South County Recycling and Transfer Station Project

Final Environmental Impact Statement



September 2016

Fact Sheet

Project Title:

South County Recycling and Transfer Station (SCRTS) Project

Nature and Location of Proposed Action:

The Solid Waste Transfer and Waste Management Plan (Transfer Plan) recommends replacing the Algona Transfer Station with a new station in the south county area. The SCRTS will be an essential public facility, as defined in Revised Code of Washington 36.70A.200, replacing the function of the existing Algona Transfer Station and providing service enhancements. At a transfer station municipal solid waste is unloaded from collection vehicles and briefly held while it is reloaded onto larger long-distance transport vehicles for shipment to the landfill. The existing Algona Transfer Station was designed and constructed in the mid-1960s and does not meet today's standards for service, efficiency and safety. It cannot provide recycling services to meet King County's environmental goals, nor can it cost-effectively compact waste, which is necessary for efficient transport.

The SCRTS is anticipated to open for business in 2021 following a construction period of approximately 24 months. The station will be designed for an approximately 50-year lifespan. It is anticipated that decommissioning of the existing Algona Transfer Station would occur after a new SCRTS is constructed and operating.

Alternatives for SCRTS:

An extensive screening process was used to find suitable sites for the SCRTS in and around the cities of Algona, Auburn, Federal Way, and Pacific in the south county area. After evaluating sites in the screening process, it was determined that, along with a No Action Alternative, two Action Alternatives would be evaluated in this Environmental Impact Statement (EIS). Under the No Action Alternative, the division would continue to operate the existing Algona Transfer Station for as long as feasible. Alternative 1 would locate, construct and operate the SCRTS at 901 C Street SW in Auburn. Alternative 2 (King County Solid Waste Division's Preferred Alternative) would locate, construct and operate the SCRTS at 35101 West Valley Highway South in Algona.

This Final Environmental Impact Statement (FEIS) evaluates the common design, construction and operational features at both Action Alternative sites. Comparisons of local regulations, sitespecific conditions, potential impacts and mitigation are identified for each element of the environment for the alternatives. Environmental elements evaluated in this FEIS include: earth, air, odor and greenhouse gases, water resources, vegetation and wetlands, wildlife and fish, energy and natural resources, noise, hazardous materials, land use, visual quality, cultural resources, transportation, and public services and utilities.

Proponent:

King County Solid Waste Division

SEPA Lead Agency and Responsible Official:

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Required Permits and Approvals:

Construction and operation of a new station is anticipated to be regulated by federal, state, and local regulations identified in the table below.

Permit/Approval Type	Agency	
Federal a	and State	
Cultural Resources Assessment (CRA) for	U.S. Army Corps of Engineers (USACE) and	
Compliance with Section 106 of the National	Washington Department of Archaeology and	
Historic Preservation Act	Historic Preservation (DAHP)	
Nationwide Section 404 Permit for Compliance	LISACE	
with the Clean Water Act (CWA)	USACE	
Hydraulic Project Approval	Washington Department of Fish and Wildlife (WDFW)	
	U.S. Fish and Wildlife Service (USFWS) and National	
Section 7 Endangered Species Act	Oceanic and Atmospheric Administration (NOAA)	
	Fisheries	
Section 401 Certification for Compliance with the	Washington Department of Ecology (Ecology)	
CWA	washington Department of Leology (Leology)	
National Pollutant Discharge Elimination System	Ecology/U.S. Environmental Protection Agency	
(NPDES) Construction Stormwater General Permit	(FPA)	
and Coverage		
Magnuson-Stevens Act Approval	NOAA Fisheries	
Migratory Bird Act Compliance	U.S. Fish and Wildlife Service	
Notice of Construction	Puget Sound Clean Air Agency (PSCAA)	
Solid Waste Transfer Station Operating Permit	Ecology; Public Health – King County	
Lo	cal	
Building Height Variance	City of Algona, City of Auburn	
Building Permits	City of Algona, City of Auburn	
Conditional Use Permit	City of Algona, City of Auburn	
Demolition Permit	City of Algona	
Grading and Filling Permit	City of Algona, City of Auburn	
Street Rights-of-Way Vacation	City of Algona	
Construction Permit	City of Auburn	
Special Area Plan Review	City of Auburn	

Permit/Approval Type	Agency
Essential Public Facilities alternative analysis	City of Auburn
Essential Public Facilities impact mitigation plan	City of Auburn
Analysis of Essential Public Facility's impact on City	City of Auburn
finances	
Right-of-Way Permit	City of Auburn, City of Algona

Draft EIS Issue Date:

February 4, 2016

Final EIS Issue Date:

September 20, 2016

Location of Materials Incorporated by Reference

Background materials incorporated by reference in this FEIS are available for review at the King County Solid Waste Division, 201 S. Jackson Street, Suite 701, Seattle, Washington.

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Acronyms

AkF	Alderwood and Kitsap Soils
AMEC	AMEC Environment & Infrastructure, Inc.
AST	Aboveground Storage Tank
ASTM	American Society for Testing and Materials
BGS	Below Ground Surface
BMPs	Best Management Practices
BNSF	Burlington Northern Santa Fe
BTU	British Thermal Unit
C-1	Mixed Use Commercial Zone
C-3	Heavy Commercial Zone
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CF	Capital Facilities
CFR	Code of Federal Regulations
County Council	Metropolitan King County Council
СО	Carbon Monoxide
CO ₂	Carbon Dioxide
CRA	Cultural Resources Assessment
CWA	Clean Water Act
СҮ	Cubic Yards
DAHP	Department of Archaeology and Historic Preservation
dB	Decibel
dBA	A-Weighted Decibels
DEIS	Draft Environmental Impact Statement
Division	King County Solid Waste Division
DNR	Washington State Department of Natural Resources
DOH	Washington State Department of Health
DPS	Distinct Population Segment
Ecology	Washington State Department of Ecology
EDR	Environmental Data Resources, Inc.
EIS	Environmental Impact Statement
EMS	Emergency Medical Services
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessment
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FAC	Facultative
FACU	Facultative Upland
FACW	Facultative Wetland

FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FFS	Free Flow Speed
FHWA	U.S. Department of Transportation, Federal Highway Administration
GHG	Greenhouse Gas
GIS	Geographic Information Systems
GLO	General Land Office
GMA	Growth Management Act
GPM	Gallons per Minute
GSA	General Services Administration
HCM	Highway Capacity Manual
HGM	Hydrogeomorphic
НЫ	Historic Property Inventory
HPU	Hydraulic Power Units
HRI	Historic Resource Inventory
HUD	U.S. Department of Housing and Urban Development
IBC	International Building Code
ILA	Interlocal Agreement
IPZ	Innovation Partnership Zone
ITE	Institute of Transportation Engineers
ITS	Intelligent Transportation Systems
КСС	King County Code
КСНРР	King County Historic Preservation Program
kV	Kilovolt
kWh	Kilowatt Hour
LEED	Leadership in Energy and Environmental Design
LID	Low Impact Development
LOS	Level of Service
M-1	Light Industrial Zone
M-2	Heavy Industrial Zone
MEV	Million Entering Vehicles
MRW	Moderate Risk Waste
MPH	Miles per Hour
MSL	Mean Sea Level
MSWMAC	Metropolitan Solid Waste Management Advisory Committee
MSW	Municipal Solid Waste
MTCA	Model Toxics Control Act
MTCO ₂ e	Metric Tons of Carbon Dioxide Equivalents
MW	Megawatts
NAAQS	National Ambient Air Quality Standard
NEPA	National Environmental Protection Act

NESHAP	National Emission Standards for Hazardous Air Pollutants
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NO _X	Nitrogen Oxide
NPDES	National Pollutant Discharge Elimination System
NRCS	National Resources Conservation Service
O ₃	Ozone
OBL	Obligate Wetland
OHWM	Ordinary High Water Mark
Operating Plan	Algona Transfer and Recycling Station Operating Plan
OS/CA	Open Space/Critical Area
P-1	Public Use District Zone
PCBs	Polychlorinated Biphenyl
PEM	Palustrine Emergent
PFO	Palustrine Forested
PM ₁₀	Particles less than 10 Microns in Diameter
PM _{2.5}	Particles less than 2.5 Microns in Diameter
PNSN	Pacific Northwest Seismic Network
РРВ	Parts per Billion
PPM	Parts per Million
PR	Public Rule
PSCAA	Puget Sound Clean Air Agency
PSE	Puget Sound Energy
PSRC	Puget Sound Regional Council
PSS	Palustrine Scrub-Shrub
Qal	Alluvium Deposits
Qpfc	Coarse-grained Deposits
Qpon	Underlying Fine Nonglacial Deposits
Qva	Advance Outwash Deposits
Qvt	Vashon Till
Qvu	Undifferentiated Deposits
Qyal	Younger Alluvium
R-1	Urban Residential
R-7	Residential 7 Dwelling Units per Acre
R-L	Low Density Residential
RCRA	Resource Conservation and Recovery Act
RCW	Revised Code of Washington
SCAs	Sanitary Control Areas
SCRTS	South County Recycling and Transfer Station
SDWA	Safe Drinking Water Act

State Environmental Policy Act
Solid Waste Facility Siting Plan
Sulfur Dioxide
State Route
Solid Waste Advisory Committee
Trichloroethylene
Solid Waste Transfer and Waste Management Plan
Toxic Substances Control Act
Transfer Station Operations
Micrograms per Cubic Meter
Obligate Upland
Union Pacific Railroad
Urban Soil
U.S. Army Corps of Engineers
U.S. Fish and Wildlife Service
U.S. Geological Survey
Underground Storage Tank
Volatile Organic Compounds
Vehicles per Hour
Valley Regional Fire Authority
Washington Administrative Code
Washington Department of Fish and Wildlife
Wellhead Protection Area
Washington Heritage Register
Washington Information System for Architectural and Archaeological Records Data
Water Resource Inventory Area
Wastewater Treatment Division

Glossary

Aboveground Storage Tank: tanks or other containers that are aboveground or only partially buried.

Alderwood and Kitsap Soils: Alderwood soils contain gravel, sand and loam and Kitsap soils contain silt loams.

Alluvium: a deposit of clay, silt, sand and gravel left by flowing streams in a river valley.

Asbestos: group of minerals that occur naturally in the environment that was commonly used in the past for building and electrical insulation but has since been banned and that requires special disposal due to human health effects.

Attainment Area: an area that has air quality that meets the National Ambient Air Quality Standards as defined in the Clean Air Act.

Aquifer: an underground layer of water-bearing permeable rock or unconsolidated materials such as gravel, sand or silt.

Best Management Practices: measures used in conducting projects in an environmentally responsible manner.

Clean Water Act: primary federal law controlling water pollution in the United States.

Comprehensive Environmental Response, Compensation, and Liability Act: provides a Federal Superfund to clean up uncontrolled or abandoned hazardous waste sites and accidents, spills, and other emergency releases of pollutants and contaminants.

Comprehensive Plan: provides a legal framework for making decisions about land use in incorporated and unincorporated areas of a county.

Critical Aquifer Recharge Areas: defined in the Growth Management Act as areas with a critical recharging effect on aquifers used for potable water.

Critical Areas: defined in the Growth Management Act as wetlands, areas with a critical recharging effect on aquifers used for potable water, fish and wildlife habitat conservation areas, frequently flooded areas, and geologically hazardous areas.

Decibel levels: measures sound intensities.

Decommission: process of closing and securing the old waste transfer site following cessation of operations, entailing the removal of all remaining solid waste. Closure requirements for intermediate solid waste handling facilities, such as the Algona Transfer Station, are covered under WAC 173-350-310. "Closure" means those actions taken by the operator of a solid waste handling facility to cease disposal operations or other solid waste handling activities, to ensure that all such facilities are closed in conformance with

applicable regulations at the time of such closure and to prepare the site for the postclosure period. The process would also include capping or disconnecting existing utilities and securing the site with perimeter fencing and signage against trespass.

Deconstruction: Disassembly and/or demolition of above-ground transfer station structures, cutting or removal of support piles and removal of equipment following decommissioning. Debris would be collected and removed for recycling or off-site disposal. (See section 1.7 for detail).

Endangered Species Act: provides for the conservation of species that are endangered or threatened throughout all or a significant portion of their range, and the conservation of the ecosystems on which they depend.

Environmental Impact Statement: a document required by the State Environmental Policy Act that describes the positive and negative environmental effects of a proposed action for one or more alternatives that may be chosen.

Environmental Site Assessment: report that identifies potential or existing environmental contamination liabilities on a property.

Erosion: the transporting of soil and rock through wind, precipitation and other natural processes.

Floodplain: an area of land adjacent to a waterbody that may experience flooding during periods of high discharge.

Filling: transporting or placing fill material from, to or on any surface water, wetland, soil surface or other fill material.

Greenhouse Gas Emissions: any gaseous compound in the atmosphere that is capable of absorbing infrared radiation, thereby trapping and holding heat in the atmosphere.

Group A Public Water Systems: water systems protected under the Washington State Department of Health regulations that serve more than 14 households, or more than 25 residents regardless of the number of connections, for 180 days or more within a calendar year.

Group B Public Water Systems: water systems protected under the Washington State Department of Health regulations that serve between 2 and 14 households, or commercial establishments that serve less than 25 people a day.

Growth Management Act: directs Washington State's most populous and fastestgrowing counties and their cities to prepare comprehensive land use plans that anticipate growth over a 20-year horizon.

Hazardous Materials: waste in the form of liquids, solids, gases, or sludge that is dangerous or potentially harmful to our health or the environment.

Hydrophytic Vegetation: plant life growing in water, soil, or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content.

Impaired Waterbody: under Section 303(d) of the Clean Water Act are waters that are too polluted or otherwise degraded to meet the water quality standards set by Washington State.

Impervious Surface: roads, parking lots, compacted soils and other surfaces that reduce infiltration and increase surface runoff.

Landslide: downslope movement of a mass of soil or rock.

Leadership in Energy and Environmental Design: standards developed by the United States Green Building Council to set a rating system for design, construction and operation of high performance green buildings.

Level of Service: term used to qualitatively describe the operating conditions of a roadway based on factors such as speed, travel time, maneuverability, delay and safety.

Low Impact Development: planning and design approach to managing stormwater runoff.

Model Toxics Control Act: regulations established by the Washington State Department of Ecology relating to the cleanup of contaminated sites and the management of underground storage tanks.

Moderate Risk Waste: relatively small quantities of hazardous waste generated by households and small businesses

Municipal Solid Waste: trash or garbage that consist of everyday items thrown away and received at a transfer station.

National Ambient Air Quality Standards: standards designed under the Clean Air Act to protect human health with an adequate level of safety.

National Historic Preservation Act: intended to preserve historical and archaeological sites in the United States.

National Pollutant Discharge Elimination System: permit program that controls water pollution by regulating point sources that discharge pollutants into waters of the United States.

No Further Action Determination: Washington State Department of Ecology provides this opinion if no further remedial action under the Model Toxics Control Act is necessary at the property to clean up contamination associated with the site.

Noxious Weed: an invasive, non-native plant regulated under the Washington State Noxious Weed Control Board.

Ordinary High Water Mark: water mark found by examining the bed and banks of a waterbody and determining the location in ordinary years.

Polychlorinated Biphenyl: a synthetic organic chemical compound used in the past in electrical applications that was banned due to its environmental toxicity.

Qal: shallow unconfined aquifer that is found in the water bearing portions of alluvium.

Qpfc: sedimentary deposits from pre-Frasier glacial age.

Qpon: nonglacial deposits.

Riparian Areas: Areas where vegetation grows adjacent to sources of water that are thought to be hotspots of biological diversity.

Safe Drinking Water Act: Established to protect drinking water in the United States.

Sanitary Control Area: A Washington State Department of Health requirement to prevent contaminants from entering the drinking water system by maintaining a protection buffer of 100 feet around wells and 200 feet around springs.

Seattle Muck: a stratified mucky peat to muck derived from grassy organic material.

Siting Plan: provides basic siting criteria, including both exclusionary criteria and siting requirements specific to transfer stations.

Solid Waste Transfer and Waste Management Plan: presents recommendations to guide the future of solid waste management, including the renovation of the urban transfer system.

Spill Prevention, Control and Countermeasure Plan: plan prepared to help prevent the discharge of oil into navigable waters.

Stormwater: water that originates from precipitation that flows over land or impervious surfaces and does not percolate into the ground.

Stormwater Pollution Prevention Plan: a site-specific written guide that identifies potential sources of stormwater pollution and describes practices to reduce pollutants in stormwater discharges from a site.

Temporary Erosion and Sediment Control Plan: on-site and off-site measures undertaken during construction to control the conveyance or deposition of earth, turbidity or pollutants.

Trichloroethylene: a volatile organic chemical used primarily as an industrial solvent.

Underground Storage Tank: a storage tank and any underground piping connected to the tank that is at least 90 percent underground.

Vashon Advance Outwash Deposits: consists of mostly well-sorted, fine grained sand with lenses of coarser sand and gravel.

Vector Wildlife: nuisance wildlife including rodents, insects, gulls, pigeons and crows.

Visual Impact Analysis: a visual analysis to identify environmental impacts and aesthetics from developing a project.

Wellhead Protection Areas: protection areas under the Washington State Department of Health regulations that are determined by the groundwater time-of-travel.

Wetland: a land area permanently or seasonally saturated with water.

Zoning: regulations that contain requirements and standards that govern the use and development of land within that zone or district.

Summary

S.1 Introduction

The Solid Waste Transfer and Waste Management Plan (Transfer Plan) recommends replacing the Algona Transfer Station with a new South County Recycling and Transfer Station (SCRTS) in the south county area. The SCRTS will be an essential public facility, as defined in Revised Code of Washington 36.70A.200, replacing the function of the existing Algona Transfer Station and providing service enhancements. A transfer station is not a dump or landfill. At a transfer station, municipal solid waste is unloaded from collection vehicles and briefly held while it is reloaded onto larger long-distance transport vehicles for shipment to the landfill. The existing Algona Transfer Station was designed and constructed in the mid-1960s and does not meet today's standards for service, efficiency and safety. It cannot provide recycling services to meet King County's environmental goals, nor can it cost-effectively compact waste, which is necessary for efficient transport.

The SCRTS is anticipated to open for business in 2021 following a construction period of approximately 24 months. The station will be designed for an approximately 50-year lifespan. It is anticipated that decommissioning and possible deconstruction of the existing Algona Transfer Station would occur after a new SCRTS is constructed and operating.

The *Summary* provides an overview of key elements of this Final Environmental Impact Statement (FEIS) in the following sections:

- Section S.2, Purpose and Need for the Project. This section provides the purpose and need for the project.
- Section S.3, Environmental Review Process. This section provides an overview of the environmental review process, including public involvement, agency and tribal coordination, and methods that were used to submit comments on this Draft EIS.
- Section S.4, Project Alternatives. This section provides an overview of the three alternatives evaluated in this Final EIS: the No Action Alternative, Alternative 1 (to locate, construct and operate the SCRTS at 901 C Street SW in Auburn) and Alternative 2, Preferred Alternative (to locate, construct and operate the SCRTS at 35101 West Valley Highway South in Algona).
- Section S.5, Environmental Impacts and Potential Mitigation Measures. This section summarizes the environmental impacts that would likely result from construction and operation of the Proposed Action, and potential measures that have been identified to mitigate those impacts. A table of impacts that require mitigation and potential mitigation measures is provided at the end of this Summary section.
- Section S.6, Summary of Indirect and Cumulative Impacts. This section summarizes the resource areas with potential cumulative impacts.

- Section S.7, Unavoidable and Significant Adverse Environmental Impacts. With implementation of proposed mitigation measures impacts would be reduced to below a level of significant adverse environmental impact.
- Section S.8, Required Permits, Plans, and Approvals. This section provides the permits, plans, and approvals that would be required for the Proposed Action.
- Section S.9, Next Steps. This section describes the next steps in the project implementation process.

Detailed technical information is provided in Chapters 1 through 3 of this FEIS and the FEIS appendices.

S.2 Purpose and Need for the Project

The purpose of the project is to site, design, construct and operate a solid waste transfer station in south King County. The new station would serve the areas surrounding and communities of Algona, Auburn, Federal Way and Pacific for the next 50 years.

The Transfer Plan sets forth the need for a new south county transfer station to be placed in service. Transfer facilities are essential public facilities and are vital to communities for the safe and efficient handling of their solid waste. The plan outlines the region's long-term need for a new transfer station to replace the existing Algona Transfer Station.

Chapter 1 describes the Level of Service (LOS) criteria for transfer stations that the division developed in collaboration with stakeholders. Using these criteria, the division evaluated service to station users, the capacity of stations to handle garbage and recyclables both now and in the future, structural integrity, and the effects of stations on surrounding communities.

As set forth in the Transfer Plan, the existing Algona Transfer Station has outlived its useful life and provides an inadequate level of service to its customers. The existing transfer station failed to meet five of the six level-of-service criteria dealing with station capacity – only the hours of operation met the criteria – and did not meet goals for traffic impacts on local streets (see Table 1-1 in Chapter 1 Purpose and Need for all criteria applied). The existing Algona Transfer Station cannot accommodate waste compaction or provide recycling services required by the *Draft Comprehensive Solid Waste Management Plan* (King County 2013a). Additionally, the existing station does not meet safety goals without requiring additional effort from staff and management, which reduces system efficiency.

S.3 Environmental Review Process

This FEIS was prepared for the Proposed Action as required by Washington State Environmental Policy Act (SEPA) (Chapter 43.21C of the Revised Code of Washington [RCW]), the SEPA Rules (Chapter 197-11 of the Washington Administrative Code [WAC]), and King County Environmental Procedures (King County Code [KCC] 20.44). The Proposed Action triggers SEPA review because it is an agency action with a potential environmental impact and would require permits from King County and other agencies.

SEPA requires state and local agencies in Washington State to identify and consider the environmental impacts that could result from governmental decisions including issuing permits for projects such as the Proposed Action. Under SEPA, an EIS is necessary if a proposed project is likely to result in significant adverse environmental impacts. The purpose of an EIS is to provide the public and agencies with information about the potential environmental impacts of a proposed project and inform local and state agency permitting decisions. An EIS is not a decision to approve or deny a proposal. The permits, plans, and approvals that would be required are listed in Section S.8, Required Permits, Plans, and Approvals, of this Summary chapter.

S.3.1 Public Involvement, Agency Coordination, and Tribal Coordination

Scoping

Preparation of this EIS began with an extensive public scoping process. More than 23,000 scoping notices were mailed to the public and e-mails were also sent to interested parties for each of four separate phases of the scoping process.

The division initiated the SEPA scoping process by sending out a scoping notice on October 30, 2012 to agencies, Tribes, nearby businesses and residences, and other interested parties. The purpose of the scoping process was to inform agencies and stakeholders about the SCRTS project and allow the public, organizations, agencies, and Tribes to provide comments regarding the scope of the project, the proposed Action Alternatives, probable significant adverse impacts, mitigation measures, and permits or other approvals that should be considered in the EIS. There was a 30-day period for scoping comments, which ended on November 30, 2012. A public scoping meeting was held on November 15, 2012, where additional comment letters and oral comments were received. Scoping comments were received from the cities of Algona, Auburn, and Federal Way, Auburn School District, Muckleshoot Tribe, five private businesses, and 19 individuals.

A second scoping comment period was initiated on January 31, 2013, and ended on February 21, 2013. The purpose of this scoping process was to inform agencies, Tribes, nearby businesses and residences, and other interested parties about the addition of a third alternative located in Auburn at 28721 West Valley Highway South, including the two parcels immediately adjacent to the west. Scoping comments were received from the City of Kent, two private businesses, and 46 individuals.

A third scoping comment period began on February 22, 2013, and ended on April 5, 2013. The purpose of this scoping process was to extend the scoping comment period and hold an additional public scoping meeting. A public scoping meeting was held on March 27, 2013, where additional comment letters and oral comments were received. Scoping comments were received from the City of Kent, five private businesses, and 63 individuals.

A fourth scoping comment period began on November 3, 2015, and ended on November 24, 2015. The purpose of this scoping process was to inform agencies, Tribes, nearby businesses and residences, and other interested parties about the revised scope of the EIS, including the removal of the third alternative site at 28721 West Valley Highway South in Auburn.

Environmental information received during the review process determined that the property located at 28721 West Valley Highway South in Auburn, is not a reasonable alternative and cannot feasibly attain the proposal's objectives. Information in a drainage assessment report indicated critical constraints on the ability to control and discharge storm water on and from this site. The report pointed out that the site has a high winter water table, problematic elevations relative to nearby surface water receiving bodies, and a history of flooding in the immediate vicinity. Scoping comments were received from the cities of Algona and Auburn, Auburn School District, Ecology, Washington State Department of Transportation, two private businesses, and 11 individuals.

Common comments received during the four scoping comment periods and two scoping meetings included potential impacts associated with:

- Odor, pests and noise
- Property values
- Traffic

Comments received from the public, organizations, agencies, and Tribes during all scoping periods are summarized in Appendix A and considered in this EIS. A summary of the scoping comments is provided in Appendix A.

Draft EIS

Public comments were also accepted following publication of the Draft EIS (DEIS) on February 4, 2016. More than 26,000 flyers notifying residents of the availability of the DEIS were mailed to the public and e-mails were also sent to interested parties. Comments were received until March 9, 2016. During this comment period, King County hosted two public open houses, one each in Auburn and Algona. The open houses allowed the public to learn about the proposed action and the environmental analysis, and submit comments on the proposal. Comments at the open houses were made on written comment forms and by providing public testimony to a court reporter.

A total of 78 comment letters, comment forms, e-mails, statements of testimony, and a petition were submitted during this process (collectively referred to as "comment letters").

Of the 78 total comment letters received, 74 letters were submitted by individuals and one business owner. A citizen petition by residents living near Alternative 2 was submitted in opposition to that Alternative. Most comments received by members of the public during the DEIS comment period, including the two public open houses, consisted of statements of opposition to the project. The most commonly cited sources of concern included impacts associated with:

- Odor, pests, noise and slope stability
- Property values
- Traffic

The remaining four comment letters were received from the Muckleshoot Indian Tribe and the cities in the SCRTS service area. These letters included 12 comments by the Muckleshoot Indian Tribe, 199 comments by the City of Algona, 66 comments by the City of Auburn and seven comments by the City of Federal Way. Most of these comments addressed technical issues with the environmental analysis, ranging from general criticisms of the analytical approach to specific suggestions for data updates.

Each comment is transcribed by author and topic with corresponding responses in Appendix E. All comments received from the public, organizations, agencies, and Tribes during the DEIS public comment, including those received at the two public open houses, are considered in this FEIS.

S.4 Project Alternatives

The Transfer Plan established that transfer stations within the County system should be geographically distributed throughout the County in order to equitably serve all customers. Similar to the existing transfer station, any newly sited station should be placed in a location convenient to customers.

S.4.1 Site Screening

In 2012, the division conducted a search for potential sites for this essential public facility in and around the cities of Auburn, Algona, Pacific, and Federal Way that would be suitable for replacing the existing Algona Transfer Station (Figure S-1). The division followed guidelines set forth in the Solid Waste Facility Siting Plan (Siting Plan), published as Appendix C of the Transfer Plan (King County 2007). The Siting Plan requires that the public be given the opportunity to understand and participate in the siting process.

After evaluating sites in the site selection process, it was determined that, along with a No Action Alternative, the sites in this EIS will include:

- 901 C Street SW, Auburn (Alternative 1)
- 35101 West Valley Highway South, Algona (Alternative 2)

S.4.2 No Action Alternative

The existing Algona Transfer Station is located at 35315 West Valley Highway South on parcel 3356407870. Under the No Action Alternative, the division would not site a new station in the south county service area. The division would continue to operate the existing Algona Transfer Station.

The existing site is approximately 4.4 acres and is not large enough to accommodate necessary service improvements. Access to the site is from West Valley Highway South. Because there is insufficient queuing space on-site, entering vehicles sometimes back up onto the highway, endangering traffic.



Source: USGS 7.5-minute topographic quadrangles: Poverty Bay, Washington, 2011; and Auburn, Washington, 2011

Figure S-1 Alternative Locations and South King County Area

Prepared for King County by URS Corporation Consultants


The existing Algona Transfer Station was designed and constructed in the mid-1960s and does not meet today's building and environmental standards nor standards for service and operational efficiency. The design of the existing transfer station requires a reduction in system efficiencies to meet safety goals. Additionally, the existing transfer station cannot provide recycling services to meet the County's environmental goals, nor can it cost-effectively compact waste which is necessary for efficient transport.

Operational maintenance, including a roof replacement in 2002, has extended the life of the transfer building. Due to the ongoing deterioration of a number of the timber piles supporting the building, a structural rehabilitation may be required in the future to significantly extend the life of the building.

Steep slopes separate the site from R-1 Urban Residential-zoned properties in unincorporated King County to the west. The hillside west of the site is in unincorporated King County and is zoned Open Space/Critical Area. West Valley Highway South and State Route (SR) 167 separate the site from properties to the east, which the City of Algona has zoned C-1 Mixed Use Commercial and R-L Low Density Residential.

Property adjacent to the site on the south and on the north is zoned C-3 Heavy Commercial by the City of Algona. A vacant former quarry is located to the north, while a single-family residence (35371 West Valley Highway South) is located to the south.

The Algona Transfer Station was built before the Leadership in Energy and Environmental Design (LEED) green building rating system was developed. It does not include green building and sustainable design features discussed in Section 2.2.2.3 that are part of the Action Alternatives.

No permitting is anticipated to be required for this alternative.

S.4.3 Alternative 1

Alternative 1 would construct and operate a recycling and transfer station on the property located at 901 C Street SW in Auburn (Figure S-2), on parcels 2421049054 and 2421049001 owned by Segale Properties, LLC.

The City of Auburn has zoned this 18.7-acre site M-2 Heavy Industrial. Development as a transfer station would typically require permitting as a Conditional Use with approval through the city's essential public facility review process. However, the City of Auburn has determined that Alternative 1 would qualify as an essential public facility of a countywide nature, and therefore, subject to the special area plan process specified in the currently adopted Auburn Comprehensive Plan.

Properties surrounding the site are zoned M-1 Light Industrial to the north, C-3 Heavy Commercial to the west and east, M-2 Heavy Industrial to the south, and P-1 Public Use District to the southeast.



Source: Google Earth Pro, imagery date: 7/5/2012

Prepared for King County by URS Corporation Consultants

Figure S-2 Alternative 1 Site Development Area

The area adjacent to the site contains a mixture of land uses, including: a school bus depot, a City of Auburn maintenance and operations facility, a grocery warehouse (SUPERVALU®) to the south;; the General Services Administration (GSA) Park to the southeast; industrial warehouses to the east and north; a Western Plus Peppertree Inn; and commercial and residential properties to the north. The Outlet Collection Seattle, Wal-Mart, and Regal Cinemas are separated from the site to the west by the active Union Pacific Railroad and the Interurban Trail.

The relatively flat topography of the site is suitable for development as a recycling and transfer station. There is an existing wetland, associated buffer and conservation easement, and stormwater pond in the northwest corner of the site.

S.4.4 Alternative 2 (Preferred Alternative)

Alternative 2, the Preferred Alternative, would construct and operate a recycling and transfer station on the property located at 35101 West Valley Highway South in Algona. This site, located north of the existing transfer station, is 18.9 acres and contains 9 parcels owned by King County: 3356407890; 3356407905; 3356407910; 3356407915; 3356407925; 3751601414; 3751601416; 3751601419; and 3751601429 (Figure S-3).

There are portions of unopened road rights-of-way on the property, but no roads or public use were ever established on these rights-of-way. The road rights-of-way would be vacated through the City of Algona street vacation process.

With Alternative 2, safety and access improvements would occur along West Valley Highway South adjacent to the property along a 1/3-mile of roadway lying roughly between 9th Ave N and Broadway Boulevard. Road frontage improvements would include straightening of the curve bordering the site, related frontage modifications, channelization via turn lanes for access into and out of the site; and curb, gutter, sidewalk, and related drainage improvements.

As part of Alternative 2, West Valley Highway South would receive pavement overlays north and south of the road frontage improvement area, between approximately 12th Ave N and 9th Ave N and between approximately Broadway Boulevard and 5th Ave N. The overlays would occur after construction of the SCRTS is completed.

Alternative 2 would also incorporate water quality and stormwater management elements to improve flow control and water quality treatment. There would also be habitat improvements to portions of Algona Creek tributary on the project site. Currently parts of the creek are confined to culverts. In that location the stream would likely either be day-lighted or placed in a larger culvert complying with regulatory requirements and allowing for fish passage. If the stream is relocated or re-aligned, it would be designed with appropriate habitat features.





Prepared for King County by URS Corporation Consultants

Figure S-3 Alternative 2 Site Development Area

Most of the site is zoned by the City of Algona as C-3 Heavy Commercial. The steep slopes on the western portion of the property are zoned as Open Space/Critical Areas (OS/CA). A Conditional Use permit would be required to allow development of a recycling and transfer station. Approximately 9 acres of the 18.9 acre site are designated critical areas composed of steep slopes, which are undevelopable and typically require buffers and setbacks. The topography of the remaining area, approximately 10 acres, is gently sloping. Algona Creek 09.0054A, and two wetlands and their associated buffers would likely be temporarily and/or permanently impacted.

The steep slopes on the west side of the property separate the site from R-1 Urban Residential zoned properties in unincorporated King County to the west and the City of Auburn to the northwest. West Valley Highway South and SR 167 separate the site from single-family residences and limited commercial uses to the east, which the City of Algona has zoned C-1 Mixed Use Commercial and R-L Low Density Residential. C-3 Heavy Commercial property is adjacent to the site on the south (currently in use as the Algona Transfer Station) and to the north.

North of the site is Terra Dynamics, a landscape construction contracting business, and the City of Auburn Vista Pointe Stormwater Facility. Farther north are commercial uses, including Allsports Cages & Netting, The Mustang Shop, Peltram Plumbing, Hinshaw's Motorcycle Store, Speedi Transmissions, JFC Racing, and Del's Farm Supply.

S.5 Environmental Impacts and Potential Mitigation Measures

This section summarizes the majority of the environmental impacts that would likely result from construction and operation of the Proposed Action and potential measures that have been identified to mitigate those impacts. Mitigation measures must be reasonable and capable of being accomplished. Indirect and cumulative impacts are summarized in Section S.6.

S.5.1 Environmental Resource Areas, Study Areas, and Types of Impacts Analyzed

This Final EIS studies impacts on thirteen environmental resource areas. These environmental resource areas include: earth; air, odors and greenhouse gas; water resources; vegetation and wetlands; wildlife and fish; energy and natural resources; noise; hazardous materials; land use; visual quality; cultural resources; transportation; and public services and utilities.

Section S.5.2, Summary of Impacts and Potential Mitigation Measures, summarizes the potential impacts associated with construction and operation of the Alternatives for each of the thirteen environmental resource areas. Each environmental resource area section describes a specific study area. The areas vary because physical characteristics or regulations may differ pertaining to the respective environmental resource. See Chapter 3 of the FEIS and FEIS Appendices for detailed analysis of impacts.

The FEIS considers impacts from the No Action alternative as well as impacts from construction and operation of the Action Alternatives. Construction impacts would include temporary impacts from construction activity, or permanent impacts that result from changes to the project area due to construction and operation of the transfer station. This includes vehicle traffic, noise and air quality associated with construction activities. Operation impacts would result from long-term use of the site as a transfer facility for solid waste.

S.5.2 Summary of Impacts and Potential Mitigation Measures

The analysis of direct impacts is separated into sections addressing construction and operation. When possible, quantitative information is provided to establish impacts. Levels of potential impact are defined as follows:

- **None/Negligible**: The resource area would not be affected, or changes would be nondetectable, or if detected, effects would be slight and local. Impacts would be well below regulatory limits, as applicable.
- **Minor**: Changes to the resource would be measurable, although the changes would be small and localized. Impacts would be within or below regulatory limits, as applicable. Mitigation measures may be necessary to reduce potential effects.
- **Moderate**: Changes to the resource would be measurable and have localized and potentially regional scale impacts. Impacts would be within or below regulatory limits, but historical conditions would be altered. Mitigation measures may be necessary to reduce potential effects.
- **Major**: Changes would be readily measurable and would have substantial consequences on a local and regional level. Impacts would exceed regulatory limits. Mitigation measures to offset the effects would be required to reduce impacts, although long-term changes to the resource would be possible.

Table S-1Summary of Potential Environmental Impacts and Proposed Mitigation Measures

		Potential Impacts and Proposed Mitigation Measures			
Environmental	Phase of the	No. Action Altomative	Altermetine 1	Alternative 2	
Section 3.1 Earth	Construction	No impacts to earth resources.	Alternative 1 Potential minor and temporary impacts from erosion. Potential minor and temporary impacts from erosion during possible deconstruction of the existing Algona Transfer Station.	(Preferred Alternative) Potential minor and temporary impacts from erosion; on-site steep slopes are susceptible to landslide during a strong earthquake event and erosion. Potential minor and temporary impacts from erosion during construction of West Valley Highway South road frontage improvements. Same as Alternative 1.	
		Mitigation No mitigation measures required	Mitigation	Mitigation	
	Operation	Alluvial soils underlying the eastern portion of the site would continue to be susceptible to liquefaction during a strong earthquake. Steep slopes on the western edge of the site would continue to be susceptible to landslides during a strong earthquake event.	Because the site is relatively flat, existing surface soils are not native, and the site does not contain prime farmland. Because the Alternative 1 site is relatively flat, there are no geologic hazards that pose a risk to long-term operations at the site. No long-term impacts to earth resources	Steep slopes on the western edge of the site would continue to be susceptible to landslides during a strong earthquake event. A geotechnical study and project design measures, such as setbacks and slope stabilization measures would minimize this risk and reduce any potential impacts. No long term impacts to earth resources.	
		<i>Mitigation</i> No mitigation measures required	<i>Mitigation</i> No mitigation measures required	<i>Mitigation</i> No mitigation measures required	
Section 3.2 Air, Odor, and GHGs	Construction	No impacts to air quality, odors, or GHGs.	Potential minor, temporary impacts from emissions (including GHG) and dust during station construction and possible deconstruction of the existing Algona Transfer Station.	Potential minor, temporary impacts from emissions (including GHG) and dust during station construction, construction of West Valley Highway South frontage and overlay improvements, and possible deconstruction of the existing Algona Transfer Station.	

		Potential Impacts and Proposed Mitigation Measures			
Environmental Element	Phase of the Project	No Action Alternative	Alternative 1	Alternative 2 (Preferred Alternative)	
Section 3.2 Air, Odor, and GHGs (Con't)			Minor increases in local traffic during construction could temporarily reduce air quality at some intersections.	Same as Alternative 1.	
		<i>Mitigation</i> No mitigation measures required	<i>Mitigation</i> No mitigation measures required	<i>Mitigation</i> No mitigation measures required	
	Operation	Minor impacts on air quality, odors, and greenhouse gas emissions from uncontrolled dust, odor, and vehicle emissions.	Potential negligible impacts from emissions (including GHG), dust, and odors; potential minor impacts from off- site traffic emissions.	Same as Alternative 1.	
		<i>Mitigation</i> No mitigation measures required	<i>Mitigation</i> No mitigation measures required	<i>Mitigation</i> No mitigation measures required	
Section 3.3 Water Resources	Construction	Groundwater No impacts.	Groundwater Potential minor, temporary impacts to groundwater quality from clearing, grading, and excavation; potential negligible, temporary impacts to groundwater quality from potential spills or leaks; potential minor, temporary impacts to groundwater recharge rates and the local water table if dewatering is required; potential impacts if contaminated groundwater is encountered during excavation or dewatering activities (see Hazardous Materials below).	Groundwater Potential negligible, temporary impacts to groundwater quality from clearing, and grading, and excavation; potential negligible, temporary impacts to groundwater quality from potential spills or leaks; potential minor, temporary impacts to groundwater recharge rates and the local water table if dewatering is required; potential minor, temporary impacts to groundwater recharge rates at specific locations from impacts to the Algona Creek Tributary 09.0054A and wetlands on site; potential impacts if contaminated groundwater is encountered during excavation or dewatering activities (see Hazardous Materials below).	

		Potential Impacts and Proposed Mitigation Measures		
Environmental	Phase of the			Alternative 2
Element	Project	No Action Alternative	Alternative 1	(Preferred Alternative)
Section 3.3 Water		<i>Streams</i> No impacts.	<i>Streams</i> No impacts.	Streams Minor to moderate impacts from
Resources (Con't)				relocating/realigning segments of the Algona Creek Tributary 09.0054A during construction of the project. Impacts would be reduced to negligible to minor with mitigation (see below). Minor, temporary impacts to the stream associated with the West Valley Highway South frontage and overlay improvements.
		<i>Floodplains</i> No Impacts.	<i>Floodplains</i> No Impacts.	Floodplains No Impacts.
		<i>Stormwater and Water Quality</i> No Impacts.	Stormwater and Water Quality Potential negligible impacts from clearing and grading activities that could generate temporary runoff and erosion during construction.	Stormwater and Water Quality Potential minor impacts to water quality from clearing and grading activities that could generate temporary runoff and erosion during construction. Impacts would be temporary, small, and localized.
		Overall, there would be no impacts to water resources.	Overall, impacts on water resources from construction activity would be negligible because construction would be temporary, and effects would be either non-detectable or very slight and localized.	Overall, impacts on water resources from construction activity would be to negligible to moderate because construction would be temporary, and effects would be temporary, small, and localized.
		<i>Mitigation</i> No mitigation measures required	<i>Mitigation</i> <i>Mitigation measures may be required</i> <i>during construction of Alternative 1 if the</i> <i>underlying soils and groundwater are</i> <i>found to have significant contamination.</i>	<i>Mitigation</i> <i>Mitigation may be required to</i> <i>compensate for impacts to the Algona</i> <i>Creek Tributary 09.0054A and associated</i> <i>riparian buffers, and to the on-site</i>

		Potential Impacts and Proposed Mitigation Measures			
Environmental	Phase of the			Alternative 2	
Element	Project	No Action Alternative	Alternative 1	(Preferred Alternative)	
Section 3.3 Water Resources (Con't)			These mitigation measures would address potential adverse effects associated with the handling and disposal of excavated spoils and groundwater from dewatering to minimize effects on water resources.	Wetland and associated wetland buffers. Specific mitigation measures will be determined during site design and in coordination with applicable regulatory agencies.	
	Operation	No impacts to water resources.	No impacts to water resources.	Potential negligible to minor impacts on water quality in Algona Tributary 09.0054A during operation. No impacts to other g resources.	
				No water quality or other water resource impacts are anticipated from pavement overlays on West Valley Highway South.	
		<i>Mitigation</i> No mitigation measures required	Mitigation A mitigation plan would be prepared for Alternative 1 to comply with the requirements of Auburn Municipal Code Chapter 16.10 regarding hazardous waste treatment, storage, and disposal in Groundwater Protection Zone 3.	<i>Mitigation</i> No mitigation measures are required	
Section 3.4 Vegetation and Wetlands	Construction	No impacts to vegetation or wetlands.	Vegetation A small portion of a Category IV wetland buffer may be disturbed during construction.	Vegetation Removal or alteration of up to approximately 1.3-acres of wetland, stream, and buffer vegetation from Wetlands A and B and Algona Creek Tributary 09.0054A.	
			Wetlands Category IV wetland would not be directly impacted, but a small portion of its buffer may be temporarily disturbed.	Wetlands Wetland A may need to be permanently filled (0.28-acre) to accommodate the transfer station.	

		Potential Impacts and Proposed Mitigation Measures			
Environmental	Phase of the	No Action Altornativo	Altomative 1	Alternative 2	
Section 3.4 Vegetation and Wetlands (Con't)	Project			Construction-related activities including clearing, grading, and filling could also result in permanently filling of all of Wetland B (0.10-acre).	
		<i>Mitigation</i> No mitigation measures required	 Mitigation Compensatory mitigation would be provided for unavoidable impacts to wetland buffers. Mitigation would be developed during site design and in coordination with applicable regulatory agencies, and would include the following: Planting plans would include native plants in landscaped areas and revegetation after construction. Revegetated areas would be maintained during operation. 	 Mitigation Compensatory mitigation would be provided for wetland and buffer impacts that cannot be minimized or avoided per the Algona Municipal Code, Chapter 16.18B Wetlands. Mitigation would be developed during site design and in coordination with applicable regulatory agencies, and would include the following: Planting plans would include native plants in landscaped areas and revegetation after construction. Revegetated areas would be maintained during operation. 	
	Operation	No impacts to vegetation or wetlands.	No impacts to vegetation or wetlands.	No impacts to vegetation or wetlands.	
		<i>Mitigation</i> No mitigation measures required	<i>Mitigation</i> No mitigation measures required	<i>Mitigation</i> No mitigation measures required	
Section 3.5 Wildlife and Fish	Construction	No impacts to wildlife or fish.	Potential negligible impacts to wildlife due to the alteration or remove of vegetation within the C St SW Wetland buffer.	Potential short-term minor to moderate impacts to wildlife and fish due to vegetation alteration or removal on-site, for road frontage improvements, and around Wetlands A and B and Algona Creek Tributary 09.0054A, and the potential relocation or realignment of the creek.	

		Potential Impacts and Proposed Mitigation Measures		
Environmental	Phase of the			Alternative 2
Element	Project	No Action Alternative	Alternative 1	(Preferred Alternative)
Section 3.5 Wildlife and			Potential negligible wildlife impacts from noise.	Potential negligible wildlife impacts from noise.
Fish (Con't)			Potential negligible fish and wildlife impacts from erosion and runoff.	Potential negligible to minor fish and wildlife impacts from erosion and runoff.
			Potential short-term negligible impacts to wildlife during possible deconstruction of the existing Algona Transfer Station.	Potential short-term negligible impacts to wildlife during possible deconstruction of the existing Algona Transfer Station.
		Mitigation	Mitigation	Mitigation
		No mitigation measures required	• The existing wetland and associated habitat would be clearly marked and avoided during construction and operation of the new transfer station to minimize impacts to wildlife	• A qualified wildlife biologist would survey the site prior to vegetation clearing to determine the presence of protected habitat and species.
			 A qualified wildlife biologist would survey the site prior to vegetation clearing to determine the presence of protected habitat and species. 	 An on-site assessment of streams and adjacent ditches for potential salmonid presence or viable habitat would be conducted prior to construction.
			• Planting plans would include native plants in landscaped areas and revegetation after construction that may benefit wildlife.	• Culverts would be designed to meet fish passage criteria.
				 Impacts to wetlands would be minimized to maintain a greater diversity of wildlife and wildlife habitat. This measure would be implemented during the engineering site design and project permitting process.
				 Revegetation would be completed in wetland and stream areas, where practicable, to enhance stream and wetland habitat to benefit wildlife and fish.

	r	Potential Impacts and Proposed Mitigation Measures		
Environmental Element	Phase of the Project	No Action Alternative	Alternative 1	Alternative 2 (Preferred Alternative)
Section 3.5 Wildlife and Fish (Con't)				• Planting plans would include native plants in landscaped areas and revegetation after construction that may benefit wildlife.
	Operation	No impacts to wildlife or fish.	No impacts to wildlife or fish.	Potential negligible wildlife impacts.
				No adverse fish impacts. Potential long- term beneficial impact to fish from the removal of fish passage barriers and from the installation of stream habitat enhancement if portions of the stream are day lighted, relocated or realigned.
		<i>Mitigation</i> No mitigation measures required	<i>Mitigation</i> No mitigation measures required	<i>Mitigation</i> No mitigation measures required
Section 3.6 Energy and Natural Resources	Construction	No impact to energy supplies or natural resources.	Energy Negligible impacts from energy use relative to overall energy availability during station construction and possible deconstruction of the existing Algona Transfer Station.	Energy Negligible impacts from energy use relative to overall energy availability during station construction, construction of the West Valley Highway South road frontage and overlay improvements, and possible deconstruction of the existing Algona Transfer Station.
			Natural Resources Negligible impacts from natural resources use.	Natural Resources Same as Alternative 1.
		<i>Mitigation</i> No mitigation measures required	<i>Mitigation</i> No mitigation measures required	<i>Mitigation</i> No mitigation measures required
	Operation	No impact to energy supplies or natural resources.	Energy No impact on overall energy supplies or the capacity of local or regional energy providers to meet demand in the service area because the energy requirements of	Same as Alternative 1.

		1	Potential Impacts and Proposed Mitigation N	leasures
Environmental	Phase of the			Alternative 2
Element	Project	No Action Alternative	Alternative 1	(Preferred Alternative)
Section 3.6			the transfer station operations would be a	
Energy and			fraction of a percent of average annual	
Natural			energy use.	
Resources			Natural Resources	
(Con't)			No impacts to natural resource supplies in	
			the region are anticipated.	
		Mitigation	Mitigation	Mitigation
		No mitigation measures required	No mitigation measures required	No mitigation measures required
Section 3.7 Noise	Construction	No noise impacts.	Minor impact from a temporary increase in ambient noise levels in the local project area.	Same as Alternative 1.
			Negligible impact from a temporary increase in ambient noise levels in the immediate area during deconstruction of the existing Algona Transfer Station.	Same as Alternative 1.
				Minor impact from a temporary increase in ambient noise levels in the local project area during the West Valley Highway South frontage and overlay improvements.
		Mitigation	Mitigation	Mitigation
		No mitigation measures required	No mitigation measures required	No mitigation measures required
	Operation	No noise impacts.	Minor impact from an increase in noise levels at receiving properties immediately adjacent to the site. No noise impacts to receiving properties farther from the site.	Same as Alternative 1
		Mitigation	Mitigation	Mitigation
		no mitigation measures required	ivo mitigation measures requirea	ivo mitigation measures requirea

		Potential Impacts and Proposed Mitigation Measures		
Environmental	Phase of the			Alternative 2
Element	Project	No Action Alternative	Alternative 1	(Preferred Alternative)
Section 3.8 Hazardous Materials	Construction	No impacts from hazardous materials.	Potential for undocumented ASTs, USTs, or hazardous material storage areas.	Recognized environmental conditions are present from former USTs and ASTs on- site.
			Potential for encountering contaminated soils and groundwater.	Same as Alternative 1.
			Minor risk of hydraulic fluid, anti-freeze, gasoline, and diesel spills/leakage during fueling and use of heavy equipment during construction.	Same as Alternative 1.
			With the implementation of hazardous materials impacts minimization measures described in Section 3.8 to address these issues, no impacts from hazardous materials are anticipated during construction.	Same as Alternative 1.
			Potential to encounter with asbestos- containing materials, lead-based paints, and PCBs during possible deconstruction of the existing Algona Transfer Station. An abatement plan for potential lead-based paint, asbestos-containing materials, and PCBs would be prepared prior to the potential deconstruction of structures on- site.	Same as Alternative 1.
			Decommissioning With the implementation of the hazardous materials impacts minimization measures described in Section 3.8, no impacts from hazardous materials are anticipated during decommissioning and deconstruction activities at the existing Algona Transfer Station.	Same as Alternative 1.

	ſ	Potential Impacts and Proposed Mitigation Measures				
Environmental	Phase of the		Alternative d	Alternative 2		
Element	Project	No Action Alternative	Alternative 1	(Preferred Alternative)		
Section 3.8		Mitigation	Mitigation	Mitigation		
Hazardous		No mitigation measures required	No mitigation measures required	No mitigation measures required		
(Con't)	Operation	No impacts from hazardous materials.	With the implementation of the Transfer Station's Operating Plan, Stormwater Pollution Prevention Plan, Spill Prevention Control and Countermeasures Plan, Contaminated Media Contingency Plan, Hazardous Materials Emergency Response Plan, and compliance with applicable regulations, regulatory guidance, and industry BMPs, no impacts from hazardous materials are anticipated during operation.	Same as Alternative 1.		
		Mitigation	Mitigation	Mitigation		
		No mitigation measures required	No mitigation measures required	No mitigation measures required		
Section 3.9 Land Use	Construction	No impacts to land use.	Potential short-term impacts to adjacent land uses from localized increases in noise, dust, odors, traffic, and emissions.	Same as Alternative 1.		
		Mitigation	Mitigation	Mitigation		
		No mitigation measures required	No mitigation measures required	No mitigation measures required		
	Operation	No impacts to existing land use.	Land use at the Alternative 1 site would change from vacant to industrial, eliminating the opportunity to develop the site for other allowed industrial uses. Use of the Alternative 1 site as a transfer station would be similar in scale and size of other permitted industrial uses in the M-2 zone. There are no residences adjacent to the Alternative 1 site. This Action Alternative is subject to compliance with the City of Auburn zoning and relevant land use plans and policies. This	Land use at the Alternative 2 site would change from primarily vacant land with a portion used as a landscape supplier to a transfer station. This would eliminate the potential opportunity to develop the site for other allowed commercial uses. Alternative 2 site is sufficiently buffered from residential land use and existing site constraints prevent the risk of This Action Alternative is subject to compliance with the City of Algona		

		Potential Impacts and Proposed Mitigation Measures		
Environmental Element	Phase of the Project	No Action Alternative	Alternative 1	Alternative 2 (Preferred Alternative)
Section 3.9 Land Use (Con't)			Action Alternative is subject to compliance with the City of Auburn zoning and relevant land use plans and policies. Operation land use impacts are not anticipated.	policies. Operation land use impacts are not anticipated. Intensification. This Action Alternative is subject to compliance with the City of Algona zoning and relevant land use plans and policies. Operation land use impacts are not anticipated.
		Mitigation No mitigation measures required	Mitigation No mitigation measures required	Mitigation No mitigation measures required
Section 3.10 Visual Quality	Construction	No impacts to visual resources.	Potential minor and temporary impacts from construction equipment and activities.	Same as Alternative 1
		<i>Mitigation</i> No mitigation measures required	<i>Mitigation</i> No mitigation measures required	<i>Mitigation</i> No mitigation measures required
	Operation	No impacts to visual resources.	Substantial change of visual quality from Viewpoint 1-E. Negligible change in visual quality at all other viewpoints. Overall minor impacts to visual quality since impacts would be small and localized.	No impacts to Viewpoints 2-A and 2-B. Negligible change in visual quality from Viewpoints 2-C and 2-D. Negligible change in visual quality from Viewpoints 2-C and 2-D. Overall minor impacts to visual quality since impacts would be small and localized.

		Potential Impacts and Proposed Mitigation Measures		
Environmental	Phase of the			Alternative 2
Element	Project	No Action Alternative	Alternative 1	(Preferred Alternative)
Section 3.10 Visual Quality (Con't)		<i>Mitigation</i> No mitigation measures required	 Mitigation A range of materials, textures, and colors would be incorporated in exterior areas of the transfer station for aesthetic interest. Artwork would be installed in accordance with King County's "1% for Art program." 	<i>Mitigation</i> Same as Alternative 1
Section 3.11 Cultural Resources	Construction	No impacts to cultural resources.	Minor to moderate impacts to cultural resources because there is a potential for pre-contact and historic-era archaeological resources to be present. No impacts to cultural resources anticipated from deconstruction of the existing Algona Transfer Station.	Minor to moderate impacts to cultural resources because there is a potential for pre-contact and historic-era archaeological resources to be present on-site and in the construction area for the West Valley Highway South frontage improvements. Negligible impacts to above-ground structures present on-site that require deconstruction. No impacts to cultural resources anticipated from deconstruction of the existing Algona Transfer Station.

		Potential Impacts and Proposed Mitigation Measures			
Environmental	Phase of the			Alternative 2	
Element	Project	No Action Alternative	Alternative 1	(Preferred Alternative)	
Section 3.11 Cultural Resources (Con't)		<i>Mitigation</i> No mitigation measures required	 Mitigation Mitigation measures would be defined in consultation with the State Historic Preservation Officer (SHPO), King County Historic Preservation Officer, and other consulting parties. Avoidance or data recovery prior to and monitoring during construction would occur in areas of the site that were previously undisturbed. An above-ground historic property inventory would occur prior to construction and any resources identified would be documented and evaluated for significance. 	Mitigation Mitigation measures would be defined in consultation with the State Historic Preservation Officer (SHPO), King County Historic Preservation Officer, and other consulting parties and would be the same as those for Alternative 1. In addition, the existing transfer station will be evaluated and documented for historical significance prior to demolition if required under Section 106 by federal action such as a 404 permit. If NRHP eligibility is determined, the following mitigation measure would be implemented • Historic American Buildings Survey/Historic American Engineering Record documentation or the preparation of a historic context would occur for any significant above- ground historic properties if federal action triggers Section 106 compliance.	

		Potential Impacts and Proposed Mitigation Measures			
Environmental	Phase of the			Alternative 2	
Element	Project	No Action Alternative	Alternative 1	(Preferred Alternative)	
Section 3.11			• An inadvertent discovery plan would be		
Cultural			prepared by King County and approved		
Resources			by SHPO prior to construction. If		
(Con't)			cultural resources are encountered		
			during construction, work would stop		
			immediately and DAHP would be		
			consulted. Any resources encountered		
			would be documented and evaluated		
			for significance.		
	Operation	No impacts to cultural resources.	No impacts to cultural resources because	Same as Alternative 1.	
			no further ground disturbance is		
			anticipated.		
		Mitigation	Mitigation	Mitigation	
		No mitigation measures required	No mitigation measures required	No mitigation measures required	
Section 3.12	Construction	No impacts to transportation.	Minor impacts from temporary, localized	Same as Alternative 1.	
Transportation			increases in traffic volumes, temporary		
			lane closures, and roadway wear and tear		
			from heavy construction trucks and		
			construction equipment.		
		Mitigation	Mitigation	Mitigation	
		No mitigation measures required	No mitigation measures required	No mitigation measures required	
	Operation	No impacts to transportation.	Minor impacts associated with increased	Minor impacts associated with increased	
			traffic volumes at intersections, site	traffic volumes at intersections, site	
			access at the project site and the City of	access, and along corridors under both	
			Auburn's Maintenance and Operations	2020 and 2040 conditions.	
			Facility, and along corridors under both	Beneficial impacts to safety at the site	
			2020 and 2040 conditions.	access due to West Valley Highway	
				improvements.	

		Potential Impacts and Proposed Mitigation Measures			
Environmental	Phase of the			Alternative 2	
Element	Project	No Action Alternative	Alternative 1	(Preferred Alternative)	
Section 3.12 Transportation (Con't)		<i>Mitigation</i> No mitigation measures required	<i>Mitigation</i> No mitigation measures required	Mitigation Preliminary analyses suggest that a traffic signal may be warranted at the driveway of the Alternative 2 site based on 2040 forecasts. Although it may be warranted based on 2040 forecasts, installation of a traffic signal is not recommended at this time. Conditions should be monitored in the future if on- site delays occur that are not acceptable. Project design would allow for future consideration of signalization if warranted.	
Section 3.13 Public Services and Utilities	Construction	No impacts to public services or utilities.	Minor to negligible impacts on emergency vehicle access due to temporary street congestion caused by construction vehicles. Minor to negligible impacts to police services for traffic control.	Same as Alternative 1. No impacts to police services because the short-term construction-related impacts would be within the capacity of the Algona Police Department.	
			No impacts to schools. Minor to negligible impacts to GSA Park from construction traffic causing a temporary slow access to the park maintenance shop. Minor impacts to water utility from temporary service interruptions. No impacts to sanitary sewer services.	No impacts to schools or parks and recreation facilities. Same as Alternative 1. Minor to negligible impacts to sanitary sewer services.	

		Potential Impacts and Proposed Mitigation Measures			
Environmental	Phase of the			Alternative 2	
Element	Project	No Action Alternative	Alternative 1	(Preferred Alternative)	
Section 3.13 Public Services and Utilities (Con't)			Minor to negligible impacts to stormwater with implementation of BMPs and the Stormwater Pollution Prevention Plan.	Negligible impacts to stormwater with implementation of BMPs and the Stormwater Pollution Prevention Plan.	
			No impacts to utility capacities.	No impacts to utility capacities.	
			No impacts to solid waste services; the existing Algona Transfer Station would remain in operation until the new transfer station opens and would be able to accommodate additional solid waste created during construction.	Same as Alternative 1.	
		<i>Mitigation</i> No mitigation measures required	Mitigation No mitigation measures required	<i>Mitigation</i> No mitigation measures required	
	Operation	No impacts to public services or utilities.	Negligible impacts to emergency services because the potential need for emergency services is not expected to be any greater than currently exists.	Same as Alternative 1.	
			No impacts to police services because Alternative 1 would not increase population growth or other need for police protection.	Same as Alternative 1.	
			No impacts to schools.	No impacts to schools or parks and recreation facilities.	
			Minor to negligible impacts to GSA Park because access to the park maintenance shop could be affected by transfer station traffic if the C Street SW driveway entrance is used to reach the site.		

		Potential Impacts and Proposed Mitigation Measures		
Environmental	Phase of the			Alternative 2
Element	Project	No Action Alternative	Alternative 1	(Preferred Alternative)
Section 3.13 Public Services and Utilities (Con't)			No substantial demand or operation impacts to utilities or the stormwater system. Overall, impacts would be negligible because, if detectable, they would be very slight.	Same as Alternative 1.
		Beneficial impacts to solid waste infrastructure because there would be added garbage transfer and recycling capacity over the long term to meet the growing needs of the community.	Same as Alternative 1. No impacts to public services or utilities are anticipated from West Valley Highway South frontage and overlay improvements.	
		<i>Mitigation</i> No mitigation measures required	<i>Mitigation</i> No mitigation measures required	<i>Mitigation</i> No mitigation measures required

S.6 Indirect and Cumulative Impacts

Indirect impacts are caused by the proposed project and are reasonably foreseeable, but are later in time or farther removed in distance than direct impacts. Examples include changes in land use and economic vitality (e.g., induced new development, growth, and population), water quality and natural resources.

The State Environmental Policy Act (SEPA) Rules (WAC 197-11) provide no specific definition of "cumulative impacts," although the term is used in several places. SEPA case law applies the concept very restrictively and defines cumulative impacts as the impacts of the proposal along with the impacts of other actions that are virtually compelled or made inevitable as a result of the proposed action. The FEIS contains a discussion of Indirect and Cumulative Impacts as required by SEPA for each relevant environmental element.

Table S-2 summarizes the Indirect and cumulative impacts anticipated to be caused by each of the alternatives. See the Indirect and cumulative impacts section included for each element of the environment in Chapter 3 for more details.

Environmental Element	No Action Alternative	Alternative 1	Alternative 2 (Preferred Alternative)
Earth	No impacts	No impacts	No impacts
Air, Odor and GHGs	No impacts	Adding recycling services may indirectly reduce GHG emissions.	Same as Alternative 1
Water Resources	No impacts	No impacts	Potential indirect beneficial impacts to Algona Creek and other downstream waterbodies.
Vegetation and Wetlands	Potential indirect impacts from introduction of non- native plants from yard waste.	Same as No Action Alternative	Potential indirect impacts from introduction of non-native plants from yard waste; potential indirect impacts to vegetation and hydrology if off-site wetland mitigation occurs; potential indirect impacts to Algona Creek and surrounding vegetation.
Wildlife and Fish	No impacts	No impacts	Potential indirect impacts to Algona Creek and other downstream waterbodies that may affect fish and wildlife habitat.

Table S-2Summary of Indirect and Cumulative Impacts

Table S-2 (Continued) Summary of Indirect and Cumulative Impacts

Environmental Element	No Action Alternative	Alternative 1	Alternative 2 (Preferred Alternative)
Energy and Natural Resources	Would not benefit indirectly from energy efficiency in new transfer stations (Alternatives 1 and 2); would benefit cumulatively from other energy and natural resource conservation practices in the region.	Solid waste compaction prior to transport would indirectly reduce energy use by reducing the number of required truck trips to the landfill; would benefit cumulatively from other energy and natural resource conservation practices in the region similar to the No Action Alternative.	Same as Alternative 1.
Noise	No impacts	No impacts	No impacts
Hazardous Materials	No impacts	Potential indirect impacts from dewatering during construction that could result in the migration of the existing TCE groundwater contamination in Boeing Plant Plume 1. A recycling and transfer station at the site may indirectly affect collection at surrounding waste disposal sites including Auburn Wastemobile at the Outlet Collection, Puget Sound Recycling located northeast of the site on A Street SE, and other nearby stationary and mobile options.	Potential indirect impact to surrounding waste disposal sites same as Alternative 1.
Land Use	No impacts	No impacts	No impacts
Visual Quality	No impacts	No impacts	No impacts
Cultural Resources	No impacts	No impacts	No impacts
Transportation	No impacts	No impacts	No impacts
Public Services and Utilities	Potential indirect impacts to other facilities from the lack of capacity for materials collection.	No impacts	No impacts

S.7 Unavoidable and Significant Adverse Environmental Impacts

Significant unavoidable adverse impacts are those adverse impacts that would remain even after applying mitigation measures, or for which no mitigation measures would be effective.

Chapter 3 describes why there would be no significant unavoidable adverse impacts to alternatives by each element of the environment. None of the alternatives are anticipated to result in significant unavoidable adverse impacts.

S.8 Required Permits, Plans, and Approvals

This section describes the permits, plans, and approvals that would be required for the Proposed Action.

S.8.1 Required Permits and Approvals

Table S-3 shows the anticipated permits and approvals that would be needed for the SCRTS. Several permits would be the same if a transfer station was located in Algona or Auburn. Some permits would vary by site because of local regulatory processes and site conditions.

Permit/Approval Type	Agency		
Federal and State			
Cultural Resources Assessment (CRA) for Compliance with Section 106 of the National Historic Preservation Act	U.S. Army Corps of Engineers (USACE) and Washington State Department of Archaeology and Historic Preservation (DAHP)		
with the Clean Water Act (CWA)	USACE		
Hydraulic Project Approval	Washington Department of Fish and Wildlife (WDFW)		
Section 7 Endangered Species Act	U.S. Fish and Wildlife Service (USFWS) and National Oceanic and Atmospheric Administration (NOAA) Fisheries		
Section 401 Certification for Compliance with the CWA	Washington State Department of Ecology (Ecology)		
National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit and Coverage	Ecology/U.S. Environmental Protection Agency (EPA)		
Magnuson-Stevens Act Approval	NOAA Fisheries		
Migratory Bird Act Compliance	U.S. Fish and Wildlife Service		
Notice of Construction	Puget Sound Clean Air Agency (PSCAA)		
Solid Waste Transfer Station Operating Permit	Ecology; Public Health – King County		
Lo	cal		
Building Height Variance	City of Algona, City of Auburn		
Building Permits	City of Algona, City of Auburn		

Table S-3Permits and Approvals for the SCRTS Project

Permit/Approval Type	Agency
Conditional Use Permit	City of Algona, City of Auburn
Demolition Permit	City of Algona
Grading and Filling Permit	City of Algona, City of Auburn
Street Rights-of-Way Vacation	City of Algona
Construction Permit	City of Auburn
Special Areas Plan Review	City of Auburn
Essential Public Facilities alternative analysis	City of Auburn
Essential Public Facilities impact mitigation plan	City of Auburn
Analysis of Essential Public Facility's impact on City	City of Auburn
finances	
Right-of-Way Permit	City of Auburn, City of Algona

Table S-3 (Continued)Permits and Approvals for the SCRTS Project

S.8.2 Regulatory Requirements

Regulations ensure that all solid waste facilities are operated in such a way as to mitigate potential impacts, regardless of location. The Washington Administrative Code (WAC) establishes requirements for the development and operation of solid waste handling facilities, including transfer stations. Additionally, Public Health – Seattle & King County (Public Health) regulates transfer stations under the Code of the King County Board of Health – Title 10: King County Solid Waste Regulations. The Puget Sound Clean Air Agency (PSCAA) regulates air quality in King County.

S.8.2.1 Washington Administrative Code (WAC)

The division operates transfer stations in accordance with state regulations that set standards for solid waste handling at transfer stations, including the following standards shown in Table S-4.

Section	Title
WAC 173-200	Water Quality Standards for Groundwaters of the State of Washington
WAC 173-201A	Water Quality Standards for Surface Waters of the State of Washington
WAC 173-216	State Waste Discharge Permit Program
WAC 173-220	National Pollutant Discharge Elimination System (NPDES) permit program
WAC 173-350	Solid Waste Handling Standards

Table S-4WAC Standards for Solid Waste Handling at Transfer Stations

WAC 173-350, Solid Waste Handling Standards, establishes minimum statewide design, construction, operation, and closure standards for interim solid waste handling facilities such as transfer stations. These criteria also implement rulemaking in the federal Resource Conservation and Recovery Act (RCRA), as amended in 1984, and Section 405(d) of the Clean Water Act (CWA), as amended, to ensure the protection of human health and the environment.

WAC 173-201A states that transfer stations may not discharge pollutants into waters of the state (including wetlands) that cause a violation of surface water quality standards.

Stormwater discharges from transfer station property must meet the requirements specified in the Washington State Department of Ecology's (Ecology) *2012 Stormwater Management Manual for Western Washington* and the Ecology Industrial Stormwater General Permit (ISWGP) to comply with requirements of WAC 173-200, WAC 173-201A, WAC 173-216 and WAC 173-220 (Ecology 2012a). The ISWGP specifies implementation of best management practices (BMPs) for maintaining on-site water quality, the quality of water discharges from the site, and water quality monitoring requirements for the station. A stormwater pollution prevention plan is also required by the ISWGP.

S.8.2.2 Public Health – Seattle & King County

The division must operate its transfer stations in compliance with the King County Board of Health Solid Waste Regulations (Title 10), the conditions of the Solid Waste Permit issued by Public Health, and the approved Plan of Operations required by that permit. Title 10 adopts the rules contained in WAC 173-350 for intermediate solid waste handling facilities:

- Location standards: The regulations do not have specific location standards, but require that any transfer station must comply with all local, state, and federal laws and regulations.
- Design standards: The owner of any transfer station must prepare engineering reports/plans and specifications to address design standards that:
 - 1. Control public access and limit unauthorized vehicular traffic and illegal dumping
 - 2. Effectively control rodents, insects, birds and other vectors
 - 3. Effectively control dust and litter
 - 4. Provide protection from the wind rain or snow
 - 5. Provide pollution control measures to protect surface and ground water
 - 6. Provide pollution control measures to protect air quality
 - 7. Provide all-weather surfaces for vehicular traffic
- Operating standards: The owner of a transfer station must:
 - 1. Protect human health and the environment
 - 2. Prohibit the disposal of dangerous and other unacceptable waste
 - 3. Control vectors and litter
 - 4. Prohibit scavenging
 - 5. Prohibit open burning
 - 6. Control dust and nuisance odors
 - 7. Provide on-site attendants
 - 8. Post a sign that identifies the station and shows hours of operations
 - 9. Have communication capabilities to contact emergency personnel if needed
 - 10. Inspect and maintain the station
 - 11. Maintain daily operating records on the weights and types of waste received and removed from the station
 - 12. Develop, keep and abide by a plan of operation

• Closure requirements: The owner of a transfer station must notify Public Health 180 days in advance of closure. All waste shall be removed to a station that conforms to the applicable regulations for handling the waste.

S.8.2.3 Puget Sound Clean Air Agency

PSCAA is the primary regulatory agency for ambient air quality in King County. It implements regulations promulgated by the EPA and Ecology under Regulations I, II, and III. These agencies have established ambient air quality standards for a group of air pollutants commonly referred to as criteria pollutants. Criteria pollutants that are relevant to municipal solid waste transfer stations include:

- Inhalable particulate matter or PM₁₀ (particles less than 10 microns [millionths of a meter] in diameter) and fine particulate matter or PM_{2.5} (particles less than 2.5 microns in diameter), which is a small component of fugitive dust produced when vehicles and equipment operate on paved surfaces, and particulate emissions in engine exhaust.
- Sulfur dioxide (SO₂), nitrogen oxides (NO_x), volatile organic compounds (VOCs) and carbon monoxide (CO), which are present in the exhaust from transfer station-related vehicles and equipment.
- Ozone (O₃), which is produced in the atmosphere when NO_x and VOCs react in the presence of sunlight. As noted above, NO_x and VOC emissions are present in the exhaust from transfer station-related vehicles and equipment.

In order to measure existing air quality, Ecology and PSCAA maintain a network of monitoring stations throughout Puget Sound. Based on monitoring information collected over a period of years, Ecology and EPA designate regions as either attainment or nonattainment areas for particular air pollutants. Attainment status is a measure of whether air quality in an area complies with the National Ambient Air Quality Standard (NAAQS). The project is located within an area designated by the EPA as an attainment area for all criteria air pollutants. This designation is given to areas within which the ambient standards have been met over a period of time.

During the construction phase of the SCRTS, the construction contractor will be required to comply with the PSCAA regulations requiring the control of odorous emissions so as to prevent undue interference with nearby uses (Regulation 1, Section 9.11). Contractors will also be required to comply with applicable regulations, and take all reasonable precautions to avoid or minimize fugitive dust emissions during construction (Regulation I, Section 9.15). The PSCAA considers transfer stations non-pollution generating sources, as emissions are based on mobile sources (i.e., transfer station users). Therefore, a Notice of Construction application is not required.

S.9 Next Steps

The anticipated project implementation process timeframe is indicated below.

Process	Timeframe
Siting Decision by King County	2016
Design and Permitting	2017 – 2019
Construction of new station	2020-2021
If Alternative 1 or 2 is implemented, decommissioning of	2022
the existing Algona Transfer Station	

Table S-5Anticipated Implementation Timeframe

Chapter 1: Purpose and Need

1.1 Introduction and Background

This document is a Final Environmental Impact Statement (FEIS), prepared in compliance with Washington's State Environmental Policy Act (SEPA). The environmental review process in SEPA (Chapter 43.21C Revised Code of Washington (RCW)) is designed to work with other regulations to provide a comprehensive review of a proposal. The Proposed Action triggers SEPA review because it has a potential environmental impact, would require funding from King County and permits from King County or other agencies. The purpose of an EIS is to provide the public and agencies with information about the effects of a proposed project and inform local and state agency permitting decisions. An EIS is not a decision to approve or deny a proposal.

The King County (County) solid waste system serves the unincorporated areas of King County and 37 of the 39 cities in the county – only the cities of Seattle and Milton do not participate. In 2004, the Metropolitan King County Council (County Council) adopted Ordinance 14971 to establish a process for the cities in the county's service area to collaborate with the Solid Waste Division (division) in solid waste system planning, including future transfer station alternatives. Recycling and transfer stations are essential public facilities used for deposition and consolidation of recyclables and solid wastes for transportation to recycling facilities and disposal sites. The Metropolitan Solid Waste Management Advisory Committee (MSWMAC) was formed with representatives and alternates appointed by the cities. In 2013 the committee was formalized in the Amended and Restated Interlocal Agreement (ILA) between the County and participating cities.

MSWMAC joined the long-standing Solid Waste Advisory Committee (SWAC) in advising the division in the development of policies, goals, and recommendations for the solid waste system. SWAC membership includes King County citizens; and representatives from public interest groups, labor, recycling businesses, the marketing sector, manufacturing, the waste management industry, and local elected officials.

Working with MSWMAC, SWAC, and other stakeholders, the division prepared the *Solid Waste Transfer and Waste Management Plan* (Transfer Plan), and the accompanying EIS. The Transfer Plan was adopted by the County Council in 2007 (King County 2007) and updated in 2014 and 2015 (King County 2015a).

1.2 Purpose and Need for the Project

The purpose of the project is to site, design, construct and operate a solid waste transfer station in south King County. The new station would serve the areas surrounding and communities of Algona, Auburn, Federal Way and Pacific for the next 50 years.

The Transfer Plan sets forth the need for a new south county transfer station to be placed in service. Transfer facilities are essential public facilities and are vital to communities for the safe

and efficient handling of their solid waste. The plan outlines the region's long-term need for a new transfer station to replace the existing Algona Transfer Station. The existing transfer station failed to meet five of the six level-of-service station capacity criteria evaluated in the Transfer Plan – only the hours of operation were sufficient – and did not meet goals for traffic impacts on local streets (see Table 1-1 for all criteria applied). The existing Algona Transfer Station cannot accommodate waste compaction or provide recycling services required by the *Draft Comprehensive Solid Waste Management Plan* (King County 2013a). Additionally, the existing station does not meet safety goals without requiring additional effort from staff and management, which reduces system efficiency.

Criteria Category	Critaria	Screening Results	Meets Criteria? Yes/No
Level-of-Service Station Capacity	Time on-site meets standard for 90% of trips		No
	a. Commercial vehicles < 16 min	No	
	b. Business self-haulers < 30 min	Yes	
	c. Residential self-haulers < 30 min	Yes	
Level-of-Service Station Capacity	Station hours meet user demand	Yes	Yes
Level-of-Service Station Capacity	Recycling services meet policies		No
	a. Business self-haulers	No	
	b. Residential self-haulers	No	
Level-of-Service Station Capacity	Vehicle capacity		No
	a. Meets current needs	No	
	b. Meets 20-year forecast needs	No	
Level-of-Service Station Capacity	Average daily handling capacity (tons)		No
	a. Meets current needs	No	
	b. Meets 20-year forecast needs	No	
Level-of-Service Station Capacity	Space for three days' storage ¹		No
	a. Meets current needs	No	
	b. Meets 20-year forecast needs	No	
Traffic Effects on Local Streets	Meets goals for traffic on local streets		No
	a. Meets LOS standard	Yes	
	b. Traffic does not extend onto local	No ²	
	streets 95% of time		
Locational Criteria	Estimated time to a transfer station within	Yes	Yes
	the service area for 90% of users < 30 min		
Locational Criteria	Space exists for station expansion		No
	a. Inside the property line	No	
	b. On available adjacent lands through	Yes	
	expansion		
Locational Criteria	100-foot buffer between active area &	Yes	Yes
	nearest residence		
Locational Criteria	Transfer station is compatible with	Yes	Yes
	surrounding land use		
Station Design Criteria Minimum roof clearance of 25 feet		Yes	Yes
Station Design Criteria	Meets station safety goals	No ³	No
Station Design Criteria	Ability to compact waste	No	No
Station Design Criteria	Meets structural and FEMA standards:		Yes
	a. Meets goals for structural integrity	Yes	
	b. Meets FEMA immediate occupancy	Yes	
	standards		

Table 1-1Level-of-Service Criteria Applied to the Existing Algona Transfer Station

Table 1-1 (Continued)Level-of-Service Criteria Applied to the Existing Algona Transfer Station

Criteria Category	Critaria	Screening Results	Meets Criteria? Yes/No
Station Design Criteria	Meets applicable local noise ordinance levels	Yes	Yes
Station Design Criteria	Meets PSCAA standards for odors	Yes	Yes

Notes:

¹Additional information pertaining to analysis of systems needs and capacity that was performed for Level-of-Service criteria is available in the Transfer Plan Appendix F, Report 2 (King County 2013a).

²Meets criterion on weekdays, but not on weekend days.

³The presence of these physical challenges does not mean that the stations operate in an unsafe manner. It does mean that it takes extra effort by staff and management, which reduces system efficiency, to ensure the facilities are operated safely.

The South County Recycling and Transfer Station (SCRTS) is needed to provide an efficient, modern transfer station to serve the south county customers currently using the existing Algona Transfer Station (as shown below in Figure 1-1).

The FEIS outlines each of the project alternatives for siting, constructing and operating a new recycling and transfer station. The document evaluates the potential impacts associated with each alternative and covers aspects of the built and natural environmental elements, environmental health, land use, transportation, public services, and utilities.



Figure 1-1: South County Vicinity Map

1.3 Alternative Site Selection Process

The Transfer Plan established that transfer stations within the County system should be geographically distributed throughout the County in order to equitably serve all customers.

Similar to the existing transfer station, any newly sited station should be placed in a location convenient to customers.

Starting in 2012, the division conducted a search for potential sites for this essential public facility in and around the cities of Auburn, Algona, Pacific, and Federal Way that would be suitable for replacing the existing Algona Transfer Station (Figure 1-1). The division followed guidelines set forth in the *Solid Waste Facility Siting Plan* (Siting Plan), published as Appendix C of the Transfer Plan (King County 2007). The Siting Plan requires that the public be given the opportunity to understand and participate in the alternative site selection process.

Figure 1-2 shows the six steps involved in the *SCRTS Siting Report* with Addendum (King County 2015b). The division went through the steps of potential site identification, broad area screening, focused screening, and comparative evaluation to determine the Action Alternatives that would be considered in the EIS in order to reach a decision.



Figure 1-2: Alternative Site Selection Process

1.3.1 Public Involvement during Siting

The MSWMAC and SWAC were regularly briefed and given opportunities to provide input throughout the alternative site selection process. A Siting Advisory Committee was established in August 2012 to develop and rank community criteria for evaluating potential sites. Community criteria considered factors that are important to local communities such as traffic congestion on local roads or noise in residential areas. The committee was comprised of city officials, agencies, businesses, school districts, organizations, and citizens. The Siting Advisory Committee met three times prior to a public meeting to understand the project, and review siting criteria applied to four potential sites from the focused area screening and comparative evaluation.

The division launched a public website in August 2012 that contained background information and upcoming meeting and notification dates. A public meeting was held on September 27, 2012, in Auburn to introduce the SCRTS project to the public and present four potential sites. At this meeting, the division addressed comments and concerns raised by the public. Over 70 people attended the public meeting. The Siting Advisory Committee met in October 2012 to review feedback from the public meeting and assess the focused area screening and comparative evaluation efforts which are described below. See also Section 1.6.

1.3.2 Potential Site Identification

The division began by identifying potential sites in the south county service area. The division used the County's Geographic Information Systems (GIS), real estate services, and input from the Siting Advisory Committee and the public to identify potential locations. Site identification resulted in approximately 31 potential sites for review in the broad area screening.

1.3.3 Broad Area Screening

The Broad Area Screening process resulted in the elimination of the less suitable sites from further consideration due to regulatory, environmental, or development constraints. After screening sites for these considerations, five potential sites moved forward for further consideration.

1.3.4 Focused Area Screening

Focused area screening evaluated and ranked the remaining five sites according to site availability, vehicular access and traffic patterns, land use compatibility, and site configuration. One site was eliminated from further consideration after it was determined that it was being developed for another public facility.

1.3.5 Comparative Evaluation

The four remaining potential sites were evaluated and ranked with the Siting Advisory Committee community criteria, functional criteria developed by the division, and input from the public meeting; and it was determined that the top two ranked potential sites would be considered in the EIS.

1.3.6 Conclusion

After evaluating sites in the alternative site selection process, KCSWD determined that, along with a No Action Alternative, the sites evaluated in this EIS will include:

- 901 C Street SW, Auburn
- 35101 West Valley Highway South, Algona

1.4 Required Permits and Approvals

Table 1-2 shows the anticipated permits and approvals that would be needed for the SCRTS. Several permits would be the same if a transfer station was located in Algona or Auburn. Some permits would vary by site because of local regulatory processes and site conditions.

Permit/Approval Type	Agency		
Federal and State			
Cultural Resources Assessment (CRA) for Compliance with Section 106 of the National Historic Preservation Act	U.S. Army Corps of Engineers (USACE) and Washington State Department of Archaeology and Historic Preservation (DAHP)		
Nationwide Section 404 Permit for Compliance with the Clean Water Act (CWA)	USACE		
Hydraulic Project Approval	Washington Department of Fish and Wildlife (WDFW)		
Section 7 Endangered Species Act	U.S. Fish and Wildlife Service (USFWS) and National Oceanic and Atmospheric Administration (NOAA) Fisheries		
Section 401 Certification for Compliance with the CWA	Washington State Department of Ecology (Ecology)		
National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit and Coverage	Ecology/U.S. Environmental Protection Agency (EPA)		
Magnuson-Stevens Act Approval	NOAA Fisheries		
Migratory Bird Act Compliance	U.S. Fish and Wildlife Service		
Notice of Construction	Puget Sound Clean Air Agency (PSCAA)		
Solid Waste Transfer Station Operating Permit	Ecology; Public Health – King County		
Local			
Building Height Variance	City of Algona, City of Auburn		
Building Permits	City of Algona, City of Auburn		
Conditional Use Permit	City of Algona, City of Auburn		
Demolition Permit	City of Algona		
Grading and Filling Permit	City of Algona, City of Auburn		
Street Rights-of-Way Vacation	City of Algona		
Construction Permit	City of Auburn		
Special Area Plan Review	City of Auburn		
Essential Public Facilities alternative analysis	City of Auburn		
Essential Public Facilities impact mitigation plan	City of Auburn		
Analysis of Essential Public Facility's impact on City	City of Auburn		
finances			
Construction Permit	City of Auburn		
Right-of-Way Permit	City of Auburn, City of Algona		

Table 1-2Permits and Approvals for the SCRTS Project
1.5 Regulatory Requirements

Regulations ensure that all solid waste facilities are operated in such a way as to mitigate potential impacts, regardless of location. The Washington Administrative Code (WAC) establishes requirements for the development and operation of solid waste handling facilities, including transfer stations. Additionally, Public Health – Seattle & King County (Public Health) regulates transfer stations under the Code of the King County Board of Health – Title 10: King County Solid Waste Regulations. The Puget Sound Clean Air Agency (PSCAA) regulates air quality in King County.

1.5.1 Washington Administrative Code (WAC)

The division operates transfer stations in accordance with state regulations that set standards for solid waste handling at transfer stations, including the following standards shown in Table 1-3.

Section	Title		
WAC 173-200	Water Quality Standards for Groundwaters of the State of Washington		
WAC 173-201A	Water Quality Standards for Surface Waters of the State of Washington		
WAC 173-216	State Waste Discharge Permit Program		
WAC 173-220	National Pollutant Discharge Elimination System (NPDES) permit program		
WAC 173-350	Solid Waste Handling Standards		

Table 1-3WAC Standards for Solid Waste Handling at Transfer Stations

WAC 173-350, Solid Waste Handling Standards, establishes minimum statewide design, construction, operation, and closure standards for interim solid waste handling facilities such as transfer stations. These criteria also implement rulemaking in the federal Resource Conservation and Recovery Act (RCRA), as amended in 1984, and Section 405(d) of the Clean Water Act (CWA), as amended, to ensure the protection of human health and the environment.

WAC 173-201A states that transfer stations may not discharge pollutants into waters of the state (including wetlands) that cause a violation of surface water quality standards.

Stormwater discharges from transfer station property must meet the requirements specified in the Washington State Department of Ecology's (Ecology) *2012 Stormwater Management Manual for Western Washington* and the Ecology Industrial Stormwater General Permit (ISWGP) to comply with requirements of WAC 173-200, WAC 173-201A, WAC 173-216 and WAC 173-220 (Ecology 2012a). The ISWGP specifies implementation of best management practices (BMPs) for maintaining on-site water quality, the quality of water discharges from the site, and water quality monitoring requirements for the station. A stormwater pollution prevention plan is also required by the ISWGP.

1.5.2 Public Health – Seattle & King County

The division must operate its transfer stations in compliance with the King County Board of Health Solid Waste Regulations (Title 10), the conditions of the Solid Waste Permit issued by

Public Health, and the approved Plan of Operations required by that permit. Title 10 adopts the rules contained in WAC 173-350 for intermediate solid waste handling facilities:

- Location standards: The regulations do not have specific location standards, but require that any transfer station must comply with all local, state, and federal laws and regulations.
- Design standards: The owner of any transfer station must prepare engineering reports/plans and specifications to address design standards that:
 - 1. Control public access and limit unauthorized vehicular traffic and illegal dumping
 - 2. Effectively control rodents, insects, birds and other vectors
 - 3. Effectively control dust and litter
 - 4. Provide protection from the wind rain or snow
 - 5. Provide pollution control measures to protect surface and ground water
 - 6. Provide pollution control measures to protect air quality
 - 7. Provide all-weather surfaces for vehicular traffic
- Operating standards: The owner of a transfer station must:
 - 1. Protect human health and the environment
 - 2. Prohibit the disposal of dangerous and other unacceptable waste
 - 3. Control vectors and litter
 - 4. Prohibit scavenging
 - 5. Prohibit open burning
 - 6. Control dust and nuisance odors
 - 7. Provide on-site attendants
 - 8. Post a sign that identifies the station and shows hours of operations
 - 9. Have communication capabilities to contact emergency personnel if needed
 - 10. Inspect and maintain the station
 - 11. Maintain daily operating records on the weights and types of waste received and removed from the station
 - 12. Develop, keep and abide by a plan of operation
- Closure requirements: The owner of a transfer station must notify Public Health 180 days in advance of closure. All waste shall be removed to a station that conforms to the applicable regulations for handling the waste.

1.5.3 Puget Sound Clean Air Agency (PSCAA)

PSCAA is the primary regulatory agency for ambient air quality in King County. It implements regulations promulgated by the EPA and Ecology under Regulations I, II, and III. These agencies have established ambient air quality standards for a group of air pollutants commonly referred to as criteria pollutants. Criteria pollutants that are relevant to municipal solid waste transfer stations include:

 Inhalable particulate matter or PM₁₀ (particles less than 10 microns [millionths of a meter] in diameter) and fine particulate matter or PM_{2.5} (particles less than 2.5 microns in diameter), which is a small component of fugitive dust produced when vehicles and equipment operate on paved surfaces, and particulate emissions in engine exhaust.

- Sulfur dioxide (SO₂), nitrogen oxides (NO_x), volatile organic compounds (VOCs) and carbon monoxide (CO), which are present in the exhaust from transfer station-related vehicles and equipment.
- Ozone (O₃), which is produced in the atmosphere when NO_x and VOCs react in the presence of sunlight. As noted above, NO_x and VOC emissions are present in the exhaust from transfer station-related vehicles and equipment.

In order to measure existing air quality, Ecology and PSCAA maintain a network of monitoring stations throughout Puget Sound. Based on monitoring information collected over a period of years, Ecology and EPA designate regions as either attainment or nonattainment areas for particular air pollutants. Attainment status is a measure of whether air quality in an area complies with the National Ambient Air Quality Standard (NAAQS). The project is located within an area designated by the EPA as an attainment area for all criteria air pollutants. This designation is given to areas within which the ambient standards have been met over a period of time.

The PSCAA considers transfer stations non-pollution generating sources, as emissions are based on mobile sources (i.e., transfer station users). Therefore, a Notice of Construction application is not required.

1.6 Public Involvement and Consultation

1.6.1 Scoping

Preparation of this EIS began with an extensive public scoping process. More than 23,000 scoping notices were mailed to the public and e-mails were also sent to other interested parties. The level of notification was similar for all four public scoping efforts as well as in the subsequent Draft EIS public comment outreach process.

The division initiated the SEPA scoping process by sending out a scoping notice on October 30, 2012 to agencies, Tribes, nearby businesses and residences, and other interested parties. The purpose of the scoping process was to inform agencies and stakeholders about the SCRTS project and allow the public, organizations, agencies, and Tribes to provide comments regarding the scope of the project, the proposed Action Alternatives, probable significant adverse impacts, mitigation measures, and permits or other approvals that should be considered in the EIS. There was a 30-day period for scoping comments, which ended on November 30, 2012. A public scoping meeting was held on November 15, 2012, where additional comment letters and oral comments were received. Scoping comments were received from the cities of Algona, Auburn, and Federal Way, Auburn School District, Muckleshoot Tribe, five private businesses, and 19 individuals.

A second scoping comment period was initiated on January 31, 2013, and ended on February 21, 2013. The purpose of this scoping process was to inform agencies, Tribes, nearby businesses and residences, and other interested parties about the addition of a third alternative located in Auburn at 28721 West Valley Highway South, including the two parcels immediately adjacent to the west. Scoping comments were received from the City of Kent, two private businesses, and 46 individuals.

A third scoping comment period began on February 22, 2013, and ended on April 5, 2013. The purpose of this scoping process was to extend the scoping comment period and hold an additional public scoping meeting. A public scoping meeting was held on March 27, 2013, where additional comment letters and oral comments were received. Scoping comments were received from the City of Kent, five private businesses, and 63 individuals.

A fourth scoping comment period began on November 3, 2015, and ended on November 24, 2015. The purpose of this scoping process was to inform agencies, Tribes, nearby businesses and residences, and other interested parties about the revised scope of the EIS, including the removal of the third alternative site at 28721 West Valley Highway South in Auburn. Environmental information received during the review process determined that the property located at 28721 West Valley Highway South in Auburn, is not a reasonable alternative and cannot feasibly attain the proposal's objectives. Information in a drainage assessment report indicated critical constraints on the ability to control and discharge storm water on and from this site. The report pointed out that the site has a high winter water table, problematic elevations relative to nearby surface water received from the cities of Algona and Auburn, Auburn School District, Ecology, Washington State Department of Transportation, two private businesses, and 11 individuals.

Common comments received during the four scoping periods and two scoping meetings included impacts associated with:

- Odor, pest and noise concerns
- Property value concerns
- Traffic concerns

Comments received from the public, organizations, agencies, elected officials, and Tribes during all scoping periods are considered in this EIS.

1.6.2 Draft EIS

Public comments were also accepted following publication of the DEIS on February 4, 2016. More than 26,000 flyers notifying residents of the availability of the DEIS were mailed to the public and e-mails were also sent to interested parties. Comments were received until March 9, 2016. During this comment period, two public open houses were hosted by King County, one each in Auburn and Algona. The open houses allowed the public to learn about the proposed action, the environmental analysis, and submit written comment on the proposal. Comments at the open houses were made on written comment forms and by providing public testimony to a court reporter. A total of 78 comment letters, comment forms, e-mails, statements of testimony, and a petition were submitted during this process (collectively referred to as "comment letters"). Of the 78 total comment letters received, 74 letters were submitted by individuals and one business owner. A citizen petition by residents living near Alternative 2 was submitted in opposition to that Alternative. Most comments received by members of the public during the DEIS comment period, including the two public open houses, consisted of statements of opposition to the project. The most commonly cited sources of concern included impacts associated with:

- Odor, pests, noise and slope stability
- Property values
- Traffic

The remaining four comment letters were received from the Muckleshoot Indian Tribe and the cities in the SCRTS service area. These letters included 12 comments by the Muckleshoot Indian Tribe, 199 comments by the City of Algona, 66 comments by the City of Auburn and seven comments by the City of Federal Way. Most of these comments addressed technical issues with the environmental analysis, ranging from general criticisms of the analytical approach to specific suggestions for data updates.

Each comment is transcribed by author and topic with corresponding responses in Appendix E. All comments received from the public, organizations, agencies, and Tribes during the DEIS public comment, including those received at the two public open houses, are considered in this FEIS.

1.7 Station Decommissioning

Decommissioning of the existing Algona Transfer Station would occur after a new SCRTS is constructed and operating under either Action Alternative. The station may also be deconstructed. Should the Algona Transfer Station be deconstructed, the work would occur over approximately six months including one to two months of debris removal.

If the existing transfer station is deconstructed the work would entail removal and hauling off of above-ground structures, including the scale complex and the transfer building. Construction equipment would access the above-ground structures from existing pavement areas. About two hundred timber support piles would be cut at grade level or removed completely. If completely removed, a vibratory hammer would be clamped onto the top of the pile to loosen it as it is pulled from the ground with a crane.

The stormwater system would remain in place to handle site runoff. Other utilities would be capped or disconnected. The existing gabion wall would remain in place at the base of the steep slope.

1.8 Preferred Alternative

The KCSWD has identified Alternative 2 as the Preferred Alternative because of the relative impacts, efficiencies and flexibility it would provide. The site would meet the project purpose

and system needs. State Route 167, West Valley Highway South, and adjacent topography buffer the site from other uses, such as parks, schools and residences. No commercial waste hauler collection routes would need to be changed so no additional collection cost would be incurred.

Both Alternative 1 and Alternative 2 are viable alternatives. Being the Preferred Alternative does not mean that Alternative 2 ultimately will be selected. The final decision will be based on several considerations: the analysis in this EIS; comments from federal, state and local agencies and tribal governments; comments from the public and from elected officials; and other factors such as cost and regional policies, and consistency or compliance with applicable plans, policies and regulations. It is anticipated that a final site selection decision will be made in late 2016 after issuance of the FEIS.

Chapter 2: Alternatives

2.1 Alternatives Considered

The division is considering two Action Alternatives in addition to the No Action Alternative for a new SCRTS (Figure 2-1). The alternatives are described in this chapter and the impacts of each are assessed in Chapter 3 of this FEIS. The alternatives are:

- No Action Alternative 35315 West Valley Highway South, Algona
- Alternative 1 901 C Street SW, Auburn
- Alternative 2 35101 West Valley Highway South, Algona

2.1.1 No Action Alternative

The existing Algona Transfer Station is located at 35315 West Valley Highway South on parcel 3356407870. Under the No Action Alternative, the division would not site a new station in the south county service area and would continue to operate the existing Algona Transfer Station. See Figure 2-2 for an aerial view of the existing Algona Transfer Station.

The existing transfer station site is approximately 4.4 acres and is not large enough to accommodate necessary service improvements. Access to the site is from West Valley Highway South. Because there is insufficient queuing space on-site, entering vehicles sometimes back up onto the highway impacting traffic.

The existing Algona Transfer Station was designed and constructed in the mid-1960s and does not meet today's building and environmental standards nor standards for service, and operational efficiency. It cannot provide recycling services to meet the County's environmental goals, nor can it cost-effectively compact waste which is necessary for efficient transport to the landfill.

Operational maintenance, including a roof replacement in 2002, have extended the life of the transfer building. Due to the ongoing deterioration of a number of the timber piles supporting the building, structural rehabilitation may be required in the future to significantly extend the life of the building.



Source: USGS 7.5-minute topographic quadrangles: Poverty Bay, Washington, 2011; and Auburn, Washington, 2011

Figure 2-1 Alternative Locations and South King County Area

Prepared for King County by URS Corporation Consultants





Figure 2-2: Aerial View of Existing Transfer Station

Steep slopes separate the site from R-1 Urban Residential-zoned properties in unincorporated King County to the west. Areas immediately west of the site are City of Algona zoning open space (OS) or critical areas (CAs). West Valley Highway South and State Route (SR) 167 separate the site from properties to the east, which the City of Algona has zoned C-1 Mixed Use Commercial and R-L Low Density Residential.

Property adjacent to the site on the south and on the north is zoned C-3 Heavy Commercial by the City of Algona. Undeveloped land is located to the north, while a single-family residence (35371 West Valley Highway South) is located to the south.

The Algona Transfer Station was built before the Leadership in Energy and Environmental Design (LEED) green building rating system was developed. It does not include green building and sustainable design features discussed below in Section 2.2.2.3 that are part of the Action Alternatives.

Chapter 1 describes the Level of Service (LOS) criteria for transfer stations that the division developed in collaboration with stakeholders. These criteria evaluated service to station users, the capacity of stations to handle garbage and recyclables both now and in the future, structural integrity, and the effects of stations on surrounding communities. Chapter 1 shows how the Algona Transfer Station scored poorly against these established LOS standards.

No permitting is anticipated to be required for this alternative.

2.1.2 Alternative 1

Alternative 1 would construct and operate a recycling and transfer station on the property located at 901 C Street SW in Auburn (Figure 2-3), on parcels 2421049054 and 2421049001 owned by Segale Properties, LLC. Photos of existing site conditions are included following Figure 2-3.

The City of Auburn has zoned this 18.7-acre site M-2 Heavy Industrial. Development as a transfer station would require permitting as a Conditional Use with approval through the city's essential public facility review process. The City of Auburn has determined that Alternative 1 would qualify as an essential public facility of a countywide nature, and therefore, subject to the special area plan process specified in the currently adopted Auburn Comprehensive Plan. Properties surrounding the site are zoned M-1 Light Industrial to the north, C-3 Heavy Commercial to the west and east, M-2 Heavy Industrial to the south, and P-1 Public Use District to the southeast.

The area adjacent to the site contains a mixture of land uses; including a school bus depot, a City of Auburn maintenance and operations facility, a grocery warehouse (SUPERVALU®) to the south; the General Services Administration (GSA) Park to the southeast; industrial warehouses to the east and north; a Western Plus Peppertree Inn; and commercial and residential properties to the north. The Outlet Collection Seattle, Wal-Mart, and Regal Cinemas are separated from the site to the west by the active Union Pacific Railroad and the Interurban Trail.

The relatively flat topography of the site is suitable for development as a recycling and transfer station. There is an existing wetland, associated buffer and conservation easement, and stormwater pond in the northwest corner of the site.



Source: Google Earth Pro, imagery date: 7/5/2012

Prepared for King County by URS Corporation Consultants

Figure 2-3 Alternative 1 Site Development Area

Alternative 1 interior, looking northwest



Alternative 1 interior, looking west



Alternative 1, looking north along C Street SW



2.1.3 Alternative 2 (Preferred Alternative)

Alternative 2 is the KCSWD's preferred alternative. Alternative 2 would construct and operate a recycling and transfer station on the property located at 35101 West Valley Highway South in Algona. This site, located north of the existing transfer station, is 18.9 acres and contains 9 parcels owned by King County: 3356407890; 3356407905; 3356407910; 3356407915; 3356407925; 3751601414; 3751601416; 3751601419; and 3751601429 (Figure 2-4). Photos of existing conditions are included following Figure 2-4.

There are portions of unopened road rights-of-way on the property, but no roads or public use were ever established on these rights-of-way. The road rights-of-way would be vacated through the City of Algona street vacation process.

With Alternative 2, safety and access improvements would occur along West Valley Highway South adjacent to the property along a 1/3-mile of roadway lying roughly between 9th Ave N and Broadway Boulevard. These road frontage improvements would include straightening of the curve bordering the site; related frontage modifications, channelization via turn lanes, if required, for access into and out of the site; and curb, gutter, sidewalk, and related drainage improvements.

As part of Alternative 2 West Valley Highway South will receive pavement overlays north and south of the road frontage improvement area, between approximately 12th Ave N and 9th Ave N and between approximately Broadway Boulevard and 5th Ave N. The overlays would occur after construction and prior to operation of the SCRTS.

Alternative 2 would also incorporate water quality and stormwater management elements including flow control and water quality treatment. There would also be habitat improvements to portions of Algona Creek tributary on the project site. Currently parts of the creek on the project site are confined to culverts. In that location the stream would likely either be day-lighted or placed in a larger culvert complying with regulatory requirements and allowing for fish passage. If the stream is relocated or re-aligned, it would be designed with appropriate habitat features.

Most of the site is zoned by the City of Algona as C-3 Heavy Commercial. The steep slopes on the western portion of the property are zoned as OS/CA. A Conditional Use permit would be required to allow development of a recycling and transfer station. Approximately 9 acres of the 18.9 acre site are designated critical areas composed of steep slopes, which are undevelopable and typically require buffers and setbacks. The topography of the remaining area, approximately 10 acres, is gently sloping. Algona Creek 09.0054A, and two wetlands and their associated buffers would likely be temporarily and/or permanently impacted.

The steep slopes on the west side of the property separate the site from R-1 Urban Residential zoned properties in unincorporated King County to the west and the City of Auburn to the northwest. West Valley Highway South and SR 167 separate the site from single-family residences and limited commercial uses to the east, which the City of Algona has zoned C-1 Mixed Use Commercial and R-L Low Density Residential.



Source: Google Earth Pro, imagery date: 7/10/2014

Prepared for King County by URS Corporation Consultants

Figure 2-4 Alternative 2 Site Development Area

C-3 Heavy Commercial property is adjacent to the site on the south (currently in use as the Algona Transfer Station) and to the north.

North of the site is Terra Dynamics, a landscape construction contracting business, and the City of Auburn's Vista Pointe Stormwater Facility. Farther north are commercial uses, including Allsports Cages & Netting, The Mustang Shop, Peltram Plumbing, Hinshaw's Motorcycle Store, Speedi Transmissions, JFC Racing, and Del's Farm Supply. Site conditions are shown in the following photographs.



Alternative 2, looking west

Alternative 2 interior, looking south



Alternative 2, looking south



2.2 Elements Common to Alternatives 1 and 2

Alternatives 1 and 2 would have common elements for projected tonnage, design, construction, and operation.

2.2.1 Projected Tonnage

The 2015 Update of the King County Strategic Climate Action Plan, approved by the King County Council, states that King County commits to achieving a 70 percent recycling rate in the solid waste service area (King County 2015c). If the recycling rate increases to 70 percent by 2030 as anticipated, the total Municipal Solid Waste (MSW) and yard waste tonnage would decrease between 2020 and 2040 by 9,360 tons; and the truck round trips would decrease by 360 (Table 2-1).

Туре	2020	2030	2040
Self-Haulers MSW	31,200	20,300	23,600
Commercial MSW	110,960	92,700	107,900
Yard Waste	3,700	4,300	5,000
Total Station Use	145,860	117,300	136,500
Hauling Trucks			
(Round Trips)	5,460	4,300	5,100

Table 2-1South County Station Projected Tonnage with70 Percent Recycling Rate by 2030

2.2.2 Common Elements of Design and Construction

Although transfer station design on this project will not begin until site selection is finalized, the King County Solid Waste Division has extensive recent experience constructing and operating modern solid waste recycling and transfer stations. King County has completed three such

facilities during the last decade including Shoreline, Bow Lake and Factoria. These facilities will serve as models for improving facility operation and reducing impacts on surrounding communities by including the following features:

• An enclosed transfer building

- Protects customers and workers from the weather
- Contains noise, dust and odors
- Provides easy-to-use unloading areas, giving customers more room to maneuver resulting in reduced wait times
- Allows for high-volume waste handling while providing the flexibility to allow selective material recovery and baling

• Water conservation

- Collect rainwater to wash floors and equipment and to flush toilets
- Use of low-flow water fixtures
- Use of drought-tolerant native plants in landscape design
- Consider including engineered rain gardens or bio-infiltration swales in landscaping design if appropriate to the site
- Consider use of pervious pavement on driveways or walking surfaces if appropriate

• Energy conservation

- In accordance with King County Green Building and Sustainable Development Ordinance (Ordinance 17709), the division will seek to achieve LEED Platinum certification for the SCRTS. As part of this certification, the division will consider sustainable site design; water efficiency; energy and atmosphere; materials and resources; indoor environmental quality; innovation in design process; and regional priority.
- The division will work with PSE to maximize financial incentives available from the utility company such as energy savings and rebates for using high-efficiency applications.
- The transfer building and building openings will be oriented in a manner that captures prevailing winds for cross-ventilation, thereby reducing energy consumption for mechanical ventilation.
- Skylighting on the roof and translucent windows on the sides of the building will be used to reduce the need for artificial lighting.
- Use of energy efficient fixtures and equipment such as lighting, heating, ventilation, air conditioning, and operable windows, and the design of energy-efficient fans in the transfer building to operate in conjunction with natural ventilation.
- Daylight sensors will be installed in the tipping floor area to eliminate the use of lights during periods when natural light is sufficient.
- Capture and reuse of waste heat.

- KCSWD will consider a photovoltaic generation system and/or the use of green power (renewable energy purchased from the electrical utility provider) as part of the sustainable building features evaluated during design to help achieve the goal of a LEED Platinum rating.
- Dust and Odor Management
 - Trap odors and dust with interior misting systems
 - Use of sealed waste transfer trailers to trap odors

• Aesthetics

- Fully enclosed, end-loaded containers will be used for solid waste, reducing the potential for spillage of waste and litter at the site.
- A range of materials, textures, and colors will be incorporated in exterior areas of the transfer station for aesthetic interest.
- Artwork will be installed in accordance with King County's "1% for Art program."

• Protection of Native Vegetation

- The C Street SW Wetland and associated vegetation would be clearly marked and avoided during construction and operation of the new transfer station to minimize impacts.
- Planting plans would include native plants in landscaped areas and revegetation after construction.
- Revegetated areas would be maintained during operation.

With an expected life span of 50 years, Alternative 1 or Alternative 2 would be built to modern industry and green building standards. New transfer stations are more efficient than those built in the mid-20th century. They use compactors to reduce the volume of garbage before it is hauled to the landfill or other disposal facility. Compactors reduce the total number of transfer trailer trips to and from the station by nearly a third compared to uncompacted loads, which reduces the cost of operations and traffic impacts. Additionally, modern transfer stations are built as fully enclosed buildings, resulting in reduced external dust, noise, odor, and litter. New transfer stations offer sufficient queuing space for customers and storage space for waste, including dedicated areas for recycling services.

Alternatives 1 and 2 would include the following physical elements:

- Decommissioning of the existing Algona Transfer Station as described in section 1.7
- Scale house and scales
- Enclosed transfer building for waste handling, sorting, and processing
- Waste compactors
- Recycling and material staging areas
- Administration and staff area
- Station perimeter fence
- Above-ground fuel tank and fueling station

- Adequate on-site space for customer queuing and site circulation
- On-site roadways for division vehicles
- Outdoor parking for full and empty waste transfer trailers
- Optional area for future moderate risk waste (MRW) collection
- Stormwater management
- Landscaping

2.2.2.1 Building Features

The approximate footprint of the building area would be 60,000 square feet with 10,000 square feet for future expansion capabilities. This would provide space for solid waste, recycling administration, disaster event storage, and an optional Moderate Risk Waste (MRW) collection facility. Buffers between the active area of the station and neighboring uses would be appropriately sized and designed to reduce impacts.

The height of the new station would depend on site conditions and city building codes. The distance from the main tipping floor down to the compactor(s) would be approximately 20 feet, and may be partially below grade. The height from the main tipping floor to the highest point of the roof would be approximately 50 feet – the distance required for commercial garbage trucks to tip without hitting the overhead misting, fire sprinkler, and ventilation and other systems. The overall height of the new station would be approximately 70 feet above the lowest level.

Alternatives are anticipated to include a 2,500-gallon above-ground fuel station to provide diesel fuel for operational equipment.

Buildings, parking areas, and roadways at the new transfer station would result in up to 5 to 6 acres of impervious surfaces.

2.2.2.2 Level of Service Standards

After construction, the new transfer station will meet all 17 of the division's LOS standards established in the Transfer Plan and shown in Chapter 1 of this document.

2.2.2.3 LEED

The LEED green building rating system is a voluntary, consensus-based national standard for developing high-performance, sustainable buildings. Projects can obtain various levels of certification including Certified, Silver, Gold or Platinum – based on a point rating system. The new transfer station will target a LEED Platinum certification.

LEED emphasizes state-of-the-art strategies for sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality. LEED standards for the new station may include use of the following:

- Energy-efficient planning, design, and management.
- Water-efficient planning, design, and management.

- "Environmentally preferable products" whenever practicable. Environmentally
 preferable products are products that have a lesser or reduced effect on human health
 and the environment when compared with competing products that serve the same
 purpose. This comparison may consider raw materials acquisition, production,
 manufacturing, packaging, distribution, reuse, operation, maintenance, or disposal of
 the product. An example is use of cement alternatives.
- Preservation and maintenance of natural on-site features, whenever possible.
- Construction BMPs, such as minimizing disturbance to on-site vegetation.
- Planting trees and other native vegetation impacted during development as a means of maintaining carbon storage to maximize carbon sequestration.

These features are consistent with the division's environmental focus and with the County's green building ordinance promoting the use of environmentally responsible design and construction practices in all of the County's building projects. The green building practices applied to this project are also expected to result in lower life cycle costs than in traditional building designs.

2.2.3 Common Elements of Operation

2.2.3.1 Time of Operation

The new recycling and transfer station is anticipated to open for business in 2021 following a construction period of approximately 24 months. The SCRTS will be designed for about a 50-year lifespan.

Operating hours are codified by County code, subject to local permit requirements. It is assumed that the new station would operate 9.5 hours per day, opening not earlier than 6 a.m. on weekdays, not earlier than 8 a.m. on weekends, and closing no later than 6 p.m. on any day (the current operating hours at the existing Algona Transfer Station are 7 a.m. to 4:30 p.m. on weekdays, and 8:30 a.m. to 5:30 p.m. on weekends).

2.2.3.2 Staffing

Staffing would depend on the day of the week, season of the year, and services provided. The assumption is that employees based at the station on any given day (e.g., scale operators, transfer station operations [TSOs], and on-site supervision) would range from 6 to 15 with transfer truck drivers, maintenance, and other staff on-site as needed.

2.2.3.3 Services Offered

The following activities and services would be provided at the new station:

- Collection and transfer of garbage from self-haul and commercial customers
- Acceptance of source separated waste from self-haul customers, such as:
 - Co-mingled recyclables (curbside mix of paper, cardboard, tin, aluminum, plastic containers, glass bottles and jars)

- Cardboard
- Household sharps
- Mixed yard and food waste
- Clean wood
- Plastic film
- Expanded polystyrene (Styrofoam)
- Scrap metal
- Mercury lighting (fluorescent tubes and compact fluorescent bulbs)
- Large appliances (refrigerant and non-refrigerant)
- Small appliances (anything with a cord)
- Additional recyclables, which may include bicycles and bicycle parts, CD/DVD/VCR players, rigid plastics, textiles, mattresses, carpet, gypsum wallboard, aggregates (bricks, pavers, porcelain sinks and toilets), asphalt shingles and other construction and demolition waste; and other materials targeted for diversion from disposal
- Potential removal of recyclables from mixed loads and/or construction and demolition waste loads
- Potential mixed waste sorting and processing
- Potential transfer of commercial yard waste and curbside recyclables
- Potential on-site organics sorting and processing
- Potential MRW collection service

If MRW collection service is offered at the new station for collection of Moderate Risk Waste, those materials would be stored in specialized containers on-site. Moderate Risk Waste includes hazardous waste generated by households and small businesses. Where the division currently provides MRW collection service, the following are examples of materials accepted: pesticides; glues and adhesives; antifreeze; aerosols; automotive products; fuels; rechargeable batteries; button batteries; pool and spa chemicals; oil-based paints; hobby chemicals; mercury devices; thinners and solvents; fluorescent bulbs; toxic cleaning products; fuel cylinders (under 5 gallons); lithium batteries; and alkaline batteries. Individual loads are limited to 50 gallons and containers greater than 5 gallons are generally not accepted.

While providing recycling services remains an important element of the *Comprehensive Solid Waste Management Plan*, specific policies and goals change over time. To this end, transfer stations, which are meant to last for approximately 50 years must be designed to be flexible; with sufficient space to reconfigure operations as program requirements change over time.

2.2.3.4 Operations Health and Safety

The following measures are anticipated during operations for the health and safety of customers, employees, and neighbors:

• The transfer building will be fully enclosed except for the entry/exit points, reducing offsite odor and dust.

- A mechanical ventilation system will be incorporated into the transfer station building.
- A misting system will be installed in the transfer building for odor and dust control.
- Fully loaded transfer trailers will be removed from the station in the order that they are filled.
- Transfer trailers will be fully enclosed and doors and door-seals will be maintained to reduce the potential for odor, spills and litter.
- Litter crews will pick up litter on the surrounding approaches, in accordance with Public Health requirements.
- Efficient on-site traffic flows will minimize vehicle queuing, reducing emissions.
- The station will be cleaned on a regular basis.

2.3 Benefits and Disadvantages of Delaying Implementation of the Project

2.3.1 Benefits of Delaying Implementation of the Project

The benefits of delaying implementation of the project would include: environmental impacts (e.g. to geology and soils, air quality, water resources, biological resources, noise, energy and natural resources, and transportation) from construction of the project would be delayed, or eliminated if the project was never constructed.

2.3.2 Disadvantages of Delaying Implementation of the Project

The disadvantages of delaying implementation of the project would include:

- The existing transfer station would continue to require additional effort from staff and management to meet safety goals.
- Vehicle and handling capacity would continue to not be met at the existing transfer station resulting in traffic backup on local roads.
- The existing transfer station does not accommodate waste compaction and additional transfer trailer trips would continue to be required to the landfill or other disposal facilities.
- Recycling and other services would continue to not be provided by the division in the south county service area.

2.4 Alternatives Considered but not Advanced

The Transfer Plan examined a number of alternatives for the future of solid waste transfer in the County, including alternatives to replacing the Algona Transfer Station. These alternatives, discussed below, were rejected when the Transfer Plan was adopted by County Council in 2007; a decision that was supported by both the SWAC and MSWMAC advisory committees.

2.4.1 Maintain Algona Transfer Station as Self-haul Only

During the development of the Transfer Plan, the division considered operating Algona as a self-haul-only station. The analysis of this option is described fully in Chapter Two of Milestone Report Four of the Transfer Plan. By the consensus of the SWAC, MSWMAC, and division, this alternative was rejected.

Commercial customers bring more garbage to the transfer station than self-haulers, but the overall number of transactions is higher for self-haulers. Self-haul customers typically use the station more on weekends, while commercial transactions occur primarily on weekdays. Removing commercial traffic from the station would not eliminate crowding on weekends, and would result in a station that is under-utilized on weekdays. It would also result in a decrease in the LOS to the largest customers, the commercial haulers, who would have to drive farther from their collection routes to reach a transfer station. The additional travel time and fuel use by commercial haulers driving to a more distant facility could result in higher rates for curbside collection customers.

2.4.2 Rebuild Algona Transfer Station On-site

The existing station site is less than 5 acres. A new station designed for the site would not be large enough to house a waste compactor, adequate queuing space, and the additional trailers required to handle increased projected tonnage described below in Section 2.2.1. There would not be enough space to provide recycling services as desired by customers and as required in the *Draft Comprehensive Solid Waste Management Plan*.

2.4.3 Immediate Closure of the Algona Transfer Station

The Algona Transfer Station provides transfer service for the south county service area. It meets the criterion for siting, which was defined as "estimated time of less than 30 minutes to a transfer station for 90 percent of users within the service area," which means that the service provided is convenient to customers. Closing the existing station without a replacement would force station users to drive farther distances to dispose of their solid waste. This could impact curbside collection rates in the south county service area.