

California Environmental Checklist

Environmental Checklist Form

1. Project title \_\_\_\_\_

2. Lead agency name and address \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. Contact person and phone number \_\_\_\_\_

4. Project location \_\_\_\_\_

5. Project sponsor's name and address \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

6. General plan designation \_\_\_\_\_ 7. Zoning \_\_\_\_\_

**APPENDIX F:**

**Examples of Environmental Checklists**

1. California Environmental Checklist (Retrieved from: [http://ceres.ca.gov/topic/env\\_law/ceqa/guidelines/appendices.html](http://ceres.ca.gov/topic/env_law/ceqa/guidelines/appendices.html) )
2. Washington State: Department of Ecology (Retrieved from: <http://www.ecy.wa.gov/programs/sea/sepa/forms.htm> )
3. United States Department of Energy (Retrieved from: <http://www.id.doe.gov/doesid/>)
4. Environmental & Health Screening Checklist used in Total Cost Assessment ( AIChE CWRT, 1999)
5. Generic Questionnaire Checklist for Addressing and/or Summarising the Cumulative Environmental Impacts of Projects (Canter & Kamath, 1995).

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Aesthetics                      | <input type="checkbox"/> Agriculture Resources     | <input type="checkbox"/> Air Quality         |
| <input type="checkbox"/> Biological Resources            | <input type="checkbox"/> Cultural Resources        | <input type="checkbox"/> Geology / Soils     |
| <input type="checkbox"/> Hazardous & Hazardous Materials | <input type="checkbox"/> Hydrology / Water Quality | <input type="checkbox"/> Land Use / Planning |

## California Environmental Checklist

### Environmental Checklist Form

1. Project title: \_\_\_\_\_

2. Lead agency name and address:  
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3. Contact person and phone number: \_\_\_\_\_

4. Project location: \_\_\_\_\_

5. Project sponsor's name and address:  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

6. General plan designation: \_\_\_\_\_ 7. Zoning: \_\_\_\_\_

8. Description of project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

9. Surrounding land uses and setting: Briefly describe the project's surroundings:  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

10. Other public agencies whose approval is required (e.g., permits, financing approval, or Participation agreement.)  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:**  
 The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Aesthetics                    | <input type="checkbox"/> Agriculture Resources     | <input type="checkbox"/> Air Quality         |
| <input type="checkbox"/> Biological Resources          | <input type="checkbox"/> Cultural Resources        | <input type="checkbox"/> Geology /Soils      |
| <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology / Water Quality | <input type="checkbox"/> Land Use / Planning |

Appendix F: Examples of Environmental Checklists

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- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Mineral Resources         | <input type="checkbox"/> Noise                              | <input type="checkbox"/> Population / Housing    |
| <input type="checkbox"/> Public Services           | <input type="checkbox"/> Recreation                         | <input type="checkbox"/> Transportation/ Traffic |
| <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Mandatory Findings of Significance |  |

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.
  
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.
  
- I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.
  
- I find that the proposed project **MAY** have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.
  
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed name

\_\_\_\_\_  
for

**EVALUATION OF ENVIRONMENTAL IMPACTS:**

1) A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls

outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.

4) “Negative Declaration: Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation Measures, and briefly explain how they reduce the effect to a less than significant level (Mitigation measures from Section XVII; “Earlier Analyses” may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA Process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

- a) Earlier Analysis Used. Identify and state where they are available for review.
- b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
- c) Mitigation Measures. For effects that are “Less than Significant with Mitigation Measures Incorporated”, describe the mitigation measures, which were incorporated or refined from the earlier document and the extent, to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or Individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project’s environmental effects in whatever format is selected.

9) The explanation of each issue should identify:

- a) The significance criteria or threshold, if any, used to evaluate each question; and
- b) The mitigation measure identified, if any, to reduce the impact to less than significance

Appendix F: Examples of Environmental Checklists

SAMPLE QUESTION

Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than significant impact	No Impact
<b>I. AESTHETICS -- Would the project:</b>				
a) Have a substantial adverse effect on a scenic vista?				
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				
c) Substantially degrade the existing visual character or quality of the site and its surroundings?				
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?				
<b>II. AGRICULTURE RESOURCES:</b> In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				
c) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of farmland, to non-agricultural use?				
<b>III. AIR QUALITY --</b> Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?				
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?				
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?				
d) Expose sensitive receptors to substantial pollutant concentrations?				
e) Create objectionable odors affecting a substantial number of people?				
<b>IV. BIOLOGICAL RESOURCES -- Would the project:</b>				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?				
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) Through direct removal, filling, hydrological interruption, or other means?				
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				
e) Conflict with any local policies or ordinances protecting				

## Appendix F: Examples of Environmental Checklists

biological resources, such as a tree preservation policy or ordinance?				
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat Conservation plan?				
<b>V. CULTURAL RESOURCES -- Would the project:</b>				
a) Cause a substantial adverse change in the significance of a historical resource as defined in $\approx$ 15064.5?				
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to $\approx$ 15064.5?				
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				
d) Disturb any human remains, including those interred outside of formal cemeteries?				
<b>VI. GEOLOGY AND SOILS -- Would the project:</b>				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death Involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				
ii) Strong seismic ground shaking?				
iii) Seismic-related ground failure, including liquefaction?				
iv) Landslides?				
b) Result in substantial soil erosion or the loss of topsoil?				
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				
<b>VII. HAZARDS AND HAZARDOUS MATERIALS -- Would the project:</b>				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within One-quarter mile of an existing or proposed school?				
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				

Appendix F: Examples of Environmental Checklists

h) Expose people or structures to a significant risk of loss, injury or death involving wild land fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				
VIII. HYDROLOGY AND WATER QUALITY -- Would the project:				
a) Violate any water quality standards or waste discharge requirements?				
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?				
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?				
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?				
f) Otherwise substantially degrade water quality?				
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				
h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?				
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				
j) Inundation by seiche, tsunami, or mudflow?				
IX. LAND USE AND PLANNING - Would the project:				
a) Physically divide an established community?				
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				
X. MINERAL RESOURCES -- Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local General plan, specific plan or other land use plan?				
XI. NOISE -- Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?				
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?				
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?				
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				

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f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				
<b>XII. POPULATION AND HOUSING -- Would the project:</b>				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				
<b>XIII. PUBLIC SERVICES</b>				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: <ul style="list-style-type: none"> <li>• Fire protection?</li> <li>• Police protection?</li> <li>• Schools?</li> <li>• Parks?</li> <li>• Other public facilities?</li> </ul>				
<b>XIV. RECREATION --</b>				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				
<b>XV. TRANSPORTATION/TRAFFIC -- Would the project:</b>				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?				
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?				
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				
e) Result in inadequate emergency access?				
f) Result in inadequate parking capacity?				
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				
<b>XVI. UTILITIES AND SERVICE SYSTEMS -- Would the project:</b>				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				

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d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				
e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				
g) Comply with federal, state, and local statutes and regulations related to solid waste?				
<b>XVII. MANDATORY FINDINGS OF SIGNIFICANCE --</b>				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?				
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?				

Final Text - October 26, 1998

Use of checklist for nonproject proposals

Complete this checklist for nonproject proposals, even though a finding may be "no action" or "no effect." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (see 01). For nonproject actions, the references in the checklist to the words "project," "applicant," and "property owner" should be read as "proposal," "proposer," and "property geographic area," respectively.

A. BACKGROUND

1. Name of proposed project, if applicable.
2. Name of applicant.
3. Address and phone number of applicant and contact person.
4. Date checklist prepared.
5. Agency requesting checklist.

**WAC 197-11-960 Environmental checklist.**  
 ENVIRONMENTAL CHECKLIST

*Purpose of checklist:*

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

*Instructions for applicants:*

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can. You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later. Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you. The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

*Use of checklist for nonproject proposals:*

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

**A. BACKGROUND**

1. Name of proposed project, if applicable:
2. Name of applicant:
3. Address and phone number of applicant and contact person:
4. Date checklist prepared:
5. Agency requesting checklist:

## Appendix F: Examples of Environmental Checklists

6. Proposed timing or schedule (including phasing, if applicable): \_\_\_\_\_  
 and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.
7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

TO BE COMPLETED BY APPLICANT

EVALUATION FOR AGENCY USE ONLY

### 5. ENVIRONMENTAL ELEMENTS

#### 1. Earth

a. General description of the site (circle one): Flat, rolling, hilly, steep slopes, mountainous, etc.

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

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

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

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

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

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

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

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

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

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

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

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

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide

the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

TO BE COMPLETED BY APPLICANT

AGENCY USE ONLY

TO BE COMPLETED BY APPLICANT

EVALUATION FOR  
AGENCY USE ONLY

**B. ENVIRONMENTAL ELEMENTS**

**1. Earth**

a. General description of the site (circle one): Flat, rolling, hilly, steep slopes, mountainous, other . . . . .

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

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

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

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

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

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

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

**2. Air**

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

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

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

Appendix F: Examples of Environmental Checklists

TO BE COMPLETED BY APPLICANT

EVALUATION FOR  
AGENCY USE ONLY

TO BE COMPLETED BY APPLICANT

EVALUATION FOR  
AGENCY USE ONLY

**3. Water**

a. Surface:

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

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

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

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

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

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

b. Ground:

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

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

c. Water runoff (including stormwater):

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

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

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

TO BE COMPLETED BY APPLICANT

EVALUATION FOR  
AGENCY USE ONLY

#### 4. Plants

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

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

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

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

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

#### 5. Animals

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

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

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

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

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

#### 6. Energy and natural resources

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

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

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

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### 7. Environmental health

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

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

1) Describe special emergency services that might be required.

### 8. Housing

a. Apply to low-income housing:  
2) Proposed measures to reduce or control environmental health hazards, if any:

### b. Noise

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

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

### 10. Air quality

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

### 8. Land and shoreline use

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

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

### 11. Light and glare

c. Describe any structures on the site.

d. Will any structures be demolished? If so, what? safety hazard? or interfere with views?

e. What is the current zoning classification of the site? Is it your proposal?

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

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

### 12. Recreation

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

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

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

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

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

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

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

**9. Housing**

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

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

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

**10. Aesthetics**

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

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

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

**11. Light and glare**

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

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

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

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

**12. Recreation**

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

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

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**12. Public services**

a. Would the project result in an increased need for public services (for example, fire protection, police protection, health care, schools, other)? If so, generally describe.

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

b. Proposed measures to reduce or control direct impacts on public services, if any:

**13. Historic and cultural preservation**

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

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

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

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

**14. Transportation**

**14. Transportation**

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

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

c. How many parking spaces would the completed project have? How many would the project eliminate?

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

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

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EVALUATION FOR  
AGENCY USE ONLY

**15. Public services** SHEET FOR NONPROJECT ACTIONS

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

b. Proposed measures to reduce or control direct impacts on public services, if any.

The types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

**16. Utilities**

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

discharge to water, emissions to air, production, storage, or release of toxic or hazardous substances, or production of noise?

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

Proposed measures to avoid or reduce such impacts are:

**C. SIGNATURE**

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: .....

Date Submitted: .....

conservative plants, animals, fish, or marine life?

3. How would the proposal be likely to deplete energy or natural resources?

Proposed measures to protect or conserve energy and natural resources are:

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection, such as public wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

Proposed measures to protect such resources or to avoid or reduce impacts are:

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**D. SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS**

(do not use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?

Proposed measures to avoid or reduce such increases are:

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

3. How would the proposal be likely to deplete energy or natural resources?

Proposed measures to protect or conserve energy and natural resources are:

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

Proposed measures to protect such resources or to avoid or reduce impacts are:

## Appendix F: Examples of Environmental Checklists

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5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

Proposed measures to avoid or reduce shoreline and land use impacts are:

6. How would the proposal be likely to increase demands on transportation or public services and utilities?

Proposed measures to reduce or respond to such demand(s) are:

7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

### SECTION D: CATEGORY EVALUATION CRITERIA, WOULD THE ACTION:

1. Require cultural, historical, or biological clearances?
2. Impact sensitive resources identified in item 1 above. Does the action pose a threat?
3. Require or modify federal, state, or local permits, approvals, etc.?
4. Create hazardous, radioactive, PCB, or mixed waste for which no disposal is available?
5. Require siting, construction, or modification of a RCRA or TSCA regulated facility?

SECTION E: CERTIFICATION. To the best of the applicant's knowledge at the time of signing, the responses given above are complete and accurate, and should new issues or concerns arise or changes occur, the applicant will alert D-06 immediately.

APPLICANT SIGNATURE & TITLE

DATE

NEPA Doc Number:	Solicitation #:
NEPA CA Applied:	Contract Specialist:
Approvals:	Project Managers:

**ID-EC98.1**

**APPLICANT ENVIRONMENTAL CHECKLIST**

The following information must be provided to and approved by the Department of Energy (DOE) before a contractual document can be awarded. Complete and correct information expedites the review process.

**SECTION A:**

Project Title: \_\_\_\_\_

Applicant Organization: \_\_\_\_\_

Applicant Organization Contact (Usually the P.I.): \_\_\_\_\_

Telephone Number: \_\_\_\_\_

**SECTION B: Attach a complete and concise description of the project or activity. Include purpose and need and enough information so that a verification of the impacts can be performed. This allows DOE to make the proper NEPA determination.**

**SECTION C: SOURCES OF IMPACTS: WOULD THE PROPOSAL INVOLVE OR GENERATE ANY OF THE FOLLOWING? (If yes, please provide brief explanation. For example, if yes is checked for question 15, indicate how much waste will be generated and the office or procedure in place to handle disposal.)**

	YES	NO		YES	NO
1. Air Emissions			12. Petroleum Storage		
2. Asbestos			13. Solid Waste		
3. Work Force Adjustment			14. PCBs		
4. Excess Noise Levels			15. Hazardous Waste		
5. Utility Modification			16. Radioactive Waste		
6. Soil Disturbance			17. Mixed Waste		
7. Water Treatment			18. Radiation Exposure		
8. Water/Well Use			19. Liquid Effluent		
9. Water Course Modification			20. Sensitive Resources		
10. Pesticide Use			21. CERCLA/RCRA Site		
11. Chemical Use/Storage					

**SECTION D: CATEGORY EVALUATION CRITERIA, WOULD THE ACTION:** YES NO

1. Require cultural, historical, or biological clearances?
2. Impact sensitive resources identified in Item 1 above. Describe the mitigation plan.
3. Require or modify federal, state, or local permits, approvals, etc.?
4. Create hazardous, radioactive, PCB, or mixed waste for which no disposal is available?
5. Require siting, construction, or modification of a RCRA or TSCA regulated facility?

**SECTION E: CERTIFICATION** To the best of the applicant's knowledge at the time of signing, the responses given above are complete and accurate, and should new issues or concerns arise or changes occur anytime after award and during the course of performance, the applicant will alert DOE immediately.

\_\_\_\_\_  
 APPLICANT SIGNATURE & TITLE

\_\_\_\_\_  
 DATE

FOR DOE USE ONLY	
NEPA Doc Number:	Solicitation #:
NEPA CX Applied:	Contract Specialist:
Approved:	Project Manager:

	Yes/No
<p><b>Eco-Efficiency</b></p> <p>1. Materials use:</p> <ul style="list-style-type: none"> <li>a. Are materials planned for use in this project the most renewable, to the extent possible?</li> <li>b. Are recycled materials used, where possible, to reduce the use of newly-manufactured materials?</li> <li>c. Is the overall amount of all materials used reduced to the most economically and practical extent possible?</li> </ul> <p>2. Material toxicity: given a choice, were the least toxic materials (both to the environment and human health exposure) selected?</p> <p>3. Water use:</p> <ul style="list-style-type: none"> <li>a. Is the usage of water reduced to the lowest volume possible?</li> <li>b. Is the output water used from this project recycled?</li> <li>c. Is recycled water used to the extent possible?</li> </ul> <p>4. Energy use: has the energy consumption per unit of output been reduced to the lowest extent possible?</p> <p>5. End-of-life considerations: have end-of-product life considerations been considered?</p> <ul style="list-style-type: none"> <li>a. Recycle</li> <li>b. Reuse</li> <li>c. Recondition/refurbish</li> <li>d. Remanufacture</li> <li>e. Responsibly dispose (state method)</li> <li>f. Retrofit with upgrades</li> </ul>	
<p><b>Environmental</b></p> <ul style="list-style-type: none"> <li>1. Will there be any increase in air emissions, any new source of air emissions or any increase in episodic emission potential?</li> <li>2. Will there be any increase in materials discharged to the process or clean sewer systems?</li> <li>3. Are there any plans to dispose of wastewater by underground injection?</li> <li>4. Are there any or will there be any wastes generated, stored, treated, or disposed of at the project that that would be classified special?</li> <li>5. Is there presently any soil or groundwater contamination at the project site?</li> <li>6. Does the project increase the potential to contaminate soil or groundwater?</li> <li>7. Will underground storage tanks be used for this project?</li> </ul>	
<p><b>Safety and Health Y/N</b></p> <ul style="list-style-type: none"> <li>1. Will flammable, toxic, corrosive, reactive or otherwise hazardous substances be transported, stored, processed or produced at the project site?</li> <li>2. Are extremes of pressure (500 psig) or temperature (400°C) present anywhere in the new facility?</li> <li>3. Will this project use any new process technology?</li> <li>4. Will this project adversely affect reliability of existing facility?</li> <li>5. Are any process intermediates isolated that are not included on the governing chemical control law (TSCA in US) inventory listing for the location?</li> </ul>	
<p><b>Product Safety</b></p> <ul style="list-style-type: none"> <li>1. Are any new products manufactured or will any existing products be directed toward a new market?</li> <li>2. Will distribution schemes cause new or additional public exposures to this product?</li> <li>3. Will this project introduce new contaminants, increase existing hazardous contaminant level or otherwise increase the hazardous nature of the products?</li> </ul>	
<p><b>Reviewer:</b> ..... <b>Date:</b>.....</p>	

<b>Project:</b>				
<b>Locations:</b>				
<b>Environmental Checklists</b>				
<b>Environmental – General</b>	<b>Yes</b>	<b>No</b>	<b>Other</b>	<b>Comments</b>
1. Does the geographic location of the project present any potential interstate or international air pollution liabilities?				
2. Does the geographic location of the project present any potential interstate or international water (surface or groundwater) pollution liabilities?				
3. Is process technology design derived from either proven commercial-scale facilities or six months or more of successful pilot scale operations?				
4. Is there a high degree of confidence that the predicted composition and quantities of air and water pollutants and residues generated from operation of the project have not emitted any chemical more toxic than those documented and have not understated any quantities by more than 50%?				
5. Are there any residuals from either environmental discharges or disposed wastes resulting from operation of the completed project believed to be a potential subject of future governmental rule-making that could cause future unfavorable economics or publicity for the project, location, or corporation?				
6. Will the design and operation of the project be consistent with the location's waste and release reduction programs?				
7. Has the design inventory of hazardous and toxic chemicals been minimized to the extent practical?				
8. Will the facility be staffed, or have readily available, personnel fully aware of the environmental consequences of operation problems and trained to implement timely and proper response actions?				
	Yes	No	Other	Comments
1. Have all significant air emissions (point, fugitive and secondary) been identified and described with respect to quantity, composition and their ultimate treatment? (Consider start-up/shutdown and abnormal operating conditions)				
2. Do proposed air emissions contain any material classified as hazardous under Federal, State or local regulations (pay special attention to Hazardous Air Pollutants [HAPs] identified under clean Air Act Amendments)				
3. Does the project design satisfy the design objectives for both routine (continuous & intermittent) emissions and episodic air emissions? (Pay special attention to known and suspected carcinogens and acutely toxic emissions)				
4. Will proposed air emissions require Prevention of Significant Deterioration (PSD) review and/or New Source Review?				
5. Do any proposed air emission sources require new air control systems or upgrading of existing systems?				
6. Are the air pollution control systems designed to meeting application governmental technological levels and corporate requirements?				
7. Are there any air pollution control systems that have not been reviewed to assure conformation with Federal, State or local regulations?	Yes	No	Other	Comments

<b>Environmental – Surface/Groundwater Protection</b>	<b>Yes</b>	<b>No</b>	<b>Other</b>	<b>Comments</b>
1. Have all significant water discharges been identified and described with respect to quantity, composition and their ultimate treatment and/or disposal? (Consider start-up/shutdown and abnormal operating conditions)				
2. Do proposed wastewater discharges contain any substances on EPA's priority pollutant list?				
3. Will wastewater discharges be restricted by water quality limits of the receiving stream or by the capacity of a Publicly-Owned Treatment Works (POTW)?				
4. Does the operation handle any compounds have EPA Reportable Quantities (RQ's)?				
5. Are adequate leak/spill prevention and detection measures provided?				
6. Will secondary containment be provided for all new and modified oil and chemical handling or storage areas?				
7. Are modifications to an existing or an entirely new Spill Prevention, Control and Countermeasures (SPCC) Plan required?				
8. Will underground storage tanks be used for this project?				
9. Are there any plans to dispose of wastewater by underground injection?				
10. Do any proposed wastewater discharges require new control systems or upgrading of existing systems?				
11. Are the water pollution control systems, underground storage tanks and injection wells designed to meet applicable governmental technological and corporate requirements?				
12. Are there any containment, storage, treatment or disposal design plans that have not been reviewed to assure conformance with Federal, State or local regulations?				
<b>Environmental – Waste Management</b>	<b>Yes</b>	<b>No</b>	<b>Other</b>	<b>Comments</b>
1. Have all significant special wastes been identified and described with respect to quantity, composition and their ultimate treatment and/or disposal? (Consider start-up/shutdown conditions and abnormal operating conditions)				
2. Have all special waste conservation/ minimization alternatives been reviewed and used where feasible?				
3. Are the off-site locations that are managing special wastes approved in accordance with corporate policy?				
4. Has land application of special wastes been minimized to the extent possible?				
5. Are any proposed wastes classified as hazardous under Federal, State or local regulations?				
6. Will the project necessitate the storage, treatment or disposal of hazardous waste, either on-site or off-site?				
7. Are the hazardous waste storage, treatment and disposal systems designed to meet applicable governmental technological levels and corporate requirements?				
8. Are there any storage, treatment or disposal design plans that have not been reviewed to assure conformance with Federal, State or local regulations?				
<b>Environmental – Compliance/Permits</b>	<b>Yes</b>	<b>No</b>	<b>Other</b>	<b>Comments</b>
1. If the project is associated with an existing facility, has the facility experienced any incidents of non-compliance with air,				

wastewater, storm water, solid/hazardous waste permits or regulations, or received any pollution-related citizen complaints in the past 12 months that may affect the project? Describe impact.	Yes	No	Other	Comments
2. Are there any Compliance Orders or other legal actions that may affect the project? Describe impact.				
3. Will the predicted air and water discharges from operation of the completed project comply with all applicable governmental rules? List significant applicable regulations?				
4. Will the planned storage, treatment and disposal of hazardous wastes comply with all applicable governmental rules? List significant applicable regulations?				
5. Have all required air, wastewater, storm water and solid/hazardous waste permits and permit modifications been identified? List new permits/modifications needed.				
6. Are there any other environmental permits needed or which require modification (example: underground storage tanks, Corps of Engineers, wetlands...)? List new permits/modifications needed.				
7. Are any delays in construction or operations start-up likely due to permitting or other regulatory requirements?				
<b>Environmental – Site Condition</b>	<b>Yes</b>	<b>No</b>	<b>Other</b>	<b>Comments</b>
1. Is background air quality monitoring data available for the past 12 months at the project site?				
2. If there are proposed wastewater or storm water discharges to surface water, is background water quality data available?				
3. Is the proposed project site to be located within ½ mile of any existing or potential surface or underground source of drinking water?				
4. Is there presently any known or suspected soil and/or groundwater contamination at the project site?				
5. Are there any active waste storage, treatment or disposal facilities located on the project site?				
6. Are there ongoing or past site investigations and/or remedial actions for present and/or past solid waste units that pose (d) a significant threat of release of hazardous constituents to the environment at the project site?				
7. Is there any material containing polychlorinated biphenyl (PCBs) located on the project site?				
8. Are underground tanks located on the project site?				
9. Does the project site contain US Coast Guard designated wetlands?				
<b>Reviewer: .....</b> <b>Date:.....</b>				

5. Will employees need supplemental training beyond normal corporate or business programs to assure safe operation?
6. Do any State or local regulations supersede Federal safety and health regulations?
7. Are all chemicals that will be handled included in the governing chemical control law (TSCA in US) inventory or equivalent (including isolated intermediates)?
8. Will this project involve installation or removal of asbestos or polychlorinated biphenyl (PCB) materials?
9. Are new occupied buildings or expansions of existing

<b>Safety &amp; Health</b>				
<b>Safety &amp; Health - General</b>	<b>Yes</b>	<b>No</b>	<b>Other</b>	<b>Comments</b>
1. Will toxic, flammable, corrosive or otherwise hazardous substances be transported, stored, processed or produced in facilities affected by this project?				
2. Will high noise levels (85 dBA and higher), radiation sources, heat stress, repetitive motion, or other new or unusual physical hazards be introduced by this project?				
3. Could any of the substances handled in facilities affected by this project cause an explosion if heated, contaminated, concentrated or otherwise mishandled?				
4. Is all necessary safety and health data known for each substance handled? (Include isolated intermediates)				
5. Do up-to-date Material Safety Data Sheets exist for each substance handled? (Include any stream or mixture handled or stored)				
6. Will this project introduce new chemicals that are highly reactive with other chemicals already handled at the location?				
7. Is there potential for mixing of incompatible chemicals in process, storage or waste disposal areas (in/outside boundaries) of this facility?	Yes	No	Other	Comments
8. Are operational safety standards required, and will they be prepared before startup?				
9. Are inventories of hazardous or toxic materials minimized?				
<b>Safety &amp; Health – Compliance</b>	<b>Yes</b>	<b>No</b>	<b>Other</b>	<b>Comments</b>
1. Will any new safety or health programs be required to meet regulations?				
2. Have all Department of Transportation (or equivalent) requirements been identified for substances that will be shipped either to or from the plant location?				
3. Are there any proposed changes to safety and health regulations that could affect design or operation of project or facilities?				
4. Will the following be required to comply with safety and health regulations:				
a. Monitoring of employee exposure?				
b. Ventilation, noise suppression or other engineering controls?				
c. Special personal protective equipment?				
d. Special medical examinations or a medical surveillance program?				
e. Special operating or maintenance procedures?				
f. Regulated areas?				
5. Will employees need supplemental training beyond normal corporate or business programs to assure safe operation?				
6. Do any State or local regulations supersede Federal safety and health regulations?				
7. Are all chemicals that will be handled included in the governing chemical control law (TSCA in US) inventory or equivalent (including isolated intermediates)?				
8. Will this project involve installation or removal of asbestos or polychlorinated biphenyl (PCB) materials?				
9. Are new occupied buildings or expansions of existing				

occupied buildings planned?				
10. Will occupied buildings be affected by process changes that:				
a. Decrease the separation distance?				
b. Increase the hazard classification?				
c. Significantly increase the risk above current level (i.e., process complexity)?				
11. Will contractors be used for on-site work?				
<b>Safety &amp; Health – Public Impact</b>	<b>Yes</b>	<b>No</b>	<b>Other</b>	<b>Comments</b>
1. Will emergency relief devices that protect facilities be affected by this project discharge directly to the atmosphere?	Yes	No	Other	Comments
2. Could releases from the emergency relief devices that discharge directly to the atmosphere have an adverse impact on the health or safety of the public?				
3. Could a process upset or other emergency situation (fire, explosion, spill, etc.) occur in the project facilities that could have an adverse impact on the public?				
4. In the event of the release of toxic chemicals from facilities affected by this project, would existing or planned monitoring, detection, and/or alarm systems be adequate?				
<b>Safety &amp; Health – Facility Design</b>	<b>Yes</b>	<b>No</b>	<b>Other</b>	<b>Comments</b>
1. Will extremes of temperature or pressure (i.e., temperatures above 400°C or pressures above 500 psig) exist in facilities affected by this project?				
2. Will there be any new ignition sources associated with this project?				
3. Will recognized industry practices be followed in the layout of the facility?				
4. Will the pressure vessels, storage tanks, safety valves, piping, valves and fittings that are part of the project facilities conform to applicable industry codes and standards and Federal, State and local laws and regulations?				
5. Will all normal project safety and health reviews be performed?				
6. Is there a need for a Process Hazard Analysis (PHA) of the facilities?				
7. Could the loss of any utility that supplies project facilities create a possible hazardous substance?				
8. Will flammable gas detectors be installed as part of this project?				
9. For facilities affected by this project, is any reaction sufficiently exothermic to result in a runaway reaction under any operating conditions that could occur?				
10. Does this project introduce a new process or incorporate process technology new to this location?				
11. Are process monitoring and control devices adequate to prevent upsets leading to hazardous operation or toxic releases?				
12. Would increased use of automation or advanced process control effectively reduce the risks of employee exposure?				
13. Will water spray protection be provided for processing, storage and distribution areas in accordance with corporate criteria?				
14. Are fire water supplies and distribution systems adequate to provide sufficient fire water to this facility?				

15. Could this project adversely impact on or be impacted by other facilities?	Yes	No	Other	Comments
16. Were there any areas considered for inherent safety that were rejected?				
17. Were there areas where inherent safety was incorporated? (If yes, where?)				
18. Have seismic zones been considered and appropriate design requirements used?				
19. Are considerations of ergonomic principles included in the facility and process design?				
<b>Safety &amp; Health – Emergency Response</b>	<b>Yes</b>	<b>No</b>	<b>Other</b>	<b>Comments</b>
1. Will additional fire and emergency response equipment, personnel or procedures be required as a result of this project?				
2. Will any changes to the location's Community Emergency Response Plan (evacuation, etc.) be required as a result of this project?	Yes	No	Other	Comments
<b>Safety &amp; Health – ERMS Compliance</b>	<b>Yes</b>	<b>No</b>	<b>Other</b>	<b>Comments</b>
1. Will this project change the ERMS Hazard Ranking Model (HRM) data?				
2. Has a consequence or other type analysis been conducted to evaluate potential for off-site fatality events?				
3. Have there been prior Risk Reviews done for this facility?				
4. Is a Risk Review required for this project (e.g., does off-site fatality potential exist)?	Yes	No	Other	Comments
5. Have all scenarios identified by a Risk Review or Third Tier Study been mitigated as required by ERMS?				
<b>Reviewer: ..... Date:.....</b>				

<b>E&amp; H Screening Checklist</b>				
<b>Product Safety – General</b>	<b>Yes</b>	<b>No</b>	<b>Other</b>	<b>Comments</b>
1. Will any of the products from this facility be marketed as a consumer product?				
2. Will any of the products be used as an intermediate by this corporation or others to formulate a product that will be marketed as a consumer product?				
3. Are any of the products intended for use in the manufacture of food, drugs or their packaging materials?				
4. Are any of the products classified by the Food and Drug Administration as medical devices?				
5. Are any of the products subject to regulation under:				
a. Federal Insecticide, Fungicide, Rodenticide Act (FIFRA)				
b. Toxic Substances Control Act (TSCA)				
c. Consumer Product Safety Commission				
d. Federal Food, Drug and Cosmetic Act				
6. Are any of the product classified as toxic, explosive, flammable or otherwise hazardous?				
7. Can any product harm persons or property in normal use or any potential misuse?				
8. Does the product, or any component in the product, appear on any listing of chemicals requiring customer, employee or public notification?				

## Appendix F: Examples of Environmental Checklists

<b>Product Safety – Design</b>	<b>Yes</b>	<b>No</b>	<b>Other</b>	<b>Comments</b>
1. Has the product undergone a product safety risk analysis to evaluate downstream exposure/health risk potential?				
2. Are any Premanufacture Notifications necessary for any of the products or intermediates?				
3. Does any product require certification or testing by Federal, State or local governmental agencies?				
4. Does any product require testing or approval by a nationally recognized testing agency?				
5. Will this project introduce new contaminants, increase existing hazardous contaminant level, or otherwise increase the hazardous nature of the product?				
6. Is this a new or modified product, or a product directed toward a new market?				
<b>Product Safety – Distribution</b>	<b>Yes</b>	<b>No</b>	<b>Other</b>	<b>Comments</b>
1. Will distribution cause new or additional public exposure to this product?				
2. Have all regulatory requirements for shipping the products been identified?				
3. Has all labeling and Material Safety Data Sheet data been obtained for all products?				
4. Will any special handling, storage or shipping equipment or procedures be required for any of the product?				
<b>Product Safety – Image</b>	<b>Yes</b>	<b>No</b>	<b>Other</b>	<b>Comments</b>
1. Is there any history of product liability with any of these products or similar products?				
2. Could any of the products be viewed by the public or regulatory agencies as presenting an unacceptable risk to health, safety or the environment?				
3. Will communication with any regulatory agency be required regarding the safety of any of the products?				
<b>Reviewer: ..... Date:.....</b>				

### **Canter & Kamath's Generic Questionnaire Checklist for Addressing and/or Summarizing the Cumulative Environmental Impacts of Projects**

Environmental Category	Will the project result in....  Yes/Maybe/No Comments	Will the cumulative impacts of the project result in....  Yes/Maybe/No Comments
<b>Physical Environmental Indicators</b> <ul style="list-style-type: none"> <li>• Fractures on geologic strata?</li> <li>• Landslides and landsubsideance?</li> <li>• Seismic activity?</li> <li>• Compaction and settling?</li> <li>• Deposition (sedimentation, precipitation)?</li> <li>• Erosion of soils due to increased wind, floods, removal of vegetation?</li> <li>• Impact to unique physical features (due to destruction, modification or covering)?</li> <li>• Impact to land classified as prime or unique farmland?</li> <li>• Change existing topography (ground contours, shorelines, river banks)?</li> <li>• Extensive use of existing mineral resources (mining, oil and gas)?</li> <li>• Disposal of construction debris?</li> <li>• Excessive fields and radiation (magnetic fields, electromagnetic radiation)?</li> <li>• Changes in hydrology (water table, gradient, infiltration)?</li> </ul>		
<b>Air/Climatology</b> <ul style="list-style-type: none"> <li>• Impact on air quality due to gases, particulates and fugitive dusts?</li> <li>• Air pollutant emissions which will exceed federal or state standards or cause deterioration of ambient air quality?</li> <li>• Objectionable odors?</li> <li>• Changes in climate due to alteration in humidity, air movement or temperature?</li> <li>• Emissions of hazardous air pollutants (VOCs, SOGs and other toxic regulated under the Clean Air Act)?</li> <li>• Acid rain?</li> </ul>		
<b>Water</b> <ul style="list-style-type: none"> <li>• Changes in the quality and quantity of surface water?</li> <li>• Discharge of wastewater to potable drinking</li> </ul>		

Appendix F: Examples of Environmental Checklists

<p>water systems?</p> <ul style="list-style-type: none"> <li>• Alter flows due to construction?</li> <li>• Increase tendency to flooding?</li> <li>• Salinate water bodies?</li> <li>• Unsightly appearance of water bodies?</li> <li>• Eutrophication ?</li> <li>• Increase in temperature and turbidity due to impoundment?</li> <li>• Destruction of streams?</li> <li>• Considerable effects on conventional water quality parameters (that is, DO, fecal coliforms, pH, BODs, NO<sub>3</sub>, PO<sub>4</sub>, temperature deviation, turbidity, total solids)?</li> <li>• Alter the rate or direction of ground water flow?</li> <li>• Alter the quantity and quality of ground water?</li> <li>• Introduce pollutants to ground water due to land application of waste?</li> <li>• Contamination of public water supplies?</li> <li>• Impact to recharge area or recharge rate?</li> <li>• Make ground water vulnerable to contamination (due to wells, boreholes, cracks, etc)?</li> <li>• Impact on or construction in wetland or inland floodplain?</li> <li>• Thawing snow, ice and permafrost?</li> <li>• Impact to wellhead protection zone?</li> <li>• Impact on fisheries?</li> </ul>		
<p><b>Solid Waste</b></p> <ul style="list-style-type: none"> <li>• Generation of significant solid waste?</li> <li>• Impact existing landfill capacity?</li> </ul>		
<p><b>Noise</b></p> <ul style="list-style-type: none"> <li>• Increase existing noise levels?</li> <li>• Expose people or wildlife to excessive noise?</li> <li>• Vibrations?</li> </ul>		
<p><b>Hazardous Waste</b></p> <ul style="list-style-type: none"> <li>• Generation, transport, storage or disposal of regulated hazardous waste?</li> </ul>		
<p><b>Biological environment flora</b></p> <ul style="list-style-type: none"> <li>• Change to the diversity or productivity of vegetation (namely trees, shrubs, grass, crop, microflora and aquatic plants)?</li> <li>• Impact to riparian habitat?</li> <li>• Impact to rare or endangered plant species?</li> <li>• Introduce new plant species into area or</li> </ul>		

## Appendix F: Examples of Environmental Checklists

<ul style="list-style-type: none"> <li>• create a barrier to the normal replenishment of existing species?</li> <li>• Reduce acreage or create damage to any agricultural crop?</li> <li>• Impact forests?</li> </ul>		
<b>Fauna</b> <ul style="list-style-type: none"> <li>• Reduce the habitat or numbers of unique, rare or endangered species of birds or animals?</li> <li>• Affect to land animals, benthic organisms, insects and microfauna?</li> <li>• Attraction, entrapment or impingement of animal life?</li> <li>• Impact to existing fish, wildlife habitat, and nesting areas?</li> <li>• Introduction of new species of animals into an area or create a barrier to the migration of movement of animals or fish?</li> <li>• Cause emigration resulting in human-wildlife interaction problems?</li> <li>• Affect to food chain?</li> </ul>		
<b>Socioeconomic environment landuse</b> <ul style="list-style-type: none"> <li>• Substantial altering existing or proposed land use of an area?</li> <li>• Impacts to wilderness qualities and open-space qualities?</li> <li>• Impact to destruction of wetlands?</li> <li>• Impact to Special Management Areas (SMAs)?</li> </ul>		
<b>Recreation</b> <ul style="list-style-type: none"> <li>• Impact to hunting, fishing, boating, swimming, camping and hiking, picnicking and holiday resorts?</li> </ul>		
<b>Aesthetics</b> <ul style="list-style-type: none"> <li>• Impact to scenic views and vistas?</li> <li>• Impact to landscape design?</li> <li>• Impact to unique physical features?</li> <li>• Impact to parklands and reserves?</li> <li>• Impact on monuments?</li> <li>• Presence of misfits (out of place)?</li> </ul>		
<b>Archaeological sites</b> <ul style="list-style-type: none"> <li>• Impact to or destruction of historical, archaeological, cultural and paleontological sites or objects?</li> </ul>		
<b>Health and safety</b> <ul style="list-style-type: none"> <li>• Health hazards or potential health hazards?</li> <li>• Exposure of people to potential health</li> </ul>		

<p>hazards?</p> <ul style="list-style-type: none"> <li>• Risk of accidents due to explosion, release of oil, radioactive materials, toxic substances, etc.?</li> </ul>		
<p>Cultural patterns</p> <ul style="list-style-type: none"> <li>• Change existing cultural patterns (or life style)?</li> </ul>		
<p>Local services</p> <p>Need for new or altered services in any of the following areas:</p> <ul style="list-style-type: none"> <li>• Health care?</li> <li>• Police?</li> <li>• Fire protection?</li> <li>• Education?</li> <li>• Churches?</li> <li>• Child care?</li> <li>• Other services?</li> </ul>		
<p>Public utilities</p> <p>Need for a new or alterations to the following utilities:</p> <ul style="list-style-type: none"> <li>• Electricity?</li> <li>• Natural gas?</li> <li>• Potable water?</li> <li>• Wastewater treatment and disposal?</li> <li>• Stormwater control?</li> <li>• Solid waste collection and disposal?</li> <li>• Communication system?</li> <li>• Transmission pipelines?</li> <li>• Other utilities?</li> </ul>		
<p>Population</p> <ul style="list-style-type: none"> <li>• Alteration of location or distribution of human population in the area?</li> <li>• Change to demographic characteristics in the area?</li> <li>• Change to housing and households?</li> </ul>		
<p>Economic</p> <ul style="list-style-type: none"> <li>• Adverse effect on local or regional economy?</li> <li>• Changes in per capita income?</li> <li>• Changes in the standard of living?</li> <li>• Employment?</li> </ul>		
<p>Transportation</p> <ul style="list-style-type: none"> <li>• Change to existing rail, road, waterway and/or air traffic?</li> <li>• Increase in movement?</li> <li>• Increase in accident and traffic hazards?</li> <li>• Affect to transportation network?</li> <li>• Construction of new roads?</li> </ul>		

<ul style="list-style-type: none"> <li>Change in existing patterns of movement of men and materials?</li> </ul>		
<b>Natural resources</b> <ul style="list-style-type: none"> <li>Deplete natural resources?</li> <li>Destruction of natural resources?</li> </ul>		
<b>Energy</b> <ul style="list-style-type: none"> <li>Substantial use of fuel or energy?</li> <li>Increase in demand for existing sources of energy?</li> </ul>		
<p><i>Note: Due consideration has to be given to the time and space scales. The project may have short-term or long-term impacts, and the geographical extent of the impacts may be either the vicinity of the project or considerable distances away.</i></p>		

Source: Canter & Kamath, 1995.

## APPENDIX G:

### Scoring Guidelines for Environmental Evaluation Matrix Tool