

SUGGESTED FORMAT AND CONTENTS FOR REVIEWING AND DEVELOPING A LOCAL ORDINANCE TO LIMIT OR PROHIBIT THE USE OF CONTAMINATED GROUNDWATER

This document includes a checklist to review the adequacy of a proposed local ordinance or amendment of an existing local ordinance, and an associated model document which may be used as an institutional control pursuant to Section 20121(8) of Part 201, Environmental Remediation (Part 201), or Section 21310a(3)(a) of Part 213, Leaking Underground Storage Tanks (Part 213), of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), to limit or prohibit the use of contaminated groundwater in certain areas of a municipality.

The checklist is intended to assist a person in understanding all the elements that the Michigan Department of Environment, Great Lakes, and Energy (EGLE) recommends be included in a local ordinance to be protective of the public health, safety or welfare or the environment by providing for the following: (1) review of the adequacy of the proposed ordinance to reduce or restrict exposure to hazardous substances by limiting or prohibiting groundwater use; and (2) review of the technical data or other documentation necessary to ensure the adequacy of the proposed restrictions. This document is provided to the public as preliminary guidance, is subject to periodic revision, and should not be used to assess or develop other land or resource use restrictions available under Section 20121(8) of Part 201 or Section 21310a(3)(a) of Part 213. It is not intended, nor can it be relied upon, to create any substantive or procedural rights by any other party.

Please be aware that a local ordinance used to limit or prohibit the use of contaminated groundwater is appropriate for properties that are provided municipal water or municipal water will become available to the properties within a proposed restricted zone by the time of enactment of the ordinance or ordinance amendment. If certain properties within a restricted zone do not have access to municipal water, this checklist can still be used and the wells in the area with no municipal water can be assessed through the exception process from the prohibition on well use. This exception may require on-going analysis and monitoring of the well water for contaminants of concern, EGLE and local health department evaluation of the screened interval of the well in relationship to the depth of the contamination, and other hydrogeologic and geologic characteristics.

Due to the potential for restricted zones to be amended or rescinded from the ordinance, development of a restricted zone in an ordinance for a facility or site may not assure that it will be protective for other facilities or sites in the same geographical area. Each facility or site should have a distinct restricted zone identified and approved for that facility/site.

EGLE encourages contact with the appropriate local unit of government who will be asked to adopt or amend the proposed ordinance early in the process to assess their ability and capacity to implement, maintain and enforce the ordinance. Proposals relying on a local ordinance to limit or prohibit the use of contaminated groundwater should, at this time, be reviewed by the EGLE Institutional Controls Technical and Program Support (IC TAPS) team. Please contact Mr. Kevin Schrems, IC TAPS Team Leader, Remediation and Redevelopment Division, EGLE, at SchremsK@Michigan.gov or 517-275-1180 for any questions; or you may call the RRD main number at 517-284-5087 for assistance.

CHECKLIST FOR REVIEWING AND DEVELOPING A LOCAL ORDINANCE TO LIMIT OR PROHIBIT THE USE OF CONTAMINATED GROUNDWATER

Facility name:

Facility address:

Facility County:

Local Unit of Government Name:

Proposal Name/Title/Date:

I. EVALUATION OF ORDINANCE (EXISTING OR PROPOSED)

- Is this a proposed ordinance or an amendment to an existing ordinance (new restricted zone to be added)?

PROPOSED

EXISTING

- If existing, when was the initial ordinance passed?
- Amendment dates, if applicable?

A. GENERAL PROVISIONS OF ORDINANCE

Please indicate below whether the following provisions are included in the proposed/existing ordinance. If any elements noted below as “*required*” are missing, the proposed ordinance may not be a protective mechanism to restrict groundwater use. If a required element is not in an existing ordinance, EGLE IC TAPS Team should be consulted to discuss how and if the required element can be provided. If elements noted as “*recommended*” are not included, a case-by-case evaluation is necessary to determine whether the ordinance would be protective of the public health, safety or welfare or the environment, without the missing elements.

ELEMENTS OF THE ORDINANCE	INCLUDED?		NOTES:
<p>1. Purpose Statement or Findings (<i>Required</i>) Statement indicating that the ordinance is intended to protect the public health and safety, and the groundwater resources, and is being enacted in response to the presence of groundwater contamination.</p>	<p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p>	<p>Notes:</p>
<p>2. Definitions (<i>Required</i>) Definitions are necessary to clearly and unambiguously define the terms to be used in the ordinance.</p>	<p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p>	<p>Notes:</p>
<p>3. Restricted Zone (<i>Required</i>) Language that clearly identifies each restricted zone where groundwater use will be prohibited. Each restricted zone may be referred to by reference to the name provided in the caption preceding its description. The information to identify a restricted zone shall include: (1) A brief written explanation of the reason for creating the restricted zone, including the Facility or Site name and type of contamination present.</p>	<p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p>	<p>Notes:</p>

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<p>(2) A written description of the boundaries of the restricted zone.</p> <p>(3) A scaled map depicting the plume location and restricted zone boundaries.</p> <p>(4) A list of affected parcels within the restricted zone to include: affected parcel address, and parcel identification number. (For releases regulated under Part 213, the list shall include the legal description of each affected parcel to comply with the recording requirements as an ordinance affecting a property or multiple properties.)</p>			
<p>4. Use of Restricted Zone (Recommended) Language that describes the necessity of establishing separate restricted zones from each separate source of environmental contamination.</p>	<p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p>	<p>Notes:</p>
<p>5. Adding New Restricted Zones (Recommended) Language that lists the actions an applicant may take to amend the ordinance to establish a restricted zone, such as requirements to notify persons affected by the restriction and the local health department, and EGLE approval of the proposed restricted zone. This section may also include provisions for providing notification of a public meeting regarding the application of a new restricted zone.</p>	<p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p>	<p>Notes:</p>
<p>6. Wells and Groundwater Use Prohibition (Required) Language that specifically prohibits the use of wells in a proposed restricted zone, unless excepted from prohibition as indicated in Item 7 below.</p>	<p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p>	<p>Notes:</p>
<p>7. Exceptions to Prohibition on Well Use (Required) <i>Is language included that allows exceptions to the prohibition on well use? If yes, what exceptions are allowed? Note – explanations not intended as actual ordinance language.</i></p> <p>(1) Existing Water Supply Wells – Municipal Water Service Unavailable – Well is allowable if it does not pose a health or safety hazard or is not a threat to groundwater resources (this may require on-going sampling to assure that no exposure to hazardous substances occurs, an assessment of well depth/location in relation to the depth of</p>	<p>Yes <input type="checkbox"/></p> <p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p> <p>No <input type="checkbox"/></p>	<p>Notes:</p> <p>Notes:</p>

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<p>the contamination and/or an assessment of pumping hydraulics).</p> <p>(2) Existing Water Supply Wells – Municipal Water Service is Available – Well will not cause unacceptable migration of contaminated groundwater or cause an unacceptable exposure to contaminated groundwater.</p> <p>(3) Groundwater Monitoring/Remediation wells – EGLE and/or EPA approved wells used for monitoring and/or remediating groundwater.</p> <p>(4) Construction Dewatering wells – Use of well will not result in unacceptable exposure to contaminated groundwater, possible cross-contamination between saturated zones, or unacceptable migration of contaminated groundwater; water is handled properly.</p> <p>(5) Wells Not Used as a Water Supply Well – Use of well will not result in unacceptable exposure to contaminated groundwater, possible cross-contamination between saturated zones, or unacceptable migration of contaminated groundwater.</p> <p>(6) Heat Exchange Well (Geothermal) – Approved on an individual basis if well will not influence or cause unacceptable migration of contaminated groundwater plume will occur with use of well; or an unauthorized discharge may occur.</p> <p>(7) Public Emergencies – Notice provided to EGLE after use.</p>	<p>Yes <input type="checkbox"/></p> <p>Yes <input type="checkbox"/></p> <p>Yes <input type="checkbox"/></p> <p>Yes <input type="checkbox"/></p> <p>Yes <input type="checkbox"/></p> <p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p>No <input type="checkbox"/></p>	<p>Notes:</p> <p>Notes:</p> <p>Notes:</p> <p>Notes:</p> <p>Notes:</p> <p>Notes:</p>
<p>8. Responsibility of Costs (Recommended) – If the Applicant has entered a separate agreement with the LUG to provide for costs, the LUG may insert this provision. The language may require municipal or bottled water supplied to parcels within the Restricted Zone. The section may also require that the person who applied for establishment of Restricted Zone to be responsible for costs to connect affected parcels within Restricted Zone to municipal water and also pay for the costs to plug any well that is not exempted from the prohibition.</p>	<p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p>	<p>Notes:</p>
<p>9. Plugging of Non-Conforming Wells (Required)</p>	<p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p>	<p>Notes:</p>

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<p>Language requiring that existing wells are to be properly plugged by a well driller licensed in the state of Michigan within a certain time period (e.g., 30 days) acceptable to the department after passage of the ordinance unless a well is allowed under an exception from the prohibition on use.</p>			
<p>10. Influential Wells (Required) Language that addresses any well outside of a restricted zone, but within the municipality's jurisdiction, which may affect a groundwater contamination plume in a way that may cause the unacceptable migration of contaminated groundwater. Required to assure protection of groundwater resources and the effectiveness and integrity of the response activities or corrective actions.</p>	<p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p>	<p>Notes:</p>
<p>11. Building and Zoning Permits (Recommended) Language that prevents issuance of a permit for building and zoning purposes to an owner of a parcel of property that has or proposes a water supply from a well that is in violation of the ordinance.</p>	<p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p>	<p>Notes:</p>
<p>12. Enforcement and Remedies (Recommended) If the LUG has a standard enforcement process for ordinances, it is recommended to be inserted in the ordinance. The language may identify the person or department within the local unit of government designated as being responsible for enforcement shall be identified; penalties provided for are consistent with violations of other provisions of LUG's code.</p>	<p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p>	<p>Notes:</p>
<p>13. Severability (Recommended) If the LUG determines that a severability section is appropriate, it is recommended to be inserted in the ordinance. The language may indicate that if a portion of the ordinance is found unenforceable or faulty by a court, the rest will remain enforceable - and provide notice to EGLE if court action alters the ordinance.</p>	<p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p>	<p>Notes:</p>
<p>14. Saving Clause (Recommended) If the LUG determines that a saving clause section is appropriate, it is recommended to be inserted in the ordinance. The language may preserve the rights and claims which arose from a violation of a prior ordinance that would otherwise be lost in enacting the ordinance.</p>	<p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p>	<p>Notes:</p>

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<p>15. Notice of Intent to Amend (Required) As required by Section 20121(8) of Part 201 and Section 21310a(3)(a) of Part 213, language that requires a 30-day notice to EGLE prior to modification, lapse, or revocation of the ordinance</p>	<p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p>	<p>Notes:</p>
<p>16. Amendment/Repeal of Restricted Zone (Recommended) Language that allows additional restricted zones to be added at a later date, as well as the process for repealing all or a portion of a restricted zone(s).</p>	<p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p>	<p>Notes:</p>
<p>17. Notifications (Recommended) (1) Language that describes written notification to the Local Health Department which has jurisdiction over the installation of wells in the area of the proposed restricted zone within an appropriate timeframe to be determined by the LUG. (2) Language that describes notice in writing to be provided to each owner of an affected parcel in the proposed restricted zone of a meeting to adopt the ordinance/ordinance amendment within an appropriate timeframe to be determined by the LUG. (NOTE: This recommendation may be found as a component of the application process in some ordinances.)</p>	<p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p>	<p>Notes:</p>
<p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p>	<p>Notes:</p>	
<p>18. Publication and Recording (Required) – <i>the LUG may decide to supplement the statutorily required language below to ensure consistent application of LUG desired/required publishing/recording tasks.</i></p> <p><i>Language that provides for the following publishing/recording requirements:</i> (1) For Part 201 Sites – Published and maintained in same manner as zoning ordinances (as required by Section 20121(8) of Part 201). This is interpreted as requiring published notice of the passing of the ordinance/ordinance amendment within the required statutory timeframe. (2) For Part 213 Sites – Filed with register of deeds as ordinance affecting one or more properties (as required by Section 21310a(3)(a) of Part 213).</p>	<p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p>	<p>Notes:</p>
<p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p>	<p>Notes:</p>	
<p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p>	<p>Notes:</p>	

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19. Effective Date (Required) – Language that identifies when the ordinance will become effective.	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Notes:
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II. EVALUATION OF PROPOSED RESTRICTED ZONE

A. Evaluation of Technical Data or Other Documentation

Note whether the technical data or other documentation has been provided to support the use of an ordinance to restrict groundwater use.

<p>1. LUG Awareness/Willingness Has the LUG been contacted by the party proposing the ordinance or ordinance amendment to restrict groundwater use in their municipality?</p> <ul style="list-style-type: none"> • If no, the party proposing the ordinance or ordinance amendment should contact the LUG to ensure that they are willing to consider the proposal. • If yes, has the LUG expressed willingness to adopt the proposed ordinance amendment? 	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Notes:
	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Notes:
	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Notes:
<p>2. Extent/Explanation of Restricted Zone Is the groundwater contamination plume defined and stable?</p> <ul style="list-style-type: none"> • If no to the above, are there provisions in a No Further Action Report or Final Assessment Report for monitoring to ensure that downgradient areas, if they become contaminated, will be addressed through an adequate land and resource use restriction? • Are there provisions in a No Further Action Report or Final Assessment Report to control the vertical and horizontal migration of the groundwater plume? Depending on site-specific circumstances, action to control a migrating plume may be necessary. • Is there a description of the extent of the Restricted Zone or has a legal description of the restricted zone been included? • Does the proposed Restricted Zone include a vertical limitation? <ul style="list-style-type: none"> ○ If yes, has District staff evaluated the appropriateness of the vertical limitation? 	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Notes:
	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Notes:
	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Notes:
	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Notes:
	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Notes:

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<ul style="list-style-type: none"> Has a brief explanation of the reason for creating the restricted zone been provided? 	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Notes:
<p>3. Property List To identify affected parcels, has the following been provided in the ordinance or an attachment to the ordinance for each parcel in the restricted zone:</p> <p>A. Parcel Identification Number of each affected parcel.</p> <p>B. Legal Description of Affected Parcel(s) (required for Part 213).</p> <p>C. Property address of each affected parcel.</p> <p>To assist in notification to affected property owners, the following information should be provided to the local unit of government, but not incorporated into the ordinance:</p> <p>A. Property owner name and address (at time of passing/amending ordinance) of each affected parcel.</p>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Notes: Notes: Notes: Notes:
<p>4. Assessment of Existing Wells in Proposed Restricted Zone The proposed restricted zone must be assessed for the presence of existing wells. This information must be confirmed through multiple lines of evidence including well log review, water utility bill review, mailer survey to residents, followed by a door-to-door survey for those non-respondents to the mailing.</p> <p>Sources of information checked:</p> <p>A. Well logs</p> <p>B. Water bills</p> <p>C. Mailer survey to residences</p> <p>D. Door-to-door survey for non-respondents of mailer</p> <p>Any wells present in the proposed restricted zone must be properly plugged or assessed through the exception process. Are any of the following wells present in the proposed restricted zone?</p> <p>E. Potable Water</p>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Notes: Notes: Notes: Notes: Notes:

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<p>F. Irrigation</p>	<p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p>	<p>Notes:</p>
<p>G. Recharge/Industrial/Process</p>	<p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p>	<p>Notes:</p>
<p>H. Public Emergency</p>	<p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p>	<p>Notes:</p>
<p>I. Heat Exchange/Geothermal (Open, Closed-loop)</p>	<p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p>	<p>Notes:</p>
<p>J. Other</p>	<p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p>	<p>Notes:</p>
<p>For wells identified in the restricted zone, has each been addressed through proper plugging, a commitment for proper plugging within an acceptable time period of the ordinance passage, or has the well(s) been granted an exception by EGLE to the prohibition on use? Has a list been given to EGLE indicating the address and parcel number of each well identified in the restricted zone and how it was addressed?</p>	<p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p>	<p>Notes:</p>
<p>5. Influential Wells Refers to existing wells outside of a restricted zone which may cause the unacceptable migration of contaminated groundwater</p> <ul style="list-style-type: none"> • Has an evaluation for influential wells been performed? • Have any influential wells been identified? • If yes, has the impact of these influential wells on the groundwater contaminant plume within the restricted area been assess and addressed? <p>6. Scaled Map Is there a scaled map of the restricted zone included? Does the map show:</p> <p>A. Affected parcels delineated with PID number?</p> <p>B. Contaminated groundwater plume delineated?</p> <p>C. Location of Wells subject to exceptions to prohibition?</p>	<p>Yes <input type="checkbox"/></p> <p>Yes <input type="checkbox"/></p> <p>Yes <input type="checkbox"/></p> <p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p>No <input type="checkbox"/></p>	<p>Notes:</p> <p>Notes:</p> <p>Notes:</p> <p>Notes:</p>
<p>7. Wellhead Protection Area Is there a wellhead protection area (Type I or Type II) in or near the area of the plume?</p>	<p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p>	<p>Notes:</p>

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<p>If yes, has the DWEHD and local health department staff been notified and consulted?</p> <p>If yes, has a hydrogeologic evaluation been conducted to determine current or future threat to the public well?</p> <p>If a public well(s) is or may become impacted, have actions been taken to prevent exposure through use of the public water supply (e.g. public well taken offline, hydraulic controls, etc.)? Describe in notes section.</p>	<p>Yes <input type="checkbox"/></p> <p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p> <p>No <input type="checkbox"/></p>	<p>Notes:</p> <p>Notes:</p> <p>Notes:</p>
<p>8. Public Meeting pursuant to Section 20120d of Part 201</p> <p>Has EGLE determined that a public meeting is necessary?</p> <p>This requirement may be satisfied if the local until of government holds a public meeting for the enactment or amendment of an ordinance provided the requirements of Section 20120d are met.</p>	<p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p>	<p>Notes:</p>
<p>9. Notice to Local Health Department</p> <p>Has notification been provided to the branch of the local health department which has jurisdiction over the installation of wells in the area of the restricted zone of:</p> <p>A. The public meeting for the proposed restricted zone?</p> <p>B. The pending passage of the ordinance/ordinance amendment?</p> <p>If no to either, provide an explanation in the notes section on when and by whom notification will be provided.</p> <p>When the proposed restricted zone is located in more than one health department jurisdiction, notification needs to be provided to all applicable health departments.</p>	<p>Yes <input type="checkbox"/></p> <p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p> <p>No <input type="checkbox"/></p>	<p>Notes:</p> <p>Notes:</p> <p>Notes:</p>
<p>10. Notice to affected Parcel Owners in Restricted Zone</p> <p>Has notice in writing been provided to the owner(s) of affected parcel(s) in the restricted zone of public comment period/public meeting for the ordinance/ordinance amendment prior to such?</p> <p>Has proof of this notice been provided to EGLE?</p> <p>If no to either of the above, will notification be provided? When and by whom? Provide explanation in notes.</p>	<p>Yes <input type="checkbox"/></p> <p>Yes <input type="checkbox"/></p> <p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p>No <input type="checkbox"/></p>	<p>Notes:</p> <p>Notes:</p> <p>Notes:</p>

AN ORDINANCE TO AMEND THE CODE OF ORDINANCES OF [insert name of Local Unit of Government (LUG)] BY ADDING [insert Chapter Citation] TO REGULATE THE USE OF GROUNDWATER IN CERTAIN AREAS OF THE [insert name of LUG].

THE [insert name of LUG] ORDAINS:

SECTION [insert citation]. AMENDMENT. The Code of Ordinances of the [insert name of LUG], Michigan is hereby amended by adding [insert Chapter Citation] entitled "Water Well Restriction" to read as follows:

ARTICLE [insert citation]. WATER WELL RESTRICTION

SECTION [insert citation]. FINDINGS. The purpose of this Article is to provide for the protection of public health, safety and welfare and the groundwater resources (e.g., preventing the migration of Contaminated Groundwater into uncontaminated portions of an aquifer or improper well construction) in connection with the use of groundwater within certain portions of the [insert name of LUG]. It has been determined that groundwater within a restricted zone, as defined in Section [insert citation] hereof, may contain hazardous substances at concentrations which the Michigan Department of Environment, Great Lakes, and Energy (EGLE) has determined would be unsafe for consumption or certain other uses. The adoption of prohibitions or restrictions in selected areas of the [insert name of LUG], with regard to the installation or use of wells, will, in certain cases, be advantageous for protecting the residents of the [insert name of LUG] from exposure to groundwater containing hazardous substances which may be injurious to human health and also will provide protection for groundwater resources.

SECTION [insert name of LUG]. DEFINITIONS. The following definitions shall apply to terms used in this Article:

- A. **Abandoned Water Well** means an abandoned water well as defined by R 325.1601(1) of the Groundwater Quality Control Rules, Mich. Admin. Code R 325.1601 *et seq.*
- B. **Affected Parcel** means a parcel of land, any part of which is located within a Restricted Zone.
- C. **Applicant** means a person who applies or applied for the establishment of a Restricted Zone pursuant to this ordinance.
- D. **Contaminated Groundwater** means groundwater in which there is present, or likely to be present, one or more hazardous substances which, individually or collectively, exceed legally applicable criteria for residential consumption of water, including but not limited to Maximum Contaminant Levels promulgated by EGLE or the United States Environmental Protection Agency (USEPA)

- pursuant to the MSDWA or the Federal SDWA, respectively, or by EGLE pursuant to Part 201; and includes “Contaminant” as defined by R 325.1602(5) of the Groundwater Quality Control Rules.
- E. **EGLE** means the Michigan Department of Environment, Great Lakes, and Energy, or its successor agency.
 - F. **Groundwater** means underground water within the zone of saturation.
 - G. **Influential Well** means a Well outside of a Restricted Zone that, has the potential through pumping to cause unacceptable horizontal or vertical migration of Contaminated Groundwater.
 - H. **Owner** means the holder of record title for a parcel of land and also the occupant of a parcel of land in possession under a land contract or lease.
 - I. **Part 127** means Part 127, Water Supply and Sewer Systems, of the Public Health Code, MCL 333.12701 *et seq.*, and rules.
 - J. **Part 201** means Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, MCL 324.20101 *et seq.*, and rules.
 - K. **Part 213** means Part 213, Leaking Underground Storage Tanks, of the Natural Resources and Environmental Protection Act, MCL 324.21301 *et seq.*
 - L. **Person** means any individual, partnership, corporation, association, club, joint venture, estate, trust, and any other group or combination acting as a unit, and the individuals constituting such group or unit.
 - M. **Proof of No Influence** means groundwater data or other documentation or evidence demonstrating that a Well does not have the potential to cause unacceptable horizontal or vertical migration of Contaminated Groundwater within a Restricted Zone, or is otherwise a threat to groundwater resources or the environment, and will not present a risk of unacceptable exposure to Contaminated Groundwater. Documentation or evidence necessary to demonstrate Proof of No Influence may include but is not limited to: valid analytical data collected for an acceptable time period, hydrogeologic evaluations including pump tests; an analysis of the degree of protection from horizontal or vertical migration of Contaminated Groundwater within in aquifer or through geologic barriers; and groundwater modeling.
 - N. **Restricted Zone** means an area or areas described within *[insert citation]* of this ordinance for which the restrictions or prohibition of Wells and the use of groundwater applies and includes parcels of land that are described in this ordinance, either through passage or amendment of this ordinance.
 - O. **USEPA** means the United States Environmental Protection Agency.
 - P. **Well** means an opening in the surface of the earth for the purpose of removing fresh water or a test well, recharge well, waste disposal well, or a well-used temporarily for dewatering purposes during construction, as defined in Part 127, MCL 333.12701(d), groundwater monitoring wells or wells used for remediating contaminated groundwater that are approved by EGLE or USEPA, and also includes all of the following:
 - (a) **“Water Supply Well”** means a well that is used to provide potable water for drinking or domestic purposes.
 - (b) **“Irrigation Well”** means a well that is used to provide water for plants, livestock, or other agricultural purposes.

- (c) “**Heat Exchange Well**” means a well for the purpose of utilizing the geothermal properties of earth formations for heating or air conditioning.
- (d) “**Industrial Well**” means a well that is used to supply water for industrial purposes, fire protection, or similar nonpotable uses.

SECTION [insert citation]. RESTRICTED ZONE. The following described areas in the **[insert name of LUG]** shall be Restricted Zones under this ordinance. Additional Restricted Zones, along with a map illustrating the Restricted Zone, may be added by amending the ordinance in accordance with **[insert citation]** and all other applicable laws.

(1) (Name of Proposed Restricted Zone)

- a. A brief written explanation of the reason for creating the Restricted Zone, including the Facility or Site name and type of contamination present.**
- b. A written description of the boundaries of the Restricted Zone.**
- c. A scaled map (attached as an exhibit to this ordinance) depicting the plume location and Restricted Zone boundaries.**
- d. A list of affected parcels (attached as an exhibit to this ordinance) within the restricted zone to include: affected parcel address, and parcel identification number. (For releases regulated under Part 213, the list shall include the legal description of each affected parcel to comply with the recording requirements as an ordinance affecting a property or multiple properties.)**

(2) Reserved.

(3) Reserved.

(4) Reserved.

SECTION [insert citation]. USE OF RESTRICTED ZONES. When Contaminated Groundwater is attributed to and comingled from different sources of environmental contamination, a Restricted Zones shall be established for each separate source area even when the Restricted Zones overlap. Any proposed Restricted Zone shall be established in accordance with **[insert appropriate Section number]**.

SECTION [insert citation]. ADDING NEW RESTRICTED ZONES. **[insert name of LUG]** may amend this ordinance to add new Restricted Zones in accordance with the following procedure:

- (1) An Applicant shall first file a request with the **[insert name or title of LUG official]** advising the **[insert name of LUG]** of the Applicants interest in establishing a Restricted Zone pursuant to this ordinance. The notice shall describe the proposed boundaries of the proposed Restricted Zone, the reason for the proposed Restricted Zone, a preliminary map of the proposed Restricted Zone, the proposed time schedule for implementing the proposed Restricted Zone, and the proposed groundwater use restrictions to be applicable within the Restricted Zone. The **[insert name or title of LUG official]** will, after notifying the **[insert name of LUG]** of the notice of intent, respond to the Applicant with a preliminary and non-binding indication of the **[insert name of LUG]** willingness to consider the proposed Restricted

Zone. The **[insert name or title of LUG official]** or his/her designee may also be an applicant for purposes of initiating this procedure.

- (2) The Applicant shall seek and obtain EGLE's approval of the proposed Restricted Zone and proposed groundwater use restrictions to be applicable prior to filing an application with the **[insert name or title of LUG official]**.
- (3) If any parcel which will be subject to the new Restricted Zone is not already served by municipal water systems, the Applicant shall assure such service is, if it is possible from any engineering perspective to do so, served with municipal water service at no cost to the property owners or occupant. The Applicant shall have to assure such service is provided. If it is not possible from an engineering perspective to provide service from a municipal system, the Applicant must show that any existing Well, if not exempted under **[insert section citation(s)]**, will not be impacted by the Contaminated Groundwater or provide a suitable replacement, with EGLE and local health department approval, that will not be impacted. The Applicant shall also provide for the proper plugging of nonconforming wells on any affected parcels without cost to the owners or occupants of the parcels and noncompliance with **[insert section citation(s)]**. Proof of the provision of such service and plugging of such wells shall be required or an escrow account shall be established therefor in an amount and form acceptable to the **[insert name of LUG]**.
- (4) An Applicant shall file with the **[insert name or title of LUG official]** a formal application to the **[insert name of LUG]** including, at a minimum, the following information, together with an escrow deposit as required under this section:
 - a. The name, address, and phone number of the Applicant; as well as each person having an interest as owner, tenant, easement holder or mortgagee in the real property, which is the source or site contaminated groundwater, if known.
 - b. The street address and legal description of the real property which is the source or site of the contaminated groundwater, if known, and the nature of the Applicant's relationship to that property and involvement concerning the contaminated groundwater.
 - c. The nature and extent of the Contaminated Groundwater and the contamination causing it, both in summary form in plain English, and in detailed technical terms, stating the types and concentrations of contaminants; a map or survey showing their current location; a statement of their likely or anticipated impact on groundwater and the nature of the risks presented by the use of the groundwater, as well as the likely or anticipated path of migration if not remediated or corrected and a detailed statement of any plan to remediate, correct, and/or contain the contamination.
 - d. A detailed map and written description of the boundaries of the proposed Restricted Zone.
 - e. The street addresses and general description of all affected parcels.
 - f. The names, addresses (mailing and street), and phone numbers (if readily available) of all persons with an interest as owner, tenant,

- easement holder or mortgagee of all affected parcels.
- g. The location, current status, and usage characteristics of all existing groundwater wells within the proposed restricted zone.
 - h. A detailed statement or description of the proposed restriction or prohibition of the use of existing and future wells, within the Restricted Zone, needed to adequately protect the public from the potential health hazards associated with the Contaminated Groundwater; including a description of permissible uses of such wells, together with the written consent of EGLE to such uses of groundwater.
 - i. A description and time schedule for any actions the Applicant will take to implement any response activity plan under Part 201 or corrective action plan under Part 213, mitigate the adverse impact of the Restricted Zone (e.g., providing substitute water service), and to properly plug any existing wells subject to the use prohibition within the proposed Restricted Zone.
 - j. A written statement from an EGLE representative with approval authority stating that the proposed Restricted Zone and use restrictions have received EGLE approval as part of the response activity or corrective action for the Contaminated Groundwater. EGLE approval may be contingent upon the **[insert name of LUG]** establishment of the proposed Restricted Zone.
 - k. Copies of the notice provided to the **[insert name of local health department (LHD)]** concerning the Restricted Zone and accompanying restrictions, and the **[insert name of LHD]**'s written acknowledgment that it will not issue permits for prohibited wells within the Restricted Zone.
 - l. Copies of the notices provided to the owners of potentially affected parcels together with a sworn statement that such notices were provided to all such owners with the details of the manner in which such notices were provided. At minimum, the notice must:
 - (i) Identify the sender of the notice including the sender's name, address, contact person and telephone number.
 - (ii) Identify the owner of the property which is the source of the contamination or who is seeking the Restricted Zone including the owner's name and the property address.
 - (iii) Inquire as to the status of any Wells on their parcel and provide guidance on how they can be identified and plugged.
 - (iv) State what the effects of the Restricted Zone will be (i.e. how use of the groundwater will be restricted).
 - (v) Who can be contacted at the **[insert name of LUG]**, EGLE, and the Applicant for more information?
 - (vi) A map which identifies the groundwater plume and Restricted Zone.
 - (vii) A description of the groundwater plume and a brief description of the nature of the contamination, and
 - (viii) Any other information reasonably requested by the **[insert name or title of LUG official]**.

- (5) Upon the establishment of a new Restricted Zone, the **[insert name or title of LUG official]** shall publish notice of the amendment to the chapter in the manner required by law.

SECTION [insert citation]. WELLS AND GROUNDWATER USE PROHIBITION.

Except as provided in **[insert section citation(s)]**, no person shall install or use, or allow, permit, or provide for the installation or use of a Well on any Affected Parcel. Any existing Well at the time of the enactment of a Restricted Zone on any Affected Parcel within that Restricted Zone shall be plugged at the expense of the Applicant for that particular Restricted Zone and as provided for in **[insert section citation(s)]** and in accordance with applicable laws, regulations and ordinances, unless such existing Well falls within one of the exceptions listed in **[insert section citation(s)]**. Except as provided in **[insert section citation(s)]**, no person shall use any groundwater from an Affected Parcel.

SECTION [insert citation]. EXCEPTIONS TO PROHIBITION ON WELL USE. The **[insert name of LUG]** may provide an exception to the prohibition. A person may install or use, or allow, permit, or provide for the installation or use of, a Well in any Restricted Zone identified in this ordinance, if any of the following exceptions applies and the individual complies with the requirements set forth in this Section:

(1) Existing Water Supply Wells - Municipal Water Service is Unavailable

Municipal water service is considered unavailable if a water main is more than **[insert number of feet]** from a **[insert as appropriate: structure or property line]**. For purposes of this exception, a Water Supply Well may be considered safe and suitable for use if the Water Supply Well does not pose a health or safety hazard or is not a threat to groundwater resources. The Applicant requesting the creation of the Restricted Zone as a land or resource use restriction shall comply with the following requirements:

- a. If recommended by EGLE or the **[insert name of LHD]** to be necessary, provide for sampling of the Water Supply Well on a pre-determined basis by a qualified consultant. The sample shall be analyzed by an EGLE-approved laboratory using approved laboratory methodology with the costs to be borne by the Applicant who requests the establishment of the Restricted Zone.
- b. If required under a. above, the Applicant who requests the establishment of the Restricted Zone promptly provides EGLE and the LHD with the analytical results and certification that the water quality meets applicable Part 201 Residential Drinking Water Criteria; and
- c. If, at any time, during the duration of the groundwater use restriction the Water Supply Well is determined to be a health or safety hazard by EGLE and/or LHD due to the presence of Contaminated Groundwater, a threat to the groundwater resources, or is otherwise an Abandoned Water Well, the Water Supply Well must be promptly plugged and an alternate water supply provided by the Applicant who requests the establishment of the Restricted Zone.

- (2) **Existing Water Supply Wells – Municipal Water Service is Available:** The **[insert name of LUG]** shall not allow the use of any Water Supply Well that furnishes water for any beneficial use within the Restricted Zone unless, upon consultation with the **[insert name of LHD]** and EGLE, the **[insert: EGLE or LHD]** recommends in writing to the **[insert name of LUG]** that the use of a Water Supply Well is not likely to result in the following:
- a. The future migration of Contaminated Groundwater into an uncontaminated area or aquifer;
 - b. Adverse effects to any groundwater treatment system; or
 - c. Cause an unacceptable exposure to Contaminated Groundwater.
- Prior to granting an exception to the restrictions, the **[insert name of LUG]**, upon review of the written recommendation of the **[insert EGLE or LHD]** and upon consultation with EGLE, LHD and such other technical experts as the **[insert name of LUG]** deems necessary, may grant an exception to the restrictions. In order to evaluate this exception, EGLE or LHD may require the person requesting the exception to provide the necessary Proof of No Influence, and Influence and identify and require certain terms and conditions for evaluating the continued use of a Water Supply Well.
- (3) **Groundwater Monitoring/Remediation:** A Well may be used for groundwater monitoring or remediation as part of a response activity or corrective action approved by EGLE or the USEPA.
- (4) **Construction Dewatering:** A Well may be used for construction dewatering if the following conditions are satisfied:
- a. The use of the dewatering Well will not result in unacceptable exposure to Contaminated Groundwater, possible cross-contamination between saturated zones, or unacceptable migration of Contaminated Groundwater; and
 - b. The water generated by that activity is properly handled and disposed of in compliance with all applicable laws, rules, regulations, permit and license requirements, orders and directives of any governmental entity or agency of competent jurisdiction.
- Any unacceptable migration of the Contaminated Groundwater caused by the use of the Well under this exception shall be the responsibility of the person operating the de-watering Well, as provided in Part 201 or Part 213 of the NREPA.
- (5) **Wells Not Used As A Water Supply Well:** If EGLE determines, based on the Proof of No Influence information provided to it by the person seeking this exception, that the use of a Well in a Restricted Zone for Irrigation or Industrial purposes will not cause unacceptable vertical or horizontal migration of Contaminated Groundwater and that water from the proposed Well is not and will not cause an unacceptable exposure to Contaminated Groundwater or otherwise pose a threat to the environment, and proof of the determination is delivered to the **[insert name of LUG]**, the Well maybe so used.
- (6) **Heat Exchange Well - Vertical Closed Loop Geothermal.** The **[insert name of LUG]** shall not allow the use of a Vertical Closed Loop Geothermal Well within a Restricted Zone unless an exception to the restrictions is

granted. Prior to granting an exception to the restrictions, the **[insert name of LUG]**, upon review of a written recommendation of the **[insert: EGLE or LHD]** and upon consultation with EGLE, **[insert name of LHD]** and such other technical experts as the **[insert name of LUG]** deems necessary, may grant an exception to the restrictions. In order to evaluate this exception, EGLE or **[insert name of LHD]** may require the person requesting the exception to provide the necessary Proof of No Influence and identify and require certain terms and conditions for evaluating the continued use of the Well. Any unacceptable migration of Contaminated Groundwater caused by the use of the Well under this exception shall be the responsibility of the person operating the Well,

- (7) **Public Emergencies:** A Well may be used in the event of a public emergency. Notice of such use shall be provided to EGLE within 24 hours of use.

SECTION [insert citation]. RESPONSIBILITY FOR COSTS. [If the Applicant has entered a separate agreement with the LUG to provide for costs, the LUG may insert a section here that describes the agreement and responsibilities].

SECTION [insert citation]. PLUGGING OF NON-CONFORMING WELLS. Any existing Well, the use of which is prohibited by **[insert section citation(s)]** or is otherwise an Abandoned Water Well shall be plugged in conformance with all applicable laws, rules, regulations, permit and license requirements, orders and directives of any governmental entity or agency of competent jurisdiction.

SECTION [insert citation]. INFLUENTIAL WELLS. No Influential Well may be used or installed if it will cause the unacceptable migration of Contaminated Groundwater unless it is part of monitoring and/or remediation in conjunction with a response activity or corrective action approved by EGLE or the USEPA. A Person seeking to install or utilize a potentially Influential Well shall provide Proof of No Influence for EGLE's approval.

SECTION [insert citation]. BUILDING AND ZONING PERMITS. No permit for the construction or alteration of a building or structure nor any permit for any zoning approval shall be issued for any improvement on an Affected Parcel which has, or proposes, a water supply from a Well in violation of this ordinance.

SECTION [insert citation]. ENFORCEMENT AND REMEDIES. [If the LUG has a standard enforcement process for ordinances, it is recommended to be inserted here].

SECTION [insert citation]. SEVERABILITY. [If the LUG determines that a severability section is appropriate, it is recommended to be inserted here].

SECTION [insert citation]. SAVING CLAUSE. [If the LUG determines that a saving clause section is appropriate, it is recommended to be inserted here].

SECTION [insert citation]. NOTIFICATION OF INTENT TO AMEND, LAPSE, OR REPEAL. At least thirty (30) days prior to any action regarding a proposed amendment or repeal in whole or in part of this ordinance, the LUG shall notify EGLE and any Applicant of its intent to so act. The LUG shall also notify EGLE and any Applicant that this ordinance may lapse at least thirty (30) days prior to the ordinance being allowed to lapse.

SECTION [insert citation]. AMENDMENT; REPEAL. *[If the LUG determines that an Amendment and Repeal section is appropriate to account for potential future uses of this ordinance or for portions of the ordinance that may be repealed in the future, it is recommended to be inserted here].*

SECTION [insert citation]. NOTIFICATIONS. *[If the LUG has a process for notifying the LHD of the ordinance (as the LHD has jurisdiction of well construction permits) and the public meeting process regarding an amendment to the ordinance, it is recommended to be inserted here].*

SECTION [insert citation]. PUBLICATION AND RECORDING

- A. *[If the LUG has a described process for publishing and recording of an ordinance, it is recommended to be inserted here].*
- B. If the release, for which this ordinance or amendment to this ordinance is sought, is regulated pursuant to Part 201, then this ordinance or amendment to this ordinance shall be published and maintained in the same manner as zoning ordinances.
- C. If the release, for which this ordinance or amendment to this ordinance is sought, is regulated pursuant to Part 213, then the ordinance or amendment to this ordinance shall be filed by the Applicant with the register of deed as an ordinance affecting multiple properties.

SECTION [insert citation]. EFFECTIVE DATE

This ordinance shall be effective **[insert chosen number]** days after date of adoption.