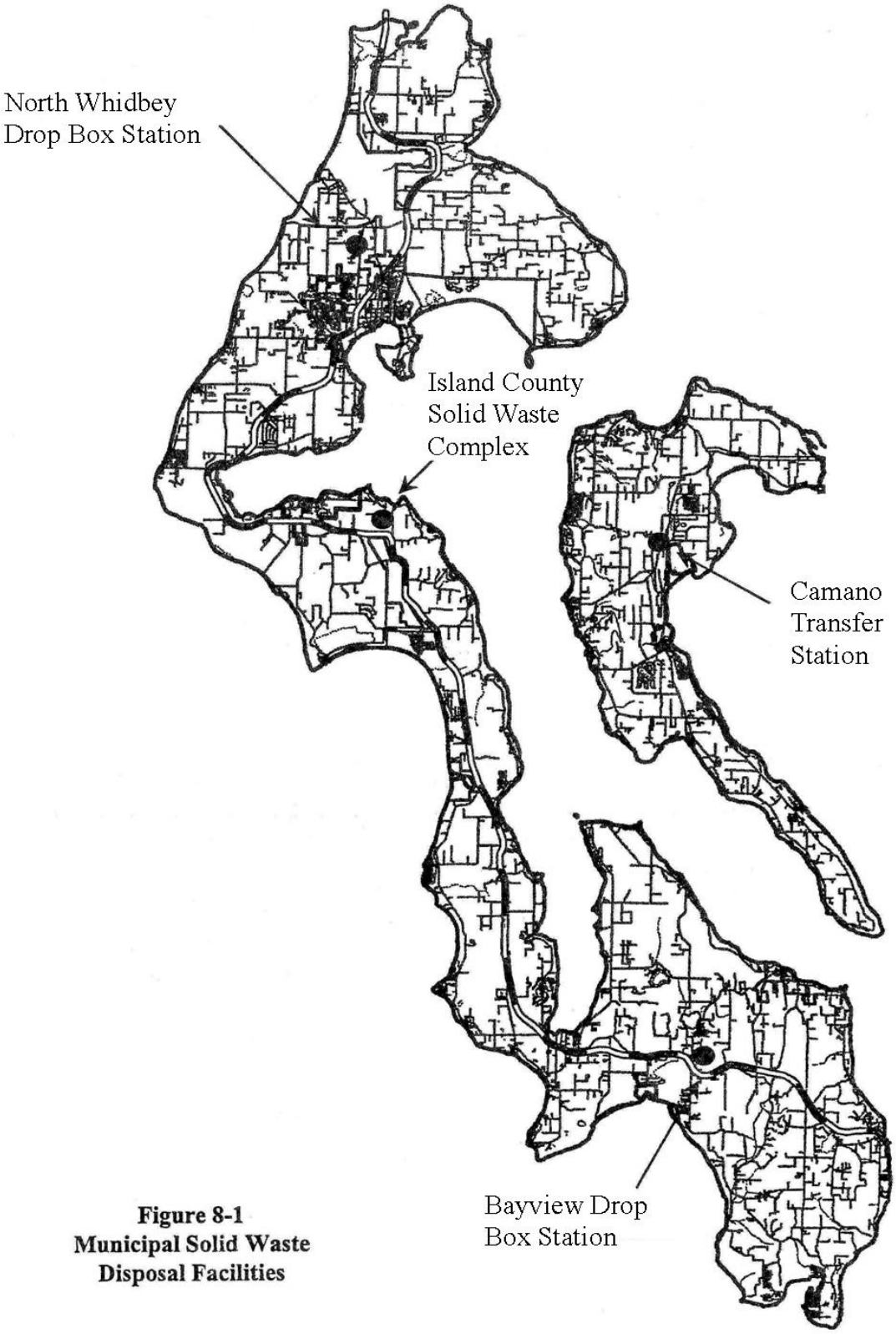


Figure 8-1
Municipal Solid Waste
Disposal Facilities

scales, 56,000 square feet of paved surfaces, 13 waste unloading positions, fencing, landscaping and employee facilities. Wastes are unloaded into four 105-yard trailers. A backhoe is used to compact waste material after it has been placed into the containers.

8.1.3 North Whidbey Drop Box Station

The North Whidbey Drop Box Station is located at 3155 North Oak Harbor Road. The station is open from 9:30 a.m. until 5:00 p.m. on Tuesdays, Saturdays and Sundays. The station consists of over 6,000 square feet of paved surfaces, four compacting 30-yard drop boxes, six 20-yard recycling boxes, fencing, landscaping and employee facilities.

8.1.4 Bayview Drop Box Station

The Bayview Drop Box Station is located at 14566 State Route 525 in Bayview. The station is open from 9:30 a.m. until 5:00 p.m. Monday, Wednesday, Saturday and Sunday. Municipal solid waste facilities at the station include 24,000 square feet of paved surface area, four compacting drop boxes (two 20-yard boxes and two 30-yard boxes), two 40-yard recycling boxes, four 20-yard recycling boxes, fencing, landscaping and employee facilities.

8.1.5 NAS Whidbey Island

The Naval Air Station Whidbey Island (NASWI) has its own transfer station, with the waste hauled away by Republic Services. Island County and NASWI have an agreement to provide access to the household hazardous waste program by naval personnel living on base in return for a calculated fractional cost of the program.

8.2 Planning Issues

Planning issues relating to waste quantities, number of arriving vehicles and unloading positions, waste storage and facility standards are discussed below.

8.2.1 Waste Quantities

Transfer stations accept municipal solid waste from commercial collection service providers and self-haul customers. Drop box stations accept municipal solid waste from self-haul customers only. The quantity of municipal solid waste accepted at the transfer and drop box stations in 2012 and the six-year waste quantity growth rates are summarized in Table 8-2. Figures reflect a sharp drop in MSW received during the intervening recession years.

Table 8-2
Municipal Solid Waste Quantities Received at Transfer and Drop Box Stations in 2012

	Transfer Stations		Drop Box Stations	
Municipal Solid Waste	**Coupeville**	**Camano**	**North Whidbey**	**Bayview**
Annual 2012 Quantity, tons	32,671	7,712	290	930
Decrease since 2005, percent	-17	-22	-26	-31

8.2.2 Arriving Vehicles and Unloading Positions

Because of seasonal fluctuations in the waste stream, weather, work schedules and other factors, the arrival times of incoming vehicles are not uniform with respect to time. The waiting time for an incoming vehicle to unload is a function of the number of arriving vehicles, the rate at which the vehicles can unload and the number of unloading positions. The number of arriving vehicles at the stations in 2012 and the number of unloading positions is shown in Table 8-3.

Table 8-3
Number of Arriving Vehicles and Unloading Positions at Island County Transfer and Drop Box Stations

	Transfer Stations		Drop Box Stations	
Municipal Solid Waste	**Coupeville**	**Camano**	**North Whidbey**	**Bayview**
Number of Vehicles in 2012	56,665	33,121	4,872	14,564
Percent Change from 2005	-26%	-27%	-28%	-26%
Unloading Positions	22	13	4	4

8.2.3 Storage

Waste transport containers, and the tipping floor at the Island County Solid Waste Complex, are used to store municipal solid waste at the transfer and drop box stations. On-site storage capacity must accommodate occasional mechanical malfunctions and periodic large loads of waste materials. The municipal solid waste storage capacity for each station is presented in Table 8-4.

Since operations commenced at the Island County Solid Waste Complex in 1992, equipment malfunctions and transfer interruptions have halted operations a number of times, once for 84 hours. In these instances, health and safety practices were followed and problems did not arise.

Table 8-4
Municipal Solid Waste Storage Capacities at Island County Transfer and Drop Box Stations

	Transfer Stations		Drop Box Stations	
Municipal Solid Waste	**Coupeville**	**Camano**	**Oak Harbor**	**Bayview**
Storage Capacity, tons	260[(a)]	90	30	32

(a) If necessary, an additional 200 tons could be stored in a 7,000 square feet storage yard adjacent to the transfer building.

8.2.4 Transfer and Drop Box Facility Standards

Solid waste transfer stations are subject to the facility standards included in Section 173-350-310 of the Washington Administrative Code. Transfer stations must:

- Control public access and prevent unauthorized traffic and illegal dumping of waste;

- Be sturdy and constructed of easily cleanable materials;
- Provide effective means to control rodents, insects, birds and other vectors;
- Provide effective means to control litter;
- Provide protection for the tipping floor from wind, rain or snow;
- Comply with local zoning and building codes, and other applicable local, state and federal laws and regulations;
- Provide pollution control measures to protect surface and ground waters from storm events and wash down wastewater;
- Provide all-weather roads in vehicular areas;
- Provide pollution control measures to protect air quality;
- Prohibit scavenging;
- Provide an on-site attendant during operating hours;
- Post entrance sign(s) identifying the facility, its operating hours and a list of unacceptable materials; and
- Have the ability to summon fire, police and emergency service personnel.

Drop box facilities are subject to the facility standards in Section 173-350-310 of the Washington Administrative Code. Drop box facilities must:

- Be constructed of durable watertight materials with a lid or screen on top that prevents loss of materials during transport and access by rats and other vermin, and control litter;
- Be serviced as often as necessary to ensure adequate dumping capacity at all times (storage outside the box is prohibited); and
- Have a sign posted at the entrance identifying the facility, its operating hours and unacceptable materials.

A solid waste permit from Island County Public Health is required to operate a transfer or drop box station in the planning jurisdiction. All transfer and drop box stations currently meet the state facility standards and permit requirements.

8.3 Alternative Transfer Strategies

Seven alternative municipal solid waste transfer strategies are discussed in the sections below.

8.3.1 Transfer Alternative A-Increase the Capacity of the North Whidbey Drop Box Station

The number of tons and vehicles using the North Whidbey Drop Box Station decreased by 26 and 28 percent, respectively, in the past seven years due to the recession and so one of the four compactor slots has been removed from use. About the same time, a used power unit from the Bayview station was moved to the North Whidbey site and mothballed. Future increased capacity needs at the North Whidbey site can be met by mating a new and upsized 30 cubic yard box to the mothballed power unit at a cost of approximately $25,000.

8.3.2 Transfer Alternative B-Upgrade Compactor at the Island County Solid Waste Complex and Increase the Storage Capacity at the Island County Solid Waste Complex and Camano Transfer Station

Failure of the waste compactor and/or interruption of the transfer system have interfered with operations for several days in the past twelve years. Although the transfer facility can accommodate storage of the current peak day flow rate, it may not be able accommodate the peak day by the year 2017. Operating experience indicates that up to 3.5 days storage may be necessary.

Transfer Alternative B would develop additional storage capacity adjacent to the two transfer stations and upgrade the Amfab compactor at the Island County Solid Waste Complex. The additional storage capacity would provide the ability to hold three to fours days' worth of waste, depending on the number of available open-top trailers. Upgrading the compactor would provide more capacity and reliability. A concept-level capital cost estimate for Transfer Alternative B is $1.2 million, mostly for the cost of a new compactor. Another option may be to re-design the compactor slot for direct loading and compaction with a stationary or mobile crane at an estimated cost of $750,000.

8.3.3 Transfer Alternative C-Consolidate Bayview Drop Box Station and Island Recycling

The Bayview Drop Box Station and Island Recycling are located on County-owned property in south Whidbey Island. The Bayview Drop Box Station is operated by County employees and accepts municipal solid waste, recyclable materials and moderate-risk waste. Island Recycling is a private contractor operating at a County-owned site and accepts recyclable materials and sellable used materials. Both facilities are located on Highway 525 about six miles apart. Under Transfer Alternative C, these two facilities would be consolidated into a single waste receiving facility. Future capital improvements such as weigh scales and capacity improvements could then be focused at a single location capable of serving customers of both facilities. While this approach may increase overall efficiencies in the future, there would also be additional costs for capital improvements plus relocation and closure expenses that would need to be identified more clearly at a later date.

8.3.4 Transfer Alternative D-Increase Unloading and Storage Capacities at Bayview

Waste delivered to the Bayview Drop Box Station has decreased by 31 percent over the past seven years. In 2012, the facility served 14,564 customers delivering 930 tons of municipal solid waste (this figure does not include recycling-only customers). Waste quantities are expected to level out and then slowly increase.

If needed in the future, increasing the capacity of the Bayview Drop Box Station can be done by installing a retaining wall on the southern edge of the property to accommodate one or two 105 cubic yard trailers. These modifications can be accomplished for approximately $100,000. Additional staff and a backhoe would also be required to compact the 105 cubic yard boxes, and modifications to the long-haul contract would have to be made to determine the most efficient

means of swapping out the loaded trailers and the cost for doing so.

8.3.5 Transfer Alternative E-Continue to Explore Maximizing Efficiencies at Camano

Waste quantities at the Camano Transfer Station have decreased 22 percent since 2005. If additional capacity is needed, Transfer Alternative E would add one or two more trailer loading positions at the northeast corner of the existing site to accommodate increased waste amounts. Alternative E would also complete development at the existing site, including the 2009 upgrades of double scaling and revised traffic flow made possible by the relocations of Camano Hill Drive/East Camano Drive intersections and cul-de-sac. Waste volumes at this location are expected to level out and slowly increase over the next five years, so these improvements are not expected to be necessary in the near term.

8.3.6 Transfer Alternative F-Consider New Transfer Stations at either Camano and/or Coupeville Site

Transfer Alternative F considers the development of new transfer stations at the same or different locations on Camano Island or in Coupeville (the Island County Solid Waste Complex). A new transfer station might be necessary for Camano Island if waste volumes at that station increase to approximately 20,000 tons per year. A new facility for the Island County Solid Waste Complex may be necessary if waste volumes increase there to amounts that exceed the capacity of that station. In either case, the new facilities would permanently replace the existing transfer stations.

At a minimum, a new facility would include weigh scales, a gatehouse, on-site roads, a transfer building, trailer storage area, environmental control systems, fencing and landscaping. Arriving vehicles would be weighed at the gatehouse and directed to the transfer building. An attendant would direct vehicles to one of the unloading position where waste materials would be discharged onto a tipping floor. The waste materials would be moved into a compactor with a stationary crane or other equipment.

A concept-level capital cost estimate for a new transfer station for Camano Island is shown in Table 8-5. Capital costs are estimated at $1,945,000. Annualized capital costs are estimated at $172,500 or $22.37 per ton based on 2012 waste quantities (or $8.63 per ton if the transfer station was receiving 20,000 tons per year).

8.3.7 Transfer Alternative G-Increase or Modify Rates

A rate study conducted in the fall of 2009 for the period of 2010-2012 concluded that the disposal rates at the transfer stations and drop boxes needed to be increased to more accurately reflect the true costs of services provided by these facilities. An update conducted in 2012 led to no change in the rates, but the results of future rate studies may lead to changes in the disposal rates. Other factors and events, such as increased transportation and associated costs, may contribute to future changes in the rates. These changes will not occur without a resolution adopted by the Island County Board of County Commissioners, with the opportunity for public comment that accompanies such resolutions. A new rate study may be conducted in 2014, with rate changes possibly adopted after that.

Table 8-5
Concept-Level Capital Cost Estimate for a New Camano Transfer Station

Item	Quantity	Unit of Measure	Unit Cost, $	Amount, $	Useful Life, years	Annual Cost @ 4%, $
Land	10	acre	12,000	120,000	20	8,830
Direct Capital Costs						
Site Development	1	lump sum	300,000	300,000	20	22,100
Scales and Gatehouse	2	lump sum	108,000	200,000	15	18,000
Transfer Building	2,500	square feet	96	300,000	20	22,100
Yard Donkey	1	each	30,000	30,000	7	5,000
Loader	1	each	180,000	250,000	7	41,700
Subtotal Direct Capital Costs				1,080,000		
Overhead and Profit	20	percent		216,000	20	15,900
Total Direct Capital Costs				1,296,000		
Indirect Capital Costs						
Engineering and Design	7	percent		72,000	20	5,300
Legal, License Costs	5	percent		51,000	20	3,800
Sales Tax	8	percent		82,000	20	6,000
Total Indirect Capital Costs				205,000		
Subtotal Capital Cost				1,621,000		
Contingency Allowance	20	percent		324,000	20	23,900
Total Capital Costs				1,945,000		172,500

8.4 Evaluation of Alternative Transfer Strategies

The transfer alternatives are compared with respect to three evaluation criteria below. The criteria include consistency with the planning objectives, customer preferences and costs.

8.4.1 Consistency with Planning Objectives

Upgrading the North Whidbey Drop Box Station (Alternative A) would increase the level of service provided for north Whidbey Island residents. This would be consistent with the planning objective of providing convenient and reliable services.

Increasing the waste storage capacity at the Island County Solid Waste Complex (Alternative B) supports the planning goal of maintaining a solid waste management system that protects public health and the environment in a cost-effective manner. Storing waste in trailers rather than in a storage yard better protects water quality and avoids problems with wind-blown debris.

Consolidating the Bayview Drop Box Station and Island Recycling (Alternative C) would reduce the level of service provided for south Whidbey Island residents. Consolidating the operations may allow an increase in service levels at a single facility, but this idea needs further study.

Increasing the unloading and storage capacities at Bayview (Alternative D) would increase the level of service at that site.

Additional waste containers at the Camano Transfer Station (Alternative E) would further increase the unloading and storage capacities of the facility.

A new transfer station on Camano Island or in Coupeville (Alternative F) could increase materials handling efficiencies. All waste materials would be loaded into transfer trailers and delivered directly to an intermodal facility in Everett or Seattle. A transfer building for the Camano Island station would also protect the unloading operations from problems associated with wind and rain.

Increasing or modifying the disposal rates (Alternative G) could have a negative impact on the goal of providing convenient access to disposal services, but if rates need to be increased to cover costs then this may be unavoidable. Increased disposal rates may also have the effect of increasing recycling.

8.4.2 Customer Preferences

Upgrading the North Whidbey Drop Box Station (Alternative A) would provide greater convenience for north Whidbey Island residents and businesses.

Increasing storage capacity at the Island County Solid Waste Complex (Alternative B) would provide a redundant transfer capability. Waste materials could bypass the compactor when it malfunctions allowing the other waste handling operations to continue functioning in a routine manner.

A consolidated Bayview Drop Box Station and Island Recycling facility (Alternative C) would require many customers to drive six miles further for drop-off waste disposal services. Customer service may or may not be improved for customers only disposing of waste or only recycling by consolidating future facility improvements at a single location.

Increasing the unloading and storage capacity at Bayview (Alternative D) would provide increased customer service at that facility.

Additional trailer loading position(s) at the Camano Transfer Station (Alternative E) would increase the waste unloading and storage capacity and, during peak times, reduce the waiting time to unload.

A new transfer facility for Camano Island or in Coupeville (Alternative F) could improve operating efficiencies. A larger site would increase the length of on-site roads to avoid off-site queuing. All waste materials would be loaded into transfer trailers for direct delivery to the intermodal facility. The unloading operations would also be protected from wind and rain.

Any rate increases in the future (Alternative G), for either the general public or for municipal and private haulers, would be contrary to customer preferences.

8.4.3 Costs

Upgrading the North Whidbey Drop Box Station (Alternative A) would cost approximately $25,000.

Increasing the unloading and storage capacities at the Island County Solid Waste Complex (Alternative B) would cost an estimated $750,000 to $1.2 million.

Consolidating Bayview Drop Box Station and Island Recycling (Alternative C) would require a significant capital investment, but future improvements could be focused on a single facility.

Installing larger containers at Bayview (Alternative D) would cost an estimated $100,000, plus increased staffing and equipment costs.

Capital costs for the additional trailer loading positions at the Camano Transfer Station (Alternative E) are estimated at $120,000 to $200,000.

The new transfer facility on Camano Island (Alternative F) would result in capital expenditures totaling $1,945,000. A new transfer station in Coupeville would likely cost more than that, although a conceptual design and cost estimate has not yet been developed for that new facility.

Increasing or modifying rates (Alternative G) would be cost-neutral on the assumption that rates would reflect and cover the true costs of providing services.

8.4.4 Rating of Alternatives

The alternative waste transfer strategies are compared with respect to the evaluation criteria in Table 8-8. Six of the alternatives (A, B, D, E, F, and G) are recommended to be pursued (see Section 14.4). For Alternative B, only the increase in storage capacity for the Camano Transfer Station, and not the improvements at the Island County Solid Waste Complex, is being recommended at this time.

Table 8-6
Summary Comparison of Alternative Transfer Strategies

		Rating		
	Alternative	**Consistency with Planning Objectives**	**Customer Preferences**	**Costs**
A	Upgrade the North Whidbey Drop Box Station	M	M	M
B	Increase Storage Capacity at Camano Transfer Station	M	M	M
C	Consolidate Bayview Drop Box and Island Recycling	L	L	H
D	Increase Capacity at Bayview	M	H	M
E	Continue to Explore Increased Efficiency at Camano	H	H	M
F	Consider New Station for Camano Island and/or Coupeville	H	H	H
G	Increase or Modify Rates	L	L	M

Note: Abbreviations are used above to show whether an alternative is rated high (H), medium (M), or low (L) for each criteria. A high rating is generally not good for the cost factor (although costs should always be weighed against the amount of impact anticipated), but high ratings are good for the other criteria.

Section 9
Transport and Disposal

This section presents information relating to current transport and disposal operations and closed municipal solid waste landfills in the planning area. Alternative transport and disposal management strategies are also discussed.

9.1 Existing Program Elements

Existing disposal program elements are discussed in the following sections.

9.1.1 Transport and Disposal Operations

Island County has executed a contract with Republic Services to provide transport and disposal services for non-recyclable waste generated in Island County. Under the agreement, waste from Island County is trucked to either Burlington, Washington or to Everett, Washington and transported by rail to the Roosevelt Regional Landfill. The contract became effective in 2007 and was initially effective from 2007 through 2012, and then extended until 2015. Two additional extensions may be exercised.

9.1.2 Closed Municipal Solid Waste Disposal Sites

There are seven closed solid waste disposal facilities in the planning jurisdiction. The general location of the each site and the current ownership are identified in Table 9-1.

Table 9-1
Closed Municipal Solid Waste Disposal Facilities

Landfill Facility	Ownership	Location
Camano Island	Island County	West of Triangle Cove
Coupeville	Island County	2 Miles SE of Coupeville
Cultus Bay	Island County	South End of Whidbey Island
Freeland	Island County	2 Miles NW of Freeland
Hastie Lake	Island County	5 Miles SW of Oak Harbor
Langley	City of Langley	1 Mile SW of Langley
Oak Harbor	City of Oak Harbor	Oak Harbor

9.1.3 Post-Closure Care of the Coupeville Landfill

The Coupeville Landfill, closed in 1992, is subject to the post-closure monitoring requirements specified in Chapter 174-304 of the Washington Administrative Code. Specifically, the planning jurisdiction is responsible for:

- Maintaining the cover system and making repairs to correct the effects of settlement and erosion;

- Maintaining the vegetative cover;
- Preventing storm water from damaging the cover system;
- Monitoring ground water quality and gas characteristics; and
- Maintaining the landfill gas management system.

Post-closure care of the Coupeville Landfill is required until the site has stabilized. Routine post-closure activities are funded through current operating revenues. A restrictive post-closure fund currently in the amount of $2,800,000 represents annual post-closure costs for a 20-year period. As the 20-year period has now passed, off-ramping is currently being studied. Routine activities are guided by a post-closure plan that was developed and approved in 2003 and updated in 2008.

9.2 Planning Issues

Planning issues related to waste disposal capacity and ground water quality at the former Coupeville Landfill are discussed below.

9.2.1 Disposal Capacity

State solid waste planning guidelines require planning jurisdictions to consider waste disposal needs for a 20-year period. Island County has a waste transport and disposal contract through the year 2015. With at least three regional landfills expected to operate for the next 50 to 100 years (see Section 9.3), future disposal needs can continue to be met by the waste export system.

Because Whidbey and Camano Islands have been designated sole source aquifers under the federal Clean Water Act, no new municipal solid waste landfill may be sited within the planning jurisdiction.

9.2.2 Ground Water Quality at the Coupeville Landfill

Two aquifers have been identified in the vicinity of the Coupeville Landfill: an upper unconfined aquifer and a lower confined or partly confined aquifer. The two aquifers are referred to as the shallow and deep aquifers. The shallow aquifer appears to be discontinuous; ground water has only been observed in the shallow aquifer on the west portion of the site.

There are 27 ground water monitoring wells developed to sample both the shallow and deep aquifers, including two upgradient wells across and southerly of SR20. In addition, four water supply wells in the vicinity of the landfill provide access to the deep aquifer. All monitoring wells are sampled quarterly for 13 indicators of landfill leachate. In addition, quarterly samples have been obtained for 15 metals and 40 volatile organic compounds since 1998. Statistical analysis conducted in 2006 may lead to a change the testing frequency. In 2013, four additional monitoring wells were installed east of the closed landfill to better analyze a vinyl chloride detection.

The influence of the waste disposal activities on ground water quality at the Island County Solid Waste Complex is apparent in the general chemistry and ground water levels of volatile organic compounds, inorganics, and other parameters. The monitoring wells immediately adjacent to the disposal areas indicate impacts to the ground water.

Migration of contaminants appears to be attenuated as evidenced by the reduced concentrations and lack of increasing trends in target parameters at "second tier" monitoring wells located 400 to 750 feet downgradient of the disposal areas. Generally, contaminants do not appear to have migrated to the second tier of monitoring wells located 600 feet northeast with the exceptions of elevated sulfate in one well, and elevated calcium in four others. Analytical results from the deep well located 400 feet north of the disposal areas indicates that some waste constituents (chlorodifluoromethane, dichlorodifluoromethane, diethyl ether, tetrahydrofuran, and vinyl chloride) have migrated that far, although the concentrations are notably less than those observed at the "source area." Dichlorodifluoromethane was also detected in two ground water monitoring wells (500 feet and 300 feet west of the disposal areas). An increasing trend in detection of vinyl chloride easterly and northeasterly of well E_2D (near the scale house) will be closely monitored by two existing and four new monitoring wells. Data clearly show the water quality differences between monitoring wells within or immediately adjacent to the disposal area and the remaining second tier wells and thus demonstrate the influence of the disposal areas on the ground water chemistry at the site. The wells within or immediately adjacent to the disposal area have elevated concentrations of a number of parameters.

Given identified flow direction and rates, it may be concluded that the existing monitoring network is reasonably likely to detect contaminants if they are released from the landfill. No adjustments to the monitoring network are recommended at this time, with the exception of the four additional wells noted above.

Ground water contaminants will continue to be evaluated to identify trends. This evaluation may lead to the conclusion that additional investigation is needed of potential localized source areas that may need to be controlled (through steps such as additional landfill gas extraction in this area, which could potentially be achieved through adjustment of the existing system). Corrective measures recently completed include capping the construction waste area and correcting drainage to reduce infiltration through the waste, and enhancement of the landfill gas extraction system.

Ground water monitoring at an appropriate level to ensure accurate assessment of ground water quality will be continued. The Solid Waste Division will pursue long-term monitoring optimization (LTMO) using EPA software and other statistical tools to develop a revised monitoring strategy that maximizes efficiency while maintaining site and regulatory objectives. Additional upgrades to the system will be developed as necessary.

9.2.3 Ground Water Quality at the Freeland Site

Two additional groundwater monitoring wells were added to the existing three wells used for monitoring groundwater quality at the Freeland site in early 2006; a shallow (replacement) well and a deep monitoring well. The County engaged in Ecology's Voluntary Cleanup Plan (VCP) in February of 2005 and, following an Environmental Site Assessment (ESA) in mid 2005, engaged HWA Associates to assess and carry out a cleanup of the relatively minor contamination identified. From 2008-2012 a number of engineered upgrades were made to the site to address run-off contamination issues with approval by Ecology's water quality section. In 2010, at the recommendation of Ecology (since no public health risk existed and that the County did not intend to sell the property), the County withdrew from the VCP and continued to address surface

water contamination issues mostly from the steel operation. Island Recycling is responsible for submitting quarterly water quality tests. Improvements installed to address surface water issues include three engineered, fabric covered buildings (two installed), an engineered 10-unit bioswale (installed) and three additional bioswales at surface water concentration points (which are underway at the time this update was being written).

9.2.4 Landfill Gas Monitoring

The results of a study conducted in 2005 show that landfill gas (methane and carbon dioxide) is still present in the soils surrounding three disposal areas. Landfill gas production likely reached its peak between one and three years after waste disposal ceased (1978 for the City of Coupeville Landfill, 1991 for the County's solid waste landfill, and 2001 for the County's construction waste landfill). As expected, data shows the highest landfill gas concentrations and depressed oxygen concentrations usually occur in the gas probes closest to the landfill. Gas production is expected to continue declining due to the nature of waste decomposition processes. Current soil gas movement is much less than during the active filling period and generally ceases within ten years after waste disposal ends. The slow movement of gas appears to allow the methane to oxidize before reaching gas probe sample locations. This is due to the age of waste, very low gas production, and the method of gas movement as well as the surrounding geologic formation (sandy/gravelly soils).

The Coupeville Landfill site is in a transitional period in gas control system operations and gas probe monitoring. In May 2005, in-refuse vertical extraction wells were activated and the air injection system was de-activated. As noted previously, a total of six monitoring wells, including four new, will be monitored and, if necessary, can be used to actively treat vinyl chloride northeasterly of the closed landfill. Conducting routine monitoring, monitoring under optimum barometric conditions (to observe maximum gas concentrations), and tracking additional monitoring results provides insight into extreme conditions that could be experienced at the site. At this time, no additional action other than continued monitoring is recommended. As the closed landfill matures, studies may recommend decreasing the number of testing events and/or analytes within specific wells.

9.3 Alternative Transport and Disposal Strategies

Three alternative regional waste disposal facilities serving Pacific Northwest communities are identified below. Three other alternatives, which address various operational issues, are also discussed below.

9.3.1 Transport and Disposal Alternative A-Waste Management

Waste Management, Inc. operates the Columbia Ridge Landfill and Recycling Center near Arlington, Oregon in Gilliam County. The Columbia Ridge Landfill is located about 140 miles east of Portland, Oregon. It has an estimated disposal capacity of 260 millions tons (or 115 years of capacity at the prior disposal rate of 2.28 million tons per year). The Union Pacific Railroad provides rail transport service from Seattle to Arlington where the waste is transported by truck to the landfill.

9.3.2 Transport and Disposal Alternative B-Republic Services

Republic Services operates a landfill north of Roosevelt in Klickitat County, Washington. The landfill has the permitted capacity to accept an additional 162 million tons of waste, which is an additional 75 years of capacity (as of 2012). Burlington Northern Railroad provides transport services from loading facilities in Everett and in Skagit County to Roosevelt, Washington.

9.3.3 Transport and Disposal Alternative C-Waste Connections

The Finley Buttes Landfill is owned and operated by Waste Connections, Inc. The Finley Buttes Landfill is located approximately ten miles south of Boardman, Oregon in Morrow County. Tidewater Barge Lines transports municipal solid waste by barge from Vancouver, Washington 180 miles upriver to a port facility owned by Tidewater Barge Lines at the Port of Morrow. Waste materials are unloaded there and then trucked 12 miles to the landfill. The landfill has an estimated remaining waste disposal capacity of 40 million tons, or over 100 years or operation at the current disposal rate.

9.3.4 Transport and Disposal Alternative D-Purchase Additional Buffer Area at the Coupeville Landfill

The available ground water data in the vicinity of the former Coupeville Landfill indicates that ground water flows east in the shallow aquifer and east-northeast in the deep aquifer. The edge of the fill area is the point where potential ground water contaminants must not exceed maximum levels.

Alternative D contemplates the purchase of up to ten acres of property located directly east-northeast and perhaps south of the former landfill to provide additional buffer area and prevent encroachment by future development. The estimated cost of acquiring the property and a small building on the property is $200,000. The Solid Waste Division should also consider the purchase of land around other solid waste facilities for buffer purposes as that land becomes available or necessary.

9.3.5 Transport and Disposal Alternative E-Continue to Investigate 'Off-Ramp' Strategies for Post Closure Monitoring

Transfer and Disposal Alternative E consists of the investigation of off-ramp strategies including a reduction in monitoring schedules and reduction in analytes in all or in specific wells. Should analytes fail to decline over time as expected, it may become necessary to develop additional ground water monitoring wells at the closed Coupeville Landfill and at other sites as those wells may become necessary to monitor water quality. Well development costs are estimated at $45,000 per well, although this cost would be affected by location, depth of drilling, and other factors.

9.3.6 Transport and Disposal Alternative F- Investigate Additional Methods for Densifying Wastes

The density of the waste being transported out of the county has become a critical economic factor due to increasing transportation costs. As transportation costs continue to increase, additional efforts to densify the wastes may become cost-effective. The Solid Waste Division could identify, and implement where cost-effective, methods to increase the density of waste and thus maximize the efficiency of the transportation system. The expense for this alternative could vary substantially depending on the methods used, from as low as $20,000 for smaller pieces of equipment up to $200,000 or more for larger pieces of equipment or site improvements.

9.4 Evaluation of Transport and Disposal Alternatives

The availability of the alternative solid waste transport and disposal service providers encourages competition based on price. Assuming all three facilities continue to operate within their permit requirements, the cost of transport and disposal services will continue to be the primary consideration in procuring services.

Procurement planning for municipal solid waste transport and disposal services may commence in 2015. At that time, options for waste disposal services past 2015 could include negotiating an extension to the current contract, soliciting new waste export bids, or entering into a regional agreement to participate in a disposal system serving several counties.

These three alternatives are recommended to be pursued:

- Alternative D-purchase of additional buffer areas provides time to further characterize ground water flow and quality in the vicinity of a facility.
- Alternative E-investigate and implement any ‘off-ramp’ post-closure task reductions allowable according to conditions noted in groundwater and gas monitoring.
- Alternative F-investigate additional methods of densifying the waste leading to increased efficiencies and greater rate stability in the future.

Section 10
Moderate-Risk Waste

This section describes the regulatory framework for managing hazardous waste in the planning area. It also describes existing management practices for moderate-risk waste, and develops and evaluates five alternative management strategies for moderate-risk waste.

10.1 Hazardous Waste Regulation

An overview of the federal, state and local regulatory framework for managing hazardous waste is presented below. Federal and state regulations focus primarily on non-household hazardous waste generated at rates exceeding 220 pounds per month. Local regulations focus on moderate-risk waste (MRW), which is hazardous waste generated by businesses at rates below 220 pounds per month and waste generated by households.

10.1.1 Federal Regulations

The primary federal laws relating to hazardous waste are the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Other federal legislation such as the Universal Waste Rule and the Mercury-Containing and Rechargeable Battery Management Act establish rules for specific types of hazardous waste.

Resource Conservation and Recovery Act (42 U.S.C. s/s 6901 et seq.)

The Resource Conservation and Recovery Act (RCRA) establishes responsibility and authority for managing hazardous waste. Subtitle C of the law establishes requirements for generators, transporters, and operators of hazardous waste treatment, storage and disposal facilities. Hazardous wastes must be tracked from the time they are generated until the time they are disposed using a manifest system. Subtitle D of RCRA establishes minimum requirements for construction and operation of solid waste disposal facilities. It seeks to ensure that landfills receiving household hazardous waste and small quantity generator waste meet minimum design and construction standards. The Washington State Department of Ecology has been delegated the authority to enforce the provisions of RCRA.

Comprehensive Environmental Response, Compensation and Liability Act (42 U.S.C. s/s 9601 et seq.)

CERCLA, also known as the Superfund act, provides the Environmental Protection Agency with the authority to clean up disposal sites contaminated with hazardous waste. The legislation enables the agency to identify responsible parties and assess liability for cleaning up individual sites. The Superfund Amendments and Reauthorization Act established requirements related to emergency response planning and community notification of chemical releases.

Enhancing Hazardous Materials Transportation Security (HM-232)

HM-232, which went into effect March 25, 2003, amended transportation rules to require that persons who transport, or offer for transportation, certain types of hazardous materials develop and implement a security plan. This rule also requires that employees be provided with security awareness training. This rule applies to Island County's MRW facility due to the types and quantities of wastes collected and shipped. The intent of the security plan is to prevent theft of flammable or explosive materials that could be used in acts of terrorism.

10.1.2 State Regulations

Hazardous Waste Management Act (Chapter 70.105 RCW)

The Hazardous Waste Management Act establishes requirements for state and local hazardous waste management plans, rules for hazardous waste generation and handling, criteria for siting hazardous waste management facilities, and local zoning designations that permit hazardous waste management facilities. The Hazardous Waste Management Act also establishes waste management priorities for hazardous wastes. In order of decreasing priority, the management priorities are waste reduction; recycling; physical, chemical and biological treatment; incineration; solidification/stabilization; and landfilling.

Rules implementing the Hazardous Waste Management Act are codified in the Dangerous Waste Regulations (Chapter 173-303 WAC). This regulation defines dangerous waste materials and establishes minimum handling requirements. State rules specifically exclude household hazardous waste and small quantity generator wastes from the dangerous waste regulation. The Dangerous Waste Regulations have been amended several times over the years, most recently in 2009. The 2009 amendments incorporated federal requirements into the state's rules and updated state-specific requirements, including technical corrections and other improvements. One example is the addition of two database resources for toxicity book designation that addresses aquatic toxicity that in not listed NIOSH RTECS database.

Model Toxics Control Act (Chapter 173-340 WAC)

The Model Toxics Control Act assigns responsibilities and provides a funding source for cleaning up hazardous waste disposal sites in Washington. The act establishes state and local toxics control accounts as funding sources for hazardous waste related activities. The state account funds Ecology's solid and hazardous waste management planning activities, enforcement and technical assistance, remedial actions, public education and emergency response training. The local account provides grants to local governments for solid and hazardous waste programs including remedial actions.

Used Oil Recycling Act (Chapter 70.95I RCW)

The Used Oil Recycling Act requires local hazardous waste management plans to include plans for collecting used motor oil, enforcing sign and container ordinances, and conducting public education. Local governments are also required to submit annual reports identifying used motor oil collection sites and the quantity of used motor oil collected from households.

Solid Waste Management Act (Chapter 70.95 RCW)

The Solid Waste Management Act prohibits the disposal of automobile batteries and requires retail vendors to accept used batteries for recycling.

Solid Waste Handling Standards (Ch. 173-350 WAC)

The 2003 Solid Waste Handling Standards provide guidance on the design and operation of MRW facilities.

Mercury Education and Reduction Act (Chapter 70.95M RCW)

The Mercury Education and Reduction Act of 2006 made it illegal to sell most items that contain mercury in Washington State, including thermometers, manometers, toys, games and jewelry.

Mercury-Containing Lights – Proper Disposal (Chapter 70.275 RCW)

As of January 1, 2013, all users must recycle mercury-containing lights. The program that was intended to provide a statewide collection system for the lights has been postponed, however, due to funding problems.

10.1.3 Local Regulations (Chapters 13.02A and 8.08B ICC)

Chapter 13.02A of the Island County Code prohibits the disposal of hazardous waste in Island County and provides penalties for noncompliance.

Moderate-risk waste is further regulated under the Solid Waste Regulation-Chapter 8.08B of the Island County Code. Moderate-risk waste must be disposed at a local moderate-risk waste handling facility or at a waste management facility approved by the Department of Ecology. The regulation states that moderate-risk waste shall not be disposed in a sewer system or an on-site sewer system, poured onto the ground or into a storm drain, disposed with municipal solid waste, buried or otherwise discarded. In addition, product labels must not be removed and the product must be stored in its original container. Finally, the product container must not be refilled unless the product label specifically recommends refilling.

10.2 Existing Moderate-Risk Waste Management Practices

Current management practices for moderate-risk waste generated within the planning area are summarized below.

10.2.1 Collection

Curbside collection service for used motor oil and lead-acid batteries is provided by the City of Oak Harbor as part of its residential recycling program.

O’Reilly Auto Parts, 31370 SR 20 in Oak Harbor, provides drop-off collection service for used motor oil and filters. Hours of operation are 7:30 a.m. to 9:00 p.m. Monday through Saturday

and from 8:00 a.m. to 7:00 p.m. on Sundays. Wal-Mart and other businesses also collect used oil.

Drop-off collection services are provided for household hazardous waste at the North Whidbey, Coupeville, Bayview and Camano solid waste facilities. The North Whidbey, Bayview and Camano facilities are satellite collection facilities supported by the primary moderate-risk waste collection and processing facility at the Island County Solid Waste Complex. Household hazardous waste may be delivered to any of the facilities during normal operating hours, but large loads and SQG wastes must be delivered to the Coupeville facility. These facilities have waste oil collection tanks for oil accepted through the SQG program as well as for use by do-it-yourself (DIY) customers from homes and watercraft. Oil from SQG customers is tested for PCB's before being added to the tank and the oil is tested by the County's contractor (ORRCO) before being removed from the collection tanks. Signage on the tanks alerts DIY customers to the importance of not adding gasoline, antifreeze, cooking oil and other contaminants. Education about waste oil and other aspects of the MRW program is accomplished through the County's website and brochures.

Drop-off collection services for Small Quantity Generator waste are available at the Island County Solid Waste Complex. Advance notification of delivery and a scheduled appointment is requested to verify the generator status of the business or institution producing the waste.

10.2.2 Exchange

The moderate-risk waste collection and processing facility at the Island County Solid Waste Complex includes a materials exchange. Individuals having a use for specific products disposed through the collection system may request the product for their personal use. Exchange products typically include paint and paint-related products, cleaners, polishes and waxes. Toxics, corrosives and similar materials are not included in the exchange program. The Complex also hosts a contracted materials re-use center that opened in June 2013 and that includes latex paint and other household products. Efforts are underway to add post-consumer oil-based paints and cleaners to the facility's list of sellable products.

10.2.3 Processing

With the exception of used motor oil and lead-acid batteries, all moderate-risk wastes collected within the planning area are transported to the moderate-risk waste handling facility at the Island County Solid Waste Complex. The waste materials are sorted according to their hazard classification and packed into U.S. Department of Transportation approved containers ranging from five gallons to one cubic meter. Fuels, oil and antifreeze are collected in 55 to 500 gallon tanks and transferred into bulk carrier trailers for transportation to the appropriate processing or disposal facilities. Other materials are packed into drums or pallet boxes in their original containers. The drums are stored at the facility until truckload quantities are available for transport.

10.2.4 Transport and Disposal

Moderate-risk waste collected at the drop-off facilities is managed as a hazardous waste. The waste materials are transported to a licensed hazardous waste treatment, storage and/or disposal

facility. Hazardous waste treatment and disposal services are currently provided under a State of Washington service contract by Clean Harbors. MRW that cannot be recycled is destroyed through high-temperature destructive incineration by the contractor.

10.2.5 Household Hazardous Waste Education

Household hazardous waste management information is periodically included in the solid waste-related classroom presentations and smart shopping campaigns regularly conducted in various public locations. The current moderate-risk waste education program includes dissemination of printed information through local newspapers, brochures, a website (www.recyclewhidbey.net,) information booths, presentations at public events and oral responses to telephone inquiries. The WSU Waste Wise Program assists with the information and education program.

10.2.6 Small Quantity Generator Education and Technical Assistance

Outreach and education for Small Quantity Generators (SQGs) is an ongoing activity. Technical and disposal assistance is provided on an as-requested basis. An SQG Coordinator may be periodically hired to provide additional outreach and to publicize the availability of disposal services.

Compliance issues are handled by Island County Public Health, who responds to complaints and other problems as these are identified. Public Health receives grant funds specifically for this purpose.

10.2.7 Cooperative Agreement with NAS Whidbey Island

Island County and NASWI have an agreement that allows military personnel and their dependents residing in government quarters at NASWI to deliver household hazardous waste to County collection stations. In 2005, NASWI's private contractor (Forest City, Inc., a subsidiary of Pacific Northwest Communities) assumed financial responsibility for this program. The agreement is ongoing (see Appendix C).

10.2.8 Inventory of Generators and Facilities

RCW 70.115.220(1)(a) requires MRW plans to contain an assessment of the quantities, types, generators and fate of MRW in each jurisdiction. The following information addresses potential MRW generators, dangerous waste generators (i.e., large-quantity generators), contaminated sites, transporters and processing facilities, and locations where hazardous waste facilities are allowed to be sited ("zone designations").

Potential MRW Generators and Participation in MRW Collections

Not all of the data necessary to conduct a complete assessment of the current rate of participation in MRW programs is currently available, but the data that is available is summarized in Table 10-1. At first glance, the data in Table 10-1 may appear to indicate that only a low number of MRW generators (4.9% of the residential households and 3.5% of the businesses and institutions) bring their wastes to the MRW Facility. That conclusion would actually be

incorrect, however, due to several factors:

- Not every household and business is an MRW generator, or at least not in every year. For residential sources especially, products may be stored for several years before the resident does a "clean-up" or determines that the material is no longer useful and is thus an MRW.
- An unknown number of households and businesses use other product stewardship, take-back or drop-off sites for the more common wastes (electronics, oil, batteries, antifreeze, mercury lighting and devices, and other automotive wastes).
- An unknown number of SQGs and large-quantity generators use the services of private collection companies for their hazardous wastes instead of the MRW Facility.

Table 10-1
Characteristics of MRW Generators in Island County

	Residential Generators	Businesses and Institutions	Comments
Number of Households or Businesses	40,685[1]	1,928[2]	Not all residents and businesses are generators of MRW.
Number of Customers using the MRW Facility in 2012	1,991	67	These figures are not adjusted for multiple trips to the MRW Facility by the same customer.
Number of Participants for Other Programs	Unknown	Unknown	An unknown number of households and businesses are recycling electronics, oil, batteries, mercury lighting, and other MRW materials through various product stewardship, take-back and drop-off programs, and an unknown number of businesses are disposing of wastes through private collection services.

Notes:
1. *The number of households is a 2013 figure that includes one-unit dwellings (31,591), two and more units (4,481), and mobile homes/special units (4,613) (source: Washington State Office of Financial Management).*
2. *The number of businesses is an annual average for 2012 from the Bureau of Labor Statistics web page (www.bls.gov).*

Dangerous Waste Generators

Ecology's records show that the following numbers of businesses and institutions in Island County are registered as hazardous waste generators as of June 2013:

- 3 large-quantity generators
- 3 medium-quantity generators
- 9 small-quantity generators[1]
- 4 non-generating sites and transporters with active EPA or state identification numbers, but who did not generate waste in the most recent year.

[1] This figure includes only those small-quantity generators that have chosen to get an EPA identification number (which is not required for SQGs), and the actual number of SQGs (or CESQGs) is higher.

In addition, there are another 250 businesses in Island County that are considered possible generators of hazardous wastes, including painters, car repair shops, hospitals, dentists, veterinarians, furniture refinishers, and various construction companies. Many of these companies are likely SQGs that are handling their wastes properly and hence not subject to reporting requirements.

Remedial Action Sites

Ecology's list of confirmed and suspected contaminated sites in Island County can be found at www.ecy.wa.gov/programs/tcp/cleanup.html. The sites can be summarized in five categories (data on the number of sites shown below is current as of January 2014):

1. Brownfield Sites – 1 site. Brownfield sites are abandoned or under-utilized properties where potential liability due to environmental contamination and clean-up costs complicate redevelopment.

2. Environmental Covenants Register – 3 sites. This registry is a list of sites that have residual contamination after the clean-up has been completed. These sites have environmental covenants or deed restrictions limiting the types of uses on the property.

3. Leaking Underground Storage Tanks – 50 records. This report contains information on Underground Storage Tank facilities that require clean-up and their clean-up history.

4. State Clean-Up Sites:

a) Clean-Up Site Details – 132 sites.

b) Confirmed and Suspected Contaminated Sites Report – 49 sites. This report contains information about sites that are undergoing clean-up and sites that are awaiting further investigation and/or clean-up.

c) No Further Action Sites – 55 sites. This data set contains information about sites previously on the Confirmed and Suspected Contaminated Site list (above) that have received a No Further Action decision. These sites may have deed restrictions or environmental covenants.

5. Regulated Underground Storage Tanks – 41 records for active facilities and 97 records for inactive facilities. Washington State regulates storage tanks on different properties, including gas stations, industries, commercial properties, and governmental entities.

Hazardous Waste Services (Transporters and Facilities)

The only facility known to be managing hazardous wastes in Island County is the County's facility at the Island County Solid Waste Complex. There are numerous companies that are registered in Washington as hazardous waste transporters and that could potentially provide services in Island County.

Zone Designations

As part of the development of the original MRW plans, local jurisdictions were required by State law (RCW 70.105.225) to designate zones within their borders where hazardous waste facilities would be permitted to operate and to notify Ecology of those designations. In Island County, Ecology's records indicate that Coupeville designated commercial and industrial park districts for this zone and that Oak Harbor requires accessory use and conditional permits for this activity.

10.3 Planning Issues

Planning issues related to the moderate-risk waste program are discussed below.

10.3.1 Required Elements for Moderate-Risk Waste Management Programs

Washington State lists several elements that are required in local hazardous waste plans (RCW 70.105.220). Specific components required include:

- A program to manage moderate-risk wastes from households and businesses;
- An ongoing public education program;
- An inventory of existing hazardous waste generators and facilities to manage hazardous waste (based on data provided by the Department of Ecology);
- A description of the public involvement process used in developing the plan;
- A used oil recycling element (per RCW 70.95I);
- A description of the eligible zones designated in accordance with RCW 70.105.225; and
- Other elements deemed appropriate by local government.

These components are updated in this plan to the extent necessary and appropriate.

10.3.2 Measuring the Success of Moderate-Risk Waste Programs

The number of household and of small quantity generator participants and the quantity of moderate-risk waste materials collected are two typical measures of the success of a moderate-risk waste program. Program success could also be measured by the number of individuals making conscious decisions to purchase products that do not contain hazardous materials or the number of individuals who purchase only as much of a product containing hazardous ingredients to satisfy their immediate need. These actions avoid the cost of handling residues and surplus materials as hazardous wastes, and avoid the potential health and environmental risks associated with such products, but unfortunately these actions are more difficult or even impossible to measure.

10.3.3 Household Hazardous Waste Collection Program

Household hazardous waste collection has become an integral part of the solid waste collection facilities in the planning area. Between one and five percent of the arrivals at the drop box and transfer stations participate in the program (see the last row of Table 10-2). Participation characteristics for the moderate-risk waste collection program are summarized in Table 10-2.

Table 10-2
Summary of Customer Participation in Moderate-Risk Waste Collection Program, 2012

Alternative	Collection Facility			
	North Whidbey	Coupeville	Bayview	Camano
Number of Moderate-Risk Waste Program Participants	235	720*	547	556
Amount of Moderate-Risk Waste, pounds	33,200	109,200	77,320	78,600
Percent of Total Arriving Vehicles	4.8	1.2*	3.8	1.7

* Not all customers at the Coupeville site are included in this count because some are allowed to bypass the scalehouse.

10.3.4 Washington State Hazardous Waste Management Plan and Solid Waste Management Plan

Reducing small-volume hazardous materials and waste is one of the five key initiatives in the Beyond Waste plan. The goal of that initiative is to "accelerate progress toward eliminating the risks associated with products containing hazardous substances." The initiative specifically targets hazardous wastes from households and small quantities from businesses. The Beyond Waste plan makes ten recommendations to achieve its goal:

1. Prioritize wastes to pursue.
2. Reduce threats from mercury.
3. Reduce threats from polybrominated diphenyl ethers (PBDEs).
4. Develop an electronics product stewardship infrastructure.
5. Ensure proper use of pesticides, including effective alternatives.
6. Reduce and manage all architectural paint wastes.
7. Lead by example in state government.
8. Ensure MRW and hazardous substances are managed according to hazards, toxicity and risk.
9. Fully implement local hazardous waste plans.
10. Ensure facilities handling MRW are in compliance with environmental laws and regulations.

10.3.5 PCB Contamination in Waste Oil

A number of incidents have recently occurred across the state where PCB contamination has been found in waste oil dropped off at public collection sites. A small amount of this contamination can result in a large amount of waste oil that needs to be treated as a hazardous waste (at a significant expense). These incidences emphasize the need for ongoing education and monitoring of waste oil collection programs. County staff are also investigating additional "best management practices" that will avoid contamination problems.

10.4 Alternative Moderate Risk Waste Management Strategies

Six alternative management strategies for moderate-risk waste are discussed below.

10.4.1 Moderate-Risk Waste Alternative A-Public Education for Household Hazardous Waste

Household hazardous waste education programs focus on identifying household products that contain hazardous ingredients, encouraging safer alternatives and explaining how to dispose unwanted products that contain hazardous substances. Rather than continue an independent education program for moderate-risk waste, Alternative A attempts to incorporate the message into existing programs that benefit from the household hazardous waste program. Ongoing programs that have common objectives include local storm water programs, local ground water programs, municipal wastewater treatment programs, and on-site sewage system programs. By coordinating the message with other resource protection and waste management programs, the message will be repeated and attention will be focused on the multiple benefits of the higher-priority management practices. The estimated annual cost of the household hazardous waste education program is over $10,000.

10.4.2 Moderate-Risk Waste Alternative B-Education and Technical Assistance for Small Quantity Generators

Moderate-Risk Waste Alternative B would continue the outreach activities for the small quantity generators. This outreach program periodically attempts to identify new local small quantity waste generators, confirm that they understand their management responsibilities for moderate-risk waste, and promote the higher-priority management strategies. In addition, assistance would be provided for the routine collection and management of small quantity waste material through both commercial collection services and the Coupeville drop-off facility. A concept-level annual operating cost estimate for Alternative B is presented in Table 10-3. Annual costs are estimated at $36,800.

Table 10-3
Concept-Level Annual Operating Cost Estimate for Moderate-Risk Waste Alternative B-Education and Technical Assistance for Small Quantity Generators

	Quantity	Unit	Unit Cost, $	Amount, $
Labor	1,040	hours	24	25,000
Vehicle	5,000	miles	0.56	2,800
Office Expense	20	percent		5,000
Printing	1	lump sum	4,000	4,000
Total				**36,800**

10.4.3 Moderate-Risk Waste Alternative C-Retail Return for Paint Products

The quantity of solvent-based paint and related products is second only to used motor oil in the household hazardous waste stream. These materials represent 30 percent of the household hazardous waste stream if used motor oil is excluded.

Moderate-Risk Waste Alternative C would attempt to shift the responsibility for managing paint waste from Island County to retailers who sell paint products. A selected retailer or retailers

would be encouraged to accept leftover quantities of solvent-based paint products from their customers. The retailer(s) could become household hazardous waste collection facilities for paint and paint-related products. In addition to increasing the number of collection facilities, the retailers could directly affect waste paint generation by promoting water-based paints and selling only the amount of solvent-based product needed for a specific project. Management costs for these waste materials would be shifted from the solid waste program to the retail industry.

10.4.4 Moderate-Risk Waste Alternative D-Regulation

When the moderate-risk waste management program was first established, a decision was made to emphasize education and technical assistance rather than regulatory compliance. Moderate-Risk Waste Alternative D would add a regulatory component to the moderate-risk waste program.

The regulatory component would include a variety of surveillance and control activities. Minimum handling requirements would be established for the generation, storage, and disposal of small quantity generator waste. A compliance-monitoring program providing on-site inspection of small quantity generators every three years would be established. Records identifying the disposal locations for moderate-risk waste would be maintained by waste generators. Finally, civil penalties for violating the minimum handling requirements would be authorized. A concept-level operating cost estimate for Alternative D is presented in Table 10-4. Annual operating costs are estimated at $32,800.

Table 10-4
Concept-Level Annual Operating Cost Estimate for Moderate-Risk Waste Alternative D-Regulatory Emphasis

	Quantity	Unit	Unit Cost, $	Amount, $
Labor	1,040	Hours	24	25,000
Vehicle	6,000	Miles	.56	2,800
Office Expense	20	Percent		5,000
Total				**32,800**

10.4.5 Moderate-Risk Waste Alternative E-Establish User Fees for Household Hazardous Waste Services

Household hazardous waste services cost the Solid Waste Division $222,000 in 2012. There are no direct charges for household hazardous waste services. Instead, household hazardous waste costs are recovered through a surcharge on solid waste tipping fees. In 2012, household hazardous waste expenditures amounted to $2.75 per ton of municipal solid waste, or an average of $106 per hazardous waste participant. Small quantity generators are charged for disposal costs and supplies used to package the wastes.

Moderate-Risk Waste Alternative E would establish a nominal user fee for household hazardous waste services of $10 for each participant. The fee would acknowledge that there are costs associated with managing hazardous waste and perhaps encourage waste reduction.

10.4.6 Moderate-Risk Waste Alternative F-Support for Producer Responsibility Programs

Island County could support producer responsibility initiatives similar to the passed electronics and mercury-containing lighting laws that are considered by Washington State Legislators or the US Congress with letters of support. There would be negligible cost for the support of proposed producer responsibility laws.

10.5 Evaluation of Alternative Moderate Risk Waste Strategies

The alternative moderate-risk waste management strategies are compared with respect to three evaluation criteria below. The criteria include consistency with the planning objectives, consistency with the priority waste management practices and costs.

10.5.1 Consistency with Planning Objectives

All of the moderate-risk waste management alternatives are consistent with the planning objectives. Both Alternative A-Public Education for Household Hazardous Waste and Alternative B-Education and Technical Assistance for Small Quantity Generators include waste reduction as a fundamental waste management strategy. Alternative C-Retail Return or Paint Products and Alternative F-Producer Responsibility Programs are consistent with the objectives to encourage public-private partnerships for waste reduction and recycling needs and to encourage those who sell and use products containing hazardous ingredients to accept responsibility for minimizing risks to public health and the environment. Alternative D-Regulation is consistent with the planning objective to ensure compliance with state and local solid waste and moderate-risk waste handling regulations. Finally, Alternative E-User Fees for Household Hazardous Waste Services is also consistent with the planning objective to encourage those who sell and use products containing hazardous ingredients to accept responsibility for minimizing risks to public health and the environment.

10.5.2 Consistency with Priority Management Practices

The highest priority waste management strategy is waste reduction or avoiding the production of moderate-risk waste. The education-related alternatives, Alternatives A and B, both focus on waste reduction. Alternative C-Retail Return or Paint Products may also promote waste reduction by encouraging retail operations to sell only the quantity of product need for a particular project. Alternative D-Regulation focuses on handling waste materials rather than preventing their production. Alternative E-User Fees for Household Hazardous Waste Services could be a deterrent to participation in the household hazardous waste program and may increase improper disposal of moderate-risk waste. Alternative F-Producer Responsibility Programs could create feedback to manufacturers to produce more manageable or less hazardous products.

10.5.3 Costs

Alternative A-Public Education for Household Hazardous Waste is estimated to cost $10,000 annually. Alternative B-Education and Technical Assistance for Small Quantity Generators is estimated to cost $36,000 per year but doesn’t need to be conducted every year. Alternative C-

Retail Return for Paint Products and Alternative F-Producer Responsibility Programs could shift some costs associated with the collection and disposal of paint and paint-related products from the public sector to the retail stores or manufacturers. Alternative D-Regulation would cost an estimated $32,000 annually. Finally, Alternative E-User Fees for Household Hazardous Waste Services would shift 20 percent of the program costs from tipping fees to direct user fees.

10.5.4 Rating of Alternatives

The alternative moderate-risk waste management strategies are compared with respect to the evaluation criteria in Table 10-5. Alternatives A and B are recommended to be pursued further (see Section 14.6).

Table 10-5
Summary Comparison of Alternative Moderate-Risk Waste Management Strategies

		Rating		
	Alternative	**Consistency with Planning Objectives**	**Consistency with Management Priorities**	**Costs**
A	Public Education for Household Hazardous Waste	H	H	M
B	Education and Technical Assistance for Small Quantity Generators	H	H	M
C	Retail Return for Paint Products	H	M	M
D	Regulation	H	M	M
E	Establish User Fees for Household Hazardous Waste Services	H	L	M
F	Support for Producer Responsibility Initiatives	H	H	L

Note: Abbreviations are used above to show whether an alternative is rated high (H), medium (M), or low (L) for each criteria. A high rating is generally not good for the cost factor (although costs should always be weighed against the amount of impact anticipated), but high ratings are good for the other criteria.

Section 11
Other Solid Waste

This section discusses management practices for other solid materials including inert and demolition waste, land clearing debris, appliances, tires, auto bodies, biomedical waste, asbestos, agricultural wastes, petroleum contaminated soils, pharmaceuticals, and e-wastes.

11.1 Existing Management Practices

Existing management practices for the other solid waste materials are discussed below.

11.1.1 Demolition Waste

Loads of demolition waste are accepted for disposal as solid waste, but at a higher rate, at the Island County Solid Waste Complex and at the Camano Transfer Station. The Island County Solid Waste Division is responsible for operation and maintenance of these transfer facilities.

11.1.2 Inert Waste

Inert wastes are those wastes that meet the criteria for inert wastes, including cured concrete, asphalt, brick, masonry, ceramics, glass, stainless steel and aluminum. Inert waste disposal facilities are subject to less stringent requirements than municipal solid waste disposal facilities under the provisions of Chapter 173-350-410 of the Washington Administrative Code (WAC). Facility standards for inert waste landfills require owners and operators to:

- Maintain daily records of the weights or volume of materials accepted;
- Control dust and manage surface water run-on and run-off;
- Implement a program to detect and prevent non-inert waste disposal;
- At closure, level the wastes and fill all voids;
- Obtain a solid waste operating permit from the local health jurisdiction and record the disposal activity with the County auditor (unless the total capacity of the site is less than 250 cubic yards);
- Provide an annual report; and
- Prevent unauthorized access.

In Island County, inert wastes are generally handled as part of the solid waste stream, and are only rarely separately collected or managed at this time.

11.1.3 Land Clearing Debris

Land clearing debris is sometimes burned where it is harvested although on-site grinding and spreading is becoming more common. Some service providers limit the dimensions of waste materials and/or assess minimum charges for mobilization of equipment. Alternatively, land-clearing debris may be transported to a regional wood waste composting or disposal facility. Management of land clearing debris is the responsibility of the waste generator. Land clearing

debris is not accepted at Island County solid waste facilities.

11.1.4 Appliances

Appliances are recycled for ferrous scrap metal. Non-refrigerating appliances are accepted at Christian's Auto Recycling and Island Recycling free of charge. Both refrigerating and non-refrigerating appliances are accepted for a fee at the County's Coupeville and Camano transfer stations. Refrigerants are recovered before scrap processing.

11.1.5 Tires

Tires are collected at the Island County Solid Waste Complex, the Camano Transfer Station, and Island Recycling from residential sources only. Private companies that accept tires include Christian's Auto Recycling and some retail tire stores as their storage container space allows. The tires are transported out of Island County for recycling or disposal. Of the County-owned facilities, a maximum of 800 tires may be stockpiled at the Freeland facility, and are not stockpiled at other County sites.

11.1.6 Auto Bodies

Auto bodies are another source of ferrous scrap metal. Christian's Auto and Metal Recycling, Oak Harbor Auto Wrecking and Island Recycling provide collection and processing services for auto bodies. After fluids are removed, the auto bodies are crushed and transported out of Island County for recycling.

11.1.7 Biomedical Waste

State law (RCW 70.95K) defines biomedical wastes to include:

> **Animal waste**: animal carcasses, body parts and bedding of animals that are known to be infected with, or have been inoculated with, pathogenic microorganisms infectious to humans.
>
> **Biosafety level 4 disease waste**: biosafety level 4 disease waste is waste contaminated with blood, excretions, exudates, or secretions from humans or animals who are isolated to protect others from highly communicable infectious diseases that are identified as pathogenic organisms assigned to biosafety level 4 by the centers for disease control, national institute of health, biosafety in microbiological and biomedical laboratories, current edition.
>
> **Cultures and stocks**: wastes infectious to humans and includes specimen cultures, cultures and stocks of etiologic agents, wastes from production of biologicals and serums, discarded live and attenuated vaccines, and laboratory waste that has come into contact with cultures and stocks of etiologic agents or blood specimens. Such waste includes but is not limited to culture dishes, blood specimen tubes, and devices used to transfer, inoculate, and mix cultures.

Human blood and blood products: discarded waste human blood and blood components, and materials containing free flowing blood and blood products.

Pathological waste: human source biopsy materials, tissues, and anatomical parts that emanate from surgery, obstetrical procedures and autopsy. Does not include teeth, human corpses, remains and anatomical parts that are intended for internment or cremation.

Sharps: all hypodermic needles, syringes and IV tubing with needles attached, scalpel blades, and lancets that have been removed from the original sterile package.

Clinics and agencies that generate biomedical waste are required to prepare and maintain a biomedical waste management plan. They are also required to meet minimum standards for storage and treatment of biomedical waste. The minimum handling standards are established in Section 8.08B.330 of the Island County Code and summarized below.

Every biomedical waste generator and biomedical waste storage and treatment facility operator is required to prepare a written plan for biomedical waste management. The plan must identify the types and quantities of biomedical waste and handling procedures for segregation, containment, transport, treatment, monitoring and disposal. The management plan must also include staff training procedures and contingency planning and identify specific individuals responsible for biomedical waste handling. The plan must be approved by the chief executive of the facility and must be available for inspection at the request of the local health officer.

Biomedical waste must be segregated from other waste materials. Biomedical waste, other than sharps, must be enclosed in a red plastic bag and placed in a labeled, biomedical waste storage container. Sharps must be placed in a leak proof, puncture resistant, labeled container secured with a lid. Biomedical waste may be stored up to eight days at temperatures exceeding 32 degrees F and up to 30 days at temperatures below 32 degrees F.

Biomedical waste must be treated by an approved method prior to disposal. Approved treatment methods include steam sterilization, incineration and others as approved by the local health officer.

The Washington State Utilities and Transportation Commission (UTC) regulates transporters of biomedical wastes. The UTC has issued a statewide franchise to Stericycle to transport biomedical wastes. Their regulations also allow regular solid waste haulers to refuse to haul wastes that they observe to contain infectious wastes as defined by the UTC.

Individual residents who generate hypodermic needles are not regulated as are clinics and agencies. Residents may collect used hypodermic needles in either a labeled sharps containers made for that purpose or in a polyethylene terephthalate (PET) plastic beverage container. Warning labels for PET bottles that contain hypodermic needles are available at County solid waste facilities or from Island County Public Health. To dispose of a container, residents can tape the cap or lid shut and deliver it to the Solid Waste Complex in Coupeville or to the Camano Transfer Station. The containers are placed in open-top trash trailers that are no more than half full. Trash handling from that point on is automated and precludes accidental needle sticks by downstream manual handling.

11.1.8 Asbestos

Asbestos waste is not accepted at the County solid waste facilities. Questions about asbestos are referred to the Northwest Clean Air Agency. The Northwest Clean Air Agency (NWCAA) provides information, including a list of permitted disposal facilities, for proper removal and disposal methods on their web page (www.nwcleanair.org) and through other means. Homeowners and contractors are required to file a "notice of intent" with NWCAA for asbestos removal projects.

11.1.9 Agricultural Waste

Agricultural waste generators typically manage waste on-site for beneficial purposes. The Whidbey Island Conservation District, WSU Extension Island County, and the County Public Health and Planning Departments provide technical assistance to prevent and abate nuisance conditions. The County solid waste facilities accept and dispose of noxious weeds at no charge. The Department of Agriculture collects hazardous agricultural chemicals periodically.

11.1.10 Petroleum Contaminated Soils

Petroleum contaminated soils are soils containing fuel oil, gasoline or other volatile hydrocarbons in concentrations below dangerous waste levels but greater than cleanup levels established by the Department of Ecology. Petroleum contaminated soils may be disposed in an approved landfill or treated by a variety of processes that remove or destroy the contamination. Treatment processes include aeration, bioremediation, thermal stripping and incineration. Small amounts can be disposed as solid waste.

Island County maintains a small treatment site for petroleum contaminated soils from county facilities only.

11.1.11 Pharmaceutical Wastes

There is a growing body of evidence of problems with the current practices of disposing of surplus and outdated medicines and other pharmaceuticals. These chemicals are showing up as contaminants in ground and surface waters. Several are only partially or not at all broken down in wastewater treatment plants, hence people are currently being encouraged to dispose of these at periodic collection events conducted by local law enforcement agencies and sponsored by the federal Drug Enforcement Agency or in solid waste and not flush them into the wastewater system.

11.1.12 Electronic Wastes (E-Waste)

The rules requiring manufacturers and retailers of electronic goods to offer a program to take back specified obsolete equipment became effective January 1, 2009. Island County and its contract recycler each participate in the E-Cycle Washington program and collect the covered electronics at the Island Recycling, Solid Waste Complex, North Whidbey and Camano facilities.

11.2 Planning Issues

Planning issues relating to demolition waste, inert wastes, land clearing debris, biomedical waste, petroleum contaminated soils, and disaster debris are discussed below.

11.2.1 Demolition Waste

Demolition waste is defined as solid waste resulting from the razing of buildings, roads and other man-made structures. In the past, these wastes were sometimes allowed to be managed at a lower level of regulation and control, but the Solid Waste Handling Standards adopted by Ecology (Ch. 173-350 WAC) has changed this.

Demolition waste has come under increased scrutiny recently due to the hazardous or toxic materials that are sometimes present in this waste stream. These wastes potentially include wood treated with arsenic or pentachlorophenol, paints that contain lead and other toxins, asbestos in various forms, batteries and thermostats that contain mercury, and many other materials. Property owners and contractors are responsible for identifying and properly disposing of any hazardous materials present in buildings or other structures that will be demolished.

The wood waste portion of demolition and construction wastes, however, can be diverted to a beneficial use (energy recovery) or diverted to re-use. Re-sale of useable wood has begun in June of 2013, and Island County will continue to seek cost effective waste-to-energy options for the majority of wood waste that is unfit for resale.

11.2.2 Inert Wastes

There are no issues concerning inert wastes in Island County at this time, although in the future there may be a need or desire to develop an inert waste landfill in Island County. Any proposals for inert landfills that are intended to handle potentially-recyclable materials (such as concrete and asphalt) should be weighed carefully against the benefits of recycling those materials. On the other hand, an inert waste landfill could also potentially be used as a temporary repository for a recyclable material such as glass. If recycling markets for glass (or other inert wastes) are closed in the future, an inert waste landfill could be used as an interim step and then later the glass could potentially be removed and recycled if markets improve sufficiently to make that approach cost-effective.

11.2.3 Ban on Open Burning of Land Clearing Debris

Open burning of land clearing debris is permitted by the Island County Department of Community Development outside designated urban growth areas. Open burning is prohibited under current air pollution regulations within the City of Oak Harbor urban growth area and in the city limits and urban growth areas of the City of Langley and Town of Coupeville.

11.2.4 Biomedical Wastes

Some sources of biomedical wastes, including dentists, veterinarians, farmers and ranchers, and residents, may not always dispose of biomedical wastes properly. There is not a clear estimate of

the number of syringes and other biomedical wastes that may be improperly disposed locally, but haulers in other areas often report seeing syringes sticking out of garbage bags. Island County Solid Waste and Public Health departments offer guidance to inquiring clinics and residents.

11.2.5 Petroleum Contaminated Soils

Petroleum contaminated soils (PCS) may be treated by several processes, many of which include aeration. Aeration of the soils during treatment exhausts volatile organic compounds including potential toxic air pollutants such as benzene into the atmosphere. Emissions of volatile organic compounds are regulated under Section 300 of the Northwest Clean Air Agency regulations. Emissions greater than two tons per year of volatile organics require completion of a "Notice of Construction and Application for Approval" and agency review as a new source of air pollution. Toxic air pollutants such as benzene are regulated under Chapter 173-460 WAC. Air pollution control requirements are based on emission quantities of specific toxic constituents. Piles and most other treatment processes for PCS must be permitted by Public Health.

11.2.6 Disaster Debris

Natural disasters including windstorms, landslides, floods, earthquakes, tsunamis and fires can generate large quantities of waste materials. Other disasters such as oil spills, boat groundings, and airplane crashes also generate waste requiring special handling. Managing waste materials in a timely fashion is critical for disaster recovery operations.

Disaster debris generation in the planning area presents unique problems because local disposal facilities are limited. The municipal solid waste management system cannot be expected to handle large quantities of disaster debris. Interim storage and staging areas are needed to facilitate recovery operations.

11.3 Alternative Management Strategies for Other Wastes

Contingent management strategies for demolition waste, disaster debris and special wastes are discussed below.

11.3.1 Other Solid Waste Alternative A-Investigate Diversion Options for Demolition and Other Wastes

Because some types of demolition wastes have the potential to damage waste compacting equipment, it is necessary to handle it separately from municipal solid waste and hence at a higher cost to the customer. In addition, this waste often consists of materials that potentially could be recycled or diverted to a beneficial use, and would be relatively easy to segregate for this purpose. This alternative would explore diversion programs (segregated collection and/or new markets or processing methods). On a case-by-case basis, alternatives for handling other portions of the waste stream should also be considered. A part-time staffperson could be hired temporarily or periodically, to conduct these activities. A concept-level operating cost estimate for Alternative A is presented in Table 11-1. Annual operating costs are estimated at $33,360.

Table 11-1
Concept-Level Annual Operating Cost Estimate for Other Solid Waste Alternative A-Diversion Options for Demolition and Other Wastes

	Quantity	Unit	Unit Cost, $	Amount, $
Labor	1,040	hours	24	25,000
Vehicle	6,000	miles	0.56	3,360
Office Expense	20	percent		5,000
Total				**33,360**

11.3.2 Other Solid Waste Alternative B-Adopt Contingent Management Strategy for Disaster Debris

Windstorms and landslides may leave behind waste consisting of destroyed vegetation, damaged buildings and personal property. Floods create mud, sediment, sandbags and materials from damaged and dismantled houses. Earthquakes generate damaged building materials, personal property and sediment from landslides. Fires generate damaged building materials and charred waste. Oil spills generate petroleum contaminated absorbent materials and dead animals. Boat groundings create fuel spills and wastes that can include batteries, refrigerants and other materials depending on the contents of the boat. Finally, airplane accidents produce materials that must be secured for analysis by incident investigators before being disposed.

Property owned by Island County was inventoried and evaluated for use as temporary storage and staging areas for disaster debris. The location of the alternative sites is shown in Figure 11-l. Characteristics of each alternative site are summarized in Table 11-2.

Table 11-2
Characteristics of Alternative Disaster Debris Storage and Staging Sites

Name	Total Area, Acres	Cleared Area, Acres	Current Use	Zoning
Dodge	20	7	Slash and Excavation Depository	Rural Residential
Bogue	17	7	Excavation Depository	Forest Management
Faber	4	3	Excavation Depository	Rural Residential
Hastie Lake	15	5	Excavation Depository	Rural Residential
Henni	39	4	Gravel Excavation	Forest Mgmt, Rural Res.
Coupeville	20	4	Solid Waste Management Facility	Rural Residential
Patmore	44	12	Excavation Depository	Rural Residential
Lagoon Point	22	2	Gravel Excavation/Screening	Forest Management
Freeland	17	3	Recycle Center, Wood Chip Storage	Rural Residential
Hastings	51	3	Gravel Excavation, Evacuation, Depository	Rural, Rural Residential
Cultus Bay	37	5	Gravel Excavation, Evacuation, Depository	Forest Management
Rocky Point	26	2	Gravel Excavation	Rural Residential
Camano	15	3	Closed Waste Landfill	Rural Residential

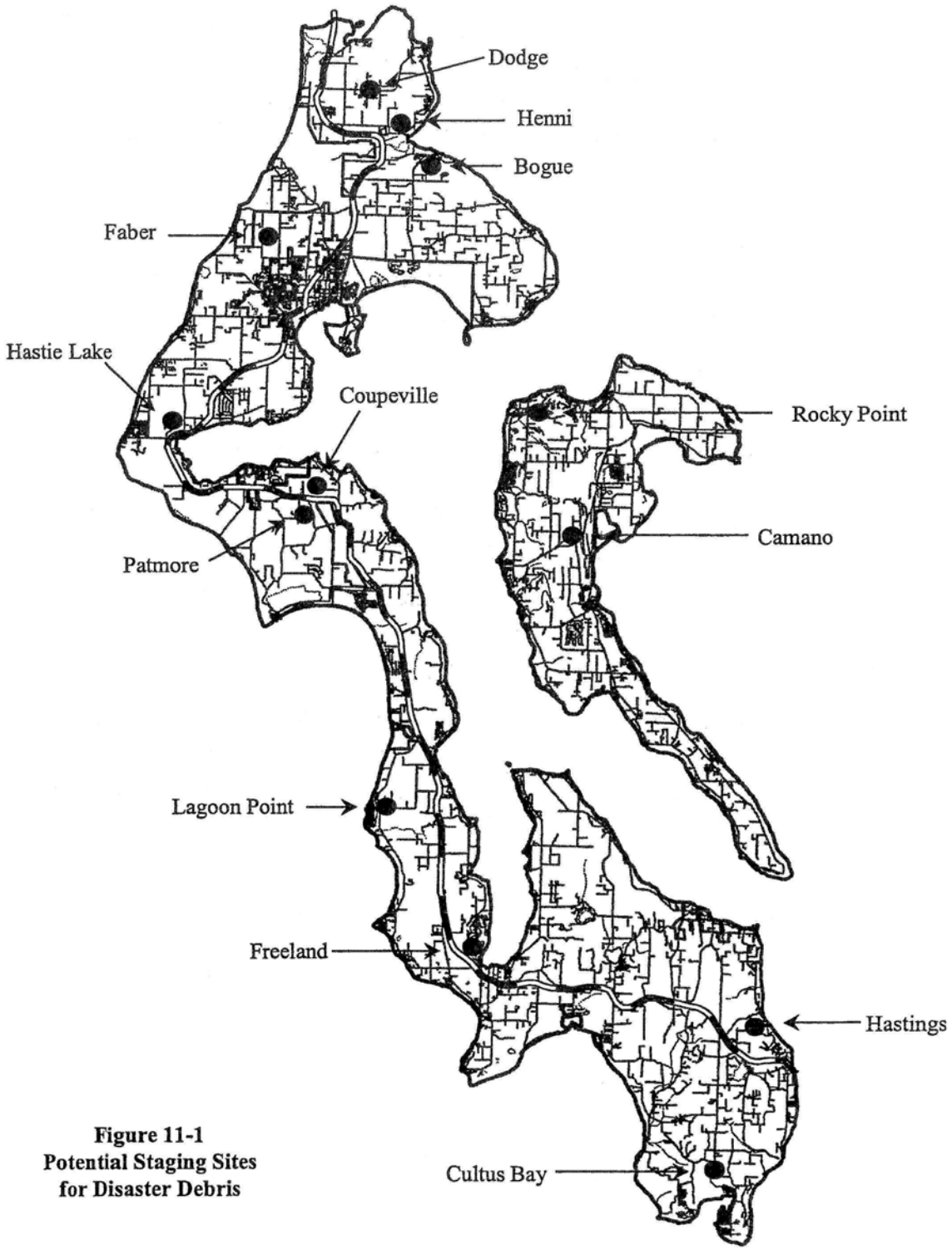


Figure 11-1
Potential Staging Sites
for Disaster Debris

To the extent possible, the various types of disaster debris should remain separated for management and disaster cleanup accounting purposes. Separation allows emergency managers to focus first on waste materials that pose an immediate threat to public health and the environment such as hazardous waste, and it provides waste managers the ability to use multiple management strategies such as reuse and recycling. It also provides a clearly identifiable volume of purposes of emergency cleanup funding. Management recommendations for the various types of disaster debris are summarized in Table 11-3. No secure sites for storing crash debris for accident investigations were identified. Emergency services managers will need to rely on local (Naval Air Station Whidbey Island) or neighboring jurisdictions for secure storage of these materials.

Table 11-3
Management Recommendations for Disaster Debris

	Reuse	Recycling	Disposal as Inert Waste	New or Dedicated Site	Disposal in Municipal Solid Waste	Burning	Container Storage-Regional Disposal	Special Disposal
Destroyed Vegetation		•		O		O		
Damaged Building Materials		O	O	O	•			
Personal Property					•			
Mud, Sediments, Sand Bags	•		O	O				
Charred Materials				O	•			
Petroleum Contaminated Material				O		O	•	
Dead Animals				O	•			
Moderate-Risk Waste								•

• *Primary* O *Secondary*

11.3.3 Other Solid Waste Alternative C-Alternative Collection Programs for Special Wastes

Collection programs may be required or desired in the future for materials that cannot be fully anticipated at this time, although examples could include pharmaceuticals, mercury-containing lights and other items. It may also be determined that additional efforts need to be undertaken for existing waste streams, such as biomedical or other wastes. As these needs arise or are identified, options should be evaluated and feasible cost-effective solutions implemented as necessary. Possible steps that could be taken include:

Increase education: additional education for generators who are the sources of the waste stream could be conducted to promote safe handling and disposal practices.

Collection programs: collection programs could be developed or expanded to include additional materials or sources.

Conduct a waste generator survey: the Solid Waste Division or Public Health could conduct waste generator surveys to gather more information about types and amounts of

wastes, barriers to proper handling and disposal practices, and other factors. A survey may be a necessary first step to developing new programs.

Increase enforcement: increased enforcement activities and larger penalties could be implemented.

Other steps: other steps not anticipated at this time but appropriate to the waste could also be considered.

11.4 Evaluation of Alternative Strategies for Other Wastes

All three of these alternatives are recommended to be pursued (see Section 14.7), as the need arises:

- Additional diversion options for disaster debris will be evaluated as new opportunities arise.
- The contingent disaster debris storage and staging sites will become available upon declaration of a local emergency by the Board of Island County Commissioners.
- Alternative collection programs for special wastes will be developed and evaluated as program needs arise.

Section 12
Administration

This section describes the current administrative elements of the solid waste program, discusses related planning issues, and develops and evaluates two alternative administrative strategies.

12.1 Existing Program Elements

The administrative structure, organization and financing for the solid waste program are discussed below.

12.1.1 Administrative Structure

Washington State

Chapter 70.95 of the Revised Code of Washington (RCW) assigns primary responsibility for solid waste management to local government. The legislation establishes statewide priorities for managing solid waste and authorizes the Department of Ecology to promulgate regulations for solid waste handling. The primary state solid waste regulations are included in Chapter 173-350 of the Washington Administrative Code (WAC) as the Solid Waste Handling Standards.

Washington State provides financial assistance through the coordinated prevention grant (CPG) program. The program provides grants for eligible projects and programs that conform to recommendations included in local solid and hazardous waste management plans. Funding is also provided to local health jurisdictions for solid waste surveillance and control programs. These grants are authorized by RCW 70.105D.070, the Toxics Control Act, and the funds for these grants and for several state responsibilities are derived primarily from fees “on the privilege of possession of hazardous substances in this state” (RCW 82.21.030).

The Washington Utilities and Transportation Commission (UTC) regulates private garbage collection companies. The UTC oversees waste collection certificates (franchises) and approves rates for both garbage and recycling collection services in unincorporated jurisdictions.

Island County

Counties may establish or acquire solid waste disposal sites and enforce rules and regulations for their use. Counties have the authority to designate which disposal facilities may be used by individuals, municipalities and commercial haulers and to determine the types of waste accepted at each disposal site. Waste generated within Island County must be disposed at County-designated facilities unless an alternative disposal site is authorized by the solid waste management plan or specifically approved by County ordinance or interlocal agreement.

Any municipality disposing solid waste at a County facility must execute an interlocal agreement with the County designating the County as the operating authority for the solid waste disposal system. Island County has authority to prepare the solid waste management plan for

unincorporated areas and for the three municipalities that have designated the County as the solid waste operating authority through an interlocal agreement. Chapter 13.02A of the Island County Code establishes solid waste management as a County public works operation.

Island County Board of Health

The Board of Health has adopted standards for solid waste storage, collection, transportation, treatment, utilization, processing and disposal. Island County Public Health administers a permitting process for solid waste handling facilities. All handling facilities must develop and follow an operating plan approved by Public Health. Permitted facilities are inspected regularly for conformance with solid waste regulations. Public Health collects annual permit fees for solid waste facilities and receives a portion of the tipping fee charged at County solid waste facilities.

Municipalities

Three municipalities currently participate in the solid waste program through interlocal agreements: the Cities of Oak Harbor and Langley, and the Town of Coupeville. The three municipalities have designated Island County as the operating authority for the solid waste disposal system. Island County also maintains an interlocal agreement with Naval Air Station Whidbey Island.

Island County Solid Waste Advisory Committee

The Solid Waste Advisory Committee (SWAC) provides Island County with advice on solid waste management issues. The committee participates in the development of the solid waste management plan, assists in the development of policies and programs for solid waste management, and may comment on proposed resolutions and ordinances prior to their adoption. Agendas are kept of all committee meetings. Committee recommendations are provided to the Board of Island County Commissioners.

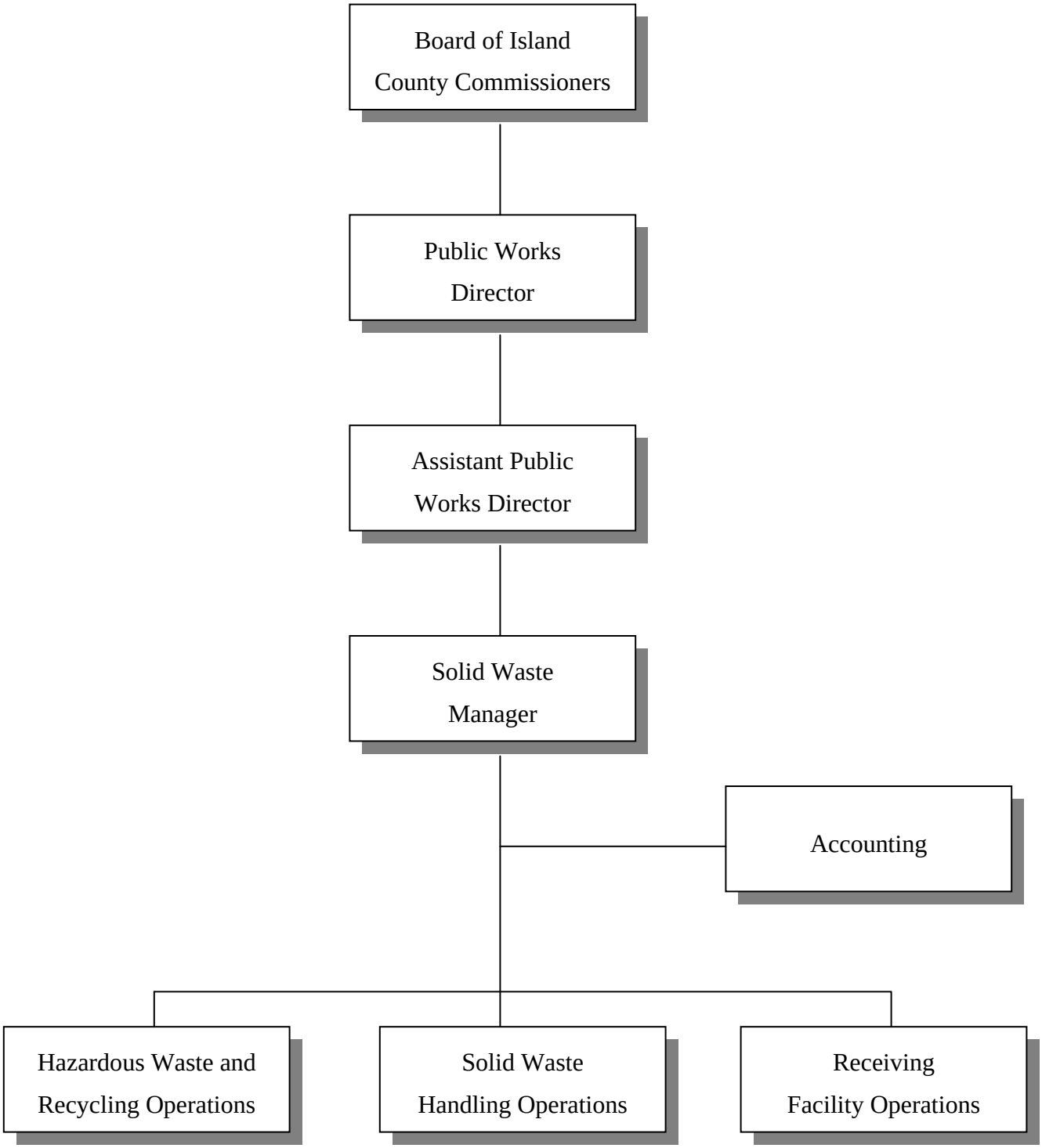
12.1.2 Solid Waste Division Organization

The Island County Solid Waste Division is a division of the County's Public Works Department. The Solid Waste Division includes elements for accounting, hazardous waste and recycling operations, solid waste handling operations and receiving facility operations as shown in Figure 12-1. The Solid Waste Division manager reports to the assistant public works director. Waste reduction and other education outreach is provided by the Washington State University Extension Service by agreement.

12.1.3 Solid Waste Program Financing

The Solid Waste Division follows generally accepted accounting principles for enterprise funds. All solid waste fees, investment earnings and grant reimbursements are deposited into the solid waste fund. All solid waste program expenditures are paid from this fund. Island County policy requires that solid waste program revenues be used to fund program expenditures. Current disposal rates charged at the solid waste receiving facilities are shown in a previous chapter (see Table 8-1). Disposal rates are uniform throughout the planning jurisdiction.

Figure 12-1
Island County Solid Waste Program Organization



12.2 Planning Issues

Planning issues relating to the solid waste fund's working capital balance and minimum service fees at the receiving stations are discussed below.

12.2.1 Working Capital Balance

The Solid Waste Division maintains working capital for capital expenditures, post-closure maintenance of the former landfills, and contingencies. Working capital has been used to fund major capital improvement projects including closure of the Coupeville Landfill, construction of the Island County Solid Waste Complex, upgrades of other solid waste facilities, and environmental systems. Maintenance of the working capital balance has enabled the Solid Waste Division to avoid debt and debt service payments. Since 2000, the target working capital balance has been approximately $2,500,000, including about $1,400,000 for capital expenditures and contingencies and $100,000 for post-closure maintenance of the former Coupeville Landfill. The actual working capital balance at the end of 2012 was approximately $2,800,000. A contingency fund of $1,500,000 was recommended in a 2009 benchmarking study by SCS Engineers.

Capital expenditures include land purchases, facility improvements and purchases of operating equipment. Capital expenditures are typically identified in the solid waste management plan or the annual operating budget.

Landfill post-closure maintenance costs are primarily related to the former Coupeville Landfill. Post-closure maintenance costs include routine maintenance of the cover system and environmental control systems together with sampling, analysis and reporting as required by state regulations. In 2012, post-closure maintenance expenditures were over $100,000, not including the $1.2 million upgrade that was completed in 2006, with $2,800,000 placed in a restricted post-closure reserve account. Post-closure maintenance will technically continue through the year 2033, but in actuality post-closure maintenance may never completely disappear.

Solid waste program contingencies are unanticipated projects and activities that are not identified in the solid waste management plan. An example of a contingency is a change in regulatory requirements for an operating facility. Perhaps the largest potential contingency for the solid waste program would be remedial action at one of the five closed landfill sites for which the county is responsible. Remedial action at potentially contaminated sites includes preliminary investigations, feasibility studies, and cleanup activities such as treatment, disposal and monitoring.

The Solid Waste Division periodically evaluates insurance protection for environmental liability to partially offset self-insurance costs. To date, the quoted premiums have significantly exceeded the value of coverage due to the exclusions involved.

12.2.2 Minimum Service Fee

The minimum fee for solid waste disposal at a County receiving facility increased to $11.00 beginning in early 2010, which includes the 3.6 percent state utility tax, for a single can or

bundle of waste materials not exceeding 40 pounds. Additional cans or bundles are $3.50.

The average weight of waste materials received per customer is just over 100 pounds. In 2012, the average weights were 119 pounds and 128 pounds, respectively, at the North Whidbey and Bayview drop box facilities (see Tables 8-2 and 8-3). The average weight represents three or four cans or bundles of waste materials.

12.3 Alternative Administration Strategies

Two administrative management strategies are discussed below.

12.3.1 Administrative Alternative A-Maintain Target Balance for Working Capital

Administrative Alternative A would maintain or increase the target balance for working capital. The target balance should be the sum of three elements:

- The present value of projected 6-year capital improvements;
- The present value of a portion of the post-closure maintenance costs at the Coupeville Landfill through 2023 with consideration given to off-ramping at that time; and
- An unanticipated event and environmental degradation contingency fund or pollution liability insurance coverage of $1,500,000 in accordance with the benchmarking study.

The target balance could be evaluated every three years in conjunction with a solid waste rate study and potentially revised at that time. The working capital balance would be invested prudently. All investment income derived from the working capital balance would accrue to the solid waste fund unless otherwise determined by the Board of Island County Commissioners.

12.3.2 Administrative Alternative B-Solid Waste System Operational Assessment and Benchmarking Study, Phase II

Administrative Alternative B would continue to address the growth, shrinkage and other changes that may occur in the County and the incorporated cities and town, where mutually beneficial economies may be gained by alternative collection, hauling, or transportation strategies. In the near future, cooperative arrangements for these basic services as well as special material handling/processing (glass, for example) may be developed.

The County carried out a Solid Waste System Operational Assessment and Benchmarking Study in 2008 to identify and develop system wide upgrades for a 6 to 20 year time frame. The study involved the Cities of Oak Harbor, Coupeville and Langley, NASWI, certificated (franchised) haulers, and other stakeholders. System components such as additional transfer stations and expanded or new processing facilities were discussed together with possible financing recommendations. A degree of redundancy is essential in the future with recognition that all Island County residents will continue to share in the cost of closed facility maintenance, moderate-risk waste management, environmental responsibilities, education outreach, and shared cost for seven-day per week system access.

The County is considering a Phase II of this study to address changing system requirements,

financial issues, rules and regulations, and other significant developments directly affecting the Island County Solid Waste System. Phase II of the study would build on the first and would make specific recommendations for the issues noted. The cost for this alternative is $40,000.

12.4 Evaluation of Alternative Administration Strategies

The alternative administrative strategies are compared with respect to two evaluation criteria below: cost control and long-term rate stability.

12.4.1 Cost Control

Administrative Alternative A retains and/or increases working capital for capital improvements, post-closure care of the Coupeville Landfill and environmental contingencies. Funding these activities with working capital rather than operating revenues has no effect on their costs. Administrative Alternative B promotes cost control measures by examining options for more cost-effective methods of solid waste handling.

12.4.2 Long-Term Rate Stability

Solid waste services are essential for protection of public health and the environment. Services must be reasonably available for all waste generators and each waste generator must contribute to the cost of providing the services. Administrative Alternative A dedicates a portion of excess working capital to future maintenance and capital expenditures. Funding post-closure care with working capital promotes rate stability by discounting future operating costs. Administrative Alternative B promotes long-term rate stability by improving services in a cost-effective manner.

12.4.3 Rating of Alternatives

The alternative administrative strategies are compared with respect to the evaluation criteria in Table 12-1. Based on the evaluation of these alternatives, both alternatives are recommended to be pursued (see Section 14.8).

Table 12-1
Summary Comparison of Alternative Administration Strategies

	Alternative	Rating: Cost Control	Rating: Long-Term Rate Stability
A	Maintain/Increase Target Balance for Working Capital, Phase II	M	H
B	Solid Waste System Operational Assessment and Benchmarking Study, Phase II	H	H

Note: Abbreviations are used above to show whether an alternative is rated high (H), medium (M), or low (L) for each criteria. A high rating is generally not good for the cost factor (although costs should always be weighed against the amount of impact anticipated), but high ratings are good for the other criteria.

Section 13
Regulation

This section discusses the surveillance and control program for solid waste handling activities in the planning area and evaluates alternative regulatory strategies.

13.1 Existing Program Elements

Solid waste handling practices within the planning area are controlled under regulations administered by Island County Public Health. Public Health enforces the Island County Solid Waste Regulations (Chapter 8.08B of the Island County Code), the Washington State Solid Waste Handling Standards (WAC 173-350) and other state solid waste laws and regulations.

13.1.1 Solid Waste Permits

Public Health exercises its authority for regulating solid waste handling facilities and collection service providers through a permitting system. A list of solid waste handling facility permits valid in January 2012 is shown in Table 13-1.

13.1.2 Air Quality Permits

The Northwest Clean Air Agency regulates mobile and stationary sources of air pollutants in Island County. The authority issues an annual permit for gas emissions at the Coupeville Landfill.

The Fire Marshall is responsible for enforcing regulations prohibiting the backyard burning of municipal solid waste and other outdoor burning problems.

13.1.3 Complaints

Public Health staff respond to complaints involving violations of solid waste regulations, including improper storage and illegal dumping. A summary of the number and nature of complaints investigated in 2004, 2010 and 2012 is shown in Table 13-2.

13.2 Planning Issues

Planning issues associated with illegal dumping and enforcement are discussed below.

13.2.1 Illegal Dumping

Litter and illegal dumping of waste materials has a negative influence on communities and presents real threats to public health and the environment. Tolerating litter and illegal dumping signals community acceptance while timely cleanup of illegal disposal sites tends to discourage additional waste storage and disposal problems.

Table 13-1
Active Solid Waste Permits Issued by Island County Public Health
(January 2012)

	Composting Facility	Material Recovery Facility	Transfer Station	Storage or Treatment Piles	Waste Tire Storage Facility	Moderate-Risk Waste Facility	Land Application Facility	Surface Impound-ment or Tank	Collection and Transport Vehicles
Christian's Towing, Recycling & Storage 615 Christian Road Oak Harbor		•			•	Limited			
City of Oak Harbor 100 SE City Beach Street Oak Harbor			Permit Exempt	•					•
Concrete Nor'west 3199 N Oak Harbor Rd Oak Harbor				•					
F-1 Sand and Gravel 194 Pit Road Oak Harbor				•					
Gilbertson Sand and Gravel 1202 S. Lawson Road Camano Island				•					
Island County Bayiew Drop Box Station 5790 S. Kramer Road Langley		•	•			•			
Island County Camano Transfer Station 75 E. Camano Hill Road Camano Island		•	•			•			
Island County North Whidbey Drop Box Station 3151 Oak Harbor Road Oak Harbor		•	•			•			
Island County MRW Facility 20018 SR 20 Coupeville						•			
Island County Recycle Park – Coupeville 20018 SR 20 Coupeville		•				•			

Table 13-1, continued
Active Solid Waste Permits Issued by Island County Public Health (January 2012)

	Composting Facility	Material Recovery Facility	Transfer Station	Storage or Treatment Piles	Waste Tire Storage Facility	Moderate-Risk Waste Facility	Land Application Facility	Surface Impound-ment or Tank	Collection and Transport Vehicles
Island County Solid Waste Complex 20018 SR 20 Coupeville		•	•	•				•	
Island Disposal, Inc. 19832 SR 20 Coupeville		•	•						•
Island Recycling 20014 SR 525 Freeland		•	•	•		•			
Krieg Construction, Inc. 70 W. Sleeper Road Oak Harbor				•					
Mailliard's Landing Nursery, Inc. 3060 N. Oak Harbor Road Oak Harbor	•	•		•					
Midvale Solid Waste and Recycling 11645 SR 525, Langley				•					
Navy Whidbey Recycle 3485 N. Langley Blvd, Bldg 2555 Oak Harbor		Permit Exempt	•			Limited - Exempt			
Oak Harbor Auto Wrecking 1201 NE 16th Avenue Oak Harbor		•			•	Limited	•		
Oak Harbor Recycling Center 2050 NE 16th Avenue Oak Harbor		•				Limited			
Remple Brothers Concrete, Inc 27364 SR 525, Coupeville				•					
We Dig It Gravel 204 E. Frostad Road, Oak Harbor				•					
Whidbey's Topsoils 5690 Cameron Road, Freeland				•					

Table 13-2
Summary of Solid Waste Related Complaints

Complaint	2004	2010	2012
Improper Storage	41	32	62
Litter	1	5	3
Illegal Dumping	28	22	13
Total	**70**	**59**	**78**

Litter and illegal dumping in Island County are being addressed in several ways. One method is the grants that the County receives from Ecology's Community Litter Clean-Up Program, which is used to clean up litter on public property with emphasis on public beaches. Grant guidelines limit cleanup activities to right-of-way areas not covered under adopt-a-road programs.

13.2.2 Enforcing Solid Waste Regulations

Enforcement procedures for solid waste violations are time-consuming and often troublesome. Environmental Health Specialists follow the procedures identified below, although depending on the severity and/or frequency of a violation, certain administrative steps may be skipped if necessary to protect public health:

- Investigation and confirmation of a violation;
- A request for compliance and return inspection;
- A notice of violation and return inspection (an optional administrative appeal would be available to the violator);
- A notice and order for compliance (an optional appeal to the Hearing Examiner would be available to the violator);
- A remedy that includes abatement, civil penalties and other legal enforcement actions; and
- Recovery of abatement costs and civil penalties.

Current Island County Code procedures require individuals accused of violating solid waste handling regulations to appear in District Court before an abatement order or civil penalties may be assessed. A civil penalty does not result in cost recovery for the abatement costs incurred by Island County Public Health.

13.2.3 Enforcing the Secure Loads Regulation

Several tragic incidents have led to increased concern and enforcement of requirements for loads to be secured properly while being transported. State law (RCW 46.61.655) addresses requirements and penalties for unsecured and uncovered loads. The penalty for an accident caused by unsecured load can be as high as $5,000 plus jail time if an item falls off of a vehicle and causes bodily injury to another person. Loads that are not secured properly also create litter and it has been estimated that as much as 25 percent of the roadside litter is the result of improperly secured loads. To address these issues, Island County adopted a local ordinance enacting RCW 46.61.655, and County solid waste facilities now add a fee for customers who arrive with unsecured loads.

13.3 Alternative Regulatory Strategies

Three alternative regulatory strategies are discussed below.

13.3.1 Regulatory Alternative A-Discourage Litter and Illegal Dumping

Regulatory Alternative A discourages littering and illegal dumping through an integrated package of methods. A campaign will be continued to increase public awareness of illegal dumping problems and encourage proper handling of waste materials. Problems associated with littering and illegal dumping will continue to be addressed by solid waste related presentations to school groups and community and service organizations. Additional efforts would be made to increase participation in existing programs such as the WSU Beach Watchers, WSU Waste Wise, Washington Adopt-a-Highway, Island County Adopt-a-Road, and the annual litter pickup program. Events would continue to be publicized to encourage a sense of responsibility toward preventing further illegal dumping as well as recognize the volunteers. Participants at organized cleanup events could continue to be provided with gloves, collection bags and other necessary materials, and the disposal fees for the collected waste would continue to be waived. Local businesses could be solicited to sponsor ongoing cleanup activities for a specific area such as a park. Owners of property used for illegal dumping would be encouraged to erect barriers on their property such as fences, berms or ditches to control access and post warning signs. Annual costs for Regulatory Alternative A are estimated at $10,000 in addition to funds already expended on existing programs.

13.3.2 Regulatory Alternative B-Increase Public Awareness and Enforcement for Unsecured Loads

Regulatory Alternative B would continue ongoing efforts to promote public awareness of the problems caused by improperly secured loads. Public education efforts for this alternative could be modeled after efforts used for illegal dumping (see Alternative A) or could even be combined with those activities. Annual costs for Regulatory Alternative B are estimated at $7,000 in addition to funds already expended on existing efforts.

13.3.3 Regulatory Alternative C-Administrative Penalties and increased Fines

Regulatory Alternative C would revise the current Island County Code, Solid Waste Handling Regulations (ICC 8.08), by: (1) adding an administrative penalty to be issued by the Health Officer for solid waste violations; and (2) increasing the amount of fines for solid waste violations. This would establish a significant deterrent for illegal dumping and other solid waste violations as well as create cost recovery for abatement.

13.4 Evaluation of Alternative Regulatory Strategies

The alternative regulatory strategies are compared with respect to three evaluation criteria: cleanup response time, long-term enhancement of the community, and costs.

13.4.1 Cleanup Response Time

Illegal dumping activities are most effectively controlled when they are remedied in a timely fashion before wind, animals or storm water scatter the materials over a larger area. Prompt cleanup also discourages others from behaving in a similar manner. Under this criteria, the strategies that respond to illegal dumping in the timeliest manner are rated highest.

Regulatory Alternatives B and C would provide the timeliest response in the sense that these help to prevent litter in the first place. Regulatory Alternative A would require the most time to respond because it relies on volunteers to accomplish cleanup activities, although part of the activities included in this alternative also help to prevent litter.

13.4.2 Long-Term Enhancement of the Community

Communities that are maintained free from litter and illegal dumping are more desirable places to live. Under this criterion, those strategies that provide communities with the best long-term potential to maintain a clean environment will be rated higher.

All of the regulatory alternatives provide the potential for long-term enhancement of local communities. Alternatives A and C discourage dumping by promoting community pride and volunteerism or by providing a deterrent for illegal dumping. The volunteer efforts can be used as a positive example of community problem solving. Regulatory Alternatives A, B and C all directly confront violators and are effective in achieving cleanup.

13.4.3 Costs

The planning jurisdiction wants effective solid waste management services to be provided at the lowest possible price. The alternative strategies with the lowest costs will be rated highest.

None of the regulatory alternatives would require significant additional expenditures, but Regulatory Alternative C may generate General Fund revenue through fines that are levied against violators. Regulatory Alternative A relies on donated and sponsored labor. It may also reduce ongoing cleanup costs by encouraging others to assist with community cleanup activities. Regulatory Alternative B could raise funds for prevention and enforcement activities through fees for unsecured loads.

13.4.4 Ratings of Alternative Regulatory Strategies

A summary of the ratings for the alternative regulatory strategies is shown in Table 13-3. Based on the evaluation of these alternatives, all three alternatives are recommended to be pursued (see Section 14.9).

Table 13-3
Summary Comparison of Alternative Regulatory Strategies

	Alternative	Rating		
		Cleanup Response Time	**Enhancement of the Community**	**Costs**
A	Discourage Litter and Illegal Dumping	M	H	M
B	Reduce Unsecured Loads	H	M	M
C	Administrative Penalties and Fines	H	M	L

Note: Abbreviations are used above to show whether an alternative is rated high (H), medium (M), or low (L) for each criteria. A high rating is generally not good for the cost factor (although costs should always be weighed against the amount of impact anticipated), but high ratings are good for the other criteria.

Section 14
Recommended Management Strategies

This section identifies the recommended management strategies and presents a plan to implement the recommendations. The recommendations are intended to guide decision-making activities for the Solid Waste Division and their partners for the next six years or longer. A period of six years is examined below because state law requires that a minimum of six years of construction and capital acquisition costs be examined by solid waste management plans (RCW 70.95.090), but the following programs could continue to be implemented for a longer period if appropriate. The recommendations are not intended to commit the planning jurisdiction to a single course of action. Implementation of individual program elements will be accomplished through annual budgets.

14.1 Waste Reduction

The recommended waste reduction alternatives are (note that alternatives that are not shown here and in the following sections are not being recommended for implementation):

C – Adult education and promotion of waste reduction techniques
D – Youth education programs
E – Financial support through reduced tipping fees and publicizing services for non-profit organizations that are involved in reuse

A concept-level cost estimate for the recommended waste reduction strategy is presented in Table 14-1. Total costs are estimated at $591,000 for the six-year planning period.

Table 14-1
Concept-Level Cost Estimate for the Recommended Waste Reduction Strategies
(2013 dollars in thousands)

Project or Activity	2014	2015	2016	2017	2018	2019	Total
Adult Education and Promotion	71	71	71	71	71	71	426
Youth Education Program	20	20	20	20	20	20	120
Financial Support	7.5	7.5	7.5	7.5	7.5	7.5	45
Totals	**98.5**	**98.5**	**98.5**	**98.5**	**98.5**	**98.5**	**591**

Financial support will continue to be available for non-profit organizations that collect used household products for reuse. A tipping fee reduction will support the costs of disposing donated items that are no longer useable. A 50 percent discount for waste disposed by nonprofit reuse organizations will be provided through the six-year planning period.

The youth education program focuses on classroom presentations at schools in Island County. The presentations will describe the local solid waste management program and explain how to

generate less waste, how to avoid products containing hazardous ingredients and how to recycle waste materials that have value as secondary materials. The youth education program will be conducted every year. The program will include tours of solid waste facilities for 4th and 5th grade students, plus follow-up visits and presentations to their classrooms. If fuel costs or other factors limit field trips in the future, then financial support, in-class presentations and/or other alternatives will be considered.

The existing adult education outreach program will continue to provide training in waste management for community volunteers. In exchange for the training, the volunteers will provide 15 to 45 hours of public service involving research and educational activities that promote the recommended waste management priorities. The expense for this program also includes materials such as resource guides (to be published once or twice per year as needed), brochures, website and social networking (Facebook). The adult education program will continue through the six-year planning period.

14.2 Recycling

Several alternatives are being recommended for recycling, including:

A – Implement curbside recycling and then promote
B – Promote private yard waste diversion
C – Investigate local markets for glass
D – Investigate local markets for other materials
E – Continue to pursue co-generation options for wood waste
G – Encourage food waste composting

All but Alternative A can be addressed by allocating existing staff time to the effort, at essentially no additional cost, although staff efforts could lead to program changes that would have positive or negative financial impacts for a variety of organizations or businesses.

Recycling activities will continue to focus on program economics and operational efficiency. Other recommended activities include improved handling and transfer capabilities, materials prioritization, contract re-negotiation, and consolidation of processing operations as appropriate.

14.3 Waste Collection

Two alternatives are being recommended for waste collection, including:

B – Promote voluntary curbside waste collection services
C – Investigate alternative garbage and recycling services

Continuing to promote curbside waste collection services is recommended to reduce the rate of growth in customers at County solid waste receiving facilities and increase the recycling rate by increasing convenience. Reducing the rate of growth for self-haul customers may delay the need for capital improvements. The effort will continue to emphasize the cost savings of curbside collection services over drop-off disposal fees. Alternative collection methods for garbage and recyclables could also delay the need for capital improvements by increasing recycling and thus

reducing the amounts of waste disposed.

Both of these alternatives can be addressed by allocating existing staff time to the effort, at essentially no additional cost, although staff efforts could lead to program changes that would have positive or negative financial impacts for waste collection businesses.

14.4 Transfer

Several alternatives are being recommended for the transfer system, including:

A – Upgrade the North Whidbey Drop Box Station
B – Increase transfer and recycling capacity at the Camano Transfer Station
D – Increase capacity at the Bayview Drop Box Station
E – Continue to explore and develop increased efficiencies at the Camano Transfer Station
F – Consider a new transfer station for Camano Island and/or Coupeville
G – Increase or modify rates to ensure self-sustaining programs

Only the first three alternatives listed above have direct costs that can be identified at this time, and concept-level cost estimates for these alternatives are shown in Table 14-2. Total costs for these alternatives are estimated at $225,000 for the six-year period.

Table 14-2
Concept-Level Cost Estimate for the Recommended Transfer Strategies
(2013 dollars in thousands)

Project or Activity	2014	2015	2016	2017	2018	2019	Total
Upgrade the North Whidbey Drop Box Station				25			25
Increase Transfer & Recycling Capacity at the Camano Transfer Station			100				100
Increase Capacity at Bayview		100					100
Totals	**0**	**100**	**100**	**25**	**0**	**0**	**225**

14.5 Transport and Disposal

Four solid waste facilities are designated for municipal solid waste and two solid waste facilities are designated for demolition waste. The designated disposal facilities are listed in Table 14-3.

Three alternatives are being recommended for transport and disposal, including:

D – Purchase additional buffer areas
E – Investigate and implement “off-ramp” post-closure strategies
F – Investigate additional methods for densifying wastes

Table 14-3
Designated Disposal Facilities for Solid Waste Generated in the Planning Area

Waste Type	Designated Disposal Facility
Municipal Solid Waste	North Whidbey Drop Box Station Island County Solid Waste Complex Bayview Drop Box Station Camano Transfer Station
Demolition Waste	Island County Solid Waste Complex Camano Transfer Station

The purchase of additional buffer areas around solid waste facilities, as land becomes available or necessary, would be prudent. Implementing off-ramp strategies to reduce the amount of post-closure activities required in the future will reduce annual expenses. The density of the waste being transported out of the county remains a critical economic factor due to increasing transportation costs. The Solid Waste Division should identify, and implement where cost-effective, methods to increase the density of waste and thus maximize the efficiency of the transportation system. The expense for all three of these alternatives cannot be determined until further details are defined, such as the availability and cost of land to be purchased and type of machinery being considered for densification.

14.6 Moderate-Risk Waste

Two management strategies are recommended for moderate-risk waste:

A – Public education for household hazardous waste
B – Education and technical assistance for Small Quantity Generators

A concept-level cost estimate for the moderate-risk waste management strategy is presented in Table 14-4. Total six-year costs are estimated at $134,000.

The public education activities for household hazardous waste will continue to identify household products that contain hazardous ingredients, promote safer alternatives, and explain how to dispose of unwanted products that contain hazardous substances. These messages will be incorporated into educational materials describing the local storm water, ground water and wastewater treatment programs.

Table 14-4
Concept-Level Cost Estimate for the Recommended Moderate-Risk Waste Management Strategies
(2013 dollars in thousands)

Project or Activity	2014	2015	2016	2017	2018	2019	Total
Public Education for Household Hazardous Waste	10	10	10	10	10	10	60
Education, Technical Assistance for Small Quantity Generators		37	37				74
Totals	**10**	**47**	**47**	**10**	**10**	**10**	**134**

The Small Quantity Generator education and technical assistance campaign will continue to focus on waste generators and promote understanding of waste management responsibilities and awareness of the recommended management practices. The campaign will continue for two years, and may be repeated in the future depending on the results of the next campaign.

14.7 Other Special Waste

Three management strategies for other special wastes are recommended:

A – Investigate diversion options for demolition wastes
B – Adopt contingency plans for disaster debris
C – Alternative collection programs for special wastes

Current management practices available for non-wood demolition debris include disposal as a solid waste at the Coupeville and Camano Transfer Stations. Usable building materials can be diverted to the retail operation at the Solid Waste Complex (the Whidbey Animals' Improvement Foundation BaRC Retail).

Potential locations for staging and storage sites for disaster debris are identified in this plan. A total of 13 sites, 11 on Whidbey Island and two on Camano Island (see Figure 11-1) have been identified as potential staging and storage sites. Recommended management strategies for different types of disaster debris are also identified in this plan. Suggested management practices for disaster debris are shown in Table 11-3. This information should be updated as necessary.

This plan also recognizes that additional programs may be needed in the future to address other special wastes such as pharmaceuticals, e-waste, agricultural plastics, drug manufacture contaminated material, mercury-bearing lights and other problem wastes. In the interim, prior to development/adoption of formalized programs, the Island County Public Works/Solid Waste Division will coordinate with appropriate regulatory agencies and certificated (franchised) haulers, and will deal with such wastes on a case-by-case basis with respect to handling, transport and final disposition in designated, approved facilities.

14.8 Administration

Two administrative management strategies are recommended:

A – Maintain target balance for working capital at $2,500,000
B – Conduct a solid waste operational assessment and benchmarking study

Maintaining the target balance for working capital is recommended. The working capital balance should be reviewed and potentially revised every three years in conjunction with a solid waste rate study. The target balance should include the present value of anticipated six-year capital improvements, the present value of projected post-closure maintenance costs for the Coupeville Landfill (that portion not covered by operating revenues), and a contingency amount for potential environmental degradation or other unanticipated events at County waste processing and disposal facilities. The contingency amount for environmental degradation may be adjusted with a pollution liability insurance policy.

The solid waste operational assessment and benchmarking study will cost about $40,000 and should be conducted in 2014-2015.

14.9 Regulation

Three regulatory strategies are recommended for the six-year planning period:

A – Discourage litter, illegal dumping
B – Increase public awareness and enforcement of secure load requirements
C – Add administrative penalties and increase fines

The regulatory strategies are discussed below. Concept-level cost estimates for the first two recommended regulatory strategies are presented in Table 14-5. The total six-year cost is estimated at $102,000.

Efforts to prevent littering and illegal dumping will be included in all solid waste presentations to school groups and community and service organizations. Volunteer organizations that provide cleanup services such as the WSU Beach Watchers, WSU Waste Wise, Adopt-a-Highway, Adopt-a-Road and annual litter pickup programs will be supported. Support may include gloves, collection bags, disposal fees and public recognition of service.

The effort to increase awareness and enforcement of the secure load requirements is an ongoing activity that should be continued.

Administrative penalties and increased fines for solid waste violations will be added to the county code soon and then will be an ongoing activity using existing staff.

Table 14-5
Concept-Level Cost Estimate for the Recommended Regulatory Strategies
(2013 dollars in thousands)

Project or Activity	2014	2015	2016	2017	2018	2019	Total
Discourage Litter, Illegal Dumping	10	10	10	10	10	10	60
Increase Awareness and Enforcement of Secure Load Requirements	7	7	7	7	7	7	42
Totals	**17**	**17**	**17**	**17**	**17**	**17**	**102**

14.10 Six-Year Implementation Schedule

All recommended management strategies are scheduled for implementation within the six-year planning period. The proposed implementation schedule is presented in Table 14-6.

Table 14-6
Implementation Schedule for Recommended Strategies

Recommended Project or Activity	2014	2015	2016	2017	2018	2019
Waste Reduction						
Adult Education and Promotion						
Youth Education						
Financial Support						
Recycling						
Implement Curbside Recycling						
Promote Private Yard Waste Diversion						
Investigate Local Markets for Glass						
Investigate Local Markets for Other Materials						
Continue to Pursue Co-Generation for Wood						
Encourage Food Waste Composting						
Collection						
Promote Waste Collection Services						
Investigate Collection Alternatives						
Transfer						
Upgrade the North Whidbey Drop Box						
Increase Capacity at Camano Transfer Station						
Increase Capacity at Bayview						
Continue to Explore and Develop Increased Efficiencies at Camano						
Consider a New Transfer Station for Camano Island and/or Coupeville						
Increase or Modify Rates						
Transport and Disposal						
Purchase Buffer Land	As needed and feasible					
Investigate Off-Ramp Strategies						
Investigate Methods for Densifying Waste						
Moderate-Risk Waste						
Public Education						
Business Assistance						
Other Special Waste						
Investigate Options for Demolition Wastes						
Adopt Contingency Plans for Disaster Debris						
Alternative Programs for Special Wastes						
Administration						
Maintain Working Capital Balance	•			•		
Benchmarking Study						
Regulation						
Discourage Litter and Illegal Dumping						
Secure Load Enforcement						
Administrative Penalties and Increased Fines						

= indicates duration of activity. • =*indicates a single event*

14.11 Implementation Responsibilities

The Island County Public Works and Public Health Departments, the municipalities of Oak Harbor, Coupeville and Langley, the Washington State Utilities and Transportation Commission and the Department of Ecology share responsibilities for implementing the recommendations. Implementation responsibilities for the recommended activities are summarized in Table 14-7.

Table 14-7
Implementation Responsibilities

Management Function	Municipalities	County Public Works Dept.	Public Health	Utilities and Transportation Commission	Department of Ecology	Collection Companies
Reduction		•				
Recycling	•	•		•	•	•
Collection	•	•		•		•
Transfer		•				
Transport and Disposal		•				
MRW	•	•				
Other Special Waste		•			•	
Administration	•	•				
Regulation		•	•		•	

The Island County Solid Waste Advisory Committee will review implementation of new policies and programs and comment on proposed resolutions and ordinances prior to their adoption.

14.12 Funding Strategy

The recommended programs will be funded through garbage rates, tipping fees, other user fees, state grants and working capital. A summary of the funding sources for the recommended programs is shown in Table 14-8.

Garbage rates will be used to fund the solid waste collection, curbside recycling and commercial recycling programs. Tipping fees will be used for the recommended waste reduction, transfer, transport and disposal, household hazardous waste, administration and regulation. Special user fees will fund small quantity generator and other special waste programs. The state coordinated prevention grant funding will be used for the household hazardous waste and regulatory programs. Working capital and the investment income from working capital will be used for funding capital improvements for the waste receiving facilities, post-closure care of the Coupeville Landfill, and environmental remediation contingencies. Other available grant funding for pollution prevention programs will be used for waste reduction, residential recycling and moderate-risk waste management programs.

Table 14-8
Recommended Funding Sources for Solid Waste Programs

Project or Activity	Garbage Rates	Tipping Fee	Special User Fee	Coordinated Prevention Grant	Working Capital	Other Funding as Available
Reduction		•				•
Recycling	•	•		•		•
Collection	•	•				
Transfer		•			•	•
Transport and Disposal		•				
MRW	•	•	•	•		•
Other Special Waste			•			•
Administration		•				
Regulation		•		•		

14.13 Procurement Strategy

Island County has primary responsibility for managing solid waste within the planning jurisdiction. To effectively discharge its responsibility, the County is assigned primary authority to develop and operate the necessary handling facilities and management programs. Procurement responsibilities for municipal solid waste facilities and related services belong exclusively to Island County.

At its discretion, Island County may develop facilities and provide services as public works operations or it may procure facilities and services from public or private service providers. Local public procurement policies and procedures will apply to all procurement processes.

14.14 Twenty-Year Solid Waste Management Strategies

Long-term issues facing the planning jurisdiction in the future include potential transfer station improvements, further regionalization of waste management services, expanding organics composting, recycling building materials, and e-waste.

14.14.1 Transfer Station Improvements

The North Whidbey, Bayview and Camano solid waste facilities were developed in the 1960s to replace rural landfill facilities. As population increased and management strategies evolved to include recycling and moderate-risk waste handling, use of the receiving facilities has increased significantly and improvements have been made and will continue to be made. As growth continues, it will be necessary to actively pursue improved access, additional services, better vehicle queuing techniques, and additional unloading and storage capacity. Factors to be considered in evaluating improvements should include the need for convenient public access and

greater efficiencies to be gained by expanding or modifying facilities, while weighing those factors against costs and other impacts. Larger concerns, such as the reduction of transportation distances and hence the reduction of fuel consumption and air emissions, will also be important factors to consider in the future.

14.14.2 Regional Management Options

Regionalization of waste management services has been a dominant industry trend over the past several years. Economies of scale have reduced the costs of waste transport and disposal. The planning jurisdiction will continue to investigate regional waste management opportunities that are consistent with local waste management objectives and that protect the financial integrity of the solid waste program.

For Island County and the three cities and towns, combining their efforts and programs into a cohesive regional program provides economies of scale and other distinct benefits to all. One of the three cities or towns may decide in the future, however, that they wish to conduct their own solid waste system and in that case it should be understood that:

- The municipality remains fiscally responsible for their share of past debts, such as the ongoing post-closure costs for the Coupeville Landfill;
- The municipality will need to develop their own solid waste management plan, and will need to follow typical guidelines for preparing such a plan; and
- The municipality would need to provide the appropriate solid waste services to their residents and businesses, including curbside or drop-off recycling, MRW collection and other services equivalent to the remainder of the county, or enter into an agreement with the County to pay a pro-rated share of the expenses for the County to provide those services.

14.14.3 Expanded Organics Composting Facilities

Diversion of organics from the municipal solid waste stream has the potential to significantly reduce the quantity of waste disposed. If food waste can be added to the materials being composted locally, up to 20 percent more of the waste stream could be diverted from disposal facilities. The economics of composting food waste and other organics favor local processing facilities and local use of the compost product. The marketing and sales requirements for compost favor private rather than public operations. Innovative incentives may be necessary to encourage the commitment of private capital to local yard waste processing operations.

14.14.4 Construction, Demolition and Land Clearing Waste Recycling

Construction, demolition and land clearing waste have received considerable attention in the past few years. Private sector service providers have taken the lead in developing recycling and disposal alternatives for these hard-to-handle materials. The developing private sector initiatives need to be monitored so that information regarding alternative management strategies can be provided to waste generators.

14.14.5 Management of Electronic Equipment (E-Waste)

The collection and recycling of electronic wastes that are not covered under the E-Cycle Washington program that began in 2009 represent an opportunity to divert more solid waste. Non-covered electronic products that are substantially metal, such as toasters, microwaves, other small appliances, DVD players, and some stereo equipment, can be recycled as scrap metal.

Other non-covered electronics that are primarily plastic such as keyboards, mice, printers and clock radios are accepted by processors in Seattle free of charge, and could be collected by handlers in Island County for a fee that covers supplies, transportation and handling costs. Efforts are underway to include collection of non-covered electronics at the BaRC Re-tail center that opened at the Solid Waste Complex near Coupeville in 2013.

14.15 Procedures for Amending the Plan

The Solid Waste Management-Reduction and Recycling Act (RCW 70.95) requires local governments to maintain their solid waste plans in current condition. Plans must be reviewed and revised, if necessary, every five years. Assuming a timely adoption process for this plan, with the process completed in early 2014, this plan should be reviewed and, if necessary, revised in 2019.

Individuals or organizations wishing to propose plan amendments before the scheduled review must petition the Island County Solid Waste Manager in writing. The petition should describe the proposed amendment, its specific objectives and explain why immediate action is needed prior to the next scheduled review. The Solid Waste Manager will investigate the basis for the petition and prepare a recommendation for the Director of the Department of Public Works.

If the Director of the Department of Public Works decides that the petition warrants further consideration, the petition will be referred to the Solid Waste Advisory Committee for review and recommendation. The Solid Waste Manager will draft the proposed amendment together with the Solid Waste Advisory Committee. This process will also be used if County staff decide to amend the plan. The proposed amendment must be submitted to the legislative bodies of all participating jurisdictions and the Department of Ecology for review and comment. As an amendment, an updated UTC Cost Assessment Questionnaire or SEPA Checklist will likely not be required, but the appropriate agencies (either the UTC or the Planning Department) should be allowed to confirm that at the time. The comments received will be reviewed with the SWAC to solicit their input before submitting the plan for local adoption. Adoption of the proposed amendment will require the concurrence of all affected jurisdictions, with a final review and approval by Ecology after that.

The Director of the Department of Public Works may develop reasonable rules for submitting and processing proposed plan amendments, and may establish reasonable fees to investigate and process petitions. All administrative rulings of the Director may be appealed to the Board of Island County Commissioners.

Minor changes that may occur in the solid waste management system, whether due to internal decisions or external factors, can be adopted without the need to go through a formal amendment process. If a question should exist as to whether or not a change is “minor,” then it should be

discussed by the SWAC and a decision made based on the consensus of that committee.

Implicit in the development and adoption of this plan is the understanding that emergency actions may need to be taken by the County in the future for various reasons, and that these actions can be undertaken without needing to amend this plan beforehand. In this case, Island County staff will endeavor to inform the SWAC and other key stakeholders as soon as feasibly possible, but not necessarily before new actions are implemented. If the emergency results in permanent and significant changes to the Island County solid waste system, an amendment to this plan will be prepared. If, however, the emergency actions are only undertaken on a temporary or short-term basis, an amendment will not be considered necessary. Any questions about what actions may be considered “temporary” or “significant” should be brought to the SWAC for their advice.

Appendix A
Environmental Checklist

PURPOSE OF CHECKLIST:

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

INSTRUCTIONS FOR APPLICANTS:

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can.

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply". Complete answers to the questions now may avoid unnecessary delays later.

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

USE OF CHECKLIST FOR NON-PROJECT PROPOSALS:

Complete this checklist for non-project proposals, even though questions may be answered "does not apply". IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NON-PROJECT ACTIONS (part D). For non-project actions, the references in the checklist to the words "project", "applicant," and "property or site" should be read as "proposal", "proposer", and "affected geographic area," respectively.

TO BE COMPLETED BY APPLICANT - EVALUATION FOR AGENCY USE ONLY

A. BACKGROUND

1. Name of proposed project, if applicable:

Island County Solid Waste Management Plan

2. Name of applicant:

Island County Public Works Department Solid Waste Program

3. Address and phone number of applicant and contact person:

Dave Bonvouloir, Solid Waste Manager, Island County Public Works Department, P.O. Box 5000, Coupeville, Washington 98239-5000; (360) 6797340

4. Date checklist prepared:

December 1, 1999

5. Agency requesting checklist:

Island County Planning Department

6. Proposed timing or schedule (including phasing, if applicable):

The management recommendations will be implemented over a 6-year period beginning in 2000. A summary of the implementation schedule is presented in Table 14-8 of the document.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

No

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

A State Environmental Policy Act review will be conducted for each project or activity that requires a building or solid waste permit.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

No

10. List any government approvals or permits that win be needed for your proposal, if known.

The management plan must be adopted by the participating jurisdictions: the Cities of Oak Harbor and Langley, the Town of Coupeville and Island County, In addition, the Washington State Department of Ecology and the Washington State Utilities and Transportation Commission must approve the plan.

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in the checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page.

Solid waste management recommendations for municipal solid waste, moderate-risk waste and other special waste are developed for the functional elements of a solid waste management system. Recommended actions include management policies, facility improvements, education and promotion, assignment of implementation responsibilities, and a funding strategy.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

Island County, Washington excluding Naval Air Station Whidbey Island

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. **General description of the site (underline one)**: Flat, rolling, hilly, steep slopes, mountain, other.

Does not apply

b. What is the steepest slope on the site (approximate percent slope)?

Does not apply

c. What general types of soils are found on the site (for example, day, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

Does not apply

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

Does not apply

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

Does not apply

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Does not apply

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

Does not apply

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Does not apply

2. Air

a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

Does not apply

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

Does not apply

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

Does not apply

3. Water

a. Surface:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

Does not apply

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

Does not apply

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

Does not apply

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

Does not apply

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

Does not apply

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

Does not apply

b. Ground:

1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.

Does not apply

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals ... ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

Does not apply

c. Water Runoff (including storm water):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Does not apply

2) Could waste materials enter ground or surface waters? If so, generally describe.

Does not apply

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:

Does not apply

4. Plants

a. Check or circle types of vegetation found on the site:

___ deciduous tree: alder, maple, aspen, other
___ evergreen tree: fir, cedar, pine, other
___ shrubs
___ grass
___ pasture
___ crop or gram
___ wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
___ water plants: water lily, eelgrass, milfoil, other
___ other types of vegetation

b. What kind and amount of vegetation will be removed or altered?

Does not apply

c. List threatened or endangered species known to be on or near the site.

Does not apply

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

Does not apply

5. Animals

a. Underline any birds and animals which have been observed on or near the site or are known to be on or near the site:

birds: hawk, heron, eagle, songbirds, other: ……
mammals: deer, bear, elk, beaver, other: …….
fish: bass, salmon, trout, herring, shellfish, other: ……..

b. List any threatened or endangered species known to be on or near the site.

Does not apply

c. Is the site part of a migration route? If so, explain.

Does not apply

d. Proposed measures to preserve or enhance wildlife, if any:

Does not apply

6. Energy and Natural Resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Does not apply

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

Does not apply

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

Does not apply

7. Environmental Health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

Does not apply

1) Describe special emergency services that might be required.

Does not apply

2) Proposed measures to reduce or control environmental health hazards, if any:

Does not apply

b. Noise

1) What types' of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

Does not apply

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

Does not apply

3) Proposed measure to reduce or control noise impacts, if any:

Does not apply

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties?

Does not apply

b. Has the site been used for agriculture? If so, describe.

Does not apply

c. Describe any structures on the site.

Does not apply

d. Will any structures be demolished? If so, what?

Does not apply

e. What is the current zoning classification of the site?

Does not apply

f. What is the current comprehensive plan designation of the site?

Does not apply

g. If applicable, what is the current shoreline master program designation of the site?

Does not apply

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

Does not apply

i. Approximately how many people would reside or work in the completed project?

Does not apply

j. Approximately how many people would the completed project displace?

Does not apply

k. Proposed measure to avoid or reduce displacement impacts, if any:

Does not apply

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

Does not apply

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

Does not apply

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

Does not apply

c. Proposed measures to reduce or control housing impacts, if any:

Does not apply

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what' is the principal exterior building material(s) proposed?

Does not apply

b. What views in the immediate vicinity would be altered or obstructed?

Does not apply

c. Proposed measures to reduce or control aesthetic impacts, if any:

Does not apply

11. Light and Glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

Does not apply

b. Could light or glare from the finished project be a safety hazard or interfere with views?

Does not apply

c. What existing off-site sources of light or glare may affect your proposal?

Does not apply

d. Proposed measures to reduce or control light and glare impacts, if any:

Does not apply

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

Does not apply

b. Would the proposed project displace any existing recreational uses? If so, describe.

Does not apply

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

Does not apply

13. Historic and Cultural Preservation

a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

Does not apply

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

Does not apply

c. Proposed measures to reduce or control impacts, if any:

Does not apply

14. Transportation

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

Does not apply

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

Does not apply

c. How many parking spaces would the completed project have? How many would the project eliminate?

Does not apply

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

Does not apply

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

Does not apply

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

Does not apply

g. Proposed measures to reduce or control transportation impacts, if any:

Does not apply

15. Public Services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

Does not apply

b. Proposed measures to reduce or control direct impacts on public services, if any.

Does not apply

16. Utilities

a. Underline utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

Does not apply

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

Does not apply

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. understand that the lead agency is relying on them to make its decision.

Signature: _____

Date Submitted: _____

D. SUPPLEMENTAL SHEET FOR NON-PROJECT ACTIONS

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage or release of toxic or hazardous substances; or production of noise?

The proposed solid waste receiving facility improvements at the Coupeville, Bayview and Camano facilities include paving. Additional impervious surfaces will increase the rate and quantity of stormwater runoff from these sites.

Increased participation in the drop-off moderate-risk waste collection program will increase automobile air emissions as participants drive to and from the

receiving facilities. Increased participation also increases the potential for accidents that could involve the release of toxic and hazardous substances.

Increased subscription to waste collection services may increase noise emissions from waste collection vehicles.

Proposed measures to avoid or reduce such increases are:

Stormwater detention will be included in the site development plans for the receiving facility improvements.

Solid waste generators will be encouraged to subscribe to commercial waste collection services to reduce the number of arriving vehicles at the waste receiving facilities.

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

The waste management recommendations are intended to protect and enhance environmental resources.

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

Drop-off collection services for moderate-risk waste provides a safe means of disposing household hazardous waste and small quantity generator waste.

3. How would the proposal be likely to deplete energy or natural resources?

Transporting and waste materials for recycling and disposal requires petroleum fuels. Electrical energy will be needed to process waste materials.

The recommended recycling strategies are intended to conserve materials and avoid land disposal of waste materials.

Proposed measures to protect or conserve energy and natural resources are:

Waste reduction is the highest-priority waste management strategy.

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

The waste receiving facilities at Coupeville are located within the Central Whidbey Island Historical Preservation District.

Proposed measures to protect such resources or to avoid or reduce impacts are:

The Central Whidbey Island Historical Preservation District will review construction plans for improvements at the Coupeville facility.

5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

Does not apply

Proposed measures to avoid or reduce shoreline and land use impacts are:

Does not apply

6. How would the proposal be likely to increase demands on transportation or public services and utilities?

Drop-off collection services for recyclable materials, solid waste and moderate-risk waste will generate vehicular trips to the waste receiving facilities. Queuing problems affecting traffic flow on adjacent roadways may occur during periods of high demand.

Proposed measures to reduce or respond to such demand(s) are:

The feasibility of turning lanes on Highway 20 at the Coupeville receiving facility will be investigated.

7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

The proposal is consistent with all known local, state and federal laws and requirements for environmental protection.

ISLAND COUNTY
PLANNING & COMMUNITY DEVELOPMENT
Phillip Bakke, AICP, Director

PHONE: (360) 679-7339 ■ from Camano (360) 629-4522 ■ from S. Whidbey (360) 321-5111
FAX: (360) 679-7306 ■ P. O. Box 5000, Coupeville, WA 98239-5000
Internet Home Page: http://www.islandcounty.net/planning/

January 25, 2007

Island County Public Works Department
Attn: Dave Bonvouloir
P.O. Box 5000
Coupeville, WA 98239

RE: 2007 to 2012 Island County Solid Waste and Moderate-Risk Waste Management Plan

Dave,

I have reviewed the SEPA environmental checklist and threshold determination that were prepared for the 2000-2005 Island County Comprehensive Solid Waste Management Plan. I have also reviewed the November 2006 draft amendments to the Plan prepared by the Solid Waste Advisory Committee. Thank you for forwarding these materials to the Planning Department for consideration of SEPA review of the draft amendments.

Pursuant to WAC 197-11-600 SEPA threshold determinations, environmental checklists and other SEPA documents do not have expiration dates. These types of previously evaluated environmental documents may be used as part of the SEPA review process.

Pursuant to WAC 197-11-630 states that an agency may adopt an existing environmental document after it has reviewed those documents and determined that it meets the Department's environmental review standards.

Upon review of the previously prepared environmental checklist and the related environmental threshold determination Island County Planning and Community Development finds that these documents meet the environmental review needs and standards for the proposal and therefore does **not** require it necessary to conduct additional environmental review. Attached you will find the official adoption notice. This notice **shall be provided** to agencies, citizens and groups that have identified themselves as having an interest in this process and by distributing copies to those parties who make a request.

I hope that this helps. Please do not hesitate to contact me if you have any questions.

Sincerely,

Jeff Tate, Assistant Director

ADOPTION OF EXISTING ENVIRONMENTAL DOCUMENT AND ADDENDUM TO FEIS

Description of current proposal: Amendments to the Comprehensive Solid/Hazardous Waste Plan.

Proponent: Island County

Location of current proposal: Island County, WA.

Title of document being adopted: SEPA environmental checklist and threshold determination issued for the 2000-2005 Island County Solid Waste Comprehensive Plan.

Agency that prepared document being adopted: Island County Public Works

Date adopted document was prepared: June 28, 2000

Description of document (or portion) being adopted: An environmental checklist was prepared, submitted and reviewed for the 2000-2005 Solid Waste Plan. The Plan is being updated however, the checklist information and threshold determination remain applicable.

If the document being adopted has been challenged (WAC 197-11-630), please describe:

The document is not currently under appeal

The document is available to be read at (place/time): Island County Courthouse, 6th and Main St., Coupeville, WA 98239

EIS REQUIRED. The lead agency has determined this proposal is not likely to have a significant adverse impact on the environment. To meet the requirements of WAC 197-11-600 and 630, the lead agency is adopting the document described above.

We have identified and adopted this document as being appropriate for this proposal after independent review. The document meets our environmental review needs for the current proposal and will accompany the proposal to the decision maker.

Name of agency adopting document: Board of Island County Commissioners

Contact person, if other than responsible official: Jeff Tate Phone: 360-679-7344

Responsible official: Phillip Bakke

Position/title: Director Phone: 360-679-7309

Address: P.O. Box 5000, Coupeville, WA 98239

Date: January 25, 2007 Signature

Appendix B
Cost Assessment Questionnaire

Please provide the information requested below:

PLAN PREPARED FOR THE COUNTY OF: Island

PLAN PREPARED FOR THE CITY OF: _____

PREPARED BY: Rick Hlavka, Green Solutions

CONTACT TELEPHONE: (360) 897-9533 DATE: February 5, 2007

DEFINITIONS

Please provide these definitions as used in the Solid Waste Management Plan and the Cost Assessment Questionnaire.

Throughout this document:
YR.l shall refer to 2007
YR.3 shall refer to 2009
YR.6 shall refer to 2012

Year refers to (circle one) **Calendar** (Jan 01 - Dec 31)

1. **DEMOGRAPHICS**: To assess the generation, recycling and disposal rates of an area, it is necessary to have population data. This information is available from many sources (e.g., the State Data Book, County Business Patterns, or the State Office of Finance and Management).

1.1 Population

1.1.1 What is the total population of your County/City?

Year 1	Year 3	Year 6
77,860	79,720	83,400

1.1.2 For counties, what is the population of the area under your jurisdiction? (Exclude cities choosing to develop their own solid waste management system.)

Year 1	Year 3	Year 6
77,860	79,720	83,400

1.2 References and Assumptions

See Table 3-2.

2. **WASTE STREAM GENERATION**: The following questions ask for total tons recycled and total tons disposed. Total tons disposed are those tons disposed of at a landfill, incinerator, transfer station or any other form of disposal you may be using. If other please identify.

2.1 Tonnage Recycled

2.1.1 Please provide the total tonnage recycled in the base year, and projections for years three and six.

Year 1	Year 3	Year 6
10,455	11,900	14,400

2.2 Tonnage Disposed

2.2.1 Please provide the total tonnage disposed in the base year, and projections for years three and six.

Year 1	Year 3	Year 6
59,670	69,100	87,100

2.3 References and Assumptions

See Table 4-1.

3 **SYSTEM COMPONENT COSTS**: This section asks questions specifically related to the types of programs currently in use and those recommended to be started. For each component (i.e., waste reduction, landfill, composting, etc.) please describe the anticipated costs of the program(s), the assumptions used in estimating the costs and the funding mechanisms to be used to pay for it. The heart of deriving a rate impact is to know what programs will be passed through to the collection rates, as opposed to being paid for through grants, bonds, taxes and the like.

3.1 Waste Reduction Programs

3.1.1 Please list the solid waste programs which have been implemented and those programs which are proposed. If these programs are defined in the SWM plan please provide the page number. (Attach additional sheets as necessary.)

Implemented	Proposed
See pages 5-1 and 5-2	Financial Support for Reuse Organizations
	Youth Education Program
	Adult Education Program

3.1.2 What are the costs, capital costs and operating costs for waste reduction programs implemented and proposed?

Implemented		
Year 1	Year 3	Year 6
Proposed		
Year 1	Year 3	Year 6
85,000	85,000	85,000

3.1.3 Please describe the funding mechanism(s) that will pay the cost of the programs in 3.1.2.

Implemented		
Year 1	Year 3	Year 6
Proposed		
Year 1	Year 3	Year 6
Tipping Fee	Tipping Fee	Tipping Fee

3.2 Recycling Programs

3.2.1 Please list the proposed or implemented recycling program (s) and, their costs, and proposed funding mechanism or provide the page number in the draft plan on which it is discussed. (Attach additional sheets as necessary.)

Implemented		
Program	**Cost**	**Funding**
Drop-Off Stations	483,400	Tipping Fee
Curbside Collection - City of Oak Harbor	190,800	Municipal Garbage Rates
Proposed		
Program	**Cost**	**Funding**
Curbside Recycling	753,000 per year	Service Fees and Materials Sales
Camano Facility Improvements	100,000	Tipping Fee

3.3 Solid Waste Collection Programs

3.3.1 Regulated Solid Waste Collection Programs

Fill in the table below for each **UTC regulated** solid waste collection entity in your jurisdiction. (Make additional copies of this section as necessary to record all such entities in your jurisdiction.)

UTC Regulated Hauler Name	Island Disposal, Inc.		
G-Permit #154			
	Year 1	**Year 3**	**Year 6**
Residential and Commercial			
# of Customers	9,930	10,160	10,630
Tonnage Collected	16,900	17,300	18,100

UTC Regulated Hauler Name	Waste Management of Skagit County		
G-Permit #237			
	Year 1	**Year 3**	**Year 6**
Residential and Commercial			
# of Customers	3,363	3,443	3,600
Tonnage Collected	744	762	797

3.3.2 Other (non-regulated) Solid Waste Collection Programs Fill in the table below for other solid waste collection entities in your jurisdiction. (Make additional copies of this section as necessary to record all such entities in your jurisdiction.)

Hauler Name	City of Oak Harbor		
	Year 1	**Year 3**	**Year 6**
# of Customers	3,994	4,080	4,280
Tonnage Collected	8,500	8,700	9,100

3.4 Energy Recovery & Incineration (ER&I Programs)

NA, no such facilities

3.5 Land Disposal Program

NA, no such facilities

3.6 Administration Program

3.6.1 What is the budgeted cost for administering the solid waste and recycling programs and what are the major funding sources.

Budgeted Cost		
Year 1	Year 3	Year 6
303,905	316,200	335,500
Funding Source		
Year 1	Year 3	Year 6
Tipping Fee	Tipping Fee	Tipping Fee

3.6.2 Which cost components are included in these estimates?

Management-related services provided by County departments including Public Works, Auditor, Treasurer's Office, Central Services, Maintenance, Human Resources, Prosecuting Attorney, General Service and Board of County Commissioners.

3.6.3 Please describe the funding mechanism(s) that will recover the cost of each component.

Tipping Fees

3.7 Other Programs

For each program in effect or planned which does not readily fall into one of the previously described categories please answer the following questions.

3.7.1 Describe the program, or provide a page number reference to the plan.

Moderate-Risk Waste

3.7.2 Owner/Operator: Island County

3.7.3 Is UTC Regulation Involved? If so, please explain the extent of involvement in section 3.8.

No

3.7.4 Please estimate the anticipated costs for this program, including capital and operating expenses.

Year 1	Year 3	Year 6
188,500	196,100	208,100

3.7.5 Please describe the funding mechanism(s) that will recover the cost of this component.

Tipping Fees
Coordinated Prevention Grant

3.8 References and Assumptions

Costs shown in sections 3.6.1 and 3.7.4 are 2007 and 2005 figures, respectively, escalated at 2% per year. Actual budgets for these activities have not been adopted at this time.

4. FUNDING MECHANISMS: This section relates specifically to the funding mechanisms currently in use and the ones that will be implemented to incorporate the recommended programs in the draft plan. Because the way a program is funded directly relates to the costs a resident or commercial customer will have to pay, this section is crucial to the cost assessment process.

4.1 Funding Mechanisms (Summary by Facility)

The following tables provide information on funding sources for programs and activities.

Table 4.1.1 Facility Inventory

Facility Name	Type of Facility	Tip Fee	Transfer Cost	Transfer Station Location	Final Disposal Location	Total Tons Disposed (2005)	Total Revenue Generated (Tip Fee x Tons)
Island County Solid Waste Complex	Transfer Station	See Table 8.1	NA	Near Coupeville	Roosevelt Regional Landfill	See Table 8.2	2,047,300
Camano Transfer Station	Transfer Station	See Table 8.1	NA	Camano Island	Roosevelt Regional Landfill	See Table 8.2	806,677
Oak Harbor Drop Box Station	Drop Box	See Table 8.1	NA	Near Oak Harbor	Roosevelt Regional Landfill	See Table 8.2	67,737
Bayview Drop Box Station	Drop Box	See Table 8.1	NA	Near Bayview	Roosevelt Regional Landfill	See Table 8.2	222,451

Table 4.1.2 Tip Fee Components

Tip Fee by Facility	Surcharge	City Tax	State and County Tax	Trans. and Disposal Cost	Operational Cost	Admn. Cost	Closure Costs
Island County Solid Waste Complex	NA	NA	NA	NA	NA	NA	NA
Camano Transfer Station	NA	NA	NA	NA	NA	NA	NA
Oak Harbor Drop Box Station	NA	NA	NA	NA	NA	NA	NA
Bayview Drop Box Station	NA	NA	NA	NA	NA	NA	NA
All Facilities	0	0	3.5%	See operational cost	84.6%	6.5%	5.4%

Table 4.1.3 Funding Mechanism

Name of Program	Bond Name	Total Bond Debt	Bond Rate	Bond Due Date	Grant Name	Grant Amount	Tip Fee	Taxes	Other	Surcharge
Waste Reduction							100%			
Recycling					CPG	NA				
Moderate-Risk Waste					CPG	NA				

Table 4.1.4 Tip Fee Forecast

Tip Fee per Ton	Year One	Year Two	Year Three	Year Four	Year Five	Year Six
Island County Solid Waste Complex	$111.53	$111.53	$111.53	$116.00	$116.00	$116.00
Camano Transfer Station	$111.53	$111.53	$111.53	$116.00	$116.00	$116.00
Oak Harbor Drop Box Station	$111.53	$111.53	$111.53	$116.00	$116.00	$116.00
Bayview Drop Box Station	$111.53	$111.53	$111.53	$116.00	$116.00	$116.00

Note: The tip fee shown in the above table is for mixed solid waste delivered by municipal and franchise haulers only (see Table 8.1 for fees currently charged for other types of customers and other types of wastes). Fees for Years One through Three have been established by county ordinance. Fees for Years Four through Six have not been determined yet, and will likely be determined through a rate study anticipated to be conducted in 2009. For present planning purposes, the projected fees shown in Table 4.1.4 for Years Four through Six assume a 4% increase over the previous rate-setting period.

4.2 Funding Mechanism Summary: In these matrices below, please summarize the way programs will be funded in the key years. For each component, provide the expected percentage of the total cost met by each funding mechanism. (e.g. Waste. reduction may rely on tip fees, grants, and collection rates for funding). You would provide the estimated responsibility in the table as follows: Tip Fees = 10%, Grants = 50% and Collection Rates = 40%. The mechanisms must total to 100%.) If components can be classified as "other", please note the programs and their appropriate mechanisms. Provide attachments as necessary.

4.2.1 Year One

Funding Mechanism (in percent)							
Component	**Tip Fee**	**Grant**	**Bond**	**Collection Tax**	**Rates, Service Fees**	**Other**	**Total**
Waste Reduction	100						100
Recycling	100						100
Collection					100		100
ER&I	100						
Transfer	100						100
Land Disposal	100						100
Administration	100						100
Other							
Moderate-Risk Waste	50	50					100
Regulation	100						100

4.2.2 Year Three

Funding Mechanism (in percent)							
Component	**Tip Fee**	**Grant**	**Bond**	**Collection Tax**	**Rates, Service Fees**	**Other**	**Total**
Waste Reduction	100						100
Recycling	42				58		100
Collection					100		100
ER&I	100						
Transfer	100						100
Land Disposal	100						100
Administration	100						100
Other							
Moderate-Risk Waste	50	50					100
Regulation	100						100

4.2.3 Year Six

Funding Mechanism (in percent)							
Component	**Tip Fee**	**Grant**	**Bond**	**Collection Tax**	**Rates, Service Fees**	**Other**	**Total**
Waste Reduction	100						100
Recycling	42				58		100
Collection					100		100
ER&I	100						
Transfer	100						100
Land Disposal	100						100
Administration	100						100
Other							
Moderate-Risk Waste	50	50					100
Regulation	100						100

4.3 References and Assumptions

See Section 14.

4.4 Surplus Funds

NA

Appendix C
Interlocal Agreements for Solid Waste Management Planning

Interlocal agreements between Island County and the Cities of Oak Harbor and Langley, the Town of Coupeville and Naval Air Station Whidbey Island are presented in this appendix.

EXPIRES 2019
12/24/2012 - 12/24/2019

AGREEMENT REGARDING SOLID WASTE MANAGEMENT

(Coupeville)

Section 1. **AGREEMENT.** This Agreement Regarding Solid Waste Management ("Agreement") is among Island County, Washington ("County") and the cities and towns ("cities") located in the County that determine pursuant to RCW 70.95.080 to contract with the County for solid waste planning and management. The County and cities entering this Agreement are the "Parties." The Parties agree as follows.

Section 2. **RECITALS/PURPOSE.**

2.1 Island County and each of the cities executing this Agreement are authorized and directed by Chapter 70.95 RCW to prepare a Comprehensive Solid and Moderate Risk Waste Management Plan (Comprehensive Plan), and are further authorized by RCW 70.95.080, and other authority including but not limited to RCW 36.58.040 and RCW 35.21.152, to contract for the administration and implementation of a Comprehensive Plan.

2.2 Island County has prepared a Comprehensive Plan which has been approved by the Washington State Department of Ecology and adopted by the Board of Island County Commissioners. The adopted Plan includes a Moderate Risk Waste Element and a Recycling element for the County and cities of the County.

2.3 Providing the most effective and efficient management and control of solid waste generated in Island County, including its cities, requires designation and use of the solid waste handling and disposal system established by the County and the County Comprehensive Plan to the fullest extent possible. This Agreement designates and provides for the use of the County System by the cities. The County System will incorporate any mutually approved changes in a city's operation as part of that system, by separate agreement with any such city.

Section 3. **DEFINITIONS.** For the purposes of this Agreement, and unless the context provides otherwise, the following definitions apply.

3.1 " Agreement" means this Agreement Regarding Solid Waste Management.

3.2 "City" means a city or town located in Island County, Washington, that signs this Agreement.

3.3 "Comprehensive Solid and Moderate Risk Waste Management Plan" or "Comprehensive Plan" means the Island County Comprehensive Solid and Moderate Risk Waste Management Plan, including a recycling element, adopted by Island County on January 28, 2008 as may be revised or amended from time to time thereafter.

3.4 "County" means Island County, Washington.

3.5 "County System" means all facilities for solid waste handling owned or operated, or contracted for, by the County, and all administrative activities related thereto.

3.6 "Person" means an individual, firm, association, partnership, political subdivision, government agency, municipality, industry, public or private corporation, or any other entity whatsoever.

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3.7 "Solid Waste" means solid waste as defined by RCW 70.95.030(22) and WAC 173-350-100 with the exception of wastes excluded, by WAC 173-350-020 as now in effect or hereafter amended.

3.8 "Solid waste handling" means, the management, storage, collection, transportation, treatment, utilization, processing, and final disposal of solid wastes, including the recovery and recycling of materials from solid wastes, the recovery of energy resources from such wastes or the conversion of the energy in such wastes to more useful forms, or combinations thereof; and as the term "solid waste handling" may be modified by amendments to RCW 70.95.030(23).

Section 4. **RESPONSIBILITY FOR SOLID WASTE DISPOSAL.** For the duration of this Agreement, the County shall be responsible for the disposal of all Solid Waste generated within unincorporated areas of the County and within each of the cities, consistent with the Comprehensive Plan. The County shall not be responsible for disposal of, and this Agreement does not apply to, Solid Waste that has been eliminated through waste reduction or waste recycling activities in conformity with the Comprehensive Plan.

Section 5. **COMPREHENSIVE PLAN.** For the duration of this Agreement, each city shall participate in the Comprehensive Plan prepared and periodically reviewed and revised every five years pursuant to chapter 70.95 RCW. By this Agreement, each city authorizes the County to include in the Comprehensive Plan provisions for the management and handling of solid waste generated in each City.

Section 6. **CITY DESIGNATION OF COUNTY SYSTEM FOR SOLID WASTE DISPOSAL.** By this Agreement each City hereby designates the County System for the disposal of all Solid Waste generated within the corporate limits of that City. And, within the scope of the Comprehensive Plan, each city authorizes the County to designate a disposal site or sites for the disposal of all Solid Waste generated within the corporate limits of that City, except for (1) recyclable and other materials removed from solid waste by reduction or waste recycling activities under the Comprehensive Plan, and (2) those wastes including hazardous or hard-to-handle wastes either prohibited by law or required by the County Solid Waste Department to be specially handled. This designation of the County System shall continue in full force and effect for a period of seven (7) years after the effective date of this Agreement except as provided in Agreement Section 12. The designation of the County System in this Agreement shall not reduce or otherwise affect each city's control over Solid Waste collection as permitted or required by applicable state law.

Section 7. **FINANCE AND BUDGETING.**

7.1 The County will prepare and submit to a City or its contract-hauler on a monthly basis an invoice listing the weight in tons of Solid Waste delivered by a City or contract-hauler to the County's Coupeville Transfer Station (or, as provided by separate contract, the City of Oak Harbor's Transfer Station). The Town of Coupeville and the City of Langley will reimburse Island County for processing and disposing of the delivered Solid Waste at the current disposal rate duly adopted by the Board of Island County Commissioners. (Note: any "billing charge" for the disposal of delivered Solid Waste is included in the adopted rate). The City of Oak Harbor will reimburse the County the invoiced amount for the cost of transport, disposal of Solid Waste, moderate risk waste handling and disposal, post-closure care costs, and other specific, mutually-agreed charges for which the City is responsible as detailed in Island County's adopted Solid Waste and Septage Rate Study and any other applicable agreement(s) between County and City of Oak Harbor.

7.2 If hazardous or dangerous waste of any origin, as defined in Chapter 173-303 WAC is found to be in a container of solid waste originating in a city (whether from municipal collector or

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contract-hauler), city will reimburse County the actual cost incurred in disposing of the hazardous waste at a permitted hazardous waste landfill.

7.3 Each party shall be responsible for budgeting and financing its own obligations under this Agreement.

Section 8. **WASTE REDUCTION AND RECYCLING.** The cities and the County hereby agree to cooperate to achieve the priorities for waste reduction and waste recycling set forth in the Comprehensive Plan or subsequent adopted revisions of the Comprehensive Plan.

Section 9. **HAZARDOUS WASTE ELIMINATION.** To extent required by Federal and State law, each city will establish operating procedures for elimination and management of hazardous waste for municipal collectors and contract collectors, and will prevent hazardous waste from either municipal collectors and/or contract collectors from being transferred or delivered to the County System.

Section 10. **DURATION – EFFECTIVE DATE.** This Agreement shall take effect and be in force following execution by a duly authorized representative of the County and of a city (as to that city) – the "Effective Date." The Agreement shall continue to be in full force and effect for seven (7) years from the Effective Date, unless terminated as described in Agreement Section 12.

Section 11. **NO SEPARATE LEGAL AGENCY OR PROPERTY.**

11.1 No separate legal or administrative agency is created by this Agreement. Administration of this agreement shall be by the County, working through the below-identified city representatives.

County
Island County Solid Waste Manager
P.O. Box 5000
Coupeville, WA 98239

City of Langley
See Agreement with Langley

Town of Coupeville
Public Works Director, Town of Coupeville
4 NE Seventh Street, Coupeville, WA 98239

City of Oak Harbor
See Agreement with Oak Harbor

11.2 Each party will be responsible for acquiring, holding and disposing of property, real and/or personal, to carry out the terms of this Agreement. This Agreement does not provide for or authorize the joint acquisition, holding or disposition of any property.

Section 12. **REVISION, AMENDMENT, SUPPLEMENTATION OR TERMINATION.** This Agreement shall be reviewed by the parties every five (5) years. At that time the terms of the Agreement may be revised, amended or supplemented upon written agreement of participating parties. No revision, amendment or supplementation shall be adopted or put into effect if it impairs any contractual obligation of the County. This Agreement may be terminated by either party prior to the expiration date in conjunction with the revision of the Comprehensive Plan as described in Agreement Section 5.

ATTACHMENT Page 4 of 6 Event Date: Mon Dec 24 00:00:00 PST 2012

Section 13. **MISCELLANEOUS.**

13.1 No waiver by any party of any term or condition of this Agreement shall be deemed or construed to constitute a waiver of any other term or condition or of any subsequent breach whether of the same or of a different provision of this Agreement.

13.2 No other person or entity shall be entitled to be treated as third party beneficiary of this Agreement.

13.3 Passage of this Agreement replaces, rescinds and supersedes any prior contract or agreement between any of the contracting parties dealing with or relating to solid waste handling in Island County.

13.4 This Agreement shall be construed pursuant to the laws of the State of Washington. The venue for any dispute arising out of or relating to this Agreement shall be the Superior Court of the State of Washington for Island County.

13.5 No provision or provisions of this Agreement or any authority granted by this Agreement is intended to create or result in any personal liability for any public official or employee or agent of the County or a city, nor shall any provision or provisions of this Agreement be construed to create any such liability.

13.6 This Agreement has been freely and fairly negotiated by the Parties hereto and has been reviewed and discussed by legal counsel for each of the Parties, each of whom has had the full opportunity to modify the draftsmanship hereof and, therefore, the terms of this Agreement shall be construed and interpreted without any presumption or other rule requiring constructional interpretation against the Party causing the drafting of the Agreement.

13.7 This Agreement contains the complete statement of the understanding of the Parties with respect to the subject matter of this Agreement. There are no other representations, agreements, or understandings, oral or written, by the Parties relating to the subject matter of this Agreement that are not fully expressed in this Agreement. Each Party acknowledges and represents to the other Party that it is executing this Agreement solely in reliance upon its own judgment and knowledge and that it is not executing this Agreement based upon the representation or covenant of the other Party, or anyone acting on such Party's behalf, except as expressly stated herein.

13.8. Indemnification: Each party agrees to be responsible and assume liability for its own wrongful and/or negligent acts or omissions or those of their officials, officers, agents or employees to the fullest extent required by law, and further agrees to save, indemnify, defend and hold the other party harmless from any such liability.

[Remainder of this page blank. Signature page follows.]

AGREEMENT REGARDING SOLID WASTE MANAGEMENT

Board of County Commissioners
Island County, Washington

By: _____
Helen Price Johnson, Chair

Date: 12-24-2012

Town of Coupeville

By: _____
Nancy Conard, Mayor

Date: 12/11/12

See Agreement with City of Oak Harbor

See Agreement with City of Langley

EXPIRES - 2019

12/20/2012 - 12/20/2019

AGREEMENT REGARDING SOLID WASTE MANAGEMENT (LANGLEY)

Section 1. **AGREEMENT.** This Agreement Regarding Solid Waste Management ("Agreement") is among Island County, Washington ("County") and the cities and towns ("cities") located in the County that determine pursuant to RCW 70.95.080 to contract with the County for solid waste planning and management. The County and cities entering this Agreement are the "Parties." The Parties agree as follows.

Section 2. **RECITALS/PURPOSE.**

2.1 Island County and each of the cities executing this Agreement are authorized and directed by Chapter 70.95 RCW to prepare a Comprehensive Solid and Moderate Risk Waste Management Plan (Comprehensive Plan), and are further authorized by RCW 70.95.080, and other authority including but not limited to RCW 36.58.040 and RCW 35.21.152, to contract for the administration and implementation of a Comprehensive Plan.

2.2 Island County has prepared a Comprehensive Plan which has been approved by the Washington State Department of Ecology and adopted by the Board of Island County Commissioners. The adopted Plan includes a Moderate Risk Waste Element and a Recycling element for the County and cities of the County.

2.3 Providing the most effective and efficient management and control of solid waste generated in Island County, including its cities, requires designation and use of the solid waste handling and disposal system established by the County and the County Comprehensive Plan to the fullest extent possible. This Agreement designates and provides for the use of the County System by the cities. The County System will incorporate any mutually approved changes in a city's operation as part of that system, by separate agreement with any such city.

Section 3. **DEFINITIONS.** For the purposes of this Agreement, and unless the context provides otherwise, the following definitions apply.

3.1 " Agreement" means this Agreement Regarding Solid Waste Management.

3.2 "City" means a city or town located in Island County, Washington, that signs this Agreement.

3.3 "Comprehensive Solid and Moderate Risk Waste Management Plan" or "Comprehensive Plan" means the Island County Comprehensive Solid and Moderate Risk Waste Management Plan, including a recycling element, adopted by Island County on January 28, 2008 as may be revised or amended from time to time thereafter.

3.4 "County" means Island County, Washington.

3.5 "County System" means all facilities for solid waste handling owned or operated, or contracted for, by the County, and all administrative activities related thereto.

3.6 "Person" means an individual, firm, association, partnership, political subdivision, government agency, municipality, industry, public or private corporation, or any other entity whatsoever.

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3.7 "Solid Waste" means solid waste as defined by RCW 70.95.030(22) and WAC 173-350-100 with the exception of wastes excluded, by WAC 173-350-020 as now in effect or hereafter amended.

3.8 "Solid waste handling" means, the management, storage, collection, transportation, treatment, utilization, processing, and final disposal of solid wastes, including the recovery and recycling of materials from solid wastes, the recovery of energy resources from such wastes or the conversion of the energy in such wastes to more useful forms, or combinations thereof; and as the term "solid waste handling" may be modified by amendments to RCW 70.95.030(23).

Section 4. **RESPONSIBILITY FOR SOLID WASTE DISPOSAL.** For the duration of this Agreement, the County shall be responsible for the disposal of all Solid Waste generated within unincorporated areas of the County and within each of the cities, consistent with the Comprehensive Plan. The County shall not be responsible for disposal of, and this Agreement does not apply to, Solid Waste that has been eliminated through waste reduction or waste recycling activities in conformity with the Comprehensive Plan.

Section 5. **COMPREHENSIVE PLAN.** For the duration of this Agreement, each city shall participate in the Comprehensive Plan prepared and periodically reviewed and revised every five years pursuant to chapter 70.95 RCW. By this Agreement, each city authorizes the County to include in the Comprehensive Plan provisions for the management and handling of solid waste generated in each City.

Section 6. **CITY DESIGNATION OF COUNTY SYSTEM FOR SOLID WASTE DISPOSAL.** By this Agreement each City hereby designates the County System for the disposal of all Solid Waste generated within the corporate limits of that City. And, within the scope of the Comprehensive Plan, each city authorizes the County to designate a disposal site or sites for the disposal of all Solid Waste generated within the corporate limits of that City, except for (1) recyclable and other materials removed from solid waste by reduction or waste recycling activities under the Comprehensive Plan, and (2) those wastes including hazardous or hard-to-handle wastes either prohibited by law or required by the County Solid Waste Department to be specially handled. This designation of the County System shall continue in full force and effect for a period of seven (7) years after the effective date of this Agreement except as provided in Agreement Section 12. The designation of the County System in this Agreement shall not reduce or otherwise affect each city's control over Solid Waste collection as permitted or required by applicable state law.

Section 7. **FINANCE AND BUDGETING.**

7.1 The County will prepare and submit to a City or its contract-hauler on a monthly basis an invoice listing the weight in tons of Solid Waste delivered by a City or contract-hauler to the County's Coupeville Transfer Station (or, as provided by separate contract, the City of Oak Harbor's Transfer Station). The Town of Coupeville and the City of Langley will reimburse Island County for processing and disposing of the delivered Solid Waste at the current disposal rate duly adopted by the Board of Island County Commissioners. (Note: any "billing charge" for the disposal of delivered Solid Waste is included in the adopted rate). The City of Oak Harbor will reimburse the County the invoiced amount for the cost of transport, disposal of Solid Waste, moderate risk waste handling and disposal, post-closure care costs, and other specific, mutually-agreed charges for which the City is responsible as detailed in Island County's adopted Solid Waste and Septage Rate Study and any other applicable agreement(s) between County and City of Oak Harbor.

7.2 If hazardous or dangerous waste of any origin, as defined in Chapter 173-303 WAC is found to be in a container of solid waste originating in a city (whether from municipal collector or

ATTACHMENT Page 3 of 6 Event Date: Mon Dec 10 00:00:00 PST 2012 Mon Dec 10 00:00:00 PST 2012

contract-hauler), city will reimburse County the actual cost incurred in disposing of the hazardous waste at a permitted hazardous waste landfill.

7.3 Each party shall be responsible for budgeting and financing its own obligations under this Agreement.

Section 8. **WASTE REDUCTION AND RECYCLING.** The cities and the County hereby agree to cooperate to achieve the priorities for waste reduction and waste recycling set forth in the Comprehensive Plan or subsequent adopted revisions of the Comprehensive Plan. .

Section 9. **HAZARDOUS WASTE ELIMINATION.** To extent required by Federal and State law, each city will establish operating procedures for elimination and management of hazardous waste for municipal collectors and contract collectors, and will prevent hazardous waste from either municipal collectors and/or contract collectors from being transferred or delivered to the County System.

Section 10. **DURATION – EFFECTIVE DATE.** This Agreement shall take effect and be in force following execution by a duly authorized representative of the County and of a city (as to that city) – the "Effective Date." The Agreement shall continue to be in full force and effect for seven (7) years from the Effective Date, unless terminated as described in Agreement Section 12.

Section 11. **NO SEPARATE LEGAL AGENCY OR PROPERTY.**

11.1 No separate legal or administrative agency is created by this Agreement. Administration of this agreement shall be by the County, working through the below-identified city representatives.

County
Island County Solid Waste Manager
P.O. Box 5000
Coupeville, WA 98239

City of Oak Harbor
See Agreement with Oak Harbor

Town of Coupeville
See Agreement with Coupeville

City of Langley
Director of Public Works
PO Box 366, Langley, Wa 98250

11.2 Each party will be responsible for acquiring, holding and disposing of property, real and/or personal, to carry out the terms of this Agreement. This Agreement does not provide for or authorize the joint acquisition, holding or disposition of any property.

Section 12. **REVISION, AMENDMENT, SUPPLEMENTATION OR TERMINATION.** This Agreement shall be reviewed by the parties every five (5) years. At that time the terms of the Agreement may be revised, amended or supplemented upon written agreement of participating parties. No revision, amendment or supplementation shall be adopted or put into effect if it impairs any contractual obligation of the County. This Agreement may be terminated by either party prior to the expiration date in conjunction with the revision of the Comprehensive Plan as described in Agreement Section 5.

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Page 4 of 6 Mon Dec 10 00:00:00 PST 2012

Section 13. **MISCELLANEOUS.**

13.1 No waiver by any party of any term or condition of this Agreement shall be deemed or construed to constitute a waiver of any other term or condition or of any subsequent breach whether of the same or of a different provision of this Agreement.

13.2 No other person or entity shall be entitled to be treated as third party beneficiary of this Agreement.

13.3 Passage of this Agreement replaces, rescinds and supersedes any prior contract or agreement between any of the contracting parties dealing with or relating to solid waste handling in Island County.

13.4 This Agreement shall be construed pursuant to the laws of the State of Washington. The venue for any dispute arising out of or relating to this Agreement shall be the Superior Court of the State of Washington for Island County.

13.5 No provision or provisions of this Agreement or any authority granted by this Agreement is intended to create or result in any personal liability for any public official or employee or agent of the County or a city, nor shall any provision or provisions of this Agreement be construed to create any such liability.

13.6 This Agreement has been freely and fairly negotiated by the Parties hereto and has been reviewed and discussed by legal counsel for each of the Parties, each of whom has had the full opportunity to modify the draftsmanship hereof and, therefore, the terms of this Agreement shall be construed and interpreted without any presumption or other rule requiring constructional interpretation against the Party causing the drafting of the Agreement.

13.7 This Agreement contains the complete statement of the understanding of the Parties with respect to the subject matter of this Agreement. There are no other representations, agreements, or understandings, oral or written, by the Parties relating to the subject matter of this Agreement that are not fully expressed in this Agreement. Each Party acknowledges and represents to the other Party that it is executing this Agreement solely in reliance upon its own judgment and knowledge and that it is not executing this Agreement based upon the representation or covenant of the other Party, or anyone acting on such Party's behalf, except as expressly stated herein.

13.8. Indemnification: Each party agrees to be responsible and assume liability for its own wrongful and/or negligent acts or omissions or those of their officials, officers, agents or employees to the fullest extent required by law, and further agrees to save, indemnify, defend and hold the other party harmless from any such liability.

[Remainder of this page blank. Signature page follows.]

AGREEMENT REGARDING SOLID WASTE MANAGEMENT

Board of Island County Commissioners:

By: _____
Helen Price Johnson, Chair

Date: 12-10-2012

City of Langley

By: _____
Larry Kwarsick, Mayor

Date: Nov. 5, 2012

See Agreement with Town of Coupeville

See Agreement with City Oak Harbor

Expires 12/31/2019

AGREEMENT REGARDING
SOLID WASTE MANAGEMENT (Oak Harbor)

Section 1. **AGREEMENT.** This Agreement Regarding Solid Waste Management ("Agreement") is among Island County, Washington ("County") and the cities and towns ("cities") located in the County that determine pursuant to RCW 70.95.080 to contract with the County for solid waste planning and management. The County and cities entering this Agreement are the "Parties." The Parties agree as follows.

Section 2. **RECITALS/PURPOSE.**

2.1 Island County and each of the cities executing this Agreement are authorized and directed by Chapter 70.95 RCW to prepare a Comprehensive Solid and Moderate Risk Waste Management Plan (Comprehensive Plan), and are further authorized by RCW 70.95.080, and other authority including but not limited to RCW 36.58.040 and RCW 35.21.152, to contract for the administration and implementation of a Comprehensive Plan.

2.2 Island County has prepared a Comprehensive Plan which has been approved by the Washington State Department of Ecology and adopted by the Board of Island County Commissioners. The adopted Plan includes a Moderate Risk Waste Element and a Recycling element for the County and cities of the County.

2.3 Providing the most effective and efficient management and control of solid waste generated in Island County, including its cities, requires designation and use of the solid waste handling and disposal system established by the County and the County Comprehensive Plan to the fullest extent possible. This Agreement designates and provides for the use of the County System by the cities. The County System will incorporate any mutually approved changes in a city's operation as part of that system, by separate agreement with any such city.

Section 3. **DEFINITIONS.** For the purposes of this Agreement, and unless the context provides otherwise, the following definitions apply.

3.1 " Agreement" means this Agreement Regarding Solid Waste Management.

3.2 "City" means a city or town located in Island County, Washington, that signs this Agreement.

3.3 "Comprehensive Solid and Moderate Risk Waste Management Plan" or "Comprehensive Plan" means the Island County Comprehensive Solid and Moderate Risk Waste Management Plan, including a recycling element, adopted by Island County on January 28, 2008 and as may be revised or amended from time to time thereafter.

3.4 "County" means Island County, Washington.

3.5 "County System" means all facilities for solid waste handling owned or operated, or contracted for, by the County, and all administrative activities related thereto.

3.6 "Person" means an individual, firm, association, partnership, political subdivision, government agency, municipality, industry, public or private corporation or any other entity whatsoever.

3.7 "Solid Waste" means solid waste as defined by RCW 70.95.030(22) and WAC 173-350-100 with the exception of wastes excluded, by WAC 173-350-020 as now in effect or hereafter amended.

3.8 "Solid waste handling" means, the management, storage, collection, transportation, treatment, utilization, processing, and final disposal of solid wastes, including the recovery and recycling of materials from solid wastes, the recovery of energy resources from such wastes or the conversion of the energy in such wastes to more useful forms, or combinations thereof; and as the term "solid waste handling" may be modified by amendments to RCW 70.95.030(23).

Section 4. **RESPONSIBILITY FOR SOLID WASTE DISPOSAL.** For the duration of this Agreement, the County shall be responsible for the disposal of all Solid Waste generated within

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unincorporated areas of the County and within each of the cities, consistent with the Comprehensive Plan. The County shall not be responsible for disposal of, and this Agreement does not apply to, Solid Waste that has been eliminated through waste reduction or waste recycling activities in conformity with the Comprehensive Plan.

Section 5. **COMPREHENSIVE PLAN.** For the duration of this Agreement, each city shall participate in the Comprehensive Plan prepared and periodically reviewed and revised every five years pursuant to chapter 70.95 RCW. By this Agreement, each city authorizes the County to include in the Comprehensive Plan provisions for the management and handling of solid waste generated in each City.

Section 6. **CITY DESIGNATION OF COUNTY SYSTEM FOR SOLID WASTE DISPOSAL.** By this Agreement each City hereby designates the County System for the disposal of all Solid Waste generated within the corporate limits of that City. And, within the scope of the Comprehensive Plan, each city authorizes the County to designate a disposal site or sites for the disposal of all Solid Waste generated within the corporate limits of that City, except for (1) recyclable and other materials removed from solid waste by reduction or waste recycling activities under the Comprehensive Plan, and (2) those wastes including hazardous or hard-to-handle wastes either prohibited by law or required by the County Solid Waste Department to be specially handled. This designation of the County System shall continue in full force and effect for a period of six (6) years beginning January 1, 2014 except as provided in Agreement Section 12. The designation of the County System in this Agreement shall not reduce or otherwise affect each city's control over Solid Waste collection as permitted or required by applicable state law.

Section 7. **FINANCE AND BUDGETING.**

7.1 The County will prepare and submit to a City or its contract-hauler on a monthly basis an invoice listing the weight in tons of Solid Waste delivered by a City or contract-hauler to the County's Coupeville Transfer Station (or, as provided by separate contract, the City of Oak Harbor's Transfer Station). The City of Oak Harbor, the Town of Coupeville and the City of Langley will reimburse Island County for processing and disposing of the delivered Solid Waste at the current disposal rate duly adopted by the Board of Island County Commissioners.

7.2 If hazardous or dangerous waste of any origin, as defined in Chapter 173-303 WAC is found to be in a container of solid waste originating in a city (whether from municipal collector or contract-hauler), city will reimburse County the actual cost incurred in disposing of the hazardous waste at a permitted hazardous waste landfill.

7.3 Each party shall be responsible for budgeting and financing its own obligations under this Agreement.

Section 8. **WASTE REDUCTION AND RECYCLING.** The cities and the County hereby agree to cooperate to achieve the priorities for waste reduction and waste recycling set forth in the Comprehensive Plan or subsequent adopted revisions of the Comprehensive Plan.

Section 9. **HAZARDOUS WASTE ELIMINATION.** To extent required by Federal and State law, each city will establish operating procedures for elimination and management of hazardous waste for municipal collectors and contract collectors, and will prevent hazardous waste from either municipal collectors and/or contract collectors from being transferred or delivered to the County System.

Section 10. **DURATION – EFFECTIVE DATE.** This Agreement shall take effect and be in force following execution by a duly authorized representative of the County and of a city (as to that city) – the "Effective Date." The Agreement shall continue to be in full force and effect for six (6) years beginning January 1, 2014, unless terminated as described in Agreement Section 12.

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Section 11. **NO SEPARATE LEGAL AGENCY OR PROPERTY.**

11.1 No separate legal or administrative agency is created by this Agreement. Administration of this agreement shall be by the County, working through the below-identified city representatives.

County
Island County Solid Waste Manager
P.O. Box 5000
Coupeville, WA 98239

City of Langley
See Agreement with Langley

Town of Coupeville
See Agreement with Coupeville

City of Oak Harbor
Director of Operations, City of Oak Harbor Public Works
865 SE Barrington Drive, Oak Harbor, WA 98277

11.2 Each party will be responsible for acquiring, holding and disposing of property, real and/or personal, to carry out the terms of this Agreement. This Agreement does not provide for or authorize the joint acquisition, holding or disposition of any property.

Section 12. **REVISION, AMENDMENT, SUPPLEMENTATION OR TERMINATION.** This Agreement shall be reviewed by the parties every 5 years. At that time the terms of the Agreement may be revised, amended or supplemented upon written agreement of participating parties. No revision, amendment or supplementation shall be adopted or put into effect if it impairs any contractual obligation of the County. This Agreement may be terminated by either party prior to the expiration date in conjunction with the revision of the Comprehensive Plan as described in Agreement Section 5.

Section 13. **MISCELLANEOUS.**

13.1 No waiver by any party of any term or condition of this Agreement shall be deemed or construed to constitute a waiver of any other term or condition or of any subsequent breach whether of the same or of a different provision of this Agreement.

13.2 No other person or entity shall be entitled to be treated as third party beneficiary of this Agreement.

13.3 Passage of this Agreement replaces, rescinds and supersedes any prior contract or agreement between any of the contracting parties dealing with or relating to solid waste handling in Island County.

13.4 This Agreement shall be construed pursuant to the laws of the State of Washington. The venue for any dispute arising out of or relating to this Agreement shall be the Superior Court of the State of Washington for Island County.

13.5 No provision or provisions of this Agreement or any authority granted by this Agreement is intended to create or result in any personal liability for any public official or employee or agent of the County or a city, nor shall any provision or provisions of this Agreement be construed to create any such liability.

13.6 This Agreement has been freely and fairly negotiated by the Parties hereto and has been reviewed and discussed by legal counsel for each of the Parties, each of whom has had the full opportunity to modify the draftsmanship hereof and, therefore, the terms of this Agreement shall be construed and interpreted without any presumption or other rule requiring constructional interpretation against the Party causing the drafting of the Agreement.

13.7 This Agreement contains the complete statement of the understanding of the Parties with respect

to the subject matter of this Agreement. There are no other representations, agreements, or understandings, oral or written, by the Parties relating to the subject matter of this Agreement that are not fully expressed in this Agreement. Each Party acknowledges and represents to the other Party that it is executing this Agreement solely in reliance upon its own judgment and knowledge and that it is not executing this Agreement based upon the representation or covenant of the other Party, or anyone acting on such Party's behalf, except as expressly stated herein.

13.8. Indemnification: Each party agrees to be responsible and assume liability for its own wrongful and/or negligent acts or omissions or those of their officials, officers, agents or employees to the fullest extent required by law, and further agrees to save, indemnify, defend and hold the other party harmless from any such liability.

[Remainder of this page blank. Signature page follows.]

AGREEMENT REGARDING SOLID WASTE MANAGEMENT

Board of Island County Commissioners

Jill Johnson, Chair

Date: 10/14/13

City of Oak Harbor

Scott Dudley, Mayor

Date: 9-17-13

See Agreement with Town of Coupeville

See Agreement with City of Langley

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Joan the

ISLAND COUNTY AND PACIFIC NORTHWEST COMMUNITIES, LLC. COOPERATIVE MODERATE RISK WASTE MANAGEMENT AGREEMENT

1. PURPOSE

Pursuant to Chapter 70.95 RCW, Island County has prepared a Comprehensive Solid Waste Management Plan which has been approved by the Washington State Department of Ecology and adopted by the Board of Island County Commissioners. Island County also developed a Moderate-Risk Waste Management Plan in accordance with Chapter 70.105 RCW. The purpose of this Cooperative Agreement is to provide Pacific Northwest Communities, LLC and the residents of NAS Whidbey Island use of the County's established household hazardous waste facilities.

2. DEFINITIONS

The following definitions apply to this agreement:

2.1 "Comprehensive Solid Waste Management Plan" or "Comprehensive Plan" means the Island County Comprehensive Solid Waste Management Plan, as adopted by Island County on December 27, 1990, amended in December 2000, and February 2008, and as amended thereafter.

2.2 "Cooperative Agreement" means this Cooperative Agreement regarding solid waste management.

2.3 "County" means Island County, Washington.

2.4 "County System" means all facilities for household hazardous waste owned, operated, or contracted for by Island County and all administrative activities related thereto.

2.5 "Household Hazardous Waste" means any discarded household product that contains hazardous substances. Hazardous substances include any liquid, solid, or contained gas generated within a household that possess any characteristics of a hazardous or dangerous waste under state or federal regulations.

2.6 "Person" means an individual, firm, association, partnership, political subdivision, government agency, municipality, industry, public or private corporation, or any other entity whatsoever.

2.7 "Navy Family Housing" means family residences owned, operated and maintained by Pacific Northwest Communities, LLC in Island County. It does not include the NAS Whidbey Island Bachelor Enlisted Quarters or Bachelor Officer Quarters.

2.8 "Pacific Northwest Communities, LLC, " abbreviated "PNC," means the business entity engaged by the US Navy that manages, operates, maintains and constructs family housing quarters for NAS Whidbey Island and other Naval housing in the Puget Sound area.

3. RESPONSIBILITIES

By this cooperative agreement, military personnel and their dependents who reside in PNC Navy Family Housing at NAS Whidbey Island may deliver household hazardous waste to the County collection points in the same manner as any other County resident, and the County shall be responsible for acceptance and disposal of this household hazardous waste.

4. DESIGNATION OF COUNTY SYSTEM FOR HOUSEHOLD HAZARDOUS WASTE DISPOSAL

By this agreement, PNC hereby designates the County System for disposal of Household Hazardous Waste generated by residents of PNC at NAS Whidbey Island. This designation shall continue in full force and effect until December 31, 2018.

5. MANNER OF FINANCING AND BUDGETING

Recognizing that County residents not residing in government quarters pay fees for disposal of household hazardous waste, PNC agrees to pay to the County a proportional cost of operation for the County's Household Hazardous Waste Program. This proportion is agreed to be the ratio of PNC Navy Family Housing residents to total County population on October 1 of each year, which proportion shall apply to the following calendar year when PNC is to pay County. Nothing in this agreement shall be construed to require PNC to obligate funds in any fiscal year in contravention of the Anti-Deficiency Act, 31 U.S.C. 1341. It is further understood that should PNC not fund a proportionate cost for the County's Household Hazardous Waste Program, this program may not be available to PNC Navy Family Housing residents in on-base housing at NAS Whidbey Island.

6. DURATION

This cooperative agreement shall remain in full force from the date of execution through December 31, 2018 with provision for written extensions upon mutual agreement of the parties up to four additional years unless terminated as described in paragraph 8.

7. NO SEPARATE LEGAL OR ADMINISTRATIVE AGENCY / ADMINISTRATION / HANDLING OF PROPERTY

7.1 No separate legal or administrative agency is created by this agreement.

7.2 Administration of this agreement shall be by:

Island County DPW Solid Waste Manager
P.O. Box 5000
Coupeville, WA 98239-5000

and

Pacific Northwest Communities, LLC
19578 10th Avenue NE
Poulsbo, WA 98370

7.3 No personal or real property will be jointly acquired. Each party will be responsible for acquiring, holding, and disposing of property, real and/or personal, to carry out the terms of this agreement.

8. REVISION, AMENDMENT, SUPPLEMENTATION OR TERMINATION

The parties shall review this Cooperative Agreement after five years. At that time the terms of the agreement may be revised, amended, or supplemented upon agreement by both parties. No revision, amendment, or supplementation shall be adopted or put into effect if it impairs any contractual obligation of the County. This agreement may be terminated prior to the expiration date by either party upon 60 days written notice to the other party.

9. MISCELLANEOUS

9.1 No waiver by either party of any term or condition of this agreement shall be deemed or construed to constitute a waiver of any other term or condition or of any subsequent breach whether of the same or of a different provision of this agreement.

9.2 No other Person or entity shall be entitled to be treated as a third party beneficiary of this agreement.

9.3 The effective date of this agreement is the date the last agreeing party affixes its signature.

9.4 Each party shall assume the risk of, be liable for, and pay all damage, loss, cost and expense of its officers, officials, and employees arising out of any duty performed or not performed, while acting in good faith within the scope of this agreement

9.5 Each party agrees to indemnify and hold harmless the other, to the extent permitted by Federal and Washington State law, for any cause of action, sanction, or penalty arising from improperly disposing of hazardous waste in the other's Transfer Station as agreed upon in Paragraph 3 herein.

Gregory Raap
Regional Vice President
Pacific Northwest Communities, LLC
Poulsbo, Washington

Date: 8/16/13

Board of Island County Commissioners

Jill Johnson, Chair

Date: 09/09/13

BOARD OF CO. COMMISSIONERS
EST ISLAND COUNTY 1853
WASHINGTON

ATTEST:

Elaine Marlow
Clerk of the Board

Appendix D
Resolutions of Adoption

Resolutions adopting the *Island County Solid Waste and Moderate-Risk Waste Management Plan* are shown in this appendix.

BEFORE THE BOARD OF COUNTY COMMISSIONERS
OF ISLAND COUNTY, WASHINGTON

IN THE MATTER OF ADOPTING THE ISLAND COUNTY COMPREHENSIVE SOLID WASTE AND MODERATE RISK WASTE MANAGEMENT PLAN	)))))	**RESOLUTION C-** 85 **-14** **SW-04 -14**

WHEREAS, RCW 70.95 assigns responsibility for solid waste management to local governments, and each unit of local government is required to prepare and maintain in current condition a Comprehensive Solid Waste Management Plan in accordance with RCW 70.95.080 and 70.95.110; and

WHEREAS, RCW 70.105 assigns primary responsibility for moderate-risk waste management to local governments, and each unit of local government is required to prepare a local moderate-risk waste management plan in accordance with RCW 70.105.220; and

WHEREAS, the Island County Solid Waste Advisory Committee, including representatives of the Cities of Oak Harbor, Langley and the Town of Coupeville, jointly participated in the preparation of the of the plans in accordance with RCW 70.95.165(3) and recommended approval of the Draft Final Island County Comprehensive Solid Waste and Moderate-Risk Waste Management Plan dated March 2014 on June 13, 2014; and

WHEREAS, the Oak Harbor City Council reviewed the Draft Plan dated March 2014 and by motion approved the Draft Final Plan dated March 2014, and adopted the Draft Final Plan dated March 2014 by Resolution on August 18, 2014; and

WHEREAS, the Coupeville Town Council reviewed the Draft Final Plan dated March 2014 and adopted said Draft Final Plan by Resolution on July 22, 2014; and

WHEREAS, the Langley City Council reviewed the Draft Final Plan dated February 2014 and adopted said Draft Final Plan by Resolution on April 21, 2014.

NOW, THEREFORE, BE IT HEREBY RESOLVED by the Board of Island County Commissioners that the Draft Final Comprehensive Solid Waste and Moderate-Risk Waste Management Plan dated March 2014, be adopted pursuant to RCW 70.95 and RCW 70.105.

C-85 - 2014
SW- 04 - 2014

APPROVED AND ADOPTED this 15th day of September, 2014.

Board of County Commissioners
Island County, Washington

Jill Johnson, Chair

Helen Price Johnson, Member

Aubrey Vaughan, Member

ATTEST:

Debbie Thompson
Clerk of the Board

RESOLUTION NO. 14-11

A RESOLUTION of the Town Council of the Town of Coupeville, Island County, Washington, adopting the Draft Final Island County Solid Waste and Moderate-Risk Waste Management Plan.

WHEREAS, RCW 70.95 assigns responsibility for solid waste management to local governments, and each unit of local government is required to prepare and maintain in current condition a comprehensive solid waste management plan in accordance with RCW 70.95.080 and 70.95.110; and

WHEREAS, RCW 70.105 assigns primary responsibility for moderate-risk waste management to local governments, and each unit of local government is required to prepare a local moderate-risk waste management plan in accordance with RCW 70.105.220; and

WHEREAS, The Town of Coupeville, Cities of Oak Harbor and Langley and Island County have entered in to an interlocal agreement to mutually and cooperatively comply with RCW 70.95 and 70.10; and

WHEREAS, the Island County Solid Waste Advisory Committee, of which Coupeville is a member, participated in the preparation of the plan in accordance with RCW 70.95.165(3) and recommended approval of the Draft Final Island County Comprehensive Solid Waste and Moderate-Risk Waste Management Plan dated March 2014 on March 14, 2014; and

NOW THEREFORE, BE IT RESOLVED by the Town Council of the Town of Coupeville, Washington, that the Draft Final Comprehensive Solid Waste and Moderate-Risk Management Plan dated March 2014, be adopted pursuant to RCW 70.95 and RCW 70.105,

PASSED by the Town Council of the Town of Coupeville and approved by the Mayor this 22 day of July, 2014.

TOWN OF COUPEVILLE:

Nancy Conard

Mayor Nancy Conard

ATTEST:

Kelly Beech

Clerk Treasurer Kelly Beech

CITY OF LANGLEY
RESOLUTION NO. 760

A RESOLUTION OF THE CITY OF LANGLEY, WASHINGTON ADOPTING THE ISLAND COUNTY COMPREHENSIVE SOLID WASTE AND MODERATE RISK WASTE MANAGEMENT PLAN.

WHEREAS, RCW 70.95 assigns responsibility for solid waste management to local governments, and each unit of local government is required to prepare and maintain in current condition a comprehensive solid waste management plan in accordance with RCW 70.95.080 and 70.95.110; and

WHEREAS, RCW 70.105 assigns primary responsibility for moderate-risk waste management to local governments, and each unit of local government is required to prepare a local moderate-risk waste management plan in accordance with RCW 70.105.220; and

WHEREAS, the Island County Solid Waste Advisory Committee participated in the preparation of the plans in accordance with RCW 70.95. 165(3) and recommended approval of the Draft Final Island County Comprehensive Solid Waste and Moderate-Risk Waste Management Plan dated February 2014; and

WHEREAS, the City Council, by motion, approved the Draft Final Plan dated February 2014.

NOW THEREFORE, BE IT RESOLVED by the City Council of the City of Langley that the Draft Final Comprehensive Solid Waste and Moderate-Risk Waste Management Plan dated February 2014, be adopted pursuant to RCW 70.95 and RCW 70.105.

PASSED BY THE CITY COUNCIL OF THE CITY OF LANGLEY and Approved by the Mayor this 21st day of April, 2014.

Fred McCarthy, Mayor

ATTEST:

Debbie L. Mahler, Clerk-Treasurer

RESOLUTION NO. 14-23

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF OAK HARBOR, WASHINGTON, ADOPTING THE ISLAND COUNTY COMPREHENSIVE SOLID WASTE AND MODERATE-RISK WASTE MANAGEMENT PLAN.

WHEREAS, RCW 70.95 assigns responsibility for solid waste management to local governments, and each unit of local government is required to prepare and maintain in current condition a comprehensive solid waste management plan in accordance with RCW 70.95.080 and 70.95.110; and

WHEREAS, RCW 70.105 assigns primary responsibility for moderate-risk waste management to local governments, and each unit of local government is required to prepare a local moderate-risk waste management plan in accordance with RCW 70.105.220; and

WHEREAS, the Island County Solid Waste Advisory Committee participated in the preparation of the plan in accordance with RCW 70.95.165(3) and recommended approval of the Draft Final Island County Comprehensive Solid Waste and Moderate-Risk Waste Management Plan, dated September 2013; and

WHEREAS, the Oak Harbor City Council reviewed the Draft Island County Comprehensive Solid Waste and Moderate-Risk Waste Management Plan on June 25, 2014. City staff reviewed the Draft Final Plan and recommends adoption by the City Council.

NOW, THEREFORE, it is hereby resolved by the City Council of Oak Harbor, Washington, that the Island County Comprehensive Solid Waste and Moderate-Risk Waste Management Plan, dated March 2014, be adopted pursuant to RCW 70.95 and RCW 70.105.

PASSED and APPROVED this 18th day of August, 2014.

CITY OF OAK HARBOR

Scott Dudley, Mayor

ATTEST:

Anna Thompson, City Clerk

APPROVED AS TO FORM:

City Attorney Grant K. Weed