



Name of Applicant:	Name of Facility:
Business Address: City: State: Zip Code: Phone: Email:	Facility Address: City: State: Zip Code: Phone: Email:
Signature:	Date:

*Please reference the appropriate section of WAC 173-350 for full requirements.

Location Requirements WAC 173-350-400(3) Describe how the facility meets the regulatory requirements in the supporting documents. Indicate the location of all documents.	Location of documents in application	Complete (SCHD ONLY)
Demonstration that facility is not located over a Holocene fault (3)(a)		
Demonstration that facility is not located in a subsidence area (3)(a)		
Demonstration that facility is not located on or adjacent to an unstable slope or other geologic features which would compromise structural integrity of facility (3)(a)		
Demonstration that the active area is not within one thousand (1,000) feet of a drinking water supply well (3)(b)		
Demonstration that the active area is not located within a channel migration zone (3)(c)		
Demonstration that the active area is not within two hundred (200) feet of a stream, lake, pond, river or saltwater body (3)(c)		
Demonstration that facility conforms to locally adopted shoreline management plan (3)(c)		
For facilities with potential bird hazards, demonstrate facility location requirements to airports per (3)(d) NA		
Complies with the location standards specified in RCW 70.95.060		

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Design Standards WAC 173-350-400(4) Describe how the facility meets the regulatory requirements in the supporting documents. Indicate the location of all documents.	Location of documents in application	Complete (SCHD ONLY)
The following factors need to be considered in evaluating the landfill design: i) Waste characterization; ii) Soil conditions; iii) Hydrogeologic conditions; iv) Hydraulic conditions; v) Contaminant fate and transport; vi) Topography; vii) Climate; viii) Seismic conditions; ix) The site capacity and each landfill unit; x) Anticipated leachate characteristics and quantity; xi) Operational controls; and xii) Environmental monitoring systems.	Acknowledged	
Landfill Gas Control: (4)(b)		
Methane and other explosive gases do not exceed: (i) Twenty-five percent of the lower explosive limit for the gases in facility structures (ii) The lower explosive limit for gases in soil or in ambient air at the property boundary or beyond (iii) One hundred (100) parts per million by volume of hydrocarbons (expressed as methane) in off-site structures	Acknowledged	
Liner system design: (4)(c)		
Limited purpose landfills shall be constructed in accordance with a design that will prevent contamination: (4)(c)(i)	Acknowledged	
Liner system design and construction. The owner or operator of a limited purpose landfill must select one of the three options for liner system design and construction described in (c)(ii)(A), (B), and (C) of this subsection.		
Presumptive liner design. Limited purpose landfills designed and constructed with the following composite liner are presumed to meet the performance standard of (c)(i) of this subsection. The presumptive liner design consists of the following two components: NA if facility-specific or no engineered liner is used		
<ul style="list-style-type: none"> A lower component consisting of at least a two-foot layer of compacted soil with a hydraulic conductivity of no more than 1×10^{-7} cm/sec; and 		
<ul style="list-style-type: none"> An upper component consisting of a high-density polyethylene (HDPE) geomembrane with a minimum of 60-mil thickness. The geomembrane must be installed in direct and uniform contact with the lower component. 		

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<p>Facility-specific liner design. Limited purpose landfills may be designed and constructed with an engineered liner system that the owner or operator demonstrates will meet the performance standard of (c)(i) of this subsection. The final liner system must be appropriate for and compatible with the characteristics of the site, the wastes that are specified in a solid waste permit as allowed for disposal in the landfill, and the operation of the facility.</p> <p>NA if presumptive liner or no engineered liner is used</p>		
<p>Operation without an engineered liner. The SCHED may allow a limited purpose landfill to be designed and constructed without a liner system if the owner or operator can demonstrate during the permitting process that (4)(c)(ii)(C)</p> <p>NA if liner system is used</p>		
<ul style="list-style-type: none"> The contaminant levels in the waste and leachate are unlikely to pose an adverse impact to the environment 		
<ul style="list-style-type: none"> The ability of natural soils to provide a barrier to reduce the concentration of contaminants provides sufficient protection to meet the performance standards of WAC 173-350-040, and 		
<ul style="list-style-type: none"> Explosive gases generated by the facility will not exceed: <ul style="list-style-type: none"> I) Twenty-five (25) percent of the lower explosive limit for the gases in facility structures (excluding the gas control or recovery system components); II) The lower explosive limit in soil gases or in ambient air for the gases at the property boundary or beyond; and III) One hundred parts per billion by volume of hydrocarbons (expressed as methane) in offsite structures. 		
<p>Liner separation from ground water. No landfill liner system may be constructed with the bottom of the lowest component less than ten feet above the seasonal high level of groundwater, unless a hydraulic gradient control system has been installed which prevents groundwater from contacting the liner (4)(c)(iii)</p>	Acknowledged	
<p>If hydraulic gradient control system is used, hydraulic gradient control system performance standard</p> <p style="text-align: right;">NA</p> <p>Demonstration included that the hydraulic gradient control system can be installed to control ground water fluctuations and maintain separation between the controlled seasonal high level of ground water in the identified water-bearing unit and the bottom of the lowest liner system component. The demonstration shall include: (4)(c)(iv)</p>		
<ul style="list-style-type: none"> A discussion in the geologic and hydrogeologic site characterization showing the effects from subsoil settlement, changes in surrounding land uses, climatic trends or other impacts affecting groundwater levels during the active life and post-closure period of the landfill; 		
<ul style="list-style-type: none"> A discussion of the gradient control system's potential impacts on quality and quantity of groundwater or surface water. This discussion must include potential impacts to water users and instream flow and levels of surface waters in direct hydrologic contact with the hydraulic gradient control system. Any available ground or surface water quality data for hydrostratigraphic units, springs, or surface waters in direct hydrologic contact with the hydraulic gradient control system must be included; 		
<ul style="list-style-type: none"> Conceptual engineering drawings of the proposed landfill and a discussion as to how the hydraulic gradient control system will protect or impact the structural integrity and performance of the liner system 		
<ul style="list-style-type: none"> Design specifications for the proposed ground and surface water monitoring systems 		
<p>Leachate collection and control system design. Except as provided in (c)(ii)(C) of this section, limited purpose landfills shall be constructed in accordance with a design that: (4)(d)</p>		

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<ul style="list-style-type: none"> Provides for collection and removal of leachate generated in the landfill 		
<ul style="list-style-type: none"> Is capable of maintaining less than a one (1) foot head of leachate over the liner system and less than a two (2) foot head in leachate sump areas 		
<ul style="list-style-type: none"> Includes a monitoring system capable of collecting representative samples of leachate generated in the landfill 		
<ul style="list-style-type: none"> Provides for leachate storage, treatment, or pretreatment to meet the requirements for permitted discharge under chapter 90.48 RCW 		
<p>Run-on/runoff control system design. Limited purpose landfills shall be constructed in accordance with a design that: (4)(e)</p>		
<ul style="list-style-type: none"> Will prevent flow and unpermitted discharges onto the active portion of the landfill during the peak discharge from a twenty-five-year storm 		
<ul style="list-style-type: none"> When located in a one hundred (100) year floodplain, the entrance and exit roads, and landfill practices do not restrict the flow of the base flood, reduce the temporary water storage capacity of the floodplain or result in washout of solid waste, to pose a hazard to human life, wildlife, land or water resources 		
<p>Final closure system design: (4)(f)</p>		
<p>Final closure performance standard. Limited purpose landfills shall be closed in accordance with a design that: (4)(f)(i)</p>		
<ul style="list-style-type: none"> Prevents exposure of waste <p>NA if presumptive final closure cover is approved</p>		
<ul style="list-style-type: none"> Minimizes infiltration (at a minimum, the design will prevent the generation of significant quantities of leachate to eliminate the need for leachate removal by the end of the post-closure period) <p>NA if presumptive final closure cover is approved</p>		
<ul style="list-style-type: none"> Prevents erosion from wind and water <p>NA if presumptive final closure cover is approved</p>		
<ul style="list-style-type: none"> Is capable of sustaining native vegetation <p>NA if presumptive final closure cover is approved</p>		
<ul style="list-style-type: none"> Addresses anticipated settlement, with a goal of achieving no less than two to five (2-5) percent slope after settlement <p>NA if presumptive final closure cover is approved</p>		
<ul style="list-style-type: none"> Provides sufficient stability and mechanical strength and addresses potential freeze-thaw and desiccation 		
<ul style="list-style-type: none"> Provides for the management of run-on and runoff, preventing erosion or otherwise damaging the closure cover 		
<ul style="list-style-type: none"> Minimizes the need for post-closure maintenance 		
<ul style="list-style-type: none"> A description of how methane and other gases will be collected, managed and disposed of 		
<ul style="list-style-type: none"> Meets the requirements of regulations, permits and policies administered by the jurisdictional air pollution control authority or Ecology under Chapter 70.94 RCW, Washington Clean Air Act and Section 110 of the Federal Clean Air Act 		

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<p>Presumptive final closure cover. Limited purpose landfills designed and constructed with the following closure cover are presumed to meet the performance standards in (f)(i)(A) through (D) of this subsection. An alternative final closure cover shall be used when the nature of the waste, the disposal facility, or other factors are incompatible with the presumptive final closure cover system</p>		
<ul style="list-style-type: none"> An antierosion layer consisting of a minimum of two (2) feet (60 cm) of earthen material of which at least twelve (12) inches (30 cm) of the uppermost layer is capable of sustaining native vegetation, seeded with grass or other shallow rooted vegetation; and 		
<ul style="list-style-type: none"> A geomembrane with a minimum of 30-mil (.76 mm) thickness, or a greater thickness that is commensurate with the ability to join the geomembrane material and site characteristics such as slope, overlaying a competent foundation 		
<p>Facility-specific final cover. Limited purpose landfills may be designed and constructed with an engineered final cover system that the owner or operator demonstrates will meet the performance standards of (f)(i) of this subsection. The final cover system must be appropriate for and compatible with: The characteristics of the site, the wastes that are specified in a solid waste permit as allowed for disposal in the landfill, and the operation of the facility.</p>		
<p>Water balance and ground water contaminant fate and transport modeling. Any modeling performed for evaluating a landfill design shall meet the following performance standards: (4)(g)</p>		
<p>All water balance analysis shall be performed</p>		
<p>Any ground water and contaminant fate and transport modeling shall be conducted by a licensed professional in accordance with the requirements of Chapter 18.220 RCW and meet the following performance standards:</p>		
<ul style="list-style-type: none"> The model shall have supporting documentation that establishes the ability of those methods to represent ground water flow and contaminant transport under the conditions at the site 		
<ul style="list-style-type: none"> The model shall be calibrated against site-specific field data 		
<ul style="list-style-type: none"> A sensitivity analysis shall be conducted to measure the model's response to changes in the values assigned to major parameters, specific tolerances, and numerically assigned space and time discretizations 		
<ul style="list-style-type: none"> The value the model's parameters requiring site-specific data shall be based upon actual field or laboratory measurements 		
<ul style="list-style-type: none"> The values of the model's parameters that do not require site-specific data shall be supported by laboratory test results or equivalent methods documenting the validity of the chosen parameter values. 		
<p>Seismic impact zones. Limited purpose landfills located in seismic impact zones must be designed and constructed so that all containment structures are able to resist the maximum horizontal acceleration in earth materials for the site (4)(h)</p>		
<p>Demonstration in unstable area. The owner or operator of limited purpose landfills located in an unstable area shall demonstrate that engineering measures have been incorporated into the landfill's design to ensure that the integrity of the structural components of the landfill will not be disrupted. The owner or operator shall place the demonstration in the application for a permit. The owner or operator shall consider the following factors, at a minimum, when determining whether an area is unstable: (4)(i)</p> <p style="text-align: center;">NA</p>		
<ul style="list-style-type: none"> On-site or local soil conditions that may result in significant differential settling, surface rupture, or liquefaction; 		

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<ul style="list-style-type: none"> On-site or local geologic or geomorphologic features indicating differential settling, surface rupture, or liquefaction; and 		
<ul style="list-style-type: none"> On-site or local human-made features or events (both surface and subsurface) indicating differential settling, surface rupture, or liquefaction. 		
<p>Setback. Limited purpose landfills shall be designed to provide a setback of at least one hundred (100) feet between the active area and the property boundary. The setback shall be increased if necessary to: (4)(j)</p>		
<ul style="list-style-type: none"> Control nuisance odors, dust, and litter; 		
<ul style="list-style-type: none"> Provide a space for the placement of monitoring wells, gas probes, run-on/runoff controls, and other design elements; or 		
<ul style="list-style-type: none"> Provide sufficient area to allow proper operation of the landfill and access to environmental monitoring systems and facility structures. 		
<p>Access control and traffic requirements. All limited purpose landfills must: (4)(k)</p>		
<ul style="list-style-type: none"> Provide controls to limit public access. A lockable gate is required at each entry to the landfill 		
<ul style="list-style-type: none"> Provide approach and exit roads of all-weather construction, with traffic separation and traffic control on-site, and at the site entrance 		
<ul style="list-style-type: none"> Provide a sign at the entrance that identifies the facility and provides emergency contact information 		

Documentation Requirements WAC 173-350-400(5) Describe how the facility meets the regulatory requirements in the supporting documents. Indicate the location of all documents.	Location of documents in application	Complete (SCHD ONLY)
<p>The owner or operator must submit construction documents for any proposed addition or modification of elements described in section 4 to SCHD for review and approval. Construction documents must be prepared by a professional engineer licensed in the state of Washington and must include: (5)(a)</p>		
<ul style="list-style-type: none"> An engineering report that presents the design basis and calculations for the engineered features of the facility 		
<ul style="list-style-type: none"> Scale drawings of the facility 		
<ul style="list-style-type: none"> Design specification for the engineered features of the facility 		
<ul style="list-style-type: none"> A construction quality assurance plan 		
<p>Structural changes to the facility need to be approved by SCHD. Construction documents need to be provided to SCHD upon completion (5)(b)</p> <p>NA</p>	Acknowledged	

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Operating Standards WAC 173-350-400(6) Describe how the facility meets the regulatory requirements in the supporting documents. Indicate the location of all documents.	Location of documents in application	Complete (SCHD ONLY)
Description of types of solid waste to be handled at the facility (6)(a)(i)		
A description of the criteria and procedures used to ensure that dangerous waste and other unacceptable waste, including liquid waste, are not accepted at the facility (6)(a)(ii)		
A description of how solid wastes are to be handled on-site, including identification of unloading and staging area, transportation practices, and housekeeping activities (6)(a)(iii)		
A description of how the owner or operator will ensure the facility is operated to: (6)(a)(iv)		
<ul style="list-style-type: none"> • Protect containment and monitoring structures such as liners, leachate collection systems, surface water control systems, gas management, cover systems, and monitoring wells 		
<ul style="list-style-type: none"> • Control litter, dust, and nuisance odors 		
<ul style="list-style-type: none"> • Control rodents, insects, and other vectors 		
<ul style="list-style-type: none"> • Provide attendant(s) on-site during hours of operation 		
<ul style="list-style-type: none"> • Prevent scavenging 		
If the landfill's capacity is greater than fifty thousand (50,000) cubic yards per year, acknowledgment that at least two landfill personnel will be on-site with one person at the active face when the site is open to the public (6)(a)(v) NA if capacity is less than fifty thousand (50,000) cubic yards per year	Acknowledged	
A description of how waste will be landfilled, including: (6)(a)(vi)		
<ul style="list-style-type: none"> • How solid waste will be compacted before succeeding layers are added, except that the first lift over a liner may be left uncompacted to act as a cushion for subsequent lifts; 		
<ul style="list-style-type: none"> • How cover of disposed waste will be managed, including daily cover procedures. Materials used for cover must be: (I) At least six inches of earthen material, such as soils; or (II) Alternative materials or an alternative thickness other than at least six inches of earthen material as approved by SCHD 		
A description of how any explosive gases generated at the facility will be monitored and controlled, and how the owner or operator will respond to the detection of explosive gases in a manner that ensures protections of human health. This element of the plan must include, at a minimum: (6)(vii)		
<ul style="list-style-type: none"> • Controls to ensure that explosive gases generated by the facility do not exceed the criteria of subsection (4)(b) of this section; 		

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<ul style="list-style-type: none"> A routine explosive gas-monitoring program to ensure that all standards are met. The minimum frequency for monitoring is quarterly. The type and frequency of monitoring must be determined based on the following factors: <p>(I) Soil conditions;</p> <p>(II) The hydrogeologic conditions surrounding the facility;</p> <p>(III) The hydraulic conditions surrounding the facility; and</p> <p>(IV) The location of facility structures and property boundaries;</p>		
<ul style="list-style-type: none"> If explosive gas levels exceed the limits identified in subsection (4)(b) of this section, take all necessary steps to ensure protection of human health including: <p>(I) Notifying SCHD;</p> <p>(II) Notifying the local fire authority;</p> <p>(III) Monitoring off-site structures;</p> <p>(IV) Monitoring explosive gas levels daily, unless otherwise authorized by SCHD;</p> <p>(V) Evacuating buildings affected by landfill gas until determined to be safe for occupancy;</p> <p>(VI) Within seven calendar days of the explosive gas levels detection, placing in the operating record the explosive gas levels detected and a description of the steps taken to protect human health and providing written notification to SCHD;</p> <p>(VII) Within sixty days of the explosive gas levels detection, implementing a remediation plan for the explosive gas releases, describing the nature and extent of the problem and the remedy. This plan must be sent to SCHD for approval as an amendment to the plan of operation. A copy of the remediation plan shall be placed in the operating record; and</p> <p>(VIII) When constructing and decommissioning gas monitoring and extraction wells, do so in a manner that protects groundwater and meets the requirements of chapter 173-160 WAC, Minimum standards for construction and maintenance of wells.</p>		
<p>A description of how operators will inspect and maintain the facility, including the inspection form operators will use. (6)(a)(viii)</p>		
<p>Provide a template log to track the weight or volume of wastes received and wastes leaving the facility (6)(a)(ix)</p>		
<p>Safety and emergency plans including: (6)(a)(x)</p>		
<ul style="list-style-type: none"> On-site fire protection, as determined by the local and state fire control jurisdiction. Landfills disposing of wastes that can support combustion must have a method to control subsurface fires 		
<ul style="list-style-type: none"> Communications sufficient to handle emergencies will be provided between employees working at the landfill and management offices, on-site and off-site 		
<ul style="list-style-type: none"> Response procedures in the event of fire (including subsurface fires), a description of fire protection equipment available on-site and actions to take if there is a fire or explosion 		
<ul style="list-style-type: none"> Actions to take if leaks are detected or for other releases, such as failure of runoff containment system, if such systems are required 		
<p>Other such details to demonstrate that the landfill will be operated in accordance with subsection 4 and as required by the SCHD (6)(a)(xi)</p>		

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Ground Water Monitoring Requirements WAC 173-350-400(7) Describe how the facility meets the regulatory requirements in the supporting documents. Indicate the location of all documents.	Location of documents in application	Complete (SCHD ONLY)
Limited purpose landfills are subject to the ground water monitoring requirements of WAC 173-350-500 (Use Form ECY 040-86, <u>Ground Water Monitoring Requirements Checklist for review</u>)		

Closure Plan WAC 173-350-400(8) Describe how the facility meets the regulatory requirements in the supporting documents. Indicate the location of all documents.	Location of documents in application	Complete (SCHD ONLY)
A description of the final closure cover, designed in accordance with subsection (4)(e) of this section, the methods and procedures to be used to install the closure cover, sources of borrow materials for the closure cover, and a schedule or description of the time required for completing closure activities (8)(a)(i)		
Projected time intervals at which sequential partial closure and final closure are to be implemented (8)(a)(ii)		
A description of the activities and procedures that will be used to ensure compliance with (b) through (f) of this subsection (8)(a)(iii)		
Identify closure cost estimated and projected fund withdrawal intervals for the associated closure costs, from the approved financial assurance instrument (8)(a)(iv)		
The owner or operator shall notify the SCHD, and where applicable, the final assurance instrument provider, one hundred eighty (180) days in advance of closure of the facility, or any portion thereof. The facility, or any portion thereof, shall close in a manner that: (8)(b)		
<ul style="list-style-type: none"> Minimizes the need for further maintenance 		
<ul style="list-style-type: none"> Controls, minimizes, or eliminates threats to human health and the environment from post-closure escape of solid waste constituents, leachate, landfill gases, contaminated runoff, or waste decomposition products to the ground, ground water, surface water, and the atmosphere; and 		
<ul style="list-style-type: none"> Prepares the facility, or any portion thereof, for the post-closure period 		
The owner or operator shall commence implementation of the closure plan in part or whole within thirty (30) days after receipt of the final volume of waste and/or attaining the final elevation at part of or at the entire landfill as identified in the approved facility closure plan unless otherwise specified in the closure plan (8)(c)	Acknowledged	
When landfill closure is completed in part or whole, the owner or operator must submit to SCHD a certification by a professional engineer registered in the state of Washington, that the landfill, or a portion thereof, has been closed in accordance with the approved closure plan (8)(d)	Acknowledged	
Following closure of a limited purpose landfill, the owner operator must file an environmental covenant conforming to the procedures and requirements of chapter 64.70 RCW, Uniform Environmental Covenants Act	Acknowledged	

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Financial Assurance Requirements WAC 173-350-400(9) Describe how the facility meets the regulatory requirements in the supporting documents. Indicate the location of all documents.	Location of documents in application	Complete (SCHD ONLY)
Financial assurance is required for all limited purpose landfills	Acknowledged	
Each owner or operator shall establish a final assurance mechanism in accordance with WAC 173-350-600 that will accumulate funds equal to the closure and post-closure cost estimates over the life of the landfill, or over the life of each landfill unit if closed discretely	Acknowledged	
No owner or operator shall commence or continue disposal operations in any part of a facility subject to this section until a final assurance instrument has been provided for closure and post-closure activities in conformance with WAC 173-350-600	Acknowledged	

Post Closure Care Requirements WAC 173-350-400(11) Describe how the facility meets the regulatory requirements in the supporting documents. Indicate the location of all documents.	Location of documents in application	Complete (SCHD ONLY)
The owner or operator must conduct post-closure care for as long as necessary for the landfill to become functionally stable. Post-closure care must consist of at least the following: (11)(a)		
<ul style="list-style-type: none"> Maintaining the integrity and effectiveness of any final cover 		
<ul style="list-style-type: none"> Monitoring the groundwater, surface water, leachate, landfill gas, and landfill settlement according to the monitoring plan 		
<ul style="list-style-type: none"> Maintaining and operating the leachate collection system under subsection (4)(d) of this section, if applicable. <p>NA</p>		
<ul style="list-style-type: none"> Maintaining and operating the landfill gas collection and control system under subsections (4)(f)(i)(I) and (6)(a)(vii) of this section 		
<ul style="list-style-type: none"> Maintaining, operating and monitoring hydraulic gradient control systems if applicable <p>NA</p>		
<ul style="list-style-type: none"> Maintaining the facility and facility structures for their intended uses 		
<ul style="list-style-type: none"> Performing any other activities deemed appropriate by SCHD 		

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