



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 8**

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October 16, 2018

Ref: 8EPR-SR

Mr. George Jamison  
Vice Chair  
City-County Board of Health for Lincoln County  
418 Mineral Ave  
Libby, MT 59923

Re: Agency Responses to Comments on Draft Controlled Groundwater Area Petition Supporting Information, dated July 9, 2018

Dear Mr. Jamison:

The following are the U.S. Environmental Protection Agency (EPA), Montana Department of Environmental Quality (MDEQ) and International Paper (IP) responses to the City-County Board of Health for Lincoln County (BOH) comments on the *Draft Controlled Groundwater Area Petition Supporting Information, Libby Groundwater Site, Revision 2*, dated June 26, 2018 (draft CGA Petition). If you have any questions, or require further clarification, please do not hesitate to contact me.

The Agencies will now finalize the draft CGA Petition in preparation for submission to the Montana Department of Natural Resources and Conservation (DNRC). The Agencies appreciate the City-County Board of Health's (BOH) support in creating the draft CGA Petition and in protecting human health in Lincoln County. As discussed previously, the Agencies would like the BOH to be the petitioner for the proposed CGA. The Agencies request an official response regarding the BOH's willingness to sponsor the proposed CGA by November 13, 2018.

**BOH Comment No. 1:**

**MCA 85-2-506 (7) (a) allows for “a provision closing the controlled ground water area to further appropriation of ground water”. Can this be interpreted to apply to future withdrawals of groundwater from existing wells, not just a prohibition on new wells?**

**The Agencies and IP Response to BOH Comment No. 1:**

A person or entity holding a valid certificate of groundwater right for beneficial use (by adjudication prior to July 1, 1973 and by permit or Form 602 on or after July 1, 1973) is allowed to withdraw groundwater appropriated under the conditions of their water right and Montana water law. The Libby CGA will restrict new wells and appropriations of groundwater and increased appropriations from existing wells but will not revoke valid existing groundwater rights.

**BOH Comment No. 2:**

**Neither the existing City Ordinance prohibiting new wells (for human consumption or irrigation) nor the proposed CGA would prohibit use of wells existing prior to the ordinance or the CGA. How will these existing wells be identified and addressed?**

### The Agencies and IP Response to BOH Comment No. 2:

The majority of existing private wells in Libby were identified during the extensive well inventory that was conducted from 1981 through 1985 as part of early Libby Groundwater Site (“Site”) investigations. The well inventory focused on the area that is now within the proposed CGA boundary because it is the area that groundwater was most likely to be impacted. Each well identified was given a unique well identification number that begins with 1000 (e.g., well 1012). Since 1981, a total of approximately 100 wells have been identified in the proposed CGA area, and 46 of these wells were plugged and abandoned as part of the Site Buy Water/Well Programs from 1985 to date. Therefore, the Agencies and IP estimate that approximately 50 wells still exist in the proposed CGA area, located mostly outside the current extent of groundwater impacts, as shown in Figure 2 of the document. Not all these wells are confirmed to be actively used or associated with valid water rights.

Very few wells have been installed in Libby since the City ordinance restricting domestic/irrigation well installation was enacted in October 1986. Through State well and water rights records and anecdotal information, the Agencies and IP are aware of less than a dozen wells that have been installed in the proposed CGA since October 1986. These wells were installed primarily for landscape irrigation or heat pumps. A few domestic wells have been installed within the proposed CGA boundary since 1986, potentially for potable use. These wells are outside the City limits and were not subject to the well drilling restriction ordinance.

IP intends to reach out to the owners of the approximately 50 plus a dozen or less wells described above, through communication efforts that will be developed by IP and approved by the Agencies (e.g., mailings, public meetings, newspaper notices, etc.). IP will encourage residents with existing wells to use City water instead of water from their well (if the wells are associated with valid water rights and they are not already using City water) so that IP can plug and abandon their well similar to prior campaigns to limit domestic well use in Libby (see Section 2.1 of the Document). This outreach effort will also include existing well users that have not acquired water rights for their wells and wells associated with abandoned water rights.

The discussion above pertains to domestic and irrigation wells and excludes existing monitoring and remediation wells that were installed with approval by an appropriate regulatory agency.

### **BOH Comment No. 3:**

#### **What is the enforcement role to be provided by EPA and DEQ (page 2)?**

### The Agencies and IP Response to BOH Comment No. 3:

The Libby CGA will prohibit new groundwater appropriations for beneficial use through restrictions on permits or approvals before drilling occurs, or notifications of restrictions to drillers and restrictions on certification of appropriations of water after drilling has occurred.

Several procedures and processes will be in place that will encourage compliance with the proposed CGA well drilling restrictions and provide enforcement as described below:

- 1) In Montana, a person may only appropriate water for beneficial use and they must be granted a water right by DNRC to use the water, in accordance with requirements in MCA 85-2-301 to 306. A water right is obtained for a groundwater well by either applying for a permit prior to constructing the well (such as the case of withdrawals more than 35 gpm or 10 acre-feet a year), or by submitting a “Notice of Completion of Groundwater Development” (Form 602) and filing fee to DNRC within 60 days of installing and using the well (such as the case of withdrawals 35 gpm or less and not exceeding 10 acre-feet a year). DNRC would deny permits within the CGA,

or contact the well owner and inform him or her of the CGA use prohibition upon receipt of the notice.

In Montana, water wells must be drilled by a licensed water well contractor under the standards set forth in MCA Title 37, Chapter 43. This requirement is to protect the health and general welfare by providing a means for the development of groundwater in an orderly, sanitary, and reasonable manner. Drilling wells without a license is a violation of Montana law and is subject to enforcement through District Court proceedings.

Montana-licensed water well drillers in Lincoln County (and select surrounding counties) will be notified of the CGA boundaries and the prohibition to install wells for beneficial uses within the CGA. If a well is installed within an active CGA, the State may revoke the well driller's license to work in Montana. DNRC will not grant a water right for an unauthorized well.

- 2) Anyone who anticipates using more than 35 gallons a minute (gpm) or 10 acre-feet a year of groundwater is required to obtain a permit from DNRC to appropriate water before any development begins or water is used. DNRC would deny the permit before the well would be drilled if the well is within the boundaries of a CGA.
- 3) A person is not required to apply for a permit from DNRC to install a well with an anticipated use of 35 gallons a minute or less, not to exceed 10 acre-feet a year. In this case, licensed well drillers in the area will have been notified that they are not authorized to install the well in the CGA. Additionally, smaller appropriations that do not require approval before drilling must be documented in Form 602 "Notice of Completion of Groundwater Development" submitted to DNRC. A valid water right does not exist without this step. The CGA will prevent DNRC from certifying new appropriations in the CGA area.
- 4) The Agencies will be conducting a comprehensive review of the performance of the Site remedy (including the effectiveness of the CGA as an institutional control) at least every five years as part of the Five-Year Review process. These Five-Year Reviews will continue as long as there is Site-impacted media at the Site. If it becomes apparent that someone is using an unauthorized well inside the CGA, the Agencies will first encourage the well owner to use City water instead of their well. If the well owner refuses and causes an unacceptable risk to groundwater consumers or causes unacceptable contaminant plume movement, then the Agencies may initiate administrative or judicial enforcement proceedings to terminate use of the well.

**BOH Comment No. 4:**

**If the CGA is implemented, does the City have an obligation to continue the well ban in Ordinance 1353?**

The Agencies and IP Response to BOH Comment No. 4:

The City of Libby has an obligation to continue the well ban in Ordinance No. 1353 because it is part of the CERCLA remedy for OU1 of the Libby Groundwater Superfund Site. The City ordinance is independent of the CGA. If the CGA proves to be less successful than expected, then the City ordinance provides an independent line of protection against use of impacted groundwater.

**BOH Comment No. 5:**

**The details of the role of the BOH are not in this Support Information document, and need to be thoroughly understood.**

The Agencies and IP Response to BOH Comment No. 5:

The role of Lincoln County BOH is to sponsor the CGA (Section 1.2 of Document). By sponsoring the CGA, BOH demonstrates to the public that they view the CGA as important to protect their health and environment, in cooperation with efforts of State and federal regulatory agencies. The BOH would be involved in meetings with the Agencies at least every five years to discuss the performance of the CGA, implementation challenges/successes, or other issues identified (Section 5.5 of the Document). Also, BOH may direct questions from residents regarding groundwater restrictions to the appropriate agency representatives.

**BOH Comment No. 6:**

**Reasonable expectations for enforcing a ban on new wells assumes there is a detailed understanding of the presence and use of existing wells. Not comfortable with that understanding at this point.**

**The Agencies and IP Response to BOH Comment No. 6:**

The Agencies and IP have a good understanding of the number and location of existing and potentially active wells in the proposed CGA (see response to BOH Comment No. 2). For those wells with water rights and/or well records, the use of these wells is documented in State files; however, the Agencies and IP cannot always be certain if the well owner continues to use the well. Further identification of these potential well users and encouragement to transition to City water will continue as part of IP's public communications efforts, as approved by the Agencies. Reutilization of abandoned water rights or expansion of existing water rights will be prohibited by DNRC.

It is possible that not every single person using a well inside the CGA will discontinue well use and transition to City water, even after being informed of the potential risks. As in the past, the Agencies and IP will continue to work with these residents to encourage them to transition to City water. To provide another layer of protection, BOH could record a deed notice on properties inside the CGA to inform future property owners of the well use restrictions in the CGA and the City.

**BOH Comment No. 7:**

**It seems contradictory to conclude in the EPA five year reviews that the remedy is protective, but to be protective long-term there is a need to prohibit groundwater use in areas outside the City. This seems to fall silent on the potential existing well users, both now and in the future.**

**The Agencies and IP Response to BOH Comment No. 7:**

EPA Five-Year Review reports list remedies as protective in the short term if the remedy is functioning as intended and all human and ecological risks are currently under control and are anticipated to be under control in the future. However, long-term protectiveness requires implementation of and compliance with more comprehensive institutional controls for land and groundwater activity use restrictions at the Site.

Currently, the City ordinance in conjunction with the Buy Water/Well Plans has been effective in minimizing or eliminating the use of Site impacted groundwater (within the currently mapped groundwater plumes) for human consumption and irrigation. In addition, there were no known uses of Site impacted groundwater outside the City limits where groundwater use is not subject to the ordinance restrictions when the last (2015) Five-Year Review Report was prepared. Therefore, it was reasonable to conclude in the 2015 Five-Year Review that the remedy is currently protective. But for the remedy to be protective in the long-term, groundwater use restrictions are needed in portions of Lincoln County that are not subject to the City ordinance, as Site related impacts exist outside the City limits, in particular on the former mill property.

During preparation of the CGA petition, a domestic well impacted by low levels of Site chemicals of concern (COCs) was discovered. Also, we found that the City permitted a few irrigation wells inside the City limits (but outside the mapped extent of groundwater impacts) since the October 1986 ordinance went into effect. These occurrences corroborate the need for a CGA for long-term protection of human health and the environment, both outside the City limits and inside the City limits as an additional layer of protection beyond the City ordinance to provide reinforced and expanded institutional control coverage to limit human exposure risks.

**BOH Comment No. 8:**

**The Focused Feasibility Study should be considered as part of review of the proposed CGA implementation.**

The Agencies and IP Response to BOH Comment No. 8:

Per your request, EPA uploaded the *Final Report: Focused Feasibility Study for the Upper Aquifer*, April 25, 2018 to TriHydro Corporation's secure folder.

**BOH Comment No. 9:**

**Statement on page 9 claiming limited groundwater withdrawal in the vicinity of the Site does not acknowledge the possible presence of unknown existing wells.**

The Agencies and IP Response to BOH Comment No. 9:

The last bullet on page 9 of the Document, in Section 3.5 (Groundwater Recharge and Discharge) states the following:

- Limited pumping may occur from private wells in Libby. These wells are typically permitted at a continuous average rate of 0.5 gpm.

The statement above applies to the approximately 60 wells identified to date (shown on Figure 10 of the Document) that may or may not be in use, as well as to unknown existing wells. As discussed in the response to BOH Comment Nos. 2 and 7, the majority of existing wells within the proposed CGA have been identified, including wells that were not registered with the State, and additional public communication efforts are planned to identify if additional wells exist. Some wells may no longer be associated with a valid water right and could not be lawfully used to withdraw groundwater. If additional wells exist that are not shown on Figure 10, they were either incorrectly registered with the State or the State databases provide incorrect coordinates for those wells.

Regardless of the exact number of existing wells, the total average annual groundwater withdrawal rate would be on the order of 30 gpm (60 wells times 0.5 gpm), which is a limited groundwater withdrawal given the permeability of the Libby Upper Aquifer.

**BOH Comment No. 10:**

**Report claims that the criterion for establishing a CGA based on the groundwater not being suitable for beneficial use is true in its untreated state. However, a TI determination has not been made about the upper aquifer.**

The Agencies and IP Response to BOH Comment No. 10:

It is correct that the Agencies have not determined that remediation of the Upper Aquifer is technically impracticable (TI). The Agencies believe that there are other remediation approaches that will promote more expedient cleanup of the Upper Aquifer than is currently occurring. Thus, the Upper Aquifer Focused Feasibility Study was performed to identify such remediation approaches. However; as stated in Section 5.5 of the Document, even with active remediation (i.e., treatment) of the Upper Aquifer, it may

still take several decades to reach cleanup levels. The Upper Aquifer is not suitable for beneficial use until cleanup levels have been met; until such time that cleanup levels are met, the CGA is necessary to protect human health and the environment, as well as the remedy.

The Agencies have determined that remediation of the Lower Aquifer is technically impracticable, based on the demonstration that no existing remedial technology could reliably or feasibly attain the cleanup levels in the Lower Aquifer within a reasonable timeframe.

Therefore, neither the Upper or Lower Aquifer is currently suitable for beneficial use until groundwater cleanup levels established in the CERCLA decision documents are met (via active treatment for the Upper Aquifer and natural attenuation and flushing for the Lower Aquifer).

**BOH Comment No. 11:**

**What is the basis for claiming that the existing Libby supply is adequate for future needs, especially with the possibility of heavy industrial users in the future?**

**The Agencies and IP Response to BOH Comment No. 11:**

The statement that the existing Libby water supply is adequate for future needs is based on the Beneficial Water Use Permit issued December 28, 2012 and studies done in conjunction with that permit to ensure that the City of Libby had adequate water for future needs. As part of the permitting process, future needs were calculated for 2040 based on current use and assuming an average growth rate of 0.5% per year. The study determined that accounting for anticipated future usage, the City's Beneficial Water Use Permit still allowed for an additional 879 Acre-Feet of water use for municipal growth. In the Water Use Permit, the term "municipal" means that the water can be used for a variety of uses, including domestic, commercial, industrial and lawn and garden. In addition, the flow rate needed to supply anticipated use in 2040 was calculated for the existing pipeline to ensure the current system could handle projected future loads. Using the existing pipeline, a flow rate of 5.7 cubic feet per second would be needed to sustain the predicted future use. Given the design flow rate of 13.9 cubic feet per second, the distribution system is also well equipped to handle future loads. As a result, the current water right and the distribution system should be more than adequate to handle future development needs.

**BOH Comment No. 12:**

**Does the modeling account for a scenario for withdrawal of surface water from Libby Creek at the maximum permitted water rights rate?**

**The Agencies and IP Response to BOH Comment No. 12:**

No, the numerical groundwater flow model is not set up to account for surface water removal from Libby Creek because this scenario is not anticipated to have a measurable effect on groundwater flow. The surface water removed from Libby Creek will primarily reduce the flow that discharges to Kootenai River, and it will have a negligible effect on the stream-aquifer interaction.

The model estimates flow into the stream from the aquifer (for gaining stream reaches) and flow out of the stream into the aquifer (for losing stream reaches) based on several model parameter values: the hydraulic head in the stream (assumed to be the topographic surface elevation), the head in the Upper Aquifer (calculated in the model), and the riverbed conductance (selected based on material type and thickness of streambed deposits). A water rights diversion from the surface water will have negligible effect on the hydraulic head in the river, which influences the stream-aquifer interaction.

**BOH Comment No. 13:**

**The last paragraph on page 15 states that “If the CGA is approved, other actions will be taken by IP to enhance the success of the CGA.” It will be important to understand and memorialize these “other actions” in advance of approving the CGA.**

The Agencies and IP Response to BOH Comment No. 13:

The last sentence of the paragraph on page 15 was intended to provide the other actions to be taken by IP to enhance the success of the CGA, as follows:

*“Also, IP will offer to plug and abandon existing wells inside the CGA, similar to the Buy Well Program described in Section 2.1 to provide incentive to current potential groundwater users to discontinue use of their well.”*

IP will remove “Also” from the sentence above for clarification. The details of agreements that IP may reach with owners of existing groundwater rights are legal in nature and will be developed outside the CGA petition process.

**BOH Comment No. 14:**

**The concerns identified by the BOH in November 2017 included four elements: technical, the groundwater resource, separability of the Superfund Sites, and enforcement issues. It appears that the separability issue has recently been resolved, and good progress continues on technical matters. The remaining two areas of concern (reference earlier document) will need resolution.**

The Agencies and IP Response to BOH Comment No. 14:

The two remaining areas of concern (related to groundwater resources and enforcement) from the BOH November 2017 correspondence are provided below in boldface type, followed by the Agencies and IP response.

**BOH Concern: The Groundwater Resource**

**The CGA will eliminate the use of groundwater within its limits. While this prohibition is already largely addressed, a CGA is a more permanent and final action. As mentioned in the Spring of this year when the BOH role in a CGA was proposed by EPA, the BOH will be sensitive to questions related to the consequences of loss of the resource, especially related to water supply issues for the Port Authority and City of Libby.**

**BOH Suggestion: The Groundwater Resource**

**The BOH objective should be to have assurances that the imposition of the CGA will not adversely effect the resolution of this issue, i.e., the consequences of loss of the resource, especially related to water supply issues for the Port Authority and City of Libby. Those assurances would likely be expected from the Port Authority and the City of Libby.**

The Agencies and IP Response to the Groundwater Resource Concern/Suggestion:

BOH’s prior comment that “a CGA is a more permanent and final action” was addressed in the Document, Section 5.1. The Document states that “The boundaries or conditions of a permanent CGA may be modified or cancelled over time as deemed appropriate by the oversight Agencies and with the support of the CGA sponsor and approval of the MDNRC.”

The City of Libby utilizes Flower Creek for its municipal water supply. The CGA has no effect on the City’s use of surface water from Flower Creek. As noted in the response to BOH Comment No. 11, the City also has adequate capacity in its system to accommodate future growth of the City and also provide substantial water service to the former mill property now owned by the Port Authority. The Port Authority mill property is part of the Libby Groundwater Site and subject to existing deed restrictions

requiring accommodation of remediation efforts and cooperation with institutional controls such as the CGA. To the extent additional water supplies are required for Port Authority redevelopment, it can be obtained from the City of Libby municipal water system along the western boundary of the mill property. Additional water may also be available through appropriations from Libby Creek.

**BOH Concern: Enforcement Issues**

**The BOH will be concerned about the County’s responsibilities for enforcement. We recognize the need for effective monitoring of compliance and enforcement, but need to be assured that we have the resources to meet our obligations. A shared responsibility with DNR should be explored. There is also concern that in the absence of a well user inventory, the extent of illegal wells within currently regulated areas (City) is unknown. It would seem prudent to “be current” on existing prohibitions and enforcement within the proposed CGA prior to implementing a new restriction.**

**BOH Suggestion: Enforcement Issues**

**Consider a user inventory, and develop options for shared enforcement.**

The Agencies and IP’s Response to the Enforcement Concern/Suggestion:

BOH will have no enforcement responsibility for the CGA. BOH’s responsibilities related to the CGA are provided in the response to BOH comment no. 5.

The Agencies prefer to encourage compliance of the CGA well use restrictions through effective public communication and incentives provided by IP, rather than to rely on enforcement. The response to BOH Comment No. 3 provides procedures and processes that will encourage compliance with the proposed CGA. In Montana, compliance with water law is enforced through District Court proceedings. If needed, enforcement will be initiated by the Agencies.

The Agencies and IP have a good understanding on the number and location of potential private wells existing in the proposed CGA, as discussed in responses to BOH Comment Nos. 2 and 6. Public communication related to the CGA will be an ongoing and continual process that will be led by the Agencies and supported by IP. The BOH can support the CGA, too, by offering their sponsorship and providing a message to the public that they view the CGA as important to protect their health and environment.

Again, if you have any questions about our responses to comments or the CGA process, please do not hesitate to contact me at [schmidt.andrew@epa.gov](mailto:schmidt.andrew@epa.gov) or (303) 312-6283.

Sincerely,

A handwritten signature in blue ink that reads "A. Schmidt". The signature is stylized, with a large "A" and "S" and a smaller "Schmidt" written in a cursive-like font.

Andrew Schmidt, P.G.  
Remedial Project Manager  
Superfund Remedial Program

cc: Henry Elsen, EPA  
Stan Christensen, EPA  
Lisa DeWitt, MDEQ  
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