

SEPA ENVIRONMENTAL CHECKLIST

Purpose of checklist:

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants: [\[help\]](#)

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

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.

Instructions for Lead Agencies:

Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals: [\[help\]](#)

Please complete all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. ADDITION, complete the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D). For nonproject actions.

A. BACKGROUND [\[help\]](#)

1. Name of proposed project, if applicable: [\[help\]](#)

Proposed rulemaking for WAC 314-55 Marijuana Licenses, Application process, Requirements, and Reporting

2. Name of applicant: [\[help\]](#)

Washington State Liquor Control Board (WSLCB)

3. Address and phone number of applicant and contact person: [\[help\]](#)

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360.664.4522

4. Date checklist prepared: [\[help\]](#)

July 1, 2013

5. Agency requesting checklist: [\[help\]](#)

Washington State Liquor control Board (WSLCB)

6. Proposed timing or schedule (including phasing, if applicable): [\[help\]](#)

Timeline has CR 102 submitted July 3, 2013, CR 103 submitted and adopted late July 2013, and the rule effective late August 2013.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain. [\[help\]](#)

No

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal. [\[help\]](#)

Environmental Risks and Opportunities in Cannabis Cultivation, draft white paper, by Michael O'Hare, BOTEC Analysis, UC Berkley, Daniel L. Sanchez, UC Berkley & Peter Alstone

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. [\[help\]](#)

No

10. List any government approvals or permits that will be needed for your proposal, if known. [\[help\]](#)

N/A

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.) [\[help\]](#)

This proposal establishes a system to license and regulate marijuana production, distribution, and possession for persons 21 years of age or older imposed by the passage of I-502. I-502 requires a tightly controlled and regulated marijuana market including strict controls to prevent diversion, illegal sales, and sales to minors while providing reasonable access to products to mitigate the illicit market. The requirements in the proposal are designed to comply with the initiative's mandate.

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. [\[help\]](#)

This proposal will cover the state of Washington.

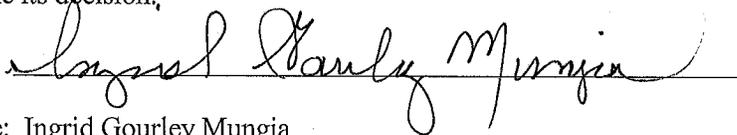
B. ENVIRONMENTAL ELEMENTS [\[help\]](#)

See Section D

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:



Name of signee: Ingrid Gourley Mungia

Position and Agency/Organization: Staff Attorney

Date Submitted: June 3, 2013

D. SUPPLEMENTAL SHEET FOR NON-PROJECT ACTIONS

The Washington State Liquor control Board (WSLCB) contracted with BOTEC Analysis Company to provide technical expertise. BOTEC submitted a white paper on the environmental risks and opportunities in cannabis cultivation. This report is attached and some of the information is summarized for answers to the questions below.

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?

Water Quality

Current indoor cultivation often employs pesticides and herbicides. Water quality impacts can be associated with application drift and water (runoff and groundwater) pollution by these agricultural chemicals. Hydroponic pollution is also a concern for indoor cultivation. In addition to higher water demand, hydroponic systems produce more nutrient pollution than other growing methods.

Water Quantity

Indoor cultivation of cannabis is water-intensive, particularly when it is hydroponic. Mills estimates that one cultivation room (22 m²) requires 151 L /day (Mills 2012). This is equivalent to 2.5m of water per year (98 in./yr.) of application.

Toxic Waste

Lighting materials used in indoor cannabis cultivation have environmental risks if not properly managed for disposal. High-intensity discharge (HID) bulbs are not recyclable; each bulb contains approximately 30 mg of mercury and other toxins. Mercury is a neurotoxin, and is recognized as extremely toxic, particularly in gaseous form. The Okanogan Cannabis Association estimates that indoor cultivation of cannabis could produce 46,000 HID bulbs each year in Washington (Moberg and Mazzetti 2013).

Using productivity assumptions in Mills, we estimate that there is the potential for 30 mg of mercury pollution per kg of cannabis product if proper disposal is not practiced.

Proposed measures to avoid or reduce such increases are:

Under the draft WSLCB rules, all usable cannabis for sale must carry a warning that discloses all pesticides, herbicides, fungicides or other compounds used for pest control or plant disease in production or processing.

In the future the WSLCB could require proper bulb recycling/disposal system for indoor cultivation.

Aesthetics

Cultivation of marijuana can also result in private or public nuisances. Whether grown indoors or outdoors, marijuana plants, particularly as they mature, produce a distinctive odor that is often detectable far beyond property boundaries. This strong, distinctive odor can interfere with neighboring owners' use and enjoyment of their property. In addition, this odor of growing or "green" marijuana may alert malefactors to the location where marijuana is grown and creating the risk of burglary and robbery at that location.

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

Marijuana production may take place within a fully enclosed secure indoor facility or greenhouse with rigid walls, a roof and doors. Outdoor production may take place in non-rigid green house, other structures, or an expanse of open or cleared ground enclosed by a physical barrier. To obscure public view of the premises, outdoor production must be enclosed by a sight obscure wall or fence at least eight feet high.

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

The following pests are commonly associated with hemp cultivation and could be an indication of the types of crop pests that could be introduced into the area:

- a. *Pseudomonas syringae* pv. *cannabina* (bacteriosis of hemp)
- b. *Xanthomonas campestris* pv. *cannabis* (leaf spot of hemp)
- c. *Fusarium oxysporum* f.sp. *cannabis*
- d. *Pseudoperonospora cannabina* (downy mildew of hemp)

e. *Orobanche* spp. (broomrape)

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?

The attached BOTE paper reports an estimate that the indoor production of 186 thousand pounds of cannabis, one estimate of state production, would release about 0.4 million metric tons of CO₂. For comparison, Washington State's overall carbon emissions were 101 million metric tons CO₂-eq in 2008.

Table of energy and climate intensity of different cultivation methods in kWh/kg product based on greenhouse gas emissions from electricity use in Washington state

	Energy kWh/kg		GHG kgCO ₂ eq/kg	
	Low	High	Low	High
Outdoor	(minimal)	(minimal)	(minimal)	(minimal)
Greenhouse	6	580	1	282
Indoor	4400	6100	590	3000

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

The draft rules allow outdoor cultivation in addition to greenhouse and indoor growing of marijuana.

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

The law and proposed rule restricts a business from locating within a 1,000 feet of public parks. An operation on federal lands is prohibited as well. Local land use regulations will avoid or minimize other impacts to sensitive areas.

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

A licensee must also comply with local regulations and ordinances after they receive a license from the WSLCB.

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?

The proposed rule does not directly affect land or shoreline use. Future amendments to local land-use plans and development regulations as a result of the law and proposed rules could change some land-uses.

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

A licensee must follow all local and state land and shoreline laws and regulations. The Board may require a demonstration by the applicant that they are familiar with marijuana laws and rules. The Board may also conduct a final inspection of the proposed licensed business, in order to determine if the applicant has complied with all the requirements of the license requested.

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

The licensed cultivation, processing and selling of marijuana will not have a probable adverse impact on transportation or utility services.

Due to the high monetary value placed upon marijuana, areas can experienced a number of home invasion robberies, thefts, and murders related to marijuana cultivation which impacts local law enforcement.

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

The intent of the proposed rule is to distribute the licenses to a broad geographic area in the state in order to prevent impacts from numerous facilities in one jurisdiction.

The board will not approve any marijuana license for a location where law enforcement access, without notice or cause, is limited. This includes personal residences.

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

The LCB does not believe the proposal conflicts with local, state or federal law or requirements for the protection of the environment.