



State of Utah

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DIVISION OF WATER QUALITY  
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*Director*

November 30, 2018

Mr. Kent L. Jones, P.E.  
State Engineer  
Division of Water Rights  
1594 West North Temple, Suite 220  
PO Box 146300  
Salt Lake City, Utah 84114-6300

Subject: **Public Comment**  
Proposed Amendment to the 1995 Utah/Goshen Valley Groundwater Management Plan

Dear Mr. Jones,

The Utah Division of Water Quality (DWQ) appreciates the opportunity to comment on the proposed amendment to the 1995 *Utah/Goshen Valley Groundwater Management Plan*. The amendment proposes to replace Paragraph 5 of Section IV of the Plan with language presented in the public meeting conducted by the Utah Division of Water Rights (DWR) at Mapleton City Hall on November 1, 2018.

On May 31, 2002, the Ensign-Bickford Company submitted a *Revised Corrective Action Plan (CAP)* that included Institutional Controls (Sections 10.4.4 and 11.6) that referenced the 1995 *Utah/Goshen Valley Groundwater Management Plan* and the constraints in the Plan preventing the transfer of water rights into the "Restricted Area". The "Restricted Area" is demarcated as the area where groundwater has been impacted by historical explosives manufacturing chemicals and where ongoing efforts to remediate the groundwater plume are being conducted by Ensign-Bickford.

An *Addendum to Stipulation and Consent Order* (Docket Number GW 90-01-A) addressing the matter of the Ensign-Bickford groundwater plume and referencing the 2002 CAP was approved by the Utah Water Quality Board on January 30, 2007. On the same date, a *Consent Agreement*, also referencing the 2002 CAP, was signed settling a Natural Resources Damage Claim between the State of Utah and Ensign-Bickford and the prior owners and operators.

DWQ's primary concerns with amending the *Utah/Goshen Valley Groundwater Management Plan* are that the amended plan should remain protective of:

1. Public health and the environment;

2. The approved remedy and ongoing efforts of Ensign-Bickford (and the prior owners and operators) to remediate the groundwater plume; and,
3. Does not violate the terms of the 2007 *Addendum to Stipulation and Consent Order*, approved by the Utah Water Quality Board, or the 2007 *Consent Agreement* signed by the Natural Resources Damage Trustee for the State of Utah.

DWQ believes the most protective alternative to address these concerns is that the Plan remains unchanged. However, DWQ recognizes the issues and conflicts encountered by DWR in administering the Plan, and we believe the language presented in the November 1, 2018 public meeting would address these concerns and meet the intent of previous orders and agreements with the following suggestions:

1. The currently proposed amendment language redefines the “Restricted Area” to the area(s) “where the explosive compound commonly referred to as RDX is found in concentrations greater than 2 parts per billion (ppb)” presumably based on Ensign-Bickford’s Annual Reports. DWQ believes that the methodology utilized by Ensign-Bickford to define the “current” plume area is acceptable for monitoring and assessment purposes; however, there is some level of error and uncertainty in the mapping method. DWQ recommends that the “Restricted Area” be defined, and periodically redefined, by physical features (such as rivers or streams), streets or highways, and/or other political or surveyed boundaries (such as section lines). These demarcations should be located some distance from the mapped plume to allow for uncertainty. These boundary definitions will also be more readily observed in the field and clear to property owners.
2. DWQ believes that the chemical screening criteria for acceptable water use by individual water users may be site-specific based on the intended use and exposure scenarios (for example, drinking water, stock watering, or surface irrigation, etc.). However, unrestricted water use criteria may be established referencing Table 1 (below) from the 2007 *Addendum to Stipulation and Consent Order*.

**TABLE 1**

<b>Compound</b>	<b>Corrective Action Cleanup Level</b>
RDX*	2 ug/L
HMX	400 ug/L
PETN	52 ug/L
EGDN	52 ug/L
DEGDN	52 ug/L
TEGDN	52 ug/L
TMETN	52 ug/L
BTTN	52 ug/L
Total Nitrate Esters	52 ug/L
Nitrate-Nitrogen	10 mg/L
Dissolved Lead	0.015 mg/L

\* The figure of 2 ug/L (ug/L is equivalent to ppb) for RDX is the present cleanup level subject to modification by decision of the DWQ Director or the Utah Water Quality Board taking into consideration all relevant factors.

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November 28, 2018  
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If you have any questions regarding this letter, please contact me at (801) 536-4350 or [egaddis@utah.gov](mailto:egaddis@utah.gov).

Sincerely,



Erica Brown Gaddis, PhD  
Director

EBG/DJH/WJ/blj

cc: Craig Anderson, Utah Attorney General's Office, via email

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