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HOUSE JOINT RESOLUTION NO. 56

Offered January 13, 2016

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Requesting the Secretary of Natural Resources and the Secretary of Health and Human Resources to convene a panel of experts to study the short-term and long-term effects of the storage and land application of sewage sludge and industrial wastes on public health, residential wells, and surface and ground water. Report.

Patrons—Ware, Fowler and Kory

Referred to Committee on Rules

WHEREAS, in 1994, the General Assembly directed the Virginia Department of Health (VDH) to adopt regulations to ensure that (i) sewage sludge permitted for land application, marketing, or distribution is properly treated or stabilized; (ii) land application, marketing, and distribution of sewage sludge is performed in a manner that will protect public health and the environment; and (iii) the escape, flow, or discharge of sewage sludge into state waters in a manner that would cause pollution of state waters, as those terms are defined in § 62.1-44.3 of the Code of Virginia, will be prevented; and

WHEREAS, in 2007, the General Assembly authorized the transfer of all regulatory oversight of treated sewage sludge, commonly known as biosolids, from VDH to the Department of Environmental Quality (DEQ); and

WHEREAS, since 2008, biosolids have been land applied in at least 68 localities in the Commonwealth, with at least 54 of those localities receiving biosolids annually; and

WHEREAS, between 2008 and 2014, an average of 222,000 dry tons of biosolids have been spread over an average of 58,000 acres annually; and

WHEREAS, in accordance with House Joint Resolution No. 694 (2007), the Secretary of Natural Resources and the Secretary of Health and Human Resources convened a panel of experts in 2007 to study the impact of land application of biosolids on human health and the environment; and

WHEREAS, the General Assembly posed specific questions to the panel and requested that it consider the typical contaminant concentrations and application rates of biosolids in its study; and

WHEREAS, the panel included stakeholders from a broad range of disciplines, including medicine, higher education, forestry, agronomy, environmental science, ecology, veterinary medicine, and law; and

WHEREAS, the Secretary of Natural Resources and the Secretary of Health and Human Resources published the final report of the panel in 2008; and

WHEREAS, the panel uncovered no evidence or literature verifying a causal link between biosolids and illness but recognized gaps in the science and knowledge surrounding this issue; and

WHEREAS, the panel stated that these gaps could be reduced through highly controlled epidemiological studies relating to health effects of land-applied biosolids and additional efforts to reduce the limitations in quantifying all the chemical and biological constituents in biosolids; and

WHEREAS, the panel stated that there are gaps in the research to characterize the composition, fate, and effects of pharmaceutical and personal care products and other persistent organic compounds in biosolids, as well as in other products and materials and the environment; and

WHEREAS, House Joint Resolution No. 694 also directed the panel to perform a detailed analysis of the chemical and biological composition of biosolids; and

WHEREAS, detailed analysis of the vast number of constituents of biosolids, combined with the specialized analytical methodologies employed to detect and quantify these constituents, involves significant cost; and

WHEREAS, because no funding was available to conduct new analyses, the panel was limited in performing a detailed analysis of the chemical and biological constituents of biosolids; and

WHEREAS, § 62.1-44.3 of the Code of Virginia defines industrial wastes as "liquid or other wastes resulting from any process of industry, manufacture, trade, or business or from the development of any natural resources"; and

WHEREAS, the land application of industrial wastes in Virginia is regulated by the Virginia Department of Agriculture and Consumer Services (VDACS) and DEQ; and

WHEREAS, the Virginia Department of Agriculture and Consumer Services regulates certain industrial wastes as "industrial co-products" in accordance with the Virginia Fertilizer Law (§ 3.2-3600 et seq. of the Code of Virginia) and the Virginia Agricultural Liming Materials Law (§ 3.2-3700 et seq. of the Code of Virginia), which provide for the marketing and distribution of industrial wastes; and

WHEREAS, the land application of industrial wastes that are not regulated by VDACS is regulated

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59 by the State Water Control Board and DEQ; and

60 WHEREAS, industrial wastes from over 35 facilities are land applied in Virginia pursuant to the
61 terms of a Virginia Pollution Abatement or Virginia Pollutant Discharge Elimination System permit
62 issued by DEQ; and

63 WHEREAS, since taking over the regulatory program from VDH, DEQ has conducted over 10,000
64 inspections of biosolids and industrial wastes land application sites; and

65 WHEREAS, biosolids and industrial wastes are land applied on less than one percent of the cropland,
66 pastureland, and woodland on Virginia farms; and

67 WHEREAS, on average, less than 10,000 dry tons of industrial wastes are land applied annually in
68 Virginia, which is less than five percent of the annual amounts of biosolids land applied in Virginia; and

69 WHEREAS, the Department of Environmental Quality permits include authorization for land
70 application of industrial wastes from a variety of facilities, including chicken and pork processing and
71 packaging plants, apple processing facilities, breweries, concentrated and dried soup stocks
72 manufacturing facilities, confectionary manufacturing facilities, beverage manufacturing plants, snack
73 cake manufacturing facilities, fish processing plants, poultry hatching facilities, meat processing plants,
74 tomato processing plants, wood processing plants, rendering plants, farmers' markets, and municipal
75 potable water treatment plants; and

76 WHEREAS, the DEQ permit application requires the permit applicant to submit details regarding the
77 design of the industrial wastes treatment works, including the storage facility and land area
78 determination, as well as characterization of the industrial wastes that includes analyses of heavy metals
79 and other constituents; and

80 WHEREAS, the Department of Environmental Quality examines the specific processes used at the
81 facility generating the industrial wastes to determine whether constituents may represent a threat to
82 human health and the environment; and

83 WHEREAS, the Department of Environmental Quality requires the permit applicant to provide
84 analyses to determine the capacity of the land application site to assimilate nutrients, metals, and any
85 other pollutants of concern, in order to demonstrate that the activity may be performed safely and
86 protect the environment; now, therefore, be it

87 RESOLVED by the House of Delegates, the Senate concurring, That Secretary of Natural Resources
88 and the Secretary of Health and Human Resources be requested to convene a panel of experts to study
89 the short-term and long-term effects of the storage and land application of sewage sludge and industrial
90 wastes on public health, residential wells, and surface and ground water.

91 The panel of experts shall develop a methodology for the study design, data collection, and data
92 analysis along with a proposed cost estimate to be reviewed and approved by the Secretary of Natural
93 Resources and the Secretary of Health and Human Services before commencing the study.

94 Subject to such approval, in conducting its study, the panel shall:

95 1. Determine the amount of such constituents as pharmaceuticals, metals, pathogens, nutrients,
96 personal care products, prions, bacteria, and any other pollutants that are present in biosolids and
97 industrial wastes that are being applied on land in Virginia and how such contaminants and constituents
98 impact the soil, and surface and well water; and

99 2. Determine whether current testing and monitoring regulations ensure protection of the public
100 health, safety, and the environment or whether additional regulatory safeguards for land application and
101 storage are necessary;

102 The Secretary of Natural Resources and the Secretary of Health and Human Resources shall appoint
103 individuals to the panel of experts who by their training, education, or experience are knowledgeable
104 regarding the land application of sewage sludge and industrial waste. The membership of the panel shall
105 include representatives of the Department of Environmental Quality, the Department of Health, the
106 Department of Agriculture and Consumer Services, the Department of Conservation and Recreation,
107 Virginia Polytechnic Institute and State University, the Virginia Institute of Marine Science, the
108 University of Virginia, and Virginia Commonwealth University. The panel of experts shall be co-chaired
109 by a representative of the Virginia Institute of Marine Science and a representative of Virginia
110 Polytechnic Institute and State University.

111 Technical assistance shall be provided to the panel of experts by the Virginia Institute of Marine
112 Science; the Department of Mines, Minerals and Energy's Division of Geology and Mineral Resources'
113 Virginia geological survey; the Virginia Department of Health; and Virginia Polytechnic Institute and
114 State University's Department of Crop and Soil Environmental Sciences. The United States Geological
115 Survey's Hydrology Regional Contamination Investigation is requested to provide technical assistance,
116 upon the request of the panel of experts. All agencies of the Commonwealth shall provide assistance to
117 the panel of experts for this study, upon request.

118 The panel of experts shall complete its meetings for the first year by November 30, 2016, and for
119 the second year by November 30, 2017, and the Secretary of Natural Resources and the Secretary of
120 Health and Human Resources shall submit to the Governor and the General Assembly an executive

121 summary and report of its findings and recommendations for publication as a House or Senate document
122 for each year. The executive summaries and reports shall be submitted as provided in the procedures of
123 the Division of Legislative Automated Systems for the processing of legislative documents and reports
124 no later than the first day of the next Regular Session of the General Assembly and shall be posted on
125 the General Assembly's website.

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