## A BILL FOR AN ACT

RELATING TO INDUSTRIAL HEMP.

#### BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

- 1 SECTION 1. The legislature finds that phytoremediation is
- 2 the environmentally-friendly science of using plants and trees
- 3 to remove toxins in the soil, such as metals, pesticides,
- 4 solvents, explosives, and crude oil. These toxins can be
- 5 reduced by planting specific plants and trees, called hyper-
- 6 accumulators, in polluted areas. Specifically, these plants and
- 7 trees draw in the toxins, along with beneficial nutrients,
- 8 through their roots as nourishment and concentrate them in their
- 9 stems, shoots, and leaves, which can then be harvested and
- 10 disposed of safely. The nutrient uptake process leaves a clean,
- 11 balanced, and nutrient rich soil, which can then be safely used
- 12 for agriculture or improving conservation habitats.
- The legislature also finds that hemp is a superior
- 14 phytoremediator because it grows quickly and can extract toxins
- 15 without the need to remove any of the contaminated topsoil.
- 16 Other factors that make hemp a superior phytoremediator are its
- 17 ability to grow unaffected by the toxins it accumulates, its
- 18 fast rate of absorption, and its ability to bind compound



- 1 contaminants from the air and the soil. A factor that makes the
- 2 State a particularly compelling candidate for hemp-based
- 3 phytoremediation is that the State's extensive agricultural
- 4 operations in the past have left toxins in vast tracts of land.
- 5 Phytoremediation will remove those toxins.
- 6 The legislature also finds that industrial hemp is an
- 7 environmentally friendly and efficient feedstock for biofuel.
- 8 Biodiesel plants already in existence in the State are capable
- 9 of meeting eight per cent of the State's biodiesel needs for
- 10 ground transportation. These biodiesel plants could increase
- 11 their efficiency by utilizing industrial hemp as a feedstock,
- 12 thus reducing the State's reliance on imported fuel.
- 13 The purpose of this Act is to authorize the chairperson of
- 14 the board of agriculture to establish a two-year industrial hemp
- 15 remediation and biofuel crop pilot program.
- 16 SECTION 2. (a) The chairperson of the board of
- 17 agriculture is authorized to establish the two-year industrial
- 18 hemp remediation and biofuel crop pilot program; provided that
- 19 the United States Department of Justice, Drug Enforcement
- 20 Administration, issues the chairperson a federally-controlled
- 21 substance registration for the remediation and biofuel crop
- 22 pilot program. Through the pilot program, the chairperson may

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1 determine how soils and water may be made more pristine and 2 healthy by phytoremediation, removal of contaminants, and 3 rejuvenation through the growth of industrial hemp, as well as the viability of industrial hemp as a biofuel feedstock. 4 chairperson shall work in collaboration with the United States 5 6 Army Corps of Engineers, its affiliates, and the Department of 7 Molecular Biosciences and Bioengineering at the University of Hawaii John A. Burns School of Medicine to determine the 8 viability of industrial hemp as a biofuel feedstock. 9 10 The chairperson may submit a final report, including 11 any proposed legislation, to the legislature no later than 12 twenty days prior to the convening of the regular session of 13 2015 on the following: The rate of contamination uptake from soil and water; 14 (1)15 (2) The mode of efficient uptake from soil and water; 16 The rate of carbon fixation in the Calvin cycle; (3) The locations in the roots, stems, leaves, and flowers 17 (4)18 of the plants at which contaminants are fixated; 19 (5) What contaminants are stabilized in the plants;

What contaminants on the site need additional

treatment in order to make the soil or water healthy



and pristine;

(6)

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- 1 (7) What disposal method is best for the different 2 contaminants, including petrification, encasement, 3 incineration, burial, and composting; 4 (8) A baseline for plants cultivated in a clean soil; 5 (9) The viability of industrial hemp as a biofuel 6 feedstock; and 7 (10)Any other data deemed important by the chairperson. 8 The chairperson may adopt rules to implement and set (c) 9 standards of participation for this pilot program. 10 SECTION 3. No person shall be subject to any civil or 11 criminal sanctions in this State for growing or possessing 12 industrial hemp; provided that the person's growing or 13 possessing of industrial hemp is part of the individual's 14 participation in the two-year industrial hemp remediation and 15 biofuel crop pilot program and the person's participation is in 16 full compliance with the requirements of the program. **17** SECTION 4. There is appropriated out of the general 18 revenues of the State of Hawaii the sum of \$ or so 19 much thereof as may be necessary for fiscal year 2013-2014 and 20 the same sum or so much thereof as may be necessary for fiscal 21 year 2014-2015 for the two-year industrial hemp remediation and 22 biofuel crop pilot program.
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- 1 The sums appropriated shall be expended by the department
- 2 of agriculture for the purposes of this Act.
- 3 SECTION 5. This Act shall take effect on July 1, 2112, and
- 4 shall be repealed on July 1, 2015.

### Report Title:

Two-Year Industrial Hemp Remediation and Biofuel Crop Pilot Program

### Description:

Authorizes the Chairperson of the Board of Agriculture to establish a two-year industrial hemp remediation and biofuel crop pilot program. Appropriates funds. Effective 07/01/2112. (HD2)

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