

CHAPTER 10
DRINKING WATER SOURCE PROTECTION

(Updated 6-20-11)

ORDINANCE 2010-15

**AN ORDINANCE FOR THE PROTECTION OF DRINKING WATER SOURCES
IN THE CITY OF SOUTH JORDAN**

WHEREAS, the City of South Jordan provides water to its residents acting as a water retailer: and

WHEREAS, the City of South Jordan currently purchases 100% of the drinking water for South Jordan Residents from Jordan Valley Water Conservancy District; and

WHEREAS, Jordan Valley Water Conservancy District obtains water from groundwater wells within South Jordan; and

WHEREAS, UCA § 19-4-113 requires that Salt Lake County adopt a water source protection ordinance which applies to all municipalities within the Count; and

WHEREAS; UCA § 19-4-113 allows a city within a county that has adopted a water source protection ordinance to adopt its own water source protection ordinance that supersedes the County ordinance within a cities limits; and

WHEREAS; the South Jordan City Council finds it in the best interest of the health safety and welfare of South Jordan residents to adopt a water source protection ordinance specific to South Jordan.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF SOUTH JORDAN CITY, UTAH AS FOLLOWS:

SECTION 1. Enactment. Chapter 16.50, Drinking Water Source Protection, of the South Jordan City Code is hereby enacted as follows:

**Chapter 16.50
DRINKING WATER SOURCE PROTECTION**

16.50.010: SHORT TITLE:

- A. This Title and the drinking water source protection map shall be known and may be cited as the *SOUTH JORDAN CITY DRINKING WATER SOURCE PROTECTION ORDINANCE*. The chapters and sections of this Title may be cited as chapters and sections of this Ordinance.

16.50.020: PURPOSE:

The purpose of this Chapter is:

- A. To comply with Utah Code Ann., §19-4-113 requiring counties to adopt a water source protection ordinance to protect groundwater sources of public drinking water.
- B. To protect, preserve, and maintain existing and potential public drinking water sources to safeguard the health, safety and welfare of City residents and visitors.
- C. To establish and designate drinking water source protection zones and ground water recharge areas for all sources of public drinking water within City boundaries.
- D. To regulate land use within identified areas where ground water is or could be affected by the use. This shall be accomplished by the designation and regulation of property uses and conditions within such zones or areas.
- E. A notice to cease or an exemption issued under this Chapter shall not relieve the owner of the obligation to comply with any other applicable federal, state, regional or local regulations, rules, ordinances or requirements, nor shall said notice or exemption relieve any owner of any liability for violation of such regulations, rules, ordinances or requirements.
- F. This Ordinance presents an adequate degree of protection for regulatory purposes; however, it does not ensure that drinking water sources will not be subject to accidental or intentional contamination. This Ordinance shall not create liability on the part of the City, or its officers or employees, for any damages to the public water supplies from reliance on this Chapter, nor any administrative order made there under.

16.50.030: APPLICABILITY:

- A. It shall be the responsibility of any person owning real property and/or owning or operating a business within the jurisdiction of the City to conform and comply with this Chapter. Ignorance of this provision shall not excuse any violations of the provisions of this Chapter. This Chapter is not intended to repeal, abrogate or impair any existing easements, covenants or deed restrictions. However, where this Chapter and another ordinance, easement, covenant or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.
- B. The provisions of this Chapter shall be considered minimum requirements, liberally construed in favor of the City and water protection, and deemed neither to limit nor repeal any other powers granted under state law.
- C. Unless otherwise specified, this Chapter applies to handling, movement and storage of potentially hazardous materials, and any development, development activity, land use or development project authorized by this title, including, but not limited to, subdivisions, site plans and building permits.

- D. This Chapter applies to all developments within the City in the drinking water source protection zones. No structure or land shall hereafter be constructed, located, extended or altered without full compliance with this Chapter and other applicable regulations.

16.50.040: DEFINITIONS:

The following words, terms and phrases, when used in this chapter, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

APPLICANT: Any person who submits an application for a permit pursuant to the drinking water source protection ordinance.

ALLOWED USES: A use, activity or practice allowed by this ordinance which does not create a risk of pollution or contamination in the specified protection zone of such significance so as to require the implementation of regulatory requirements, best management practices or engineered controls.

ANIMAL FEEDING OPERATIONS: Real property containing facilities where animals have been or will be stabled or confined and feed or maintained for a total of 45 days or more in any 12 month period.

BEST MANAGEMENT PRACTICE (BMP): Practices, procedures or designs used as a standard for a given industry. In this specific case, these practices are for the erosion control industry's best management practices (BMPs) for controlling nonpoint sources of pollution and are the methods, measures, practices, or a combination of practices determined to be the most effective and practicable means (including technological, economic, and institutional considerations) to control nonpoint pollutants at levels compatible with environmental quality goals. As used in the document, BMPs are synonymous with erosion and sediment control measures.

COLLECTION AREA: The area surrounding a ground water source that is underlain by collection pipes, tile, tunnels, infiltration boxes, or other ground water collection devices.

DESIGN STANDARD: the established state or national standards for the design, construction, placement, or maintenance of a potential contamination source to prevent discharges to groundwater.

DISCHARGE: To cause a substance to enter the drinking water source by any means, whether directly or indirectly. It includes, but is not limited to, spilling, leaking, seeping, pouring, injecting, emitting, emptying, disposing, releasing, or dumping regulated substances to the soils, air, ground waters or surface waters of the City. "Discharge" does not include the use of a regulated substance in accordance with the appropriate use intended or specified by the manufacturer of the substances; provided that such use is not prohibited by federal, state or local regulations. "Discharge" shall not include discharges specifically authorized by federal or state permits.

DRINKING WATER SOURCE PROTECTION ZONE: An area within which certain practices are mandated to protect ground water flowing to public drinking water wells.

DRINKING WATER SUPPLY WELL: A drinking water well to supply water which has been permitted or intended for consumptive use.

GROUNDWATER: Any water that may be drawn from the ground.

GROUNDWATER SOURCE: Any well, spring, tunnel, adit or other underground opening from or through which ground water flows or is pumped from subsurface water bearing formations.

GROUND WATER DIVIDE: A line on a water table on each side of which the water table slopes downward in a direction away from the line.

GROUND WATER TOT: Time of travel for groundwater.

HANDLE: To use, generate, process, produce, package, treat, store or transport a regulated substance in any fashion.

PCS: Potential contaminant source.

PWS: Public water system. System, publicly or privately owned, providing water for human consumption and other domestic uses. It includes collection, treatment, storage or distribution facilities under the control of the operator.

PERSON: An individual, firm, partnership, corporation, association, joint venture, governmental entity or other legal entity, and shall include the plural as well as singular.

PETROLEUM PRODUCT: Shall include fuels (gasoline, diesel fuel, kerosene, and mixtures of these products including MTBE), lubricating oils, motor oils (new and used), hydraulic fluids, and other similar petroleum based products.

PROTECTION ZONE: The delineation zones of the drinking water source protection zone.

POLLUTION SOURCE: any point source discharges of contaminants to ground or surface water or potential discharges of the liquid forms of "extremely hazardous substances" which are store in containers in excess of "applicable threshold planning quantities as specified in SARA Title III, which include but are not limited to storage facilities that store the liquid forms of extremely hazardous substances, septic tanks, drain fields, class V underground injection wells, landfills, open dumps, land filling of sludge and seepage, manure piles, salt piles, drain lines and animal feeding operations with more than ten animal units.

REGULATED SUBSTANCES: Substances (including degradation and interaction products) which because of quantity, concentration, physical, chemical (including ignitability, corrosivity, reactivity and toxicity), infectious characteristics, radiomutagenicity, carcinogenicity,

teratogenicity, bioaccumulative effect, persistence (nondegradability) in nature, or any other characteristics relevant to a particular material that may cause significant harm to human health and/or environment (including surface and ground water, plants and animals).

SLVHD: Salt Lake Valley Health Department.

SOURCE PROTECTION ZONE or ZONES OF INFLUENCE: Specified surface and subsurface are surrounding a groundwater source supplying a public water system, through which contaminants are reasonably likely to reach the groundwater source.

TIME OF TRAVEL (TOT): Time required for a particle of water to move in the producing aquifer from a specific point to a ground water source or drinking water, or the time required for a particle of water to travel from a specific point along a surface water body to an intake.

TRAVEL TIME CONTOUR: The locus of points that form a line of any configuration in space from which ground water particles on that line theoretically take an equal amount of time to reach a given destination, such as a well or a well field, as predicted by the Refined Salt Lake Valley MODFLOW/MODPATH Model, copyrighted.

UAC: The Utah Administrative Code.

USGS: The United States Geological Survey.

WELL: Any excavation that is drilled, cored, bored, washed, driven, dug, jetted, or otherwise constructed when the intended use of such excavation is for the location, acquisition, development or artificial recharge of ground water.

WELLFIELD: An area of land that contains one or more drinking water supply wells.

16.50.050: ESTABLISHMENT OF DRINKING WATER SOURCE PROTECTION ZONES:

The drinking water source protection zones are restrictive designations applied to regulate specified land uses and conditions in zones designated for the protection of groundwater sources of drinking water in addition to any other zone in this title. The drinking water source protection zones shall consist of the areas designated on the drinking water source protection map.

16.50.060: DESIGNATION OF RECHARGE AREAS AND PROTECTION ZONES:

- A. The drinking water source protection zones or zones of influence are identified and described as follows:
 - 1. Protection Zone 1. The area within 100-foot radius from the well or margin of the collection area.

2. Protection Zone 2. The area within the 250 day groundwater TOT zone of influence to the wellhead which supplies water to the groundwater source as specified on the drinking water source protection map as part of this ordinance.
3. Protection Zone 3. The area within the 3 year groundwater TOT zone of influence to the wellhead which supplies water to the groundwater source as specified on the drinking water source protection map as part of this ordinance
4. Protection Zone 4. The area within the 15 year groundwater TOT zone of influence to the wellhead which supplies water to the groundwater source as specified on the drinking water source protection map as part of this ordinance

B. The following rules shall apply to the properties and facilities within the protection zones depicted on the drinking water source protection map:

1. The property located wholly or partially in a protection zone on the drinking water source protection map shall be governed by the restrictions applicable to that protection zone; and

2. Properties located within more than one protection zone as shown on the drinking water source protection map shall be governed by the restrictions applicable to the most restrictive protection zone.

16.50.070: REVIEW OF THE DRINKING WATER SOURCE PROTECTION MAP:

The drinking water source protection map shall be reviewed as deemed necessary by the City with support from other agencies. The basis for updating the map may include, but is not limited to, the following:

- A. Changes in technical or scientific knowledge in the areas of geohydrology, hydraulics and geology.
- B. Changes in well field configuration.
- C. Changes in pumping rates for the well field.
- D. Development of new wells, well fields and/or springs.
- E. Changes in water quality.

16.50.080: DRINKING WATER SOURCE PROTECTION MAP

The City of South Jordan has incorporated the information compiled by Jordan Valley Water Conservancy District on a City map known as the “Drinking water source protection map” identifying each groundwater source for drinking water, and the source protection zone for each source within the City. A copy of the drinking water source protection map is attached as Appendix A and is incorporated herein by reference.

16.50.090: REVIEW OF DEVELOPMENT PLANS:

- A. Prior to submitting the development plans and permits, the developer engineer shall review the restricted and prohibited uses established in Appendix B of this ordinance. If the development plan lie within the water protection zones and any of the land uses listed in the matrix applies to the development, the engineer shall state it on the plans and proceed with the development plan process as required by the City.
- B. All development plans and permits that lie within the protection zones and which land use is identified in the matrix of Appendix B of this ordinance shall be reviewed by a geologist or hydrogeologist who has demonstrated expertise in the assessment of recharge rates at the developer's expense. The developer's engineer must submit their findings and best management and construction controls to be implemented during the land use period (construction or land use) to the City. The developer and his/her engineer shall be aware of the restricted and prohibited uses established in Appendix B of this ordinance. Any development that will result in a loss of the beneficial use of groundwater or that may have an adverse or negative effect upon local ground water quality shall be rejected. Plans that are rejected may be revised by the developer and his/her engineer and resubmitted to the City for subsequent review.
- C. Developments that do not lie within the protection zones may proceed with the development plan processing requirements of the City.

THE CITY WILL REVIEW PLANS AND PERMITS BEFORE THE APPROVAL OF CONSTRUCTION IS GRANTED. No permits or land use approvals including, but not limited to, a subdivision approval, conditional or permitted use approval, business license or building permit shall be issued pending the resolution of this ordinance.

16.50.100: ALLOWED, RESTRICTED AND PROHIBITED USES:

- A. Allowed Uses: "Allowed Uses" are the same as those established before the effective date of this ordinance provided that such use is not in violation of any other ordinance, health regulation nor determined by a court of competent jurisdiction to be a nuisance under the provisions of federal, state and local laws or health regulations. All new land uses, change of uses, or expansion of uses shall comply with this ordinance.
- B. Restricted Uses: "Restricted Uses" (R) are uses associated with a "Potential Contamination Source." A Restricted Use may be permitted only after review and recommendations are received from the affected public water system and the Salt Lake Valley Health Department.
- C. Prohibited Uses: "Prohibited Uses" (X) are identified as neither "permitted" nor "conditional" shall not be allowed in the zone. Notwithstanding the provisions of this Chapter, the use and storage of regulated substances in amounts meeting or exceeding the

"reportable quantity" shall be prohibited as unless an exemption is granted as set forth therein.

16.50. 110: POLICIES:

- A. Permit review should occur prior to the connection and subsequent supplying of water to the new business
- B. Approval of water service to a business will become subject to a review of their process and activity in its relation to the DWSP Program.
- C. When applicable, the City should work with the other PWSs to recognize other PWSs defined drinking water source protection zones and require that the PCS implement design or operating standards that prevent discharges to groundwater.

SECTION 2. Severability. If any section, part or provision of this Ordinance is held invalid or unenforceable, such invalidity or unenforceability shall not affect any other portion of this Ordinance and all sections, parts, provisions and words of this Ordinance shall be severable.

SECTION 3. Effective Date. This Ordinance shall become effective immediately upon publication or posting as required by law.

PASSED AND ADOPTED BY THE CITY COUNCIL OF SOUTH JORDAN CITY, STATE OF UTAH, ON THIS ~~18th~~ DAY OF ~~JUNE~~, 2010 BY THE FOLLOWING VOTE:

| | ^{20th} July | YES | NO | ABSTAIN | ABSENT |
|-------------------|------------------------------------|-----|-----|---------|--------|
| Brian C. Butters | X | ___ | ___ | ___ | ___ |
| Kathie L. Johnson | X | ___ | ___ | ___ | ___ |
| Larry Short | X | ___ | ___ | ___ | ___ |
| Aleta A. Taylor | X | ___ | ___ | ___ | ___ |
| Leona Winger | X | ___ | ___ | ___ | ___ |



W. Kent Money
W. Kent Money, Mayor

ATTEST: *Anna M. West*
Anna M. West, City Recorder

Approved as to content: *John H. Stephenson*
City Manager

Approved as to form:
R. [Signature]
Assistant City Attorney

Legal Review: _____
City Attorney

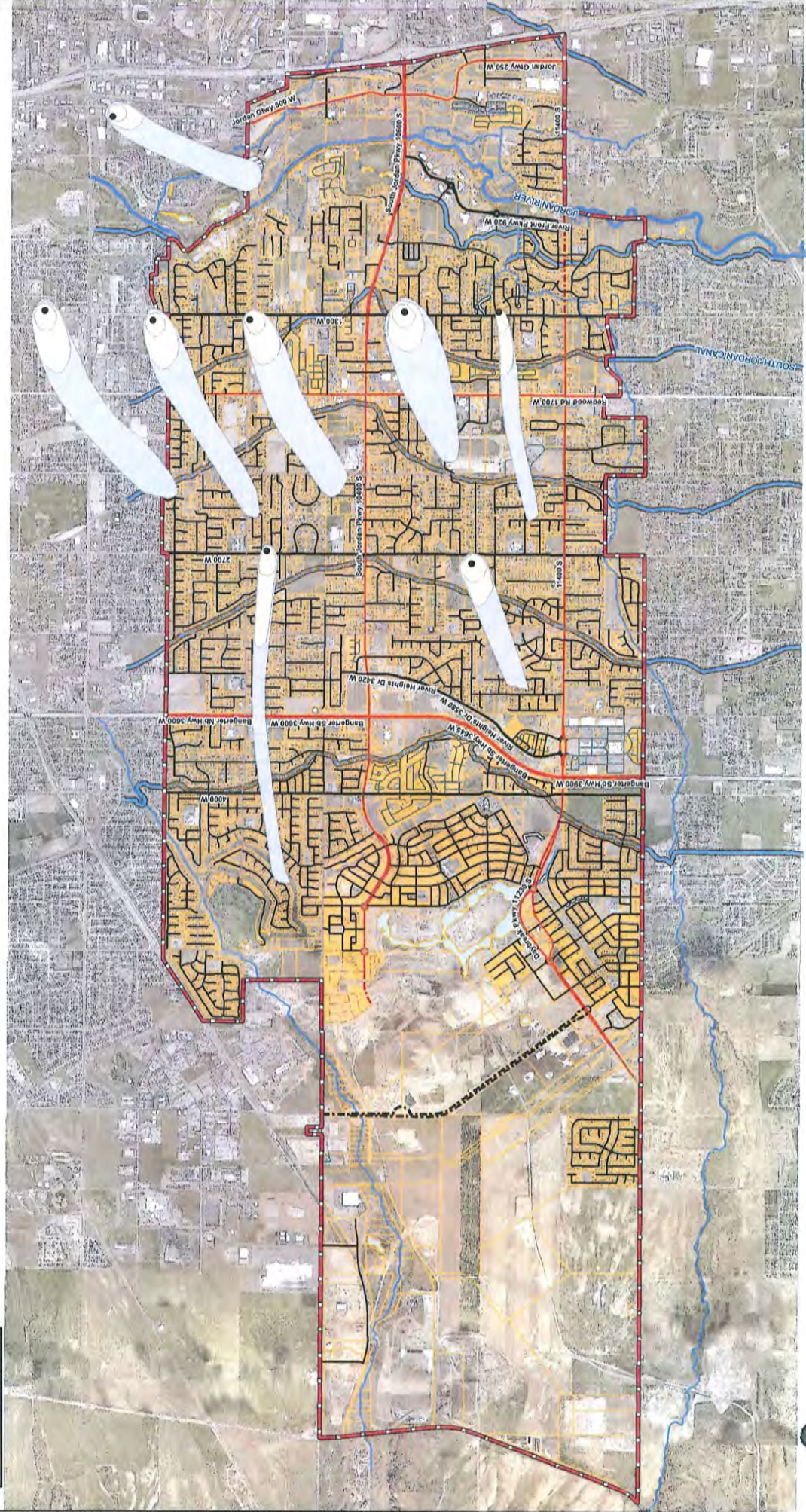
Mayor: _____
W. Kent Money

ATTEST: _____
City Recorder



**Jordan Valley Water Conservancy District
Zones of Influence for JWVCD Wells
in the South Jordan Area with Current Zoning**

- Well Location
- 250 Day Zone of Influence
- 3 Year Zone of Influence
- 15 Year Zone of Influence
- South Jordan City Boundary



DATE: 01/15/2013 10:00 AM
DRAWN BY: J. HARRIS
PROJECT: JWVCD ZONES OF INFLUENCE



Chapter 16.50 APPENDIX B.

RESTRICTED AND PROHIBITED USES IN WATER SOURCE PROTECTION ZONES

| | | | |
|---------|---|---|----------------|
| Legend: | | | |
| | R | = | Restricted use |
| | X | = | Prohibited use |

| Use | Zone 1 | Zone 2 | Zones 3 And 4 |
|---|--------|--------|---------------|
| Agricultural pesticide, herbicide and fertilizer storage, use, filling and mixing areas | X | R | R |
| Agriculture experimental station | X | R | R |
| Airport maintenance and fueling sites | X | R | R |
| Animal byproduct; offal or dead animal reduction or dumping | X | X | R |
| Apiary (Bee yard) | X | R | R |
| Animal breeding, adoption, or training establishment i.e. dog kennel, pound, or school, etc | X | R | R |
| Appliance repair | X | R | R |
| Auto operations and fleet vehicle maintenance facilities (commercial): | | | |
| Auto body | X | R | R |
| Dealership maintenance departments | X | R | R |
| Engine repair | X | R | R |
| Oil and lube shops | X | R | R |
| Rust proofing | X | R | R |
| Tire | X | R | R |
| Vehicle rental with maintenance | R | R | R |

| | | | |
|--|---|---|---|
| Aviary | X | R | R |
| Baby diaper service | X | R | R |
| Beauty salons and barber shops | X | R | R |
| Boat building and refinishing | X | R | R |
| Breweries | X | R | R |
| Car washes | X | R | R |
| Carpet, rug, and upholstery cleaning or dyeing | X | X | R |
| Cemeteries, golf courses, parks and plant nurseries | X | R | R |
| Chemical reclamation facilities | X | X | R |
| Chemigation wells | X | X | R |
| Commercial and private recreation | X | R | R |
| Concrete, asphalt and tar use, storage, or processing companies | X | R | R |
| Dairy farms and animal feed lots (more than 10 animal units) | X | X | R |
| Dry cleaners (with on site chemicals) | X | X | R |
| Dry cleaners (without on site chemicals) | X | R | R |
| Embalming services | X | R | R |
| Equipment storage or rental yards | X | R | R |
| Farm operations: | | | |
| Dump sites | X | R | R |
| Maintenance garages | X | R | R |
| Manure piles (<500 cu. ft.) | R | R | R |
| Fat rendering processes | X | X | R |
| Feed, cereal or flour mill | X | R | R |
| Fertilizer and soil conditioner manufacture, processing and/or sales | X | X | R |
| Firearms and/or archery range; gun club | X | R | R |

| | | | |
|--|---|---|---|
| Food processing, meatpacking and slaughterhouses | X | X | R |
| Fuel, oil and heating oil distribution and storage facilities | X | R | R |
| Fur farm | X | R | R |
| Furniture stripping, painting and finishing business | X | R | R |
| Gasoline service stations (including underground storage tanks) | X | R | R |
| Golf courses | X | X | R |
| Green house or nursery | X | R | R |
| Hospitals and medical, dental and veterinary offices | X | R | R |
| Industrial manufacturers of: chemicals, pesticides, herbicides, paper products, leather products, textiles, rubber, plastic, fiberglass, silicone, glass, pharmaceuticals and electrical equipment, etc. | X | R | R |
| Industrial waste disposal/ impoundment areas | X | X | R |
| Improperly abandon wells | X | X | X |
| Incinerator | X | X | R |
| Junk and salvage yards | X | R | R |
| Laboratories which may include scientific research, investigation, testing or experimentation including prototype product development or incidental pilot plants | X | R | R |
| Landfills and transfer stations | X | R | R |
| Laundromats | X | R | R |
| Machine shops, metal plating, heat treating, smelting, annealing and descaling facilities | X | R | R |
| Mining operations: | | | |
| Radiological | X | R | R |
| Sand and gravel excavation and processing | R | R | R |
| Municipal wastewater treatment plants | X | X | R |
| Photo processing and print shops | X | R | R |

| | | | |
|--|---|---|---|
| RV waste disposal stations | X | R | R |
| Railroad yards | X | R | R |
| Residential pesticide, herbicide and fertilizer storage, use, filling and mixing areas | X | R | R |
| Residential underground storage tanks | X | R | R |
| Salt and salt-sand piles | X | R | R |
| Septic tank drain field systems | X | R | R |
| Stormwater detention basin and snow storage sites | X | R | R |
| Toxic chemical storage and oil pipelines | X | X | X |
| Wood preservative treatment facilities | X | R | R |