

Montana Department of Natural Resources and Conservation  
Water Resources Division  
Water Rights Bureau

**ENVIRONMENTAL ASSESSMENT**  
**For Routine Actions with Limited Environmental Impact**

**Part I. Proposed Action Description**

1. *Petitioner/Contact name and address:* Shawna Floyd for Batavia-Kienas Homeowners Association, 568 Batavia Lane, Kalispell, Montana 59901-7222.

2. *Type of action:* The Montana Department of Natural Resources and Conservation (DNRC) has received a petition to create a controlled ground water area (CGWA) in the Smith Valley area in Flathead County, approximately five miles southwest of Kalispell, Montana (file #30015063 – 76LJ).

DNRC must follow the statutory process and criteria in 85-2-506 through 85-2-508 MCA when reviewing a petition for a CGWA.

3. *Water source name:* Ground water

4. *Location affected by project:* The proposed area is located generally in Section 16, western half, south border is Hwy 2W; Sections 17, 18, 19; Sections 20, 21, 29, 30 and 31, southeast border is Hwy 2W, all in T28N, R22W, and Sections 13, 24, 25, and 36, T28N, R23W, Flathead County.

5. *Narrative summary of the proposed project, purpose, action to be taken, and benefits:*

The DNRC received a petition to designate a controlled ground water area within the Smith Valley area. The petition for controlled ground water area seeks a closure of all the aquifers under the ground and within the boundaries of the area. The petitioners requested the following corrective controls or provisions as part of their petition: 1) Closure of the identified area to further appropriation of ground water unless a permit is issued by DNRC with the exception for replacement wells. 2) Include a provision that depending on water availability the boundaries of the CGWA can be altered. 3) New ground water appropriators must obtain a license for drilling and testing purposes to allow data collection. 4) Lower yields and dropping static water levels experienced by water rights owners should be stabilized at current conditions. 5) During review of this petition, DNRC no longer accept water right applications or ground water completion notices within the proposed CGWA area. 6) Well drillers must obtain an "Application for Beneficial Water Use Permit form no. 600 prior to drilling within the proposed CGWA area. 7) If the petition is granted, that the petition is made retroactive to the date of the petition submission. 8) All aquifers within the CGWA boundaries are protected from the surface down.

In establishing a controlled ground water area, the Department has all of the corrective control provisions listed in § 85-2-507 MCA available to it.

An administrative hearing on the Smith Valley CGWA petition will be held to gather information and arguments supporting and opposing the petition. The notice of the hearing will be published in the local paper, and be mailed to area well drillers, landowners and ground water rights holders within the proposed CGWA boundaries, local governments, and state and federal agencies. The procedure will be full, fair and orderly, and all relevant evidence will be received.

After the conclusion of the hearing, DNRC will distribute a Proposal for Decision with findings of fact and conclusions of law. A final order will be issued and can be appealed to district court.

6. *Agencies consulted during preparation of the Environmental Assessment:  
(include agencies with overlapping jurisdiction)*

Montana Dept. of Environmental Quality  
State Historic Preservation Office  
Montana Natural Resource Information System  
Flathead County Commission Office  
Flathead County Planning Office  
Montana Dept. of Fish, Wildlife and Parks

## **Part II. Environmental Review**

### **1. Environmental Impact Checklist:**

<b>PHYSICAL ENVIRONMENT</b>
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#### **WATER QUANTITY, QUALITY AND DISTRIBUTION**

***Water quantity*** - Assess whether the source of supply is identified as a chronically or periodically dewatered stream by DFWP. Assess whether the proposed use will worsen the already dewatered condition.

*Determination:* Ground water has no designation as chronically or periodically dewatered. It is unknown if the ground water in the area is hydraulically connected to Ashley Creek or any of the other tributaries, which are listed as water quality impaired streams. Restrictions on ground water development may improve ground water recharge to surface water in the area if it occurred, but the nature of that interaction is unknown. DFWP lists Ashley Creek from Smith Lake to the confluence with Flathead River as impaired for some uses.

***Water quality*** - Assess whether the source is listed as water quality impaired or threatened by DEQ, and whether the proposed project will affect water quality.

*Determination:* Ground water in the area is identified as Class 1 for protection purposes. The main impact to water quality in the Smith Valley is septic effluent. Flathead County began permitting on-site water treatment systems in 1968. Prior to that, on-site wastewater treatment

systems were not required to meet any standards. Water quality effects that are related to septic effluent are most likely associated with these pre-1968 septic systems. In 1993, the State of Montana adopted minimum standards for on-site wastewater treatment systems that mandated all counties in Montana follow the minimum standards.

Effluent from septic systems, particularly pre-1968 systems, containing nitrates and pathogenic microorganisms can infiltrate ground water and reach water supply wells. Elevated levels of nitrates in drinking water can cause various health effects including a serious illness in infants known as “blue baby syndrome”. Microbial contaminants including fecal coliform, E coli, and cryptosporidium may cause gastrointestinal problems that can be particularly serious in infants and people with compromised immune systems. The U.S. Environmental Protection Agency has designated a Maximum Contaminant Level (MCL) of 10 mg/L nitrate (as N) and any occurrence of microbial contaminants as thresholds that must not be exceeded in water from public water systems.

The amount of nitrate released to the environment from a septic system depends on the composition of the wastewater and the design of the septic tank and drain field. In the Smith Valley area, one of the main mitigations to septic effluent is by two mechanisms; dilution by using adequate quantities of receiving water and denitrification, a process that uses organic carbon to convert nitrate to nitrogen gas. Both mechanisms can lower nitrate concentrations in ground water. If the CGWA is granted, it may serve to decrease ground water withdrawals at specific points and may serve to preserve ground water quality by providing site-specific or area wide dilution.

***Ground water*** - Assess if the proposed project impacts ground water quality or supply. If this is a ground water appropriation, assess if it could impact adjacent surface water flows.

*Determination:* Wells within the boundary of the proposed controlled ground water area mainly obtain water from Precambrian bedrock (Lower Belt group) along the glaciated valley of Ashley Creek.<sup>i</sup> Small deposits of alluvium exist along the margins of Ashley Creek and there is evidence of some water bearing paleo-channels within the glacial till that over lays the bedrock. Well logs, obtained from the Montana Bureau Of Mines, Ground water Information Center (GWIC) indicate that the average depth of wells in this area is 302 ft. with an average yield of 22 gpm. The deepest well is 1,197 ft. and the minimum depth is 12 ft. There are 338 wells reported by GWIC to have been drilled in and immediately adjacent to the proposed area and 328 are reported as being capable of producing water and 10 wells that either no yield is reported or they are dry holes.<sup>ii</sup>

The nature of the ground water recharge was not characterized in the petition and it is unknown at this time. The main sources of recharge to ground water within the proposed controlled ground water area appears to be infiltration from rainfall-snow melt events in the Salish Mountains to the west and south of the proposed area. It is also assumed that there may be a minimal amount of recharge from the small surface water tributaries to Ashley Creek, possibly some minor return flows from flood irrigation, and unknown but expected infiltration recharge from septic effluent. Ground water discharges down gradient from the CGWA are unknown.

Designation of a controlled ground water area may not limit water use, but could place some limitations on ground water withdrawals within the CGWA.

## **UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES**

***Endangered and threatened species*** - Assess whether the proposed project will impact any threatened or endangered fish, wildlife, plants or aquatic species or any "species of special concern," or create a barrier to the migration or movement of fish or wildlife. For ground water, assess whether the proposed project, including impacts on adjacent surface flows, would impact any threatened or endangered species or "species of special concern."

*Determination:* A search of Montana's Natural Resource Information System (NRIS), Element Occurrence database for the status and occurrence of species of concern revealed that in a 10,000 acre area in and around the proposed CGWA, there may be occurrences of one threatened animal species, Lynx, and two threatened plant species Sweet Flag and Small-winged sedge. These species would not be directly affected by the creation of a CGWA. It is important to note that the NRIS on-line database is intended for information and general planning purposes rather than regulatory decision-making.

***Wetlands*** - Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted.

*Determination:* A search of the NRIS National Wetlands Inventory in the 10,000 acres in and around the proposed CGWA revealed approximately 1000 acres of Palustrine, emergent semi permanently and seasonally flooded wetland acres. The majority of these acres are associated with Smith Lake, which is not in the proposed CGWA. Any functional wetlands that exist in the proposed CGWA would not likely be affected by an action on a controlled ground water area petition.

***Ponds*** - For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.

*Determination:* There are a limited number of both private and naturally occurring ponds that exist within the proposed CGWA that generally support their wildlife, waterfowl, and fisheries uses. Requiring applicants to apply for a license to drill and obtaining a permit to appropriate the water for a potential well for use to supply water for ponds could be an inconvenience but is not a significant impact. There are other significant pond and open water areas in the Flathead Valley that provide alternatives to private ponds in this area.

***GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE*** - Assess whether there will be degradation of soil quality, alteration of soil stability, or moisture content. Assess whether the soils are heavy in salts that could cause saline seep.

*Determination:* There are no impacts that were identified.

***VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS*** - Assess impacts to existing vegetative cover. Assess whether the proposed project would result in the establishment or spread of noxious weeds.

*Determination:* The NRIS, Weed Presence Summary revealed that there is a presence of Leafy Spurge and Spotted Knapweed in the area in and around the proposed CGWA. No impacts were identified that the action on the petition would create.

**AIR QUALITY** - *Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.*

*Determination:* There were no impacts to air quality that were identified.

**HISTORICAL AND ARCHEOLOGICAL SITES** - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project.*

*Determination:* There are recorded historic and archaeological sites within the proposed CGWA. The action on the petition will not cause any ground disturbances directly. Any potential well drilling activity for study purposes would include a cultural resource inventory to identify specific sites.

**DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY** - *Assess any other impacts on environmental resources of land, water and energy not already addressed.*

*Determination:* No impacts identified.

## HUMAN ENVIRONMENT

**LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS** - *Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.*

*Determination:* There has been no zoning established in the Smith Valley area. Any planned subdivisions that have or have not received preliminary plat approval from the Flathead County Commission are at various stages of applying for subdivision approval from the Montana Dept. of Environmental Quality. This would indicate that the area is perceived as appropriate for development from the county's perspective. Potential controls on any ground water developments could change that perception depending on the county's stance on the use of individual wells vs. community systems.

**ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES** - *Assess whether the proposed project will impact access to or the quality of recreational and wilderness activities.*

*Determination:* No impacts identified.

**HUMAN HEALTH** - *Assess whether the proposed project impacts on human health.*

*Determination:* Any controls established would be driven in part by the need for a sustainable and protectable water supply from the ground water source in the area, which is directly linked to the support of human health of the area residents. The petition does not restrict new wells but

rather to limit adverse effect to water quantity. It is unlikely that any action on the petition will affect human health.

**PRIVATE PROPERTY** - *Assess whether there are any government regulatory impacts on private property rights. If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.*

*Determination:* If granted, this petition will affect persons with private property that wish to drill wells and obtain a water right. Currently, statute allows an individual to drill a well that will pump less than 35 gpm and less than 10 acre-feet file on the well. Within 60 days after using the well, the well owner files a Notice of Completion of Ground Water Development. The current filing fee is \$50.00. If the CGWA is established, ground water an individual may be required to first obtain a license to drill from the DNRC or comply with some or all of the corrective control measures in § 85-2-507 MCA.

The granting of the petition may cause the well owner to obtain a water right by applying for a permit prior to drilling or using a well. The average time to process a permit is 210 days and the filing fee is currently \$400. In addition, the property owner may need to spend extra time, and extra expense to hire technical persons to conduct the aquifer tests and consultants to analyze the data.

The current requirements would remain in effect if the petition were denied.

**OTHER HUMAN ENVIRONMENTAL ISSUES** - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion. Impacts on:*

- (a) Cultural uniqueness and diversity? No significant impact identified.
- (b) Local and state tax base and tax revenues? Currently, the area is perceived as appropriate for development from the counties and local landowners perspective. Potential controls on any ground water developments could change that perception depending on the counties, potential land buyers, real estate agents or land brokers attitude on the use of and cost for individual wells vs. community systems and the cost of individual wells in other areas of the Flathead Valley. If there is a perception that a CGWA changes current land use allowances, it may affect the local tax base by altering property values and the taxable value.
- (c) Existing land uses? Land use changes from agricultural to residential development in the CGWA could be reduced in the short-term (2-to-4 years) because access to ground water for new appropriations may be restricted. Water rights for wells for individual homes may take longer to obtain and may be more costly, therefore, builders may seek to construct new homes elsewhere. The designation of a CGWA could result in an indirect impact of decreased land use changes and increased well drilling and home construction in areas outside of the CGWA boundaries.
- (d) Quantity and distribution of employment? There may be an indirect impact to the local construction businesses in that designation of a CGWA may move opportunities to areas outside the CGWA. No countywide impacts were identified.

- (e) Distribution and density of population and housing? The Smith Valley appears to be an area of growth and which will likely continue. Ground water development via wells greater than 35 gpm may be limited, more expensive, and more time consuming and therefore, may restrict growth within the proposed CGWA boundaries and decrease density. Designation of a CGWA may also cause population to increase elsewhere in the county.
- (f) Demands for government services? Designation of a CGWA may increase the workload of various agencies. The DNRC may experience an increase in information requests, well drilling licenses and permit filings

The local and state DEQ and the Flathead County Planning Board County Commissioners offices may be affected by alternative development requests.

- (g) Industrial and commercial activity? Under the proposed closure, industrial and commercial developments that require large water supplies, would continue to follow the current process to obtain a permit before using water so there would be no impact. Smaller industrial or commercial activity located within the proposed CGWA boundaries that require less than 35 gpm or 10 acre-feet, may be impacted by the same cost and time constraints stated above in the Private Property impacts section. A decrease in private property development may also impact the development of commercial enterprises associated with housing developments such as grocery stores, convenience stores, and gas stations.
- (h) Utilities? No significant impacts identified.
- (i) Transportation? No significant impacts identified
- (j) Safety? No significant impacts identified.
- (k) Other appropriate social and economic circumstances? If a CGWA is granted, local and area well drillers may need to take on additional responsibility to inform potential well owners of the requirements of the closure and may need to obtain, or assist owners in obtaining, a license to drill, before proceeding with well construction. This would be a new requirement that well drillers may need to seek additional education to implement. The costs incurred ground water to drill a well may reduce the number of wells drilled in the CGWA and thus may affect the economics of local well drillers. To the extent there is an impact on commercial enterprises from a CGWA, there may be an impact on the local job market.

2. ***Secondary and cumulative impacts on the physical environment and human population:***

Establishment of controls within the proposed area may have affects on property values and cause-increased development to occur in other areas sooner than planned. If wells with a use of 35 gpm or less require a permit, there may be a reduction in individual wells drilled and an increase in wells that serve more than one or two individuals. Developing

larger multi-family wells in areas of lower well development or higher yield areas and developing community water systems, may have an secondary beneficial impact of reducing adverse impacts to the existing water users quantity of water at their point of diversion.

If a controlled ground water area is established with controls and provisions, the area well drillers, developers, landowners and permitting agencies may have to expend resources to become knowledgeable of the restrictions or limits within the CGWA.

3. ***Describe any mitigation/stipulation measures:***

Taking into consideration the alternatives described below could mitigate some potential impacts of a CGWA designation.

4. ***Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:***

*No action alternative:* Persons would continue to apply for water use permits under the current statutory application process and be scrutinized on an individual basis. Individual well users of up to 35 gpm or 10 acre-feet per year would continue to file on wells after the well is drilled and put to beneficial use. Small wells developed in fractured bedrock that interfere with existing wells may not be determined until a residence has been established, development costs expended, and the full amount of water used. All water users would be under the current protection of the law which requires a person to have knowledge of their current and past ground water source and their water right priority date, and would be required to make use of the prior appropriation doctrine and make "call" to enforce their use if adverse affect from new wells occur. If adverse effect occurs, it is typically more difficult to get a junior water user to limit water use once a development has been established.

*Preferred Alternative:* Hold a hearing on the creation of a CGWA. The hearing would allow public input and would establish a record of evidence on which a hearings examiner would make a decision. The final decision may establish a permanent closure, deny the petition, or establish a temporary controlled ground water area.

*Ground water Study Alternative:* The petitioners could conduct a ground water study ground water to characterize and quantify the availability of ground water for appropriation and potential adverse impacts to current water users, and to characterize the nature and extent of changes in ground water quality. The area would not be closed to ground water development. The petitioners could analyze the data and determine whether to submit a new petition.

**PART III. Conclusion**

Based on the significance criteria evaluated in this EA, is an EIS required? Yes \_\_\_ No **X**



*If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action:* Any action taken through the establishment of a controlled ground water area would be administrative in extent with no physical action being directly involved. No significant environmental impacts have been identified.

DNRC has determined that this EA is the appropriate level of environmental review for the Smith Valley CGWA petition because the proposal in the petition and the alternatives presented in this EA would not significantly affect the quality of the human environment.

*Name of person(s) responsible for preparation of EA:*

*Name:* Kurt Hafferman

*Title:* Regional Manager

*Date:* June 13, 2005

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<sup>i</sup> Roadside Geology of Montana, Alt and Hyndman, 1991, page 83

<sup>ii</sup> Montana Bureau of Mines and Geology, GWIC, Montana Tech of the U of M, 1300 West Park St – Main Hall 322, Butte Montana, Section, Township and Range research at <http://mbmaggwic.mtech.edu>