

**PORT OF OLYMPIA COMMISSION**  
**Resolution 2015-12**

**A Resolution of the Port Commission of the Port of Olympia, Thurston County, Washington, revising and adopting the Port's policies and procedures under the State Environmental Policy Act and implementing rules, Chapter 43.21C RCW and Chapter 197-11 WAC, and superseding the Port's current State Environmental Policy Act policies and procedures found in Resolution 2008-20.**

**WHEREAS**, the State Environmental Policy Act ("SEPA") sets forth an environmental policy for Washington state and requires that the environmental impacts of proposals be analyzed and, where appropriate, mitigated; and

**WHEREAS**, SEPA applies to state agencies, counties, and municipal and public corporations, including port districts; and

**WHEREAS**, SEPA has been amended to require the State Department of Ecology to issue new uniform statewide rules for carrying out SEPA; and

**WHEREAS**, the Port is required to adopt SEPA policies and procedures that are consistent with the new rules adopted by the Department of Ecology (WAC 197-11) and may adopt by reference any or all of these rules; and

**WHEREAS**, the Port has provided public notice and opportunity for public comment on this Resolution;

**NOW, THEREFORE, BE IT RESOLVED**, that the Port Commission of the Port of Olympia, Washington hereby adopts the Port SEPA Environmental Administrative policies and procedures contained herein.

**1. Adoption of SEPA Rules**

The Port of Olympia hereby adopts by reference the following sections or subsections of Chapter 197-11 of the Washington Administrative Code (SEPA Rules): WAC 197-11-010 through 197-11-990, except as specifically provided herein. Where conflict exists between a permissive, optional or guidance WAC section adopted by reference herein and the specific local agency SEPA procedures adopted in this Resolution, the language of the Resolution will apply. The decision on whether to apply an optional state SEPA provision rests with the Responsible Official.

**2. Authority**

The following regulations concerning environmental policies and procedures are hereby established and adopted pursuant to Washington State law, Chapter 109, Laws of 1971, Extraordinary Session (Chapter 43.21C RCW) as amended, entitled the "State Environmental

Policy Act,” and Washington State Administrative Code regulations, Chapter 197-11, entitled “SEPA Rules.”

### **3. Purpose, Applicability, and Intent**

- 3.1 The purpose of this Resolution is to provide Port policies and regulations implementing Chapter 43.21C RCW, the State Environmental Policy Act (“SEPA”), which are consistent with the SEPA Rules.
- 3.2 This Resolution is applicable to all Port of Olympia departments/divisions, committees, and the Port Commission.
- 3.3 The intent of this Resolution is to govern compliance by all Port departments/divisions, committees, and the Port Commission with the procedural and substantive requirements of Chapter 43.21C RCW, the State Environmental Policy Act.
- 3.4 This Resolution is not intended to govern compliance by the Port with respect to the National Environmental Policy Act of 1969 (“NEPA”). In those situations in which the Port is required by Federal law or regulations to perform some element of compliance with NEPA, such compliance will be governed by the applicable Federal statutes and regulations and not by this Resolution.

### **4. Substantive Environmental Policies**

The substantive environmental policies of the Port of Olympia are the policies set forth in the following documents and statutes: the Port’s Comprehensive Scheme of Harbor Improvements, as it is now identified and as it may be re-named or amended in the future, including all of its elements, Port of Olympia Environmental Policies, and Chapter 43.21C RCW. Port of Olympia Environmental Policies is available in a package from the Environmental Department and the Port of Olympia website.

### **5. Additional Definitions**

In addition to those definitions contained within WAC 197-11-700, the following terms will have the following meanings, unless the context indicates otherwise:

- 5.1 “Department” means any division, or organizational unit of the Port.
- 5.2 “SEPA Rules” means WAC Chapter 197-11 adopted by the Department of Ecology, as it now exists and may be hereafter amended.
- 5.3 “Responsible Official” means the Port’s Executive Director or designee. The Responsible Official’s duties may be delegated to appropriate staff persons, but the Responsible Official will approve and is responsible for the Determination of Non-Significance (“DNS”), Mitigated Determination of Non-Significance (“MDNS”),

Determination of Significance (“DS”) and the adequacy of an Environmental Impact Statement (“EIS”).

- 5.4 “Port of Olympia Environmental Policies” means those environmental policies approved by the Port Commission.

## **6. Timing of the SEPA Process**

- 6.1 The SEPA process will be integrated with Port activities at the earliest possible time to ensure that planning and decisions reflect environmental values, to avoid delays later in the process, and to seek to resolve potential environmental issues.
- 6.2 The Responsible Official will prepare the threshold determination and/or Environmental Impact Statement (“EIS”), if required, as soon as possible after the principal features of a proposal and its environmental impacts can be reasonably identified.
- 6.2.1 A proposal exists when the Responsible Official is presented with a project or has a goal and is actively preparing to make a decision on one or more alternative means of accomplishing that goal and the environmental effects can be meaningfully evaluated. The fact that proposals may require future Port or other permitting approvals or environmental review will not preclude current consideration, as long as proposed future activities are specific enough to allow some evaluation of their probable environmental impacts.
- 6.2.2 The environmental process will commence upon receipt by the Responsible Official of an environmental document. The Responsible Official may also organize environmental review in phases as specified in WAC 197-11-060(5).
- 6.2.3 Appropriate consideration of environmental information will be completed before the Port commits to a particular course of action, as provided in WAC 197-11-070.

## **7. Public Notice**

- 7.1 Reasonable Methods. When notice is required pursuant to this Resolution, Chapter 197-11 WAC, and/or Chapter 43.21C RCW, the Responsible Official must use reasonable methods to inform the public and other agencies that an environmental document is being prepared or is available and that public hearing(s), if any, will be held.
- 7.2 Notice Requirements.
- 7.2.1 Notice of the SEPA threshold environmental determination will be published in a newspaper of general circulation within the area in which the project is located and will be sent via email to the Port of Olympia’s SEPA mailing list

as well as to the Port's standing email notification list of citizens who have requested notification of Port activities. The electronic notice will include a copy of the determination and a copy of the SEPA checklist, or a link to the location on the Port website where the SEPA checklist can be found. The Port will post all technical appendices to the SEPA checklist on the Port's website. All forms of notice described herein will also inform recipients where the agency SEPA records are located and available.

- 7.2.2 Notice of administrative appeals, hearings, and actions on appeals will be provided as set forth in Section 9 of this Resolution.
- 7.2.3 Notice of determinations of significance, scoping, and availability of draft and final EISs will be published in a newspaper of general circulation within the area in which the project is located and sent to the Port of Olympia's SEPA email list as well as to the Port's standing email notification list of citizens who have requested notification of Port activities. Parties who comment on a specific project's environmental determination will receive notice of availability of the draft and Final Environmental Impact Statement ("FEIS").

## **8. Public Comments**

- 8.1 Public comments on SEPA threshold determinations must be submitted within fourteen (14) calendar days from the date the SEPA threshold determination is issued. Comments may be submitted via email to the email address identified on the applicable SEPA determination, decision, or notice, and may also be submitted to the Responsible Official by any other written method.
- 8.2 The Responsible Official will respond in writing on behalf of the Port to written comments received on a specific SEPA threshold determination. Responses will be provided within ten (10) calendar days after the close of the public comment period. The Responsible Official may respond to comments individually, or may address all or a portion of the comments cumulatively. All public comments, the Port's responses, and any resulting subsequent amendments or addenda to the SEPA threshold determination will be part of the Port's SEPA administrative record and will be posted on the Port website. Notwithstanding the foregoing, the Responsible Official will not respond to public comments that are submitted anonymously. For purposes of this provision, "anonymously" means submitting a comment without including the commenter's legal name.
- 8.3 The Port will post public comments and the Responsible Official's responses on the Port's website, and will email a link to where the document can be found on the Port website to each person who submitted written comments to the Port for that specific SEPA threshold determination. When requested, the Port will mail a hard copy of its response to comments via standard first-class U.S. mail. The Port's issuance of a

response to comments will not restart the administrative comment or appeal period(s) pursuant to WAC 197-11-706.

- 8.4 If the Responsible Official determines that an Environmental Impact Statement (“EIS”) is required, then public comment, and responses to comment, on EIS Scoping and Draft EIS (“DEIS”) documents will be prepared and submitted pursuant to Chapter 197-11 WAC.

## 9. Appeals

- 9.1 Decisions Appealable. For project actions, final threshold determinations, in the form of a Mitigated Determination of Nonsignificance (“MDNS”) or a Determination of Nonsignificance (“DNS”), as well as the adequacy of a Final Environmental Impact Statement (“FEIS”) will be administratively appealable. For non-project actions, final threshold determinations, in the form of an MNDS or DNS, as well as the adequacy of an FEIS, will also be administratively appealable. Any appeal will be initiated by filing a Notice of Appeal and paying the appropriate fee with the Port Environmental Department no later than close of business twenty-one (21) calendar days following the close of the public comment period for the SEPA threshold determination or issuance of the FEIS, as applicable.

- 9.2 Hearing Examiner Appeal. If an appeal is filed, it will be forwarded to a Hearing Examiner, who is hereby authorized and empowered to hear and decide SEPA administrative appeals. The Hearing Examiner will conduct an open record public hearing for all proceedings authorized by this Resolution.

- 9.3 Administrative Appeal Procedures.

9.3.1 Administrative Appeal Procedure/Fee.

- (i) Procedure. To initiate an appeal, an Appellant must timely file a Notice of Appeal and pay the required filing fee as set forth in the Port of Olympia Proprietary-Type User Charges for Port Goods and Services Resolution with the Environmental Department. The Environmental Department will process the appeal in accordance with the procedures set forth in this Resolution.
- (ii) Standing. Any person aggrieved by a threshold determination (DNS or MDNS) or by the issuance of an FEIS may appeal; provided, however, if there is a comment period required by WAC 197-11-340, only parties who submitted written comments during the comment period may file an administrative appeal.

- 9.3.2 Time Requirement. An administrative appeal will be filed no later than close of business twenty-one (21) calendar days following the close of the public comment period for the SEPA threshold determination or issuance of the FEIS, as applicable. If the last day for filing an appeal falls on a weekend day or holiday, the last day for filing will be the next business day.

- 9.3.3 Content of the Notice of Appeal. The Notice of Appeal will contain:
- (i) The name and mailing address of the Appellant(s) and the name and address of his/her/their representative, if any;
  - (ii) The Appellant(s)' legal residence or principal place of business;
  - (iii) A copy of the SEPA determination that is being appealed (or a copy of the first page only if the SEPA determination being appealed exceeds 10 pages);
  - (iv) The grounds upon which the Appellant(s) relies;
  - (v) A concise statement of the factual and legal reasons for the appeal;
  - (vi) A statement describing the Appellant(s)' standing to appeal pursuant to Section 9.3.1(ii);
  - (vii) The specific nature and intent of the relief sought;
  - (viii) A statement that the Appellant(s) has/have read the Notice of Appeal and believes the contents to be true followed by his/her/their signature and the signature of his/her/their representative, if any. If any Appealing party is unavailable to sign, it may be signed by his/her representative;
  - (ix) The appropriate fee, *see* above Section 9.3.1(i); and
  - (x) If parties intend to file a combined appeal, all parties to be included in the appeal will be specifically identified and all information related to the combined appeal will be filed at one time. In all other cases, a separate appeal fee will be required for each appeal filing.
- 9.3.4 Effect of the Appeal. The filing of a valid appeal will stay the effect of the SEPA decision, and no major action in regard to a proposal may be taken during the pendency of an administrative appeal. A decision by the Hearing Examiner to reverse the threshold determination of the Responsible Official, or deeming an FEIS inadequate will further stay any decision, proceedings, or actions in regard to the project or proposal subject to the administrative appeal.
- 9.3.5 Appeal Withdrawal. An appeal may be withdrawn only by the Appellant(s), by written statement filed with the Environmental Department. The Environmental Department will inform the Responsible Official and the Hearing Examiner of the withdrawal request. If the withdrawal is requested before any action by the Hearing Examiner on the appeal, the appeal will be dismissed with prejudice, and the filing fee will be refunded.

9.4 Hearing Examiner Appeal Hearing.

- 9.4.1 Scheduling and Procedural Rules. The public hearing on an appeal presided over by the Hearing Examiner will be expeditiously scheduled upon receipt of a valid appeal. The Hearing Examiner may prescribe general rules and procedures, as necessary, for the scheduling and conduct of all appeal hearings under this Resolution, and is further empowered to issue such orders as may be necessary to implement case schedules for the conduct of pre-hearing conferences, submittal of materials, exhibits, disclosure of witnesses, and presentation of evidence. If the Hearing Examiner elects to issue general procedural rules under this Resolution, then such rules will be reviewed and ratified by the Port Commission by Resolution and the ratified rules will also be made available to the public on the Port's website.
- 9.4.2 Standard of Review – Hearing Examiner Appeals of Threshold Determinations. The Hearing Examiner may affirm the threshold determination of the Responsible Official; remand the case for further information; or may reverse the decision. Reversal of the decision will be based on a Hearing Examiner determination that the administrative findings, inferences, conclusions, or decisions of the Responsible Official are:
- (i) In violation of constitutional provisions as applied;
  - (ii) Outside the statutory authority or jurisdiction of the Port;
  - (iii) A result of the Responsible Official engaging in unlawful procedure or decision-making process, or failing to follow a prescribed procedure; or
  - (iv) Clearly erroneous in view of the public Policy of the Act (SEPA).
- 9.4.3 Standard of Review - Hearing Examiner Appeals of FEIS Adequacy. The Hearing Examiner will apply the same standard of review set forth in Section 9.4.2 herein for appeals of threshold determinations; except that for appeals of the adequacy of an FEIS, the Hearing Examiner will apply the “rule of reason” standard in lieu of the “clearly erroneous” standard set forth in Section 9.4.2(iv).
- 9.4.4 Evidence – Burden of Proof. On appeal, the Appellant(s) will have the burden of proof, and the determination of the Responsible Official will be presumed prima facie correct and will be afforded substantial weight.
- 9.4.5 Continuation of Hearing.

- (i) Cause. A hearing may be continued by the Hearing Examiner for the purpose of obtaining specific pertinent information relating to the project which was previously unavailable at the time of the original hearing.
- (ii) Notification. The Hearing Examiner will announce the time and place of a continued hearing at the time of the initial hearing or by written notice to all parties of record.

9.4.6 Conduct of proceedings. All hearings will be conducted in an orderly manner. The Hearing Examiner will have the authority to rule on all procedural matters, objections and motions, and will have power of subpoena.

## 9.5 Hearing Examiner Final Decision.

9.5.1 Final Decision. Within ten (10) business days of the conclusion of the hearing, unless further extension is otherwise agreed to by the parties, the Hearing Examiner will issue a written Decision that includes (1) an analysis of why the Hearing Examiner rejected or accepted the threshold determination or deemed the FEIS adequate or inadequate; (2) a synopsis of the testimony and arguments presented; and (3) findings of fact and conclusions of law.. The Hearing Examiner will email and mail a copy of the Final Decision to all parties of record on the date it is issued, and will include a list of the parties of record, together with their mail and email addresses. The Port will also post all Hearing Examiner decisions on its website within two (2) business days of issuance.

9.5.2 Request for Clarification and/or Reconsideration of Hearing Examiner Decision. Any party may submit either a request for clarification and/or a motion for reconsideration on the Hearing Examiner's Final Decision.

### (i) Request for Clarification.

- (a) Any party believing that the Final Decision of the Hearing Examiner is ambiguous, vague, or internally inconsistent may request clarification of the decision by the Hearing Examiner by submitting a request for clarification to the Port Environmental Department together with any required filing fee as set forth in the Port of Olympia Proprietary Type-User Charges for Port Goods and Services Fee Resolution then in effect. The request will set forth the specific provision requiring additional clarity. The request must be filed within five (5) calendar days of issuance of the Hearing Examiner's Final Decision as provided for in Section 9.5.1 herein. The original of the request for clarification will be filed with the Port Environmental Department. At the same time, copies will be served via mail and email on all parties of record to the appeal.



- (b) The Port Environmental Department will forward the request to the Hearing Examiner. Upon receipt of such a request, the Hearing Examiner may take action as the Hearing Examiner deems appropriate under the circumstances. The Hearing Examiner will notify the parties of any action or denial of the request within five (5) calendar days of the filing of the request for clarification. A Hearing Examiner decision on a request for clarification is a Final Decision and is not subject to a motion for reconsideration or further clarification.
- (c) A request for clarification will be based on the existing record and will not provide an opportunity for reconsideration of a decision nor will it allow for introduction of new evidence.
- (d) The Hearing Examiner's response to the motion for clarification will constitute a Final Decision for purposes of judicial review. The filing of a request for clarification is not a prerequisite for seeking judicial review.

(ii) Motion for Reconsideration.

- (a) After issuance of a Final Decision any party may file a motion for reconsideration on an appeal to the Hearing Examiner in accordance with subsection (b) of this Section. Such motion must be filed within ten (10) calendar days of issuance of the Hearing Examiner's Final Decision as provided for in Section 9.5.1 herein. The original of the motion for reconsideration will be filed with the Port Environmental Department. At the same time, copies will be served on all parties of record to the appeal via mail and email. Within five (5) calendar days of filing of the motion for reconsideration, any party of record may file a response without direction or request from the Hearing Examiner. The party seeking reconsideration may file a reply to any response within five (5) calendar days, also without direction or request from the Hearing Examiner. All motions for reconsideration, responses and replies will be served on all parties of record via mail and email.
- (b) A motion for reconsideration will be based on at least one of the following grounds:
  1. Errors of procedure or misinterpretation of fact or law, material to the party seeking reconsideration;
  2. Irregularity in the hearing before the Hearing Examiner by which such party was prevented from having a fair hearing;
  3. Clerical mistakes in the Final Decision and order; or

4. Discovery of material factual evidence which could not have been reasonably discovered through due diligence and produced prior to the close of the record by the party seeking reconsideration. To be considered by the Hearing Examiner, a motion for reconsideration that includes a request on these grounds must include a supporting declaration or affidavit from the party seeking reconsideration that both includes and/or attaches a description of the evidence and sets forth facts establishing the party's reasonable exercise of due diligence to obtain such evidence prior to the close of the record.
- (c) Except as provided for herein, a motion for reconsideration will be based on the existing record and will not allow for introduction of new evidence.
  - (d) In response to a motion for reconsideration, the Hearing Examiner may deny the motion, modify his or her decision, or reopen the hearing. The Hearing Examiner will take action within fourteen (14) calendar days of the filing of the motion for reconsideration. A Hearing Examiner order on a motion for reconsideration is a Final Decision and is not subject to a request for clarification or further reconsideration.
  - (e) The Hearing Examiner's response to the motion for reconsideration will constitute a Final Decision for purposes of judicial review. Copies of the Final Decision will be served on each party or the party's attorney or other authorized representative of record. The filing of a motion for reconsideration is not a prerequisite for seeking judicial review.

## 9.6 Appeal of Final Decisions.

- 9.6.1 Judicial Appeal of Hearing Examiner's Final Decision. The Hearing Examiner's Final Decision will be appealable to the Thurston County Superior Court pursuant to RCW 43.21C.075. Any court action to set aside, enjoin, review or otherwise challenge the Hearing Examiner's decision will be filed in Thurston County Superior Court within twenty-one (21) calendar days of the latter of either: (1) the Hearing Examiner's Final Decision; or (2) the Final Decision on the underlying governmental action.
- 9.6.2 Standing for Judicial Appeal. Only the parties to the Port's administrative appeal may appeal the Hearing Examiner's decision to Superior Court.
- 9.6.3 Costs of Copying Administrative Record on Judicial Appeal. The costs of copying the Administrative Record for any judicial appeal will be borne equally by the Port and Appellant(s). Appellant(s)' portion of the costs will be paid to the Port at or prior to the date set by the Court for filing the record, and will be a condition precedent to perfecting the appeal. At the conclusion of the judicial appeal, if the Superior Court determines that Appellant(s) substantially prevailed on appeal, the costs paid by Appellant(s) will be refunded to the Appellant(s).

- 9.7 Refund Where Appellant(s) Substantially Prevails. If Appellant(s) substantially prevails in any administrative appeal provided for pursuant to this Resolution, any appeal fee paid will be refunded.
- 9.8 Computation of Time. In computing any period of time related to public comment or appeals prescribed or allowed by this Resolution, the date of the act or event from which the designated period begins to run shall not be included. The last day of the designated period will be included, and will terminate at 5:00 p.m., unless the last day is a Saturday, Sunday, or legal holiday as defined in RCW 1.16.050, in which case the designated period will run until 5:00 p.m. the next business day.
- 9.9 Service on the Port Environmental Department. Where this Resolution provides for submittal to or service of documents or the payment of fees to the Port Environmental Department, the following procedures shall apply:
- i) Email service or submittal shall be effective if submitted by email to [sepa@portolympia.com](mailto:sepa@portolympia.com) or to the email address of the then-current Director of Environmental Programs by 5:00 p.m. on the applicable deadline;
  - ii) Personal service or submittal shall be effective if made to the receptionist at the Port of Olympia's Administrative Offices, 606 Columbia Street NW, Suite 300, Olympia, Washington, 98501 by 5:00 p.m. on the applicable deadline.

## **10. Flexible Thresholds for Categorical Exemptions**

The Port of Olympia adopts the respective exempt levels for minor new construction as allowed under WAC 197-11-800(1), as established by the cities of Olympia and Tumwater or any other jurisdiction wherein the Port activity is located.

## **11. Emergencies**

Actions which must be undertaken immediately (or within a time too short to allow full compliance with this Resolution), to avoid an imminent threat to public health and safety, to prevent an imminent danger to public or private property, or to prevent an imminent threat of serious environmental degradation, will be exempt from the procedural requirements of this Resolution. The Responsible Official will determine on a case-by-case basis emergency actions that satisfy the general requirements of this Section.

## **12. Port SEPA Public Information Responsibilities**

- 12.1 The Port will maintain a DNS register.
- 12.2 The Port will maintain an EIS register including for each proposal the location, a brief description of the nature of the proposal, the date first listed on the register, and a contact person or office from which further information may be obtained.

- 12.3 The documents will be maintained at the information center for seven (7) years, will be available for public inspection, and copies will be provided upon request. The Port may charge for copies in the manner provided by Chapter 42.56 RCW (Public Records Act) and for the cost of mailing, consistent with adopted Port fees for such service. It will be the responsibility of the Responsible Official to respond to requests received from other local, regional, State, or Federal agencies that request consultation and comment from a specific Port department/division.
- 12.4 The Port will maintain a list of recommended federal, state, regional, local, and private agencies/organizations and their addresses for use by the Port's responsible officials in making scoping requests and circulating draft EISs.

### **13. Critical Areas**

The Port adopts the exclusions of categorical exemptions for projects within one (1) or more critical areas as adopted by the local government(s), pursuant to WAC 197-11-908, within which the Port activity is located and as those exclusions now exist or are adopted or amended in the future.

### **14. Lead Agency – Responsibilities**

The Port, when acting in the capacity of the lead agency, will be the only agency responsible for complying with the threshold determination procedures of WAC 197-11-300 through 197-11-390 as adopted by reference, and the Responsible Official of the Port will be responsible for the supervision or actual preparation of draft EISs pursuant to WAC 197-11-400 through 197-11-455 as adopted by reference, including the circulation of such statements and the conduct of any public hearings required by this Resolution. The Responsible Official will also prepare or supervise preparation of any required FEIS pursuant to WAC 197-11-360 through 197-11-640 as adopted by reference.

### **15. Severability**

If any provision of this Resolution or its application to any person or circumstance is held invalid, the remainder of this Resolution or the application of the provision to other persons or circumstances will not be affected.

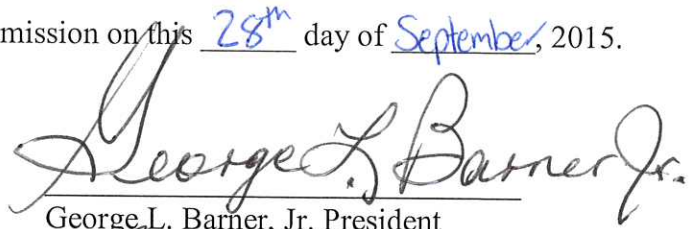
### **16. Repealer**

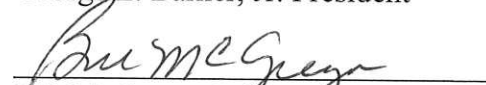
All prior Port Resolutions dealing with compliance to the State Environmental Policy Act and Chapter 197-11 WAC are hereby repealed by the adoption of this Resolution.

### **17. Effective Date**

This Resolution will be effective for all SEPA determinations issued subsequent to Commission adoption of this Resolution.

ADOPTED by the Port of Olympia Commission on this 28<sup>th</sup> day of September, 2015.

  
George L. Barner, Jr. President

  
Bill McGregor, Vice-President

  
Michelle Morris, Secretary

## **Appendix A to Resolution 2015-12**

### **SEPA and Climate Change**

Climate is one element of the environment that SEPA requires agencies to evaluate prior to making a decision on a proposal. WAC 197-11-444(1)(b)(iii). In recognition of the evolving science addressing climate change and the identification of the Washington Department of Ecology as an agency with special expertise relating to that category of the environment under WAC 197-11-920(1)(a), the Port expressly adopts any then-current guidance, regulation, or other formally adopted policy by the Department of Ecology on greenhouse gases for its consideration of greenhouse gas emissions and the effect of climate change on proposed actions in SEPA environmental review, except that the Port will evaluate biogenic carbon dioxide emissions of proposed actions in the same manner as fossil carbon dioxide emissions of proposed actions are evaluated under the Department of Ecology guidance then in effect.

The Department of Ecology's current guidance (June 3, 2011), as of the date of adoption of this resolution, is attached, and is available at: <http://www.ecy.wa.gov/climatechange/sepa.htm> (last visited October 16, 2014).

**[Remainder of Page Intentionally Left Blank; Guidance Begins on Following Page]**

## Guidance for Ecology Including Greenhouse Gas Emissions in SEPA Reviews

The purpose of this document is to assist Ecology staff in determining which projects should be evaluated for greenhouse gas emissions and how to evaluate those emissions under SEPA when Ecology is the lead agency. This document does not attempt to provide a comprehensive overview of SEPA - see the [SEPA Handbook](#) and Ecology's [SEPA Intranet page](#) for more general information about SEPA. This internal guidance is intended to answer specific questions about including greenhouse gases in a SEPA analysis. It is not an adopted rule and SEPA decisions on whether a project has significant impacts must still be made on a case-by-case basis. It also is not intended to take the place of the procedure for considering greenhouse gas emissions already being used by the Nuclear Waste Program for projects at the Hanford site.

This document will be revised as agency staff recommend improvements and to reflect any relevant decisions by the Shorelines Hearing Board or other tribunals. Questions and suggested improvements should be sent to both Janice Adair at [jada461@ecy.wa.gov](mailto:jada461@ecy.wa.gov) and Brenden McFarland at [bmcf461@ecy.wa.gov](mailto:bmcf461@ecy.wa.gov). Gail Sandlin in the Air Quality Program ([gasa461@ecy.wa.gov](mailto:gasa461@ecy.wa.gov)) is available to assist with the SEPA GHG reviews.

### A. SEPA and climate change

SEPA requires state and local agencies to identify, disclose, and consider the probable environmental impacts that may result from their decisions. Greenhouse gas (GHG) emissions adversely affect the environment by contributing to global climate change. In turn, global climate change results in environmental impacts in Washington such as rising sea levels and changes in water supply. These changes can impact the built environment, and SEPA requires these types of impacts to be disclosed, too.

Thus, two different climate change impacts of a proposal should be considered.

1. New GHG emissions caused by the proposal
2. The effects of a changing climate on the proposal's new infrastructure as a result of:
  - a. Increased sea levels
  - b. Reduced snowpack
  - c. Changes in water availability
  - d. Changes in stream flow timing
  - e. Increased forest fires
  - f. More extreme precipitation events and flooding

### B. Ecology's role in SEPA reviews

Ecology plays one of three roles in reviewing a SEPA analysis.

1. Lead agency
2. Agency with jurisdiction (where another governmental entity is the lead agency, but Ecology will be issuing permits for the project)

3. Other - no agency action on proposal (we are an agency with expertise, a commenting agency, or no review or comment)

This document is to be used when Ecology is either the lead agency or an agency with jurisdiction. It is not expected that Ecology will review SEPA analyses solely for GHG emissions.

### **C. Greenhouse gases in brief**

Greenhouse gases include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), Nitrous oxide (N<sub>2</sub>O), nitrogen trifluoride (NF<sub>3</sub>), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>).

In a very simple sense, GHG emissions are air pollutants. However, there are distinctive features about these emissions that make them different from other air pollutants.

GHGs, and in particular carbon dioxide, are emitted by a vast number of sources, both natural and anthropogenic, in amounts ranging from trivial to massive. These emissions mix rapidly and uniformly in the atmosphere. They contribute equally to global concentrations no matter where they are emitted. A ton of CO<sub>2</sub> emitted from Seattle has the same effect on global concentrations as a ton emitted in Clarkston. Unlike many conventional air pollutants, local concentrations of GHGs are not greater near large sources than they are in areas far away.

Carbon dioxide equivalent (CO<sub>2</sub>e) is the preferred measure for determining GHG emissions rates for any combination of these GHGs. Emissions of greenhouse gases are typically expressed in a common metric, so that their impacts can be directly compared, as some gases have a higher global warming potential (GWP) than others.

### **How will I know if a particular project will result in GHG emissions?**

GHG emissions come from multiple sources in widely varying levels. The majority of GHG emissions are produced by the burning of fossil fuels. The most common sources are:

- Energy production and use, including transportation (e.g. vehicles)
- Industrial manufacturing processes, including<sup>1</sup>:
  - Cement
  - Glass
  - Steel
  - Aluminum
  - Lime
  - Pulp and Paper
  - Oil and gas refining
  - Silicon production

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<sup>1</sup> These industrial facilities are typically energy intensive and will include a number of boilers. The manufacturing process itself will also create greenhouse gas emissions.



- Waste disposal and wastewater treatment
- Electricity or natural gas distribution
- Permanent deforestation
- Cattle manure management

While nearly every project will have some level of GHG emissions, not every project will produce emissions to a level that warrants disclosure.

It is important to note that under current state law (RCW 70.235.020(3)), emissions of carbon dioxide from industrial combustion of biomass in the form of fuel wood, wood waste, wood by-products, and wood residuals are not considered a greenhouse gas.

#### **D. Which emissions need to be disclosed?**

“New” emissions that are expected to average 10,000 metric tons or more of carbon dioxide equivalent (CO<sub>2</sub>e) per year and that are “proximately caused” by the proposal should be disclosed. We expect the majority of projects to be below this level of emissions.

10,000 metric tons is the equivalent of the emissions produced by 2,092 passenger cars in one year. Attachment 1 is a screening table that can be used by staff to determine if a proposal is likely to emit greater than 10,000 metric tons per year.

“New” emissions are any emissions that will result from the project that are additional (“above and beyond” current emission levels). For example, replacing an existing boiler with a more efficient boiler might result in no “new” emissions if the new boiler decreases emissions whereas an industrial development on land currently used for agriculture would likely result in some quantity of “new” emissions. A proposal that will improve or replace infrastructure but not add any new business or throughput would not be expected to result in “new” operational or transportation emissions. Relocating an operation could result in additional emissions, or might reduce emissions depending on the specifics of the relocation. Relocating a supply route from one location to another, such as between ports or distribution centers, may not result in new emissions.

“Proximate cause” means a “reasonably close causal relationship between the environmental effect and the alleged cause.” It is the standard that the United States Supreme Court adopted under NEPA.<sup>2</sup> Although Washington courts have not ruled on this issue as it relates to SEPA, we have used the same standard in the state because it presents a reasonable approach to defining the scope of impacts that need to be considered. Proximate cause requires a showing that the proposal is the cause of the emissions in a direct sequence, unbroken by any superseding cause. The courts have further defined proximate cause as whether the action and the impacts (emissions) are “two links of [the same] chain.” If the environmental impact is linked to the action, then it should be considered under SEPA.

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<sup>2</sup> *Dept. of Transp. v. Public Citizen*, 541 U.S. 752, 754 (2004)

Generally, Ecology believes that only larger development projects such as new industrial facilities and electricity generation units will have emissions to a level that will necessitate their specific disclosure. For example, a proposal to redevelop a site into an industrial park would likely have emissions that would require disclosure. On the other hand, a building permit for a small business enterprise would not be expected to have emissions that necessitate disclosure even though the completed project will use energy and there may be traffic associated with the business.

#### **E. How should GHG emissions be quantified?**

When quantifying new emissions that are caused by the project, proponents should use accepted protocols and emissions factors such as those outlined in Attachment 2. We have also developed a simple tool that will be helpful in quickly estimating emissions from specific projects. It is available online: [SEPA GHG Calculation Tool](#).

#### **F. What are the boundaries of the project for which emissions must be disclosed?**

For all impacts, [WAC 197-11-060\(4\)\(b\)](#) states that “In assessing the significance of an impact, a lead agency shall not limit its consideration of a proposal’s impacts only to those aspects within its jurisdiction, including local or state boundaries.” If the emissions are proximately caused by the project, they should be disclosed regardless of their location.

The project proponent should carefully consider any transportation emissions associated with movement of products related to the operation of the project. At a minimum, the analysis should include the emissions that occur within Washington state, including the nautical three mile boundary if transporting products by ship. For projects with ongoing operations that include transporting products from outside the state, such as a port, a more thorough and perhaps more defensible analysis would include the transportation emissions from the source location outside of Washington to the final destination *if either is known and the extent to which either is known*. Whether or not SEPA requires the transportation analysis to include these out-of-state transportation emissions is an unsettled question under SEPA case law.

Remember that this document does not supersede or otherwise replace the current SEPA handbook and provisions prohibiting piecemealing and other requirements on defining the scope of the project still apply.

#### **G. What level of detail is needed for emissions disclosure?**

For projects that are expected to annually produce an average estimate of at least 10,000 but less than 25,000 metric tons CO<sub>2</sub>e, proponents should at least *qualitatively* disclose the GHG emissions caused by the project. A qualitative disclosure should include a general description of the project’s expected source(s) of the emissions, as well as any proposed GHG mitigation measures incorporated or designed into the project.

Proponents of projects that are expected to produce an average of 25,000 or more metric tons CO<sub>2</sub>e each year should include a *quantitative* disclosure of GHG emissions. The screening table included as Attachment 1 can be used by staff to estimate if a proposal is likely to require this quantitative analysis. The quantitative analysis should include GHG emissions from all phases of the project. Emissions from the operation of the completed

project should be disclosed separately from emissions associated with the project construction including site preparation and any demolition. This will allow the agency to better understand the difference between short term and long term emissions. In addition, the proponent should average the annual estimated operational emissions over the lifespan of the project. Remember that the SEPA rules require the official to consider mitigation measures which the proponent proposes to implement as part of the proposal, including any mitigation measures required by other existing environmental rules or laws.

The GHG analysis should include emissions in the following categories.<sup>3,4</sup>

### Scope 1 Emissions

- Direct stationary combustion of fossil fuels once the project is complete.
- Vehicle fleet emissions once the project is complete.
- Loss of carbon storage from the permanent conversion of forested lands.
- Methane emissions from new landfills, wastewater treatment plants, or manure management systems.

### Scope 2 Emissions

- Purchased electricity or steam consumed by the project.

### Scope 3 Emissions

- Heavy-machinery emissions during site preparation, construction, or clean-up activities.
- New on-going product transportation emissions that are caused by the project; as noted above in F, this will at a minimum include emissions that occur within Washington state and its three mile nautical boundary.
- Vehicle trips generated by the project during construction and operation, including those of employees, customers, vendors, or residents.

## H. How can the current SEPA checklist be used to disclose emissions and effects on the built environment?

The current [SEPA environmental checklist \(WAC 197-11-960\)](#) can be used to identify and disclose sources of GHG emissions as well as the impacts on the built environment expected as a result of global climate change.

Section B2 of the checklist requires the proponent to identify air emissions associated with the project during construction and when the project is completed, as well as any measures proposed to avoid, minimize, or mitigate those emissions. These questions can be used to help disclose GHG emissions.

The checklist includes other questions that may be useful in identifying other potential GHG emissions, such as the number of people residing or working in the completed project (under "Land and Shoreline Use"), vehicle

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<sup>3</sup> 25,000 metric tons is the greenhouse gas reporting threshold for the US Environmental Protection Agency. It is the equivalent of 4,545 average passenger cars or 60,749,347 kilowatt hours of electricity.

<sup>4</sup> GHG measurement tools group emissions into three categories. Scope 1 may also be referred to as direct emissions and Scopes 2 and 3 as indirect emissions. However, since "direct" and "indirect" are also used in SEPA and mean something different, we recommend refraining from using those terms to refer to emissions.

trips per day and other demands on transportation (under “Transportation”), and energy use (under “Energy and Natural Resources”).

Projects with a long lifespan should consider their vulnerability to a changing climate. This is especially true for buildings and infrastructure along coastlines and in floodplains, as well as large water users. By 2050 sea level in Washington is projected to increase between 1 and 22 inches, depending on location and future emissions. Major storms and floods are also projected to increase in the future, increasing the flooding danger to projects located within existing flood plains. Climate change will also affect future water availability and should be considered for projects that will be large water users.

Section B.3 of the checklist concerning surface water could be used to disclose a project’s vulnerability to climate change. Additional information of the effects of climate change can be found on Ecology’s [climate adaptation website](#).

### **J. When are emissions considered “significant”?**

The SEPA rules include a process for determining when impacts are considered significant ([WAC 197-11-330](#)). Under this rule, the responsible official is tasked with taking into account whether or not the proposal conflicts with local, state or federal rules or laws. The official is also directed to consider mitigation measures which the proponent proposes to implement as part of the proposal, including any mitigation measures required by other existing environmental rules or laws.

The SEPA rules also state, in defining significance, that it involves context and intensity and does not lend itself to a formula or quantifiable test ([WAC 197-11-794](#)). However, we believe that we can identify what level of greenhouse gas emissions would not be significant, especially taking into account the state’s greenhouse gas reduction targets and other legal requirements to reduce or mitigate emissions.

[RCW 70.235.020](#) establishes greenhouse gas reduction targets for Washington. By 2020, we are to return to 1990 levels. While there are also reduction targets for 2035 and 2050, at this point we are concentrating on meeting the 2020 targets. Based on Ecology’s most recent [Comprehensive Plan](#) to meet those targets, the state must reduce its emissions by 11%<sup>5</sup> in order to return to 1990 levels by 2020<sup>6</sup>.

There are also some legal requirements to reduce or mitigate GHG emissions. These include:

- Facilities subject to Prevention of Significant Deterioration (PSD) requirements under the Clean Air Act that have been determined to meet “Best Available Control Technology” for GHGs.
- New fossil-fueled thermal electric generating facilities required to offset a portion of their CO<sub>2</sub> emissions under [RCW 80.70](#).
- Baseload power generation facilities subject to the state Emissions Performance Standard ([RCW 80.80](#)).

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<sup>5</sup> The agency is required to update the emissions inventory every even-numbered year, and the percentage reduction needed to reach the statutory targets will be updated accordingly.

<sup>6</sup> Ecology is still considering how and when to use the percentage reduction required to meet the 2035 statutory target.

A proposal will be presumed to be not significant for greenhouse gas emissions and thus no further mitigation for greenhouse gas emissions will be necessary if it is:

- expected to result in fewer than 25,000 metric tons a year;
- subject to a legal requirement to reduce or mitigate GHG emissions; or
- expected to result in emissions of 25,000 metric tons or more a year and has incorporated mitigation measures to reduce its emissions by approximately 11% below what its emissions would have been without those mitigation measures.

These proposals should still disclose their emissions as outlined in Section D of this document and at the appropriate level of detail as outlined in Section G.

For projects that have incorporated mitigation measures to reduce emissions by 11%, the project proponent should use a reasonable amount of effort to demonstrate that those measures will get as close to the 11% reduction as possible, however it is not necessary to mitigate emissions by exactly 11%.

By identifying the level of emissions that would be presumed to be not significant, the agency is not taking the position that emissions exceeding those levels would be presumed to be significant. It is unlikely that a proposal would be considered significant based solely on its greenhouse gas emissions. We would expect a project with high GHG emissions to also have other environmental impacts.<sup>7</sup>

It is important to remember that a project may still be found to be significant because of other impacts even if the greenhouse gas emissions are not significant.

### **K. How can a project proponent mitigate emissions?**

For proponents who wish to mitigate emissions, there are many options. A number of these are outlined in Attachment 2.

If a proponent chooses to mitigate GHG emissions by including energy efficiency or other design features that will reduce GHG emissions, the proponent should quantify and disclose the expected emissions from the project both with and without those design features.

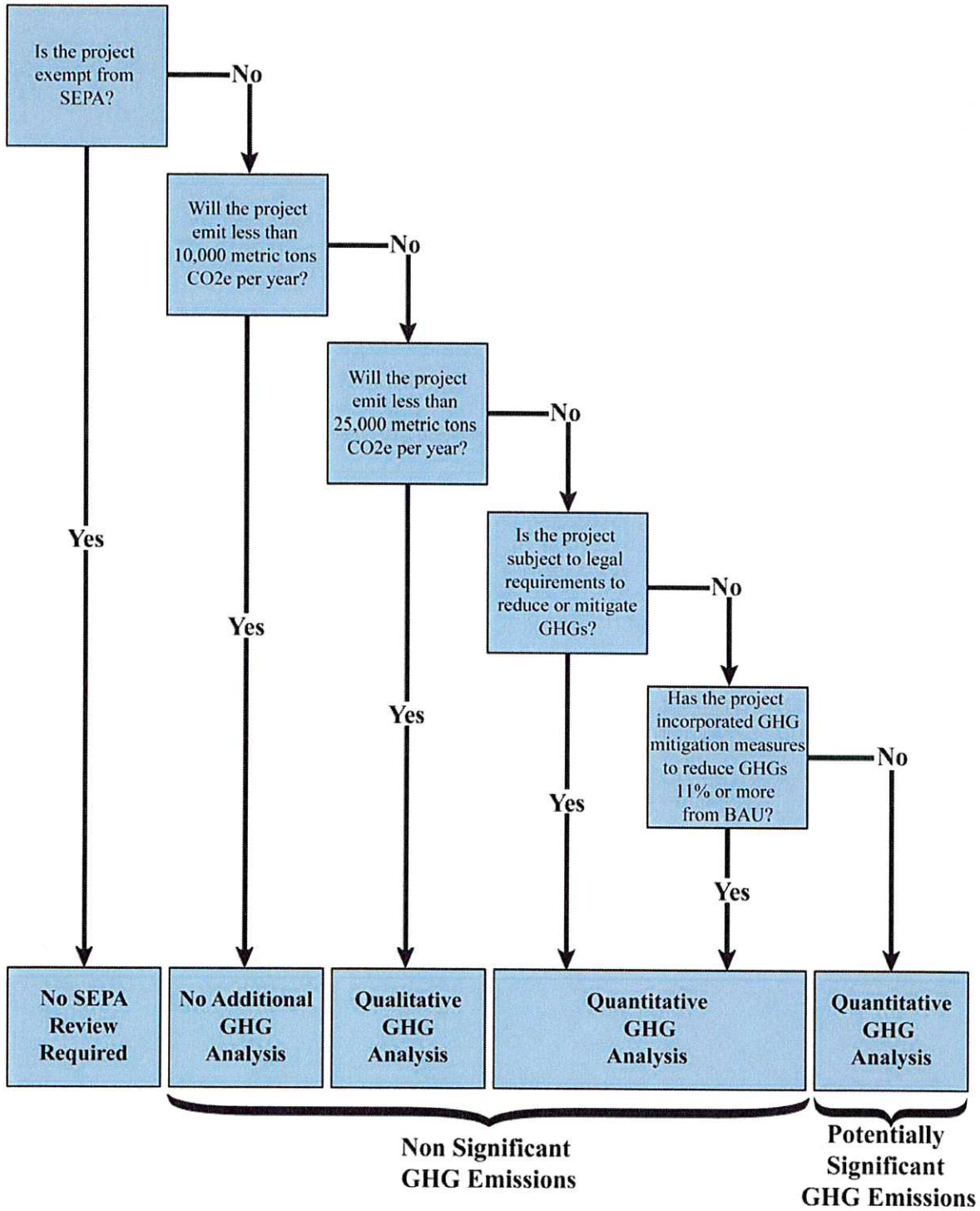
Mitigation may occur at a different location or at a different source than the emissions associated with the project. Greenhouse gases mix rapidly in the atmosphere and persist for a number of years, therefore a reduction in any location will reduce the overall atmospheric burden. Some ideas for off-site mitigation that have been suggested include energy efficiency improvements in schools, low income housing, or other public or community buildings, as well as projects that will capture methane from landfills or manure management systems. These are just examples.

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<sup>7</sup> Some electronic manufacturing, such as photovoltaic solar cell and film silicon modules, may use fluorinated gases with a very high global warming effect. These projects could have extremely high levels of GHG emissions without other environmental impacts.

If a project proponent proposes to mitigate emissions by purchasing a GHG offset project from a third party, you should contact Ecology's Climate Policy Group for assistance. These types of projects can be controversial and it is important to ascertain that the offset project meets the necessary criteria.

# Ecology SEPA and Greenhouse Gas Emissions Significance Flow Chart



## **Attachment 1: GHG Screening Table**

The following table can be used to screen projects in order to determine the level of additional greenhouse gas emissions analysis that should be done by the project proponent. For each category the table estimates the size of a project that would be expected to produce emissions at annual levels of 10,000 and 25,000 metric tons during operation. Projects that are near the threshold may require additional project-specific analysis to determine if emissions may trigger GHG analysis.

For development projects, emissions are included from direct combustion and induced transportation emissions. For development projects the table uses national and regional estimate of energy use compiled by the U.S. Energy Information Administration. Estimated emissions from development projects also include induced transportation emissions based on the Fehr and Peers VMT spreadsheet with default values for Puget Sound.



	10,000 MT CO <sub>2</sub> e Per Year	25,000 MT CO <sub>2</sub> e Per Year	Data Unit
<b>Energy Usage</b>			
Gasoline	1,136,708	2,841,769	Gallons
Diesel	983,367	2,458,418	Gallons
Natural Gas	1,881,255	4,703,138	Therms
Electricity Consumption	24,300	60,749	MWh
<b>Commercial or Industrial Boilers</b>			
Natural Gas Fired	22	54	Heat Input (MMBtu/hr)
Fuel Oil Fired	15	38	Heat Input (MMBtu/hr)
Coal Fired	12	30	Heat Input (MMBtu/hr)
Biomass Fired (carbon neutral CO <sub>2</sub> )	578	1,446	Heat Input (MMBtu/hr)
<b>Residential Development (Includes Transportation and Operation)</b>			
Single Family	409	1,023	Dwelling Units
Multi-Family	575	1,438	Dwelling Units
High-Rise Condo	854	2,135	Dwelling Units
<b>Commercial Development (Includes Transportation and Operation)</b>			
General Retail	185	463	Thousand Square Feet
Supermarket	75	187	Thousand Square Feet
Fast-Food Restaurant	18	45	Thousand Square Feet
Office Space	399	998	Thousand Square Feet
Medical Office	160	399	Thousand Square Feet
Hotel	565	1,411	Hotel Rooms
Movie Theatre	30	75	Movie Screens
<b>Educational Facility Development</b>			
Grade School	5,050	12,624	Number of Students
High School	3,662	9,154	Number of Students
College	2,644	6,610	Number of Students
<b>Industrial Development</b>			
Warehouse/Distribution Center	119	298	Thousand Square Feet
<b>Conversion of Forested Lands</b>			
Deforestation (Western WA)	83	207	Acres
Deforestation (Eastern WA)	213	532	Acres
<b>Waste and Wastewater Treatment</b>			
Landfill	74,830	187,075	Tons MSW Disposed per Year
Domestic Wastewater Treatment Plant	26	65	1000 People Served
Dairy Cattle Manure Management (Open Lagoon)	2,046	5,115	Head Cattle
Beef Cattle Manure Management (Open Lagoon)	6,063	15,158	Head Cattle

## Attachment 2: Sources of GHG Emissions Mitigation Options

The following table lists various sources of GHG emissions as well as potential quantification methodologies and mitigation options for each source. These emissions sources can be evaluated quantitatively or qualitatively to address greenhouse gas reduction strategies. Not all categories must be quantified or mitigated.

GHG Emission Sources	Definition and Examples	Emissions Scope	Quantification Methodologies, Tools, and Emission Factors* (see last page for links to all of these tools)	Potential Mitigation Options†
On-Road Mobile Sources	Mobile sources owned by the project proponent operating both within the proponent's facility and off-site.	Scope 1	<ul style="list-style-type: none"> <li>• TCR</li> <li>• WRI/WBCSD</li> <li>• Seattle Climate Partnership</li> <li>• Ecology</li> <li>• EIA</li> <li>• URBEMIS</li> <li>• CalEEMod</li> </ul>	<ul style="list-style-type: none"> <li>• Highly efficient vehicles</li> <li>• Alternative fuel vehicles</li> <li>• Site location</li> <li>• Video conferencing</li> <li>• Anti-idling technology</li> </ul>
Non-Road Mobile Sources	Non-road mobile sources owned by the project proponent used for construction, maintenance, and facility operation (e.g. heavy machinery, maintenance equipment, trains, and boats)	Scope 1	<ul style="list-style-type: none"> <li>• TCR</li> <li>• WRI/WBCSD</li> <li>• Seattle Climate Partnership</li> <li>• Ecology</li> <li>• URBEMIS</li> <li>• CalEEMod</li> </ul>	<ul style="list-style-type: none"> <li>• Highly efficient vehicles</li> <li>• Alternative fuel vehicles</li> <li>• Site location</li> <li>• Anti-idling technology</li> </ul>
Stationary Combustion	On-site combustion of fossil fuels	Scope 1	<ul style="list-style-type: none"> <li>• TCR</li> <li>• WRI/WBCSD</li> <li>• EPA Reporting Rule</li> <li>• EIA</li> <li>• URBEMIS</li> </ul>	<ul style="list-style-type: none"> <li>• Building design and operation</li> <li>• Energy efficiencies</li> </ul>

GHG Emission Sources	Definition and Examples	Emissions Scope	Quantification Methodologies, Tools, and Emission Factors* (see last page for links to all of these tools)	Potential Mitigation Options†
Industrial Processes	Non-combustion emissions resulting from certain industrial processes such as oil refining, cement production, aluminum production, and steel manufacturing	Scope 1	<ul style="list-style-type: none"> <li>• TCR</li> <li>• EPA Reporting Rule</li> <li>• WRI/WBCSD</li> <li>• IPCC</li> </ul>	<ul style="list-style-type: none"> <li>• Facility operation</li> <li>• Methane capture and use or destruction</li> <li>• High-global warming potential gas destruction</li> </ul>
Fugitive Emissions	Non-combustion emissions from owned resources (e.g. landfills, natural gas transmission, electricity treatment plants)	Scope 1	<ul style="list-style-type: none"> <li>• TCR</li> <li>• EPA Reporting Rule</li> <li>• WRI/WBCSD</li> <li>• IPCC</li> <li>• CCME</li> </ul>	<ul style="list-style-type: none"> <li>• Facility operation</li> <li>• Methane capture and use or destruction</li> <li>• High-global warming potential gas destruction</li> </ul>
Agricultural Emissions	Non-combustion emissions from agriculture (e.g. manure management, fertilizer application, enteric fermentation, and soil preparation)	Scope 1	<ul style="list-style-type: none"> <li>• WRI/WBCSD</li> <li>• IPCC</li> <li>• DOE 1605b</li> <li>• CAR</li> <li>• CCME</li> </ul>	<ul style="list-style-type: none"> <li>• Methane capture and use or destruction</li> <li>• Waste reduction</li> <li>• Organic or low input agriculture</li> </ul>
Land Use Change	Emissions from lost carbon storage from the permanent conversion of forested land to other uses	Scope 1	<ul style="list-style-type: none"> <li>• DOE 1605b</li> <li>• U.S Forest Service</li> <li>• WRI/WBCSD</li> <li>• IPCC</li> <li>• CAR</li> </ul>	<ul style="list-style-type: none"> <li>• Site design and location</li> <li>• Low impact development</li> </ul>

GHG Emission Sources	Definition and Examples	Emissions Scope	Quantification Methodologies, Tools, and Emission Factors* (see last page for links to all of these tools)	Potential Mitigation Options†
Purchased Electricity and Steam	Off-site emissions produced to generate purchased electricity or steam	Scope 2	<ul style="list-style-type: none"> <li>• TCR</li> <li>• EPA eGRID</li> <li>• Seattle Climate Partnership</li> <li>• EIA</li> <li>• URBEMIS</li> <li>• CalEEMod</li> </ul>	<ul style="list-style-type: none"> <li>• Building design and operation</li> <li>• Energy efficiencies</li> </ul>
Road and Non-Road Mobile Sources	Combustion emissions from leased or contractor on-road and non-road mobile sources used as part of construction, maintenance, and facility operation (e.g. heavy machinery, maintenance equipment, trains, and boats)	Scope 3	<ul style="list-style-type: none"> <li>• TCR</li> <li>• WRI/WBCSD</li> <li>• Ecology</li> <li>• URBEMIS</li> <li>• CalEEMod</li> </ul>	<ul style="list-style-type: none"> <li>• Highly efficient vehicles</li> <li>• Alternative fuel vehicles</li> <li>• Site Location</li> <li>• Anti-idling technology</li> </ul>
Generated Vehicle Trips	Combustion emissions from vehicle trips generated by the project during construction and operation including those of employees, customers, vendors, and residents.	Scope 3	<ul style="list-style-type: none"> <li>• TCR</li> <li>• CTR</li> <li>• Seattle Climate Partnership</li> <li>• URBEMIS</li> <li>• Fehr &amp; Peers</li> <li>• CalEEMod</li> </ul>	<ul style="list-style-type: none"> <li>• Highly energy efficient or alternative fueled vehicles and infrastructure</li> <li>• Site location</li> <li>• Public transit infrastructure and incentives</li> <li>• Bike/ped accessibility</li> <li>• Anti-idling technology</li> </ul>

GHG Emission Sources	Definition and Examples	Emissions Scope	Quantification Methodologies, Tools, and Emission Factors* (see last page for links to all of these tools)	Potential Mitigation Options†
Water Use and Wastewater Disposal	Combustion and fugitive emissions created to provide water and dispose of wastewater (e.g. pumping energy and POTW fugitive methane)	Scope 3	<ul style="list-style-type: none"> <li>• TCR</li> <li>• WRI/WBCSD</li> <li>• IPCC</li> </ul>	<ul style="list-style-type: none"> <li>• Low impact development</li> <li>• Site location</li> <li>• Methane capture and use or destruction</li> <li>• Water conservation/efficiencies (fixtures, appliances)</li> <li>• Water reuse</li> </ul>
Supply Chain Transportation Emissions	Supply chain transportation emissions generated to transport feedstocks to the completed project, finished products away from the project, and any additional new shipping emissions that are caused by the project.	Scope 3	<ul style="list-style-type: none"> <li>• TCR</li> <li>• WRI/WBCSD</li> <li>• <i>URBEMIS</i></li> <li>• <i>CalEEMod</i></li> </ul>	<ul style="list-style-type: none"> <li>• Highly efficient or alternative fueled vehicles and infrastructure</li> <li>• Site location</li> <li>• Anti-idling technology</li> </ul>

\*The following list is illustrative showing some good sources for quantification tools, protocols, and emissions factors that can be used to quantitatively assess emissions from each of these sources. It is not meant to be exhaustive. We are not advocating the use of these methodologies for determining acceptable error rates for assessing emissions. Tools in italics are simple models that can be used to estimate the magnitude of future emissions.

†These are general examples of mitigation options for various emissions sources. This list is not meant to be comprehensive.

## Quantification Methodologies, Tools, and Emissions Factors

- Athena Institute EcoCalculator (Athena) - <http://www.athenasmi.org/index.html>
- CalEEMod - <http://www.caleemod.com/>
- CCME - <http://www.ccme.ca/ourwork/waste.html?categoryid=137>
- Department of Commerce GHG Emissions Planning Tools (Commerce) - <http://www.commerce.wa.gov/site/1277/default.aspx>
- Ecology Mobile Source Tool (Ecology) - <http://www.ecy.wa.gov/programs/air/pdfs/ghgfleetcalculator.xls>
- Energy Information Agency End Use Consumption Data (EIA) - <http://www.eia.doe.gov/emeu/consumption/index.html>
- EPA Reporting Rule - <http://www.epa.gov/climatechange/emissions/ghgrulemaking.html>
- EPA WARM Model - [http://www.epa.gov/climatechange/wycd/waste/calculators/Warm\\_home.html](http://www.epa.gov/climatechange/wycd/waste/calculators/Warm_home.html)
- Fehr & Peers VMT spreadsheets - <http://coolconnections.org/solutions/>
- IPCC Emissions Factor Database (IPCC) - <http://www.ipcc-nggip.iges.or.jp/EFDB/main.php>
- National Renewable Energy Laboratory (NREL) Life-cycle Inventory Database - <http://www.nrel.gov/lci/>
- Seattle Climate Partnership - <http://seattleclimatepartnership.org/tools/index.html#tool>
- The Climate Action Reserve (CAR) - <http://www.climateactionreserve.org>
- The Climate Registry (TCR) - <http://www.theclimateregistry.org/>
- U.S Department of Energy 1605b (DOE 1605b) - [http://www.eia.doe.gov/oiaf/1605/reporting\\_tools.html](http://www.eia.doe.gov/oiaf/1605/reporting_tools.html)
- U.S Forest Service Carbon Lookup Tables (U.S Forest Service) - <http://nrs.fs.fed.us/pubs/8192>
- URBEMIS - <http://www.urbemis.com/>
- World Resources Institute/World Business Council for Sustainable Development (WRI/WBCSD) - <http://www.ghgprotocol.org/>
- WSDOT Commute Trip Reduction Program (CTR) - <http://www.wsdot.wa.gov/TDM/CTR>