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August 20, 2015

Mr. Chad Munns, Chairman
Box Elder County Planning Commission
Box Elder County Courthouse
1 South Main Street
Brigham City, Utah 84302

Dear Commissioners,

Our firm, Barnett Intermountain Water Consulting, in cooperation with Steve Styler, attorney with Waddingham and Associates has been requested by Tim Munns and residents of Hansel Valley to provide input on suggested language to the proposed amendment to the Box Elder County Land Use Management and Development Code Article 3: Zoning Districts. We have reviewed the language of the proposed code with Mr. Styler and have attached portions of section 3-8-040 with our suggested language and revisions.

We appreciate your consideration of these suggestions.

Respectfully,

Scott H Clark, P.G.

Attachment

Jack A. Barnett, P.E., P.G.

Don A. Barnett, P.E., P.G.

Scott H. Clark, P.G.

PROPOSED EDITS TO TEXT AMENDMENT

3-8-040 Definitions.

As used in this chapter:

“Aquifer” means a geologic formation, group of geologic formations or part of a geologic formation that contains sufficiently saturated permeable material to yield usable quantities of water to wells and springs.

“Best Available Technology” means the application of design, equipment, work practice, operation standard or combination thereof at a facility to effect the maximum reduction of a pollutant achievable by available processes and methods taking into account energy, public health, environmental and economic impacts and other costs

“Class 1A ground water” has the following characteristics, total dissolved solids of less than 500 mg/l. and no contaminant concentrations that exceed the ground water quality standards listed in Table 1 of Utah [Administrative Code R317-6-2](#). Class 1A ground water shall be treated as such with or without an official designation as such by the Utah Division of Water Quality.

“Class IB ground water” is a source of water for a community public drinking water or a private culinary water system for which no reliable supply of comparable quality and quantity is available because of economic or institutional constraints. Class 1B ground water shall be treated as such with or without an official designation as such by the Utah Division of Water Quality.

“Class IC ground water” is a source of ground water discharge important to the continued existence of wildlife habitat. Class 1C ground water shall be treated as such with or without an official designation as such by the Utah Division of Water Quality.

“Commercial solid waste” means all types of solid waste generated by stores, offices, restaurants, warehouses, and other non-manufacturing activities,

“Comparable Source” means a readily available potential alternative source or sources of water supply which has the same general quality and is capable of reliably supplying water in quantities sufficient to meet the year-round needs of the users served by the ground water source.

“Sole Source Aquifer” means a groundwater aquifer providing the only physical or economically feasible source of culinary grade water to individual or community water wells providing culinary quality water to the local residents or communities.

Solid Waste Corridor Siting Restrictions

No new Solid Waste Corridor may be located within:

- 5 miles from any airport runway.
- 2 miles from:
 - a) Any interstate highway;
 - b) Any existing drinking water wells or springs used for drinking water;
 - c) Any designated water source protection zones; or
 - d) Any Ground Water meeting the classifications of Class IA, Class IB, ~~and~~ Class IC or Class II water.

- One mile from protected view sheds: (If no natural site obstructions are present, the view shed protection area increases to 5 miles.)
 - a) Listed Attractions:

Golden Spike	Etna Reservoir
Devils Playground	Lynn Reservoir
Sun Tunnels	Clear Creek
Spiral Jetty	Lucin Springs
Bear River Bird Refuge	Crystal Hot Springs
Salt Creek Wildlife Management Area	Belmont Hot Springs
Willard Bay State Park	Locomotive Springs
Fruit way (HWY 89)	Kelton Cemetery
 - b) Cities, Towns, parks, monuments, and recreation areas;
 - c) major roads leading to Cities, Towns, unincorporated areas with more than three (3) homes, parks, monuments, recreation areas, and listed attractions,
 - d) designated wilderness or wilderness study areas;
 - e) rivers, streams, lakes, or reservoirs;
 - f) ecologically and scientifically significant natural areas, including wildlife management areas and habitat, or potential habitat, for threatened or endangered species as designated pursuant to the Endangered Species Act of 1982;
 - g) farmland classified or evaluated as “prime,” “unique,” or of “statewide importance” by the U.S. Department of Agriculture Soil Conservation Service under the Prime Farmland Protection Act;
 - h) existing permanent dwellings, residential areas, and other incompatible structures such as schools or churches;
 - i) historic structures or properties listed or eligible to be listed in the State or national Register of Historic Places;
 - j) areas with respect to archeological sites.

- One mile of unstable areas identified in the stability analysis report and one mile from restrictive geology including:
 - a) subsidence area;
 - b) dam failure flood area;
 - c) flood zones;
 - d) underground mine;
 - e) salt dome;
 - f) salt bed;
 - g) geologic features which could compromise the structural integrity of the facility;
 - h) known faults;
 - i) seismic impact zones; and
 - j) soil conditions that may result in significant differential settlement potential.

- One mile from Surface Water including:
 - a) Any land that is being used by a culinary water system for water shed control;
 - b) Any floodplain – 100 year base flood elevation and any community known flood hazard area; and
 - c) Wetlands.

No new Solid Waste Corridor may be located:

- ~~Any location where the Solid Waste Corridor will be in an area where:~~
 - a) where the depth to ground water is less than 500 feet below land surface where the ground water meets the classification of Class II areas, as defined in Utah Administrative Code R317-6-3; or
 - b) where the depth to ground water is less than 100 feet where the ground water meets the classification of Class III areas, as defined in Utah Administrative Code R317-6-3.
 - c) In a primary or secondary ground water primary recharge area to, or groundwater classified as Class IA, Class IB, Class IC or Class II, with or without an official designation as such by the Utah Division of Water Quality
 - b)d) over a sole source aquifer, as determined by hydro-geologic study prepared by a licensed engineer or geologist.



August 19, 2015

Mr. Chad Munns, Chairman
Box Elder County Planning Commission
Box Elder County Courthouse
01 South Main, Brigham City, UT 84302

Dear Chairman Munns and Commissioners,

Thank you for the opportunity to review and respond to the draft text amendments of the Box Elder County Land Use Management and Development Code Article 3: Zoning Districts. As the water authority in the County, this is of great interest to the Bear River Water Conservancy District in ensuring the protection of the water and water quality in the County. We appreciate the efforts of the County in updating this ordinance and compliment the County on the good work.

The District has reviewed the draft and has consulted and received recommendations from an attorney and engineer with experience in designing water infrastructure as well as landfills, along with some concerned residents of the County. Those recommendations have been incorporated in our request.

The District respectfully submits the attached recommendations to be seriously considered by the Planning Commission and incorporated in the final ordinance to ensure protection of the valuable water resources in the County.

The District appreciates your time and willingness to support the District as we work together in the best interest of all the residents in Box Elder County.

Best Regards,

Voneene Jorgensen
General Manager

Clinton Burt
Chairman

David Eirsgren
Vice Chairman

Charles W. Holmgren
Treasurer

Tyler Vincent

Jeffrey D. Scott

Brent Baugh

Roger Frittal

Nail C. Capener

Jay H. Carter

Russell D. Howe

Richard E. Day

Voneene J. Jorgensen
General Manager

Recommended changes, highlighted in yellow, submitted for consideration to be included in the Box Elder County Land Use Management & Development Code Article 3: Zoning Districts

3-8-040 Definitions.

“Class 1A ground water” has the following characteristics, total dissolved solids of less than 500 mg/l. and no contaminant concentrations that exceed the ground water quality standards listed in Table 1 of Utah Administrative Code R317-6-2. Class 1A ground water shall be treated as such with or without an official designation as such by the Utah Division of Water Quality.

“Class 1B ground water” is a source of water for a ~~community~~ public drinking water system as defined in the Utah Administrative Code R309-100-4 or private culinary water system for which no reliable supply of comparable quality and quantity is available because of economic or institutional constraints. Class 1B ground water shall be treated as such with or without an official designation as such by the Utah Division of Water Quality.

“Class 1C ground water” is a source of ground water discharge important to the continued existence of wildlife habitat. Class 1C ground water shall be treated as such with or without an official designation as such by the Utah Division of Water Quality.

“Class II ground water has the following characteristics, total dissolved solids greater than 500 mg/l and less than 3,000 mg/l. and no contaminant concentrations that exceed the ground water quality standards listed in Table 1 of Utah Administrative Code R317-6-2. Class II ground water shall be treated as such with or without an official designation as such by the Utah Division of Water Quality.”

“Comparable Source” means a readily available ~~potential~~ alternative source or sources of water supply which has the same general quality and comparable cost, and is capable of reliably supplying water in quantities sufficient to meet the year-round needs of the users served by the ground water source.

“Sole Source Aquifer” has the following characteristics, supplies at least 50% of the drinking water consumed in the area overlying the aquifer, and which has no alternative drinking water source(s) which could physically, legally, and economically supply water to all who depend on the aquifer for drinking water. A sole source aquifer meeting this definition shall be treated as such with or without an official designation as such by the U.S. Environmental Protection Agency.”

“Private culinary water system” is privately owned by an individual(s) and shall be treated as such with or without an official designation as such by the Utah Division of Water Quality.

3-8-070 Waste facility inspections. Page 3-8-4

C. Add: A copy of the results of any inspections will be sent to the County Planning Department and the County Planning Commission.

Solid Waste Corridor Siting Restrictions Page 3-8-11

No new Solid Waste Corridor may be located within:

- a. Listed attractions: add: Mantua Reservoir

Page 3-8-12: Recommended changes.

The following changes are extremely important to Box Elder County because a significant portion of the water that Box Elder County relies on for culinary use falls within in the classification of Class II. Class IA and adding Class II water in the 3rd bullet below protects our primary and secondary recharge areas. Class II drinking water is as important to the areas that must rely on it as is Class IA to Box Elder County. It is important to provide the safeguard of ground water travel time because it's the makeup of the soils that determine permeability and not just distance.

- ~~One~~ Two miles from existing drinking water wells or springs used for drinking water or a distance equivalent to a 15-year ground water travel time distance from existing wells or springs used for drinking water, whichever is greater."
- ~~One~~ Two miles from any designated drinking water source protection zone.
- ~~One~~ Two miles from Ground Water meeting the classifications of Class IA, Class IB, and Class IC and Class II water.
- The Solid Waste Corridor will not be permitted: ~~in areas where:~~
 - ~~a- the depth to ground water is less than 500 feet where the ground water meets the classification of Class II areas, as defined in Utah Code R317-6-3; and~~
 - a. over a sole source aquifer
 - b. in areas where the depth to ground water is less than 100 feet where the ground water meets the classification of Class III areas, as defined in Utah Administrative Code R317-6-3
 - c. over a primary or secondary recharge area

3-8-11 Facility location criteria environmental assessment.

C. The environmental assessment shall include data and determination as to actual on-site conditions with emphasis in the following areas:

Add as # 8. Compliance with Solid Waste Zone siting criteria

***** Change the word Districts throughout the document to SWZ Areas .

