HOUSE BILL NO. 4314

February 23, 2021, Introduced by Reps. Rabhi, Puri, Brabec, Hope, Garza, Pohutsky, Hood, Kuppa, Sowerby, Aiyash, Cherry, Young, Rogers, Cavanagh, Brixie, O'Neal, Stone, Manoogian, Lasinski, Cynthia Johnson, Steckloff, Camilleri, Hammoud, Weiss, Sneller, Koleszar, Bolden, Morse, Thanedar, LaGrand, Ellison, Tate, Breen, Neeley, Tyrone Carter, Liberati, Steenland, Coleman, Cambensy, Peterson, Scott, Brenda Carter, Clemente, Hertel, Sabo, Shannon, Whitsett, Haadsma, Anthony and Yancey and referred to the Committee on Natural Resources and Outdoor Recreation.

A bill to amend 1994 PA 451, entitled

"Natural resources and environmental protection act,"

by amending sections 20118, 20120a, 20120b, 20120e, and 20121 (MCL 324.20118, 324.20120a, 324.20120b, 324.20120e, and 324.20121), section 20118 as amended and section 20121 as added by 2014 PA 542, sections 20120a and 20120b as amended by 2018 PA 581, and section 20120e as amended by 2012 PA 190.

THE PEOPLE OF THE STATE OF MICHIGAN ENACT:

Sec. 20118. (1) The department may take response activity or

approve of response activity proposed by a person that is consistent with this part and the rules promulgated under this part relating to the selection and implementation of response activity that the department concludes is necessary and appropriate to protect the public health, safety, or welfare, or the environment.

(2) Remedial action undertaken under subsection (1) may address all or a portion of contamination at a facility as follows:

(a) Remedial action may address 1 or more releases at a facility.

(b) Remedial action may address 1 or more hazardous substances at a facility.

(c) Remedial action may address contamination in 1 or more environmental media at a facility.

(d) Remedial action may address contamination within the entire facility or only a portion of a facility.

(e) Remedial action may address contamination at a facility through any combination of subdivisions (a) ~~through~~ **to** (d).

(3) Remedial action undertaken under subsection (1) ~~shall~~ **must** accomplish all of the following:

(a) ~~Assure~~ **Ensure** the protection of the public health, safety, and welfare, and the environment with respect to the environmental contamination addressed by the remedial action.

(b) Except as otherwise provided in subsections (4) and (5), attain a degree of cleanup and control of the environmental contamination addressed by the remedial action that **meets both of the following requirements:**

(*i*) To the extent technically feasible, meets the cleanup criteria for unrestricted residential use and restores any affected aquifer to state drinking water standards as that term is defined

in section 2 of the safe drinking water act, 1976 PA 399, MCL 325.1002.

(*ii*) Otherwise complies with all applicable or relevant and appropriate requirements, rules, criteria, limitations, and standards of state and federal environmental law.

(c) Except as otherwise provided in subsections (4) and (5), be consistent with any cleanup criteria incorporated in rules promulgated under this part for the environmental contamination addressed by the remedial action.

(4) The department may select or approve of a remedial action meeting the criteria provided for in section 20120a that does not attain a degree of control or cleanup of hazardous substances that complies with R 299.3(5) or R 299.3(6) of the Michigan ~~administrative code,~~ **Administrative Code**, or both, if the department makes a finding that the **degree of control or cleanup that will be achieved is the greatest technically feasible and that the selected or approved** remedial action is protective of the public health, safety, and welfare, and the environment. Notwithstanding any other provision of this subsection, the department shall not approve of a remedial action that does not attain a degree of control or cleanup of hazardous substances that complies with R 299.3(5) or R 299.3(6) of the Michigan ~~administrative code~~ **Administrative Code** if the remedial action is being implemented by a person ~~who~~ **that** is liable under section 20126 and the release was grossly negligent or intentional, unless attaining that degree of control is technically infeasible, or the adverse environmental impact of implementing a remedial action to satisfy the rule would exceed the environmental benefit of that remedial action.

(5) A remedial action may be selected or approved ~~pursuant to~~ **under** subsection (4) with regard to R 299.3(5) or R 299.3(6), or both, of the Michigan ~~administrative code,~~ **Administrative Code**, if the department determines, based on the administrative record, that 1 or more of the following conditions are satisfied:

(a) Compliance with R 299.3(5) or R 299.3(6), or both, of the Michigan ~~administrative code~~ **Administrative Code** is technically ~~impractical.~~**infeasible.**

(b) The remedial action selected or approved will, within a reasonable period of time, attain a standard of performance that is equivalent to that required under R 299.3(5) or R 299.3(6) of the Michigan ~~administrative code.~~**Administrative Code.**

(c) The adverse environmental impact of implementing a remedial action to satisfy R 299.3(5) or R 299.3(6), or both, of the Michigan ~~administrative code~~ **Administrative Code** would exceed the environmental benefit of the remedial action.

(d) The remedial action provides for the reduction of hazardous substance concentrations in the aquifer through a naturally occurring process that is documented to occur at the facility, and ~~both of the following conditions are met:~~

~~(*i*) It has been~~ **it is** demonstrated that there will be no adverse impact on the environment as the result of migration of the hazardous substances during the remedial action. ~~, except for that part of the aquifer approved by the department in connection with the remedial action.~~

~~(*ii*) The remedial action includes enforceable land use restrictions or other institutional controls necessary to prevent unacceptable risk from exposure to the hazardous substances, as defined by the cleanup criteria approved as part of the remedial~~

~~action.~~

Sec. 20120a. (1) The department may establish cleanup criteria and approve of remedial actions in the categories listed in this subsection. The cleanup category proposed ~~shall~~ **must** be ~~the option of the person proposing the remedial action, subject to department approval if required, considering the appropriateness of the categorical criteria to the facility.~~ **residential, unless that category is technically infeasible, in which case the category must be the technically feasible cleanup category with the most stringent cleanup criteria.** The categories are as follows:

(a) Residential.

(b) Nonresidential.

(c) Limited residential.

(d) Limited nonresidential.

(2) ~~As an alternative to~~ **If it is technically infeasible to meet** the categorical criteria under subsection (1), the department may approve a response activity plan or a no further action report containing site-specific criteria that satisfy the requirements of section 20120b and other applicable requirements of this part. The department shall utilize only reasonable and relevant exposure pathways in determining the adequacy of a site-specific criterion. Additionally, the department may approve a remedial action plan for a designated area-wide zone encompassing more than 1 facility, and may consolidate remedial actions for more than 1 facility.

(3) The department shall develop cleanup criteria ~~pursuant to~~ **under** subsection (1) based on generic human health risk assessment assumptions that are determined by the department to appropriately characterize patterns of human exposure associated with certain land uses. The department shall consider only reasonable and

relevant exposure pathways and factors in determining these assumptions. The department may prescribe more than 1 generic set of exposure assumptions within each category described in subsection (1). If the department prescribes more than 1 generic set of exposure assumptions within a category, each set of exposure assumptions creates a subcategory within a category described in subsection (1). The department shall specify facility characteristics that determine the applicability of criteria derived for these categories or subcategories. When developing and promulgating cleanup criteria under subsection (1), the department shall do all of the following:

(a) Except as set forth in subdivision (c), for each hazardous substance, use final toxicity values from the United States Environmental Protection Agency integrated risk information system, or more recent United States Environmental Protection Agency Office of Pesticide Programs toxicity values for pesticides that are incorporated by the integrated risk information system in place of values that have been archived by the integrated risk information system, if available. If the United States Environmental Protection Agency has determined that there is insufficient scientific data to derive a value for inclusion in the integrated risk information system, the department shall not derive or adopt such a value for that hazardous substance. If a value is not available in the integrated risk information system, the department shall apply the following order of precedence when selecting toxicity values:

(*i*) The best value from the agency for toxic substances and disease registry final minimal risk levels for hazardous substances or the United States Environmental Protection Agency provisional peer-reviewed toxicity values.

(*ii*) If a value is not available under subparagraph (*i*), the best final value from the United States Environmental Protection Agency health effects assessment summary table, or final values adopted by other states, the World Health Organization, Canada, or the European Union.

(*iii*) If a value is not available under subparagraph (*i*) or (*ii*), a value developed by the department if there is sufficient supporting toxicity data and information available in the peer-reviewed published scientific literature.

(b) Apply the following order of precedence when selecting chemical or physical data for the development of cleanup criteria:

(*i*) The best relevant experimentally measured data.

(*ii*) If data is not available under subparagraph (*i*), the best relevant modeled or estimated data.

(c) If the department desires to use a toxicity value or input that is different than a value that is available on the United States Environmental Protection Agency integrated risk information system, or more recent United States Environmental Protection Agency Office of Pesticide Programs toxicity values for pesticides that are incorporated by the integrated risk information system in place of values that have been archived by the integrated risk information system, or desires to establish a value when the **United States** Environmental Protection Agency determined that there was insufficient scientific data to do so when last evaluated by the **United States** Environmental Protection Agency, the department shall provide public notice and a written explanation of its intent to do so and conduct a stakeholder process to obtain input. After obtaining stakeholder input, the department may promulgate a rule to use an alternative value in accordance with the order of

precedence set forth in subdivision (a)(*i*) ~~through~~ **to** (*iii*), if the department demonstrates all of the following:

(*i*) The integrated risk information system value is based on a determination that is at least 10 years old.

(*ii*) There is more current data in the peer-reviewed scientific literature that is used on a general basis by the United States Environmental Protection Agency or multiple other regulatory agencies nationally for the purpose of calculating cleanup criteria or standards.

(*iii*) After assessing the body of evidence for the hazardous substance using a rigorous systematic review methodology, such as that used by the National Toxicology Program's Office of Health Assessment and Translation and the European Food Safety Authority, the weight of scientific evidence clearly supports the use of the proposed value as best available science for the purpose of calculating generic cleanup criteria.

(d) Use a daily exposure time for inhalation in the exposure intake for a nonresidential worker in an algorithm or equation used to calculate generic cleanup criteria under this part that is equal to the average number of hours, not to exceed 10 hours, that a nonresidential worker spends working in a 5-day work week according to the most appropriate governmental data or information.

(e) When the department considers the pregnant woman as a potential sensitive receptor to address prenatal developmental effects, the department may apply a single-event exposure scenario for a hazardous substance, ~~pursuant to~~ **under** the process set forth in subdivision (f), only when either of the following occurs:

(*i*) The United States Environmental Protection Agency applies a single-event exposure scenario to establish regional screening

levels for that hazardous substance.

(*ii*) The department demonstrates, after conducting a comprehensive assessment of the specific hazardous substance, that, for that specific hazardous substance, a single exposure may result in an adverse effect and the weight of scientific evidence supports the application of a single-event exposure scenario. The department's comprehensive assessment must evaluate the body of scientific evidence using a systematic review methodology, such as that used by the National Toxicology Program's Office of Health Assessment and Translation and the European Food Safety Authority. The comprehensive assessment must, if appropriate, take into account all of the following:

(A) Whether there is data available involving single-day exposures to the hazardous substance during pregnancy.

(B) The differences in sensitivity, periods of development, and progression of different types of developmental effects in humans and animals.

(C) Differences in toxicokinetics between species.

(f) Before conducting the comprehensive assessment in subdivision (e)(*ii*), the department shall provide public notice and a written explanation of its intent to do so. ~~Upon~~ **On** completion of the assessment, the department shall conduct a stakeholder process to obtain input. If, ~~upon~~ **after** obtaining stakeholder input, the department elects to apply a single-event exposure scenario for a particular hazardous substance, the department shall do so in a rule.

(4) If a hazardous substance poses a carcinogenic risk to humans, the cleanup criteria derived for cancer risk under this section ~~shall~~ **must** be the 95% upper bound on the calculated risk of

1 additional cancer above the background cancer rate per 100,000 individuals using the generic set of exposure assumptions established under subsection (3) for the appropriate category or subcategory. If the hazardous substance poses a risk of an adverse health effect other than cancer, cleanup criteria ~~shall~~ **must** be derived using appropriate human health risk assessment methods for that adverse health effect and the generic set of exposure assumptions established under subsection (3) for the appropriate category or subcategory. A hazard quotient of 1.0 ~~shall~~ **must** be used to derive noncancer cleanup criteria. For the noncarcinogenic effects of a hazardous substance present in soils, the intake ~~shall~~ **must** be assumed to be 100% of the protective level, unless compound and site-specific data are available to demonstrate that a different source contribution is appropriate. If a hazardous substance poses a risk of both cancer and 1 or more adverse health effects other than cancer, cleanup criteria ~~shall~~ **must** be derived under this section for the most sensitive effect.

(5) If a cleanup criterion derived under subsection (4) for groundwater in an aquifer differs from either: (a) the state drinking water standards established ~~pursuant to~~ **under** section 5 of the safe drinking water act, 1976 PA 399, MCL 325.1005, or (b) the national secondary drinking water regulations established ~~pursuant to~~ **under** 42 USC 300g-1, or (c), if there is not national secondary drinking water regulation for a contaminant, the concentration determined by the department according to methods approved by the United States Environmental Protection Agency below which taste, odor, appearance, or other aesthetic characteristics are not adversely affected, the cleanup criterion is the more stringent of (a), (b), or (c) unless the department determines that compliance

with this subsection is ~~not necessary because the use of the aquifer is reliably restricted or controlled under provisions of a postclosure plan or a postclosure agreement or by site-specific criteria approved by the department under section 20120b.~~**technically infeasible, in which case the cleanup criterion must be the most stringent criterion that is technically feasible.**

(6) The department shall not approve a remedial action plan or no further action report in categories set forth in subsection (1)(b) to (d), unless the person documents that the current zoning of the property is consistent with the categorical criteria being proposed, or that the governing zoning authority intends to change the zoning designation so that the proposed criteria are consistent with the new zoning designation, or the current property use is a legal nonconforming use. The department shall not grant final approval for a remedial action plan or no further action report that relies on a change in zoning designation until a final determination of that zoning change has been made by the local unit of government. The department may approve of a remedial action plan or no further action report that achieves categorical criteria that are based on greater exposure potential than the criteria applicable to current zoning. In addition, the remedial action plan or no further action report must include documentation that the current property use is consistent with the current zoning or is a legal nonconforming use. Abandoned or inactive property must be considered on the basis of zoning classifications as described above.

(7) Cleanup criteria from 1 or more categories in subsection (1) may be applied at a facility, if all relevant requirements are satisfied for application of a pertinent criterion.

(8) The need for soil remediation to protect an aquifer from hazardous substances in soil ~~shall~~ **must** consider the vulnerability of the aquifer or aquifers potentially affected if the soil remains at the facility. Migration of hazardous substances in soil to an aquifer is a pertinent pathway if ~~appropriate~~ **appropriately** based on consideration of site specific factors.

(9) The department may establish cleanup criteria for a hazardous substance using a biologically based model developed or identified as appropriate by the United States Environmental Protection Agency if the department determines all of the following:

(a) That application of the model results in a criterion that more accurately reflects the risk posed.

(b) That data of sufficient quantity and quality are available for a specified hazardous substance to allow the scientifically valid application of the model.

(c) The United States Environmental Protection Agency has determined that application of the model is appropriate for the hazardous substance in question.

(10) If the target detection limit or the background concentration for a hazardous substance is greater than a cleanup criterion developed for a category ~~pursuant to~~ **under** subsection (1), the criterion is the target detection limit or background concentration, whichever is larger, for that hazardous substance in that category.

(11) The department may also approve cleanup criteria if necessary to address conditions that prevent a hazardous substance from being reliably measured at levels that are consistently achievable in samples from the facility in order to allow for

comparison with generic cleanup criteria. A person seeking approval of a criterion under this subsection shall document the basis for determining that the relevant published target detection limit cannot be achieved in samples from the facility.

(12) In determining the adequacy of a land-use based response activity to address sites contaminated by polychlorinated biphenyls, the department shall not require response activity in addition to that which is subject to and complies with applicable federal regulations and policies that implement the toxic substances control act, 15 USC 2601 to ~~2692.~~**2695d.**

(13) Remedial action to address the release of uncontaminated mineral oil satisfies cleanup criteria under this part for groundwater or for soil if all visible traces of mineral oil are removed from groundwater and soil.

(14) Approval by the department of remedial action based on the categorical standard in subsection (1)(a) or (b) shall be granted only if the pertinent criteria are satisfied in the affected media. The department shall approve the use of probabilistic or statistical methods or other scientific methods of evaluating environmental data when determining compliance with a pertinent cleanup criterion if the methods are determined by the department to be reliable, scientifically valid, and best represent actual site conditions and exposure potential.

(15) If a discharge of venting groundwater complies with this part, a permit for the discharge is not required.

(16) Remedial actions that rely on categorical cleanup criteria developed ~~pursuant to~~ **under** subsection (1) ~~shall~~ **must** also consider other factors necessary to protect the public health, safety, and welfare, and the environment as specified by the

department, if the department determines based on data and existing information that such considerations are relevant to a specific facility. These factors include, but are not limited to, the protection of surface water quality and consideration of ecological risks if pertinent to the facility based on the requirements of this part.

(17) The department shall promulgate all generic cleanup criteria and target detection limits as rules. Except for generic cleanup criteria and target detection limits developed before January 11, 2018, and those generic cleanup criteria determined as set forth in subsections (5) and (23) and section 20120e(1)(a), generic cleanup criteria and target detection limits, and any modifications or revisions to generic cleanup criteria and target detection limits, are not legally enforceable until promulgated as rules. The generic cleanup criteria and target detection limits are subject to all of the following:

(a) The department may periodically repromulgate rules for any portion of the generic cleanup criteria to adopt and use new toxicity values or chemical or physical data selected ~~pursuant to~~ **under** subsection (3)(a) and (b) or to otherwise update the generic cleanup criteria in accordance with this part to incorporate, as appropriate, knowledge gained through research and studies in the areas of fate and transport and risk assessment taking into account best practices from other states, reasonable and realistic conditions, and sound science. The department may also repromulgate rules that establish target detection limits to update those limits in accordance with this part.

(b) If generic cleanup criteria are included in or relied upon as a basis for decision in a work plan, response activity plan,

remedial action plan, postclosure plan, request for certificate of completion, or similar document, that is submitted to the department or approved by the department ~~prior to~~ **before** the effective date of a rule revising those cleanup criteria, then the generic cleanup criteria effective at the time of submittal or prior approval continue to apply to the review, revision, or implementation of the plan, request, or document, as well as to any future review, approval, or disapproval of a no further action report or any part ~~thereof~~ **of the no further action report** that is based on the plan, request, or document, unless either of the following occur:

(*i*) The person making the submittal voluntarily elects to apply the revised cleanup criteria.

(*ii*) The department director makes a site-specific demonstration, based on clear and convincing evidence, that the prior cleanup criteria are no longer protective of the public health, safety, or welfare, or the environment. ~~, given the totality of circumstances at the site, including any site-specific factors that reduce exposure or risk, such as the existence of land or resource use restrictions that reduce or restrict exposure.~~ This subparagraph does not apply if, no later than 6 months after the promulgation of the rule revision changing the cleanup criteria, both of the following conditions are met:

(A) The person has substantially completed all active remediation as set forth in the approved plan, request, or similar document, and only monitoring, maintenance, or postclosure activities remain.

(B) The person submits a request for a no further action approval to the department.

(c) No further action reports that have been approved by the department and that rely on cleanup criteria that have been subsequently revised remain valid, subject to the liability provisions of section 20126(4)(e).

(d) If generic cleanup criteria are included in or relied upon as a basis for decision in a no further action report, other than a no further action report described in subdivision (b)(*ii*), that is submitted to the department but not yet approved by the department ~~prior to~~ **before** the effective date of a rule revising those cleanup criteria, then the generic cleanup criteria effective at the time of submittal continue to apply to the review, revision, and approval of the report unless either of the following occur:

(*i*) The person making the submittal voluntarily elects to apply the revised cleanup criteria.

(*ii*) The department director makes a site-specific demonstration, based on clear and convincing evidence, that the prior generic cleanup criteria are no longer protective of the public health, safety, or welfare, or the environment. ~~, given the totality of circumstances at the site, including any site-specific factors that reduce exposure or risk, such as the existence of land or resource use restrictions that reduce or restrict exposure.~~

(e) A demonstration by the department director under subdivision (b) or (d) that prior cleanup criteria are no longer protective of the public health, safety, or welfare, or the environment, is appealable in accordance with section 20114e.

(f) Notwithstanding subdivisions (b) through (d), an owner's or operator's obligations under section 20107a ~~shall be~~ **are** based ~~upon~~ **on** the current numeric cleanup criteria under ~~section 20120a(1)~~ **subsection (1)** or site-specific criteria approved under

section 20120b.

(18) A person demonstrates compliance with indoor air inhalation criteria for a hazardous substance at a facility under this part if all of the following conditions are met:

(a) The facility is an establishment covered by the classifications provided by sector 31-33 – manufacturing, of the North American Industry Classification System, United States, ~~2012,~~ **2017,** published by the Office of Management and Budget.

(b) The person complies with the Michigan occupational safety and health act, 1974 PA 154, MCL 408.1001 to 408.1094, and the rules promulgated under that act applicable to the exposure to the hazardous substance, including, but not limited to, the occupational health standards for air contaminants, R 325.51101 to R 325.51108 of the Michigan Administrative Code.

(c) The hazardous substance is included in the facility's hazard communication program under section 14a of the Michigan occupational safety and health act, 1974 PA 154, MCL 408.1014a, and the hazard communication rules, R 325.77001 to R 325.77004 of the Michigan Administrative Code, except that, unless the hazardous substance is in use in the facility, the requirement to have a material safety data sheet in the workplace requires only a generic material safety data sheet for the hazardous substance and the labeling requirements do not apply.

(19) The department shall promulgate as rules the algorithms used to calculate, modify, or revise all residential and nonresidential generic cleanup criteria, as well as the tables listing, by hazardous substance, all toxicity, exposure, and other algorithm factors or variables used in the department's calculations, modifications, or revisions.

(20) Calculation and application of toxic equivalency quotients are subject to the following:

(a) The toxic equivalency factors used must only be those adopted by the World Health Organization.

(b) When compounds contributed by 2 or more persons acting independently are combined in a toxic equivalency quotient to assess human health risks, harm is divisible and subject to apportionment of liability under subsections 20129(1) and (2).

(c) To assess human health risks, the toxic equivalency quotient must be compared to generic or site-specific criteria for the reference hazardous substance.

(21) Polychlorinated dibenzodioxin and dibenzofuran congeners are not likely to leach from soil to groundwater. The groundwater surface water interface protection and the residential drinking water protection exposure pathways are not applicable or relevant when assessing polychlorinated dibenzodioxin and dibenzofuran congeners unless the department demonstrates that those congeners are leaching at material concentrations through co-solvation.

(22) Polychlorinated dibenzodioxin and dibenzofuran congeners are not likely to volatilize from soil or groundwater into the air. Vapor inhalation exposure pathways are not applicable or relevant when assessing polychlorinated dibenzodioxin and dibenzofuran congeners.

(23) For a substance that does not have generic cleanup criteria, if, based on the best available information, the department determines that the substance is a hazardous substance, the department may calculate generic cleanup criteria for that hazardous substance using toxicity values and chemical and physical data selected ~~pursuant to~~ **under** subsection (3)(a) and (b) and in

accordance with all other requirements of this part and publish the generic cleanup criteria on the department's website. Within 30 days after publishing the new generic cleanup criteria, the department shall initiate rule-making to promulgate rules for the new criteria by filing a rule-making request under section 39 of the administrative procedures act **of 1969**, 1969 PA 306, MCL 24.239. The rule-making request ~~shall~~ **must** only include the revisions necessary to promulgate the new generic cleanup criteria. The new generic cleanup criteria published ~~pursuant to~~ **under** this subsection take effect and are legally enforceable when published by the department if the department also initiates rule-making to promulgate rules for the new criteria within 30 days. The new generic cleanup criteria published ~~pursuant to~~ **under** this subsection remain effective and legally enforceable until replaced by a final rule or, until the director directs the department to withdraw the rule request under section 66(11) of the administrative procedures act **of 1969**, 1969 PA 306, MCL 24.266, or the time limitation in either section 45(1) or section 66(12) of the administrative procedures act **of 1969**, 1969 PA 306, MCL 24.245 and 24.266, is not met.

Sec. 20120b. (1) Subject to subsection (4), the department shall approve numeric or nonnumeric site-specific criteria in a response activity under section 20120a if ~~such~~ **the** criteria, in comparison to generic criteria, better reflect best available information concerning the toxicity or exposure risk posed by the hazardous substance or other factors.

(2) Site-specific criteria approved under subsection (1) may, as appropriate:

(a) Use the algorithms for calculating generic criteria

established by rule or propose and use different algorithms.

(b) Alter any value, parameter, or assumption used to calculate generic criteria, with the exception of the risk targets specified in section 20120a(4).

(c) Take into consideration the depth below the ground surface of contamination ~~, which~~ **that** may reduce the potential for exposure and serve as an exposure barrier.

(d) Be based on information related to the specific facility or information of general applicability, including peer-reviewed scientific literature.

(e) Use probabilistic methods of calculation.

(f) Use nonlinear-threshold-based calculations where scientifically justified.

~~(g) Take into account a land use or resource use restriction.~~

(3) If there is not a generic cleanup criterion for a hazardous substance in regard to a relevant exposure pathway, releases of the hazardous substance may be addressed through any of the following means, singly or in combination:

(a) Eliminate exposure to the hazardous substance through removal, containment, exposure barriers, or land use or resource use restrictions.

(b) If another hazardous substance is expected to have similar fate, mobility, bioaccumulation, and toxicity characteristics, apply the cleanup criteria for that hazardous substance as a surrogate. Before using a surrogate, the person shall notify the department, provide a written explanation why the surrogate is suitable, and request approval. If the department does not notify the person that it disapproves the use of the chosen surrogate within 90 days after receipt of the notice, the surrogate is

considered approved. A hazardous substance may be used as a surrogate for a single hazardous substance or for a class or category of hazardous substances.

(c) For venting groundwater, use a modeling demonstration, an ecological demonstration, or a combination of both, consistent with section 20120e(9) and (10), to demonstrate that the hazardous substance is not likely to migrate to a surface water body or has not or will not impair the existing or designated uses for a surface water body.

(d) If toxicity information is available for the hazardous substance, develop site-specific cleanup criteria for the hazardous substance ~~pursuant to~~ **under** subsections (1) and (2), or develop simplified site-specific screening criteria based upon toxicity and concentrations found on site, and request department approval. If the department does not notify the person that it disapproves the site-specific criteria or screening criteria within 90 days after receipt of the request, the criteria are considered approved.

(e) Any other method approved by the department.

(4) Site-specific criteria approved by the department are not invalidated by subsequent changes to the generic criteria for that hazardous substance, including changes to toxicity, exposure, or other values or variables used by the department to calculate the generic criteria.

Sec. 20120e. (1) Subject to other requirements of this section, a person may demonstrate compliance with requirements under this part for a response activity providing for venting groundwater by meeting any of the following, singly or in combination:

(a) Generic GSI criteria, which are the water quality

standards for surface waters developed by the department ~~pursuant to~~ **under** part 31. The use of surface water quality standards or variances ~~shall be~~ **is** allowable in any of the cleanup categories provided for in section 20120a(1).

(b) A variance from the surface water quality standards as approved by the department under part 31. A variance ~~shall~~ **must** be used only if the variance is requested by a person performing response activities with respect to venting groundwater.

(c) Mixing zone-based GSI criteria established under this part ~~, which~~ **that** are consistent with part 31. The use of mixing zone-based GSI criteria ~~shall be~~ **is** allowable in any of the categories provided for in section 20120a(1) and (2) and ~~shall be allowable~~ for criteria based on chronic-based or acute-based surface water quality criteria.

(d) Site-specific criteria established under section 20120b or this subdivision or a combination of both. The use of mixing zones established under this part may be applied to, or included as, site-specific criteria. Biological criteria may be used as site-specific criteria. If biological criteria are used, then sentinel wells ~~shall~~ **must** be used for a period as needed to determine if the biological criteria may be exceeded due to future increased mass loading to the surface water from the venting plume. Numerical evaluations of analyses of the samples from the sentinel wells ~~shall~~ **must** be performed in connection with this determination.

(e) An ecological demonstration under subsection (9).

(f) A modeling demonstration under subsection (10).

(2) Whole effluent toxicity testing ~~shall~~ **must** not be required or be a criterion or be the basis for any criteria under subsection (1) for venting groundwater except for samples taken at the GSI.

(3) The pathway addressed by GSI criteria under subsection (1) ~~shall~~ **must** be considered a relevant pathway when a remedial investigation or application of best professional judgment leads to the conclusion that a hazardous substance in groundwater is reasonably expected to vent to surface water in concentrations that exceed the generic GSI criteria. The factors to be considered in determining whether the pathway is relevant include all of the following:

(a) Whether there is a hydraulic connection between **the** groundwater and ~~the~~ surface water in question.

(b) The proximity of surface water to source areas and areas of the groundwater contaminant plume that currently, or may in the future be expected to, exceed the generic GSI criteria.

(c) Subject to subsection (23)(g), whether the receiving surface water is a surface water of the state as that term is defined in ~~part 31~~ **section 3101** and **the** rules promulgated under ~~that~~ part **31**.

(d) The direction of groundwater movement.

(e) The presence of artificial structures or natural features that would alter hydraulic pathways. This includes, but is not limited to, highly permeable zones, utility corridors, and seawalls.

(f) The mass of hazardous substances present at the facility that may affect groundwater.

(g) Documented facility-specific evidence of natural attenuation, if any.

(h) Whether ~~or not~~ a sewer that has an outfall to surface water has openings in the portion of the sewer where the sewer and the groundwater contaminant plume intersect that allows the

groundwater contaminant plume to migrate into the sewer. If it can be demonstrated that the sewer is sufficiently tight to prevent inflow to the sewer where the groundwater contaminant plume intersects the sewer or if the sewer is otherwise impervious, based on accepted industry standards, to prevent inflow from groundwater into the sewer at that location, then the GSI pathway with respect to the sewer is not relevant and ~~shall~~ **does** not apply.

(4) For purposes of determining the relevance of a pathway under subsection (3), both of the following apply:

(a) GSI monitoring wells are not required in order to make a determination if other information is sufficient to make a judgment that the pathway is not relevant.

(b) Fate and transport modeling may be used, if appropriate, to support a professional judgment.

(5) A person may proceed under section 20114a to undertake the following response activities involving venting groundwater:

(a) Evaluation activities associated with a response activity providing for venting groundwater using alternative monitoring points, an ecological demonstration, a modeling demonstration, or any combination of these. If a person ~~who~~ **that** is liable under section 20126 decides not to take additional response activities to address the GSI pathway based on alternative monitoring points, an ecological demonstration, a modeling demonstration, or a determination under subsection (14), or any combination of these, the person shall notify the department and request department approval. A notification and request for approval under this subdivision ~~shall~~ **is** not ~~be~~ considered an admission of liability under section 20126.

(b) Response activities that rely on GSI monitoring wells to

demonstrate compliance under subsection (1)(a).

(c) ~~Except~~ **Subject to subdivision (a) and except** as provided in ~~subdivision (a) and~~ subsection (6), response activities that rely on monitoring from alternative monitoring points to demonstrate compliance with subsection (1)(a) if the person submits to the department a notice of alternative monitoring points at least 30 days ~~prior to~~ **before** relying on those alternative monitoring points that contains substantiating evidence that the alternative monitoring points comply with this section.

(d) Response activities implemented by a person ~~who~~ **that** is not liable under section 20126 that rely on a modeling demonstration, or rely on an ecological demonstration, or a combination of these, to demonstrate compliance with subsection (1)(a).

(6) A person shall proceed under section 20114b to undertake response activities that rely on monitoring from alternative monitoring points or rely on an ecological demonstration, a modeling demonstration, or a combination of these, to demonstrate compliance with subsection (1)(a) if 1 or more of the following conditions apply to the venting groundwater:

(a) An applicable criterion is based on acute toxicity endpoints.

(b) The venting groundwater contains a bioaccumulative chemical of concern as identified in the water quality standards for surface waters developed ~~pursuant to~~ **under** part 31 and for which the person is liable under this part.

(c) The venting groundwater is entering a surface water body protected for coldwater fisheries identified in the following publications:

(*i*) "Coldwater Lakes of Michigan," as published in 1976 by the department of natural resources.

(*ii*) "Designated Trout Lakes and Regulations," issued September 10, 1998, by the director of the department of natural resources under the authority of part 411.

(*iii*) "Designated Trout Streams for the State of Michigan," as issued under order of the director of the department of natural resources, FO-210.08, on November 8, 2007.

(d) The venting groundwater is entering a surface water body designated as an outstanding state resource water or outstanding international resource water as identified in the water quality standards for surface waters developed ~~pursuant to~~ **under** part 31.

(7) A person shall proceed under section 20114b to undertake response activities that rely on monitoring from alternative monitoring points, or rely on an ecological demonstration, or rely on a modeling demonstration or that use mixing zone-based GSI criteria, or any combination of these, as applicable, to demonstrate compliance with subsection (1)(b), (c), (d), (e), or (f).

(8) Alternative monitoring points may be used to demonstrate compliance with subsection (1) if the alternative monitoring points meet the following standards:

(a) The locations where venting groundwater enters surface water have been reasonably identified to allow monitoring for the evaluation of compliance with criteria. This identification ~~shall~~ **must** include all of the following:

(*i*) Identification of the location of alternative monitoring points within areas of venting groundwater.

(*ii*) Documentation of the approximate boundaries of the areas

where the groundwater plume vents to surface water. This documentation ~~shall~~ **must** include information about the substrate character and geology in the areas where groundwater vents to surface water.

(*iii*) Documentation that the venting area identified and alternative monitoring points include points that are reasonably representative of the higher concentrations of hazardous substances present in the groundwater at the GSI.

(b) The alternative monitoring points allow for venting groundwater to be sampled at the GSI. Devices used for sampling at alternative monitoring points may be beyond the water's edge and on top of or into the sediments, at the GSI.

(c) Sentinel monitoring points are used in conjunction with the alternative monitoring points for a period as needed to ~~assure~~ **ensure** that any potential exceedance of an applicable surface water quality standard can be identified with sufficient notice to allow additional response activity, if needed, to be implemented that will address the exceedance. Sentinel monitoring points ~~shall~~ **must** include, at a minimum, monitoring points upland of the surface water body.

(9) An ecological demonstration may be used to demonstrate compliance with subsection (1) if the ecological demonstration meets the following:

(a) The boundaries of the area where the groundwater plume vents to surface water are documented as provided in subsection (8)(a)(*ii*).

(b) Sampling data for the area described in subdivision (a), when compared to other reasonably proximate areas of that surface water body, do not show an impairment of existing or designated

uses for that surface water body caused by, or contributed to by, the venting plume, or do not show that the venting plume will cause or contribute to impairment of existing or designated uses of that surface water body in a situation where the area of the surface water immediately outside the venting area of the venting plume shows an impairment of existing or designated uses.

(c) Sampling data for the area described in subdivision (a) do not show exceedances of applicable criteria under subsection (1) in the surface water body caused by, or contributed to by, the venting plume.

(d) The sampling data in subdivisions (b) and (c) may be data on benthic organisms, fish, and the water column of the surface water, which data may be in the form of an in situ bioassay or a biological community assessment.

(e) Sentinel monitoring in on-land wells is performed for a period as needed to show that the groundwater plume is not likely to migrate to the surface water body and vent in the future in a mass amount and rate that would impair the existing or designated uses for that surface water body, or cause or contribute to exceedances of surface water quality standards in the surface water body.

(10) A modeling demonstration may be used to demonstrate compliance with subsection (1) if the modeling demonstration meets all of the following:

(a) The modeling methodology is generally recognized as a means to model venting groundwater plumes or is an innovative method that is scientifically justifiable.

(b) The results of the modeling show that the venting plume at the GSI complies with the applicable criteria under subsection (1)

or supports the ecological demonstration, as applicable.

(c) The model is supported by site-specific information and appropriate field measurements.

(11) If alternative monitoring points or an ecological demonstration or a modeling demonstration or a combination of these is used for the response activity and sentinel wells are installed, a contingency plan for potential additional response activity may be required.

(12) If a person intends to utilize mixing zone-based GSI criteria under subsection (1)(c) or site-specific criteria under subsection (1)(d) in conjunction with alternative monitoring points, an ecological demonstration, or a modeling demonstration, or a combination of these, the person shall submit to the department a response activity plan that includes the following:

(a) A demonstration of compliance with the standards in subsection (6), (7), or (8), as applicable.

(b) If compliance with a mixing zone-based groundwater-surface water interface criterion under subsection (1)(c) is to be determined with data from the alternative monitoring points, documentation that it is possible to reasonably estimate the volume and rate of venting groundwater.

(c) A site-specific monitoring plan that takes into account the basis for the site-specific criterion or mixing zone criterion.

(13) If there is an exceedance of an applicable GSI criterion based on acute toxicity at a compliance monitoring point applicable at a particular facility, then action ~~shall~~ **must** be taken as follows:

(a) A person that is implementing the response activity at that facility and that determines that there is an exceedance shall

notify the department of that condition within 7 days of ~~obtaining knowledge~~ **discovering** that the exceedance is occurring.

(b) If the person described in subdivision (a) is a person liable under section 20126, ~~then~~ that person shall, within 30 days of the date on which notice is required under subdivision (a), do 1 or more of the following:

(*i*) Commence response activity to address the exceedance at the applicable compliance monitoring point and submit a schedule to the department for the response activity.

(*ii*) Submit a notice of intent to the department to propose an alternative monitoring point or perform an ecological demonstration or perform a modeling demonstration or a combination of these. The notice ~~shall~~ **must** include a schedule for ~~submission of~~ **submitting** the proposal.

(*iii*) Submit a notice of intent to the department to propose a site-specific criterion or a mixing zone criterion under sections 20120a and 20120b. The notice ~~shall~~ **must** include a schedule for ~~submission of~~ **submitting** the proposal.

(c) The department may approve a schedule as submitted under subdivision (b) or ~~direct~~ **require** reasonable modifications in the schedule. The department may grant extensions of time for actions required under subdivision (b) and for activities in an approved or department-modified schedule if the person is acting in good faith and site conditions inhibit progress or completion of the activity. The department's decision to grant an extension or impose a schedule modification shall consider the practical problems associated with carrying out the response activity and the nature and extent of the exceedances of applicable GSI criteria.

(14) Response activity beyond evaluations ~~shall~~ **must** not be

required if venting groundwater has no effect or only a de minimis effect on a surface water body. A determination under this subsection may be based on mass flow and rate of groundwater movement calculations. A person evaluating a venting plume that determines that the plume has no effect or only a de minimis effect on a surface water body shall notify the department of the determination. The department may, within 90 days after receipt of the determination, disapprove the determination. If the department does not notify the person that it disapproves the determination within the 90-day period, then the person's determination ~~shall be~~ **is** final.

(15) If a person has controlled the source of groundwater contamination and ~~has~~ demonstrated that compliance with GSI criteria developed under this part is unachievable, that person may file a technical impracticability waiver request with the department. The technical impracticability waiver ~~shall~~ **must** document the reasons why compliance is unachievable. The department shall respond to the waiver within 180 days with an approval, request for additional information, or denial that provides a detailed description of the reasons for denial.

(16) Natural attenuation of hazardous substances in venting groundwater upgradient of the GSI is an acceptable form of remediation and may be relied upon ~~in lieu~~ **instead** of any active remediation of the groundwater. Natural attenuation may be occurring by way of ~~dispersion, diffusion,~~ sorption, degradation, transformative reactions, and other methods. **Natural attenuation may occur by dispersion of diffusion if it is technically infeasible to prevent the dispersion or diffusion.**

(17) A permit ~~shall~~ **is** not ~~be~~ required under part 31 for any

venting groundwater contamination plume that is addressed under this section.

(18) Wetlands ~~shall~~ **must** be protected for the groundwater surface water pathway to the extent that particular designated uses, as **that term is** defined ~~by~~ **in** part 31, ~~which~~ **that** are specific to that wetland would otherwise be impaired by a groundwater contamination plume venting to surface water in the wetland.

(19) If a groundwater contamination plume is entering a sewer that discharges to surface water, and the GSI pathway is relevant, all of the following apply:

(a) If the groundwater enters a storm sewer that is owned or operated by an entity that is subject to federal municipal separate storm sewer system regulations and a part 31 permit for the discharges from the system, the contaminated groundwater entering the sewer is subject to regulation by the entity's ordinance regarding illicit discharges, but the regulation of the contaminated groundwater ~~shall~~ **does** not prevent the use of subdivision (b) or other provisions of this section to determine the need for response activity under this part.

(b) All of the following apply:

(*i*) The compliance monitoring point may be a groundwater monitoring well, if proposed by the person performing the response action, or that person may choose another point for measuring compliance under this subparagraph.

(*ii*) A mixing zone may be applied that accounts for the mixing ~~which~~ **that** occurs in the receiving surface water into which the sewer system discharges.

(*iii*) Attenuation that occurs in the sewer system ~~prior to~~

before the sewer system outfall to surface water ~~shall~~ **must** be considered.

(*iv*) The compliance point is at the sewer system outfall to surface water, which ~~shall~~ **must** account for any applicable mixing zone for the sewer system outfall.

(*v*) Monitoring to determine compliance may be performed at a location where the contaminated groundwater enters the sewer or downstream from that location but upstream of the sewer outfall at the surface water, if practicable and representative. Appropriate back calculation from the compliance point to the monitoring point may be applied to account for mixing and other attenuation that occurs in the sewer system before the compliance point. As appropriate, ~~such~~ a monitoring point **described in this subparagraph** may require another monitoring point in the sewer system upstream from the area where the contaminated groundwater enters the sewer. Upstream sampling in the sewer may be performed to determine source contribution.

(*vi*) The contaminant mass flow, and the rate and amount of groundwater flow, into the sewer may be considered and may result in a determination that the migration into the sewer is de minimis and does not require any response activity in addition to the evaluation that leads to such determination.

(c) Factors in subdivision (b) may be considered and applied to determine if an illicit discharge is occurring and how to regulate the discharge.

(20) If the department denies a response activity plan containing a proposal for alternative monitoring points, an ecological demonstration, ~~or~~ a modeling demonstration, or a combination of these, the department shall state the reasons for

denial, including the scientific and technical basis for the denial. A person may appeal a decision of the department in a response activity plan or no further action report regarding venting groundwater as a scientific or technical dispute under section 20114e.

(21) This section is intended to allow a person to demonstrate compliance with requirements under this part for a response activity involving venting groundwater, and, for this purpose, this section ~~shall be given retroactive application and shall be~~ **applies retroactively and is** available for use by ~~such~~ **the** person. A person performing response activity involving venting groundwater under any judgment, consent judgment, order, consent order, or agreement that was entered ~~prior to the effective date of the 2012 amendatory act that amended this section~~ **before June 20, 2012** may pursue, alter, or terminate ~~such~~ **the** response activity based on any provision of this section subject to any necessary entry or approval by the court in a case of a judgment, consent judgment, or court order or any necessary amendment procedure to amend an agreement. The department shall not oppose use of any provision of this section as grounds to amend an agreement or for a court to modify or terminate response activity obligations involving venting groundwater under a judgment, consent judgment, or court order. A person performing response activity involving venting groundwater under any remedial action plan, interim response plan designed to meet criteria, interim response action plan, or response activity plan that was approved by the department ~~prior to the effective date of the 2012 amendatory act that amended this section~~ **before June 20, 2012** may submit an amended plan to the department for approval that pursues, alters, or terminates response activity

based on any provision of this section. The department shall not oppose use of any provision of this section in approving an amended plan.

(22) A person that undertakes response activity under subsection ~~(4)~~ **(5)** or that takes action under subsection (13)(b) ~~shall~~ **is** not ~~be considered to be~~ making an admission of liability by undertaking ~~such~~ **the** response activities or taking ~~such~~ action.

(23) As used in this section:

(a) "Alternative monitoring points" means alternative monitoring points authorized under subsection (8).

(b) "Ecological demonstration" means an ecological demonstration authorized under subsection (1)(e).

(c) "GSI" means groundwater-surface water interface, ~~which~~ **and** is the location at which groundwater enters surface water.

(d) "GSI monitoring well" means a vertical well installed in the saturated zone as close as practicable to surface water with a screened interval or intervals that are representative of the groundwater venting to the surface water.

(e) "Mixing zone-based GSI criteria" means mixing zone-based GSI criteria authorized under subsection (1)(c).

(f) "Modeling demonstration" means a modeling demonstration authorized under subsection (1)(f).

(g) "Surface water" does not include any of the following:

(*i*) Groundwater.

(*ii*) Hyporheic zone water.

(*iii*) Water in enclosed sewers.

(*iv*) Water in drainage ways and ponds used solely for wastewater or storm water conveyance, treatment, or control.

(*v*) Water in subgrade utility runs and utility lines and

permeable fill in and around them.

Sec. 20121. (1) ~~A~~ **If meeting the cleanup criteria for unrestricted residential use and restoring an affected aquifer to state drinking water standards, as that term is defined in section 2 of the safe drinking water act, 1976 PA 399, MCL 325.1002, is technically infeasible, a** person may impose land or resource use restrictions ~~to~~ **for any of the following purposes:**

(a) To reduce or restrict exposure to hazardous substances. ~~,~~ ~~to~~

(b) To eliminate a potential exposure pathway. ~~, to assure~~

(c) To ensure the effectiveness and integrity of containment or exposure barriers. ~~, to~~

(d) To provide for access. ~~, or to~~

(e) To otherwise ~~assure~~ **ensure** the effectiveness and integrity of response activities undertaken at a property.

(2) A restrictive covenant used to impose land or resource use restrictions under subsection (1) ~~shall,~~ **must,** at a minimum, include all of the following:

(a) A legal description of the property that is subject to the restrictions that is sufficient to identify the property and is sufficient to record the document with the register of deeds for the county where the property is located. If the property being restricted constitutes a portion of a parcel, the restrictive covenant ~~shall~~ **must** also include 1 of the following:

(*i*) A legal description and a scaled drawing of the portion that is restricted.

(*ii*) A survey of the portion that is restricted.

(*iii*) Another type of description or drawing approved by the department.

(b) A brief narrative description of response activities and environmental contamination at the property or identify a publicly accessible information repository where that information may be obtained, such as a public library.

(c) A description of the activity and use limitations imposed on the property. The description should be drafted, to the extent practicable, using plain, everyday language in an effort to make the activity and use limitations understandable to the reader without having to reference statutory or regulatory text or department guidance.

(d) A grant to the department of the ability to enforce the restrictive covenant by legal action in a court of appropriate jurisdiction.

(e) A signature of the property owner or someone with the express written consent of the property owner unless the restrictive covenant has been ordered by a court. ~~of competent jurisdiction.~~ For condominium common elements and similar commonly owned property, the restrictive covenant may be signed by an authorized person.

(3) In addition to the requirements of subsection (2), a restrictive covenant may contain other information, restrictions, requirements, and rights agreed to by the persons signing it, including, but not limited to, 1 or more of the following:

(a) A provision requiring notice to the department or other persons upon transfer or before construction or changes in use that could affect environmental contamination or increase exposure at the property.

(b) A provision granting rights of access to the department or other persons. These rights may include, but are not limited to,

the right to enter the property for the purpose of monitoring compliance with the restrictive covenant, the right to take samples, and the right to implement response activities.

(c) A provision subordinating a property interest that has priority, if agreed to by the person that owns the superior interest.

(d) A provision granting the right to enforce the restrictive covenant to persons in addition to the department, including, but not limited to, the local unit of government in which the property is located or the United States ~~environmental protection agency.~~**Environmental Protection Agency.**

(e) A provision obligating the owner of the land subject to the restrictive covenant to inspect or maintain exposure barriers, permanent markers, fences, or other aspects of the response action or remedy.

(f) A provision limiting the restrictive covenant to a specific duration, or terminating the restrictive covenant ~~upon~~ **on** the occurrence of a specific event or condition, such as the completion of additional response activities that are approved by the department.

(g) A provision providing notice of hazardous substances that exceed aesthetic-based cleanup criteria.

(4) A restrictive covenant used to impose land or resource use restrictions under this section ~~shall~~ **must** be recorded with the register of deeds for the county where the property is located.

(5) A restrictive covenant under this section that is recorded under subsection (4) does both of the following:

(a) Runs with the land.

(b) Is perpetual unless, by its terms, it is limited to a

specific duration or is terminated by the occurrence of a specific event.

(6) Upon recording, a copy of the restrictive covenant ~~shall~~ **must** be provided to the department together with a notice that includes the street address or parcel number for the property or properties subject to the covenant. A restrictive covenant that meets the requirements of this section need not be approved by the department except as expressly required elsewhere in this part.

(7) The following instruments may impose the land or resource use restrictions described in subsection (1) if they meet the requirements of a restrictive covenant under this section:

(a) A conservation easement.

(b) A court order or judicially approved settlement involving the property.

(8) An institutional control may be used to impose the land or resource use restrictions described in subsection (1) instead of or in addition to a restrictive covenant. Institutional controls that may be considered include, but are not limited to, local ordinances or state laws and regulations that limit or prohibit the use of contaminated groundwater, prohibit the raising of livestock, prohibit development in certain locations, or restrict property to certain uses, such as a zoning ordinance. A local ordinance that serves as an institutional control under this section ~~shall~~ **must** be published and maintained in the same manner as a zoning ordinance and ~~shall~~ **must** include a requirement that the local unit of government notify the department at least 30 days ~~prior to~~ **before** adopting a modification to the ordinance or ~~prior to~~ **before** the lapsing or revocation of the ordinance.

(9) Alternative instruments and means may be used, with

department approval, to impose the land or resource use restrictions described in subsection (1), including, but not limited to, licenses and license agreements, contracts with local, state, or federal units of government, health codes or regulations, or government permitting requirements.

(10) The department, with the approval of the state administrative board, may place restrictive covenants described in this section on deeds of state-owned property.

(11) A restrictive covenant recorded ~~pursuant to~~ **under** this part, whether recorded **on**, before or after ~~the effective date of the amendatory act that added this section,~~ **January 15, 2015,** is valid and enforceable even if 1 or more of the following situations exist:

(a) It is not appurtenant to an interest in real property.

(b) The right to enforce it can be or has been assigned.

(c) It is not of a character that has been recognized traditionally at common law.

(d) It imposes a negative burden.

(e) It imposes an affirmative obligation on a person having an interest in the real property.

(f) The benefit or burden does not touch or concern real property.

(g) There is no privity of estate or contract.

(h) The owner of the land subject to the restrictive covenant and the person benefited or burdened are the same person.

(12) Restrictive covenants or other instruments that impose land or resource use restrictions that were recorded before ~~the effective date of the amendatory act that added this section~~ **January 15, 2015** are not invalidated or made unenforceable by this

section. Except as provided in subsection (11), this section only applies to a restrictive covenant or other instrument recorded after ~~the effective date of the amendatory act that added this section.~~ **January 15, 2015.** This section does not invalidate or render unenforceable any instrument or interest that is otherwise enforceable under the law of this state.