Small Domestic Household Water Right Exceptions: Recommendations for the CSKT Water Compact Negotiation

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Prepared in support of the CSKT Water Compact Negotiation

The Water Resources Division encourages the ratification of water right exceptions for small domestic household-use as part of the Confederated Salish and Kootenai Tribe's (CSKT) water right compact. In support of this proposed exception, I define household and itemize the primary functions that a well should serve, offering quantifications of the minimum volume and flow rate needed to supply those primary functions. My calculations are designed to ensure an adequate supply and recommend maximum values and thus err on the side of over-estimating water requirements and under-estimating efficiency. I also describe and recommend terminology associated with the proposed exception in efforts to restrict the exemption to small household domestic wells and exclude ponds, pits, reservoirs, and other unintended appropriations.

Exceptions refer to water appropriations that are formally recognized as water rights, but attainable under expedited means in relation to standard permitting processes. In areas governed by the Montana Water Use Act, appropriators seeking groundwater developments with flow rates and total volumes less than 35 gallons per minute (GPM) and 10 acre-feet (AF) per year are allowed to file a *Notice of Completion of Groundwater Development* by filing form 602 (Appendix A) and paying a fee. The form requires information that allows the DNRC to approximate diverted volumes and flow rates and ensure the appropriation meets the permit exception criteria. The requisite rigor and detail of information required through the standard water right permitting process is substantially more than that required by a 602 exception. Public notice is not required for 602 exceptions and there is no allowance for objections. Non excepted authorizations must be obtained before putting water to use. The 602 exception allows the user to put the water to use before obtaining the water right, thereby dramatically reducing timing complications.

Volume and Flow Rate Methods:

Household wells have many functions and uses, but two elements are paramount to establishing the annual flow rate and volume required: domestic-use and lawn and garden. Each element has an associated diverted volume and flow rate. The total annual *diverted volume* is the sum of consumed and return-flow volumes. *Consumed volume* is the annual amount of water used for a beneficial purpose, such as water transpired by growing vegetation, evaporated from soils or water surfaces, or incorporated into products that

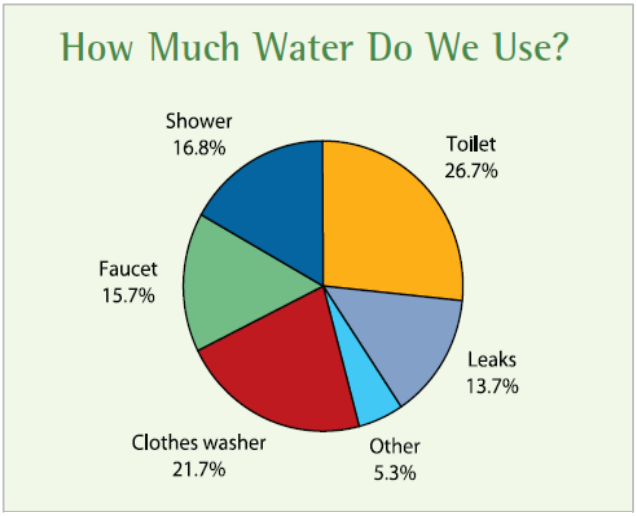

Figure 1: in-house water use (EPA, 2008; AWWARF, 2999)

does not return to ground or surface water, while *return-flow* is water that is diverted but not consumed to the source and instead does eventually return to ground or surface water.

Domestic uses (in-house) include but are not limited to the use of showers, toilets, faucets, clothes washers, and other; leaks make up a significant portion of the average use (Figure 1). On average, in-house use is 187.5 gallons per house per day (Kimsey and Flood, 1987), which is 684,375 gallons or 0.21 AF per year (Levens et al., 2008); the calculation is based on the U.S. average of 2.5 people per household. More specifically, the average person uses 59.8 gallons per day (AWWARF, 1999), which equates to 21,827 gallons or 0.067 AF per year.

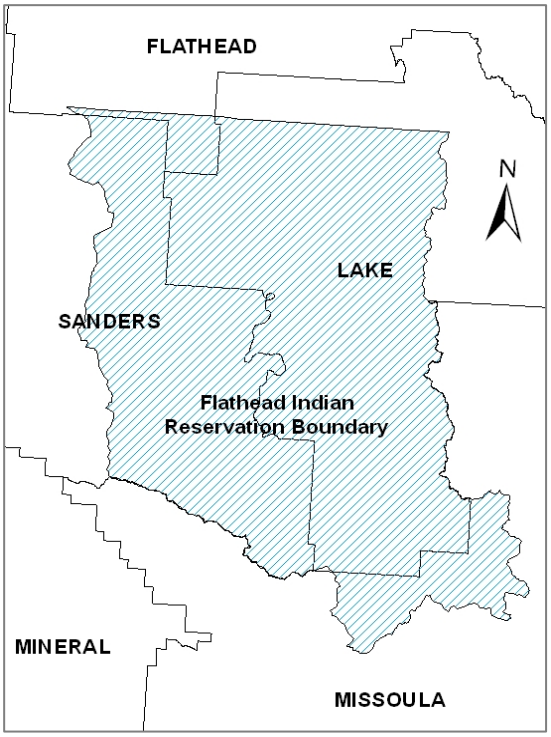

Figure 2: Flathead Indian Reservation/county boundaries

I used census information for Lake and Sanders Counties (Figure 2) to estimate an appropriate number of people per household for purposes of quantifying total in-house use (Table 1). The average household size is approximately 2.4 people per household, but I choose to use volumes necessary for a five-person household as 97% of all households contain five people or less. Accordingly, a five-person household uses approximately 0.33 AF (5 x 0.067) of water per year and by applying a 33 percent overage for purposes of addressing non-typical home uses, I estimate that 0.5 AF per year is more than sufficient for supplying the vast majority of individual households (Table 4).

Table 1: Number of People Per Household
Sanders and Lake Counties, Montana

Persons Per House	1	2	3	4	5	6	>7	Total Households
Sanders Co	1,176	1,768	527	450	248	70	37	4,276
Lake Co	2,952	5,944	1,921	1,269	668	245	186	13,185
Combined	4,128	7,712	2,448	1,719	916	315	223	17,461
Total Houses with five people or less per house							16,923	97%
Total Houses with six people or more per house							538	3%

(U.S. Census Bureau, 2010)

Of the total domestic water use, only a fraction is consumed to the system; the rest returns to aquifers and surface water through water treatment systems as return flow. Municipal systems

typically consume 2 percent of the total diverted domestic volume (Kinsey and Flood, 1987), while septic system typically consume 12 percent of the total diverted household volume (Vanslyke and Simpson, 1974). For this quantification, I chose to use the 12 percent consumption value based on the septic systems so as to prevent underestimation of the total consumptive volumes associated with domestic use. Applying the 12 percent consumption rate equates to an annual consumption of 0.06 AF per year (Table 4).

Flow rate maximums are typically established by a combination of pump size and the distance and elevation change between the source and the place of use; an efficient system uses the smallest pump required to simultaneously overcome conveyance resistance while still providing the maximum flow rate required for the use. For maximum domestic flow rate requirements I reference a seven-minute peak demand (Table 2). Most of the houses in Lake and Sanders Counties have 2.5 or less bathrooms. Accordingly, I choose to use 14 GPM as this amount accommodates the seven-minute peak demand for a 2 to 2.5 bathroom house.

Table 2: Seven-minute In-house Peak Demand Period

OUTLETS	FLOW RATE GPM	TOTAL USAGE GALLONS	BATHROOMS IN HOME 1	1 1/2	2 - 2 1/2	3 - 4
Shower or Bath Tub	5	35	35	35	53	70
Lavatory	4	2	2	4	6	8
Toilet	4	5	5	10	15	20
Kitchen Sink	5	3	3	3	3	3
Automatic Washer	5	35	–	18	18	18
Dishwasher	2	14	–	–	3	3
Normal seven-minute *peak demand (gallons)			45	70	98	122
Minimum sized pump required to meet peak demand without supplemental supply			7 GPM (420 GPH)	10 GPM (600 GPH)	14 GPM (840 GPH)	17 GPM (1020 GPH)

Note: Values given are average and do not include higher or lower extremes

*Peak demand can occur several times during morning and evening hours.

(WSC, 2003)

Lawn and Garden typically represents the largest volume of water used by a household. Of particular difficulty in making a recommendation, is the highly subjective determination of an adequate or appropriate lawn size. Advocates of water conservation often urge xeriscaped lawns, while a lawn enthusiast may desire four acres of mowed and irrigated grass surrounding their home.

To determine a reasonable maximum yard size, I looked to recommendations from wildland fire prevention experts. A review of wildland fire urban-interface case studies reveals a 90 percent structure survival during wildfire for homes with nonflammable roofs when a 66-foot vegetation clearance is present (Cohen, 2000). While a 66-foot buffer sized lawn is not the only way to increase home structure survival during wildfire, it is perhaps the most common method employed in the U.S. Accordingly, I applied the 66-foot buffer for irrigable yard area calculations, affording the option of a lawn size that accommodates this *firewise* zone recommendation. Yards larger than this standard are not as practicably justified as essential to a household, and should instead rely on non-excepted water right acquisitions.

To integrate the buffer recommendation I first determined the average square footage of a U.S. home to be approximately 2,350 square feet and assumed that half of that number (first floor) in addition to a two car garage would constitute a reasonable average home footprint. I then generated a three dimensional model of said house and applied a 66-foot buffer to the home for means of calculating the associated firewise lawn around the home, thus giving an area of 0.7 acres (Figure 3).

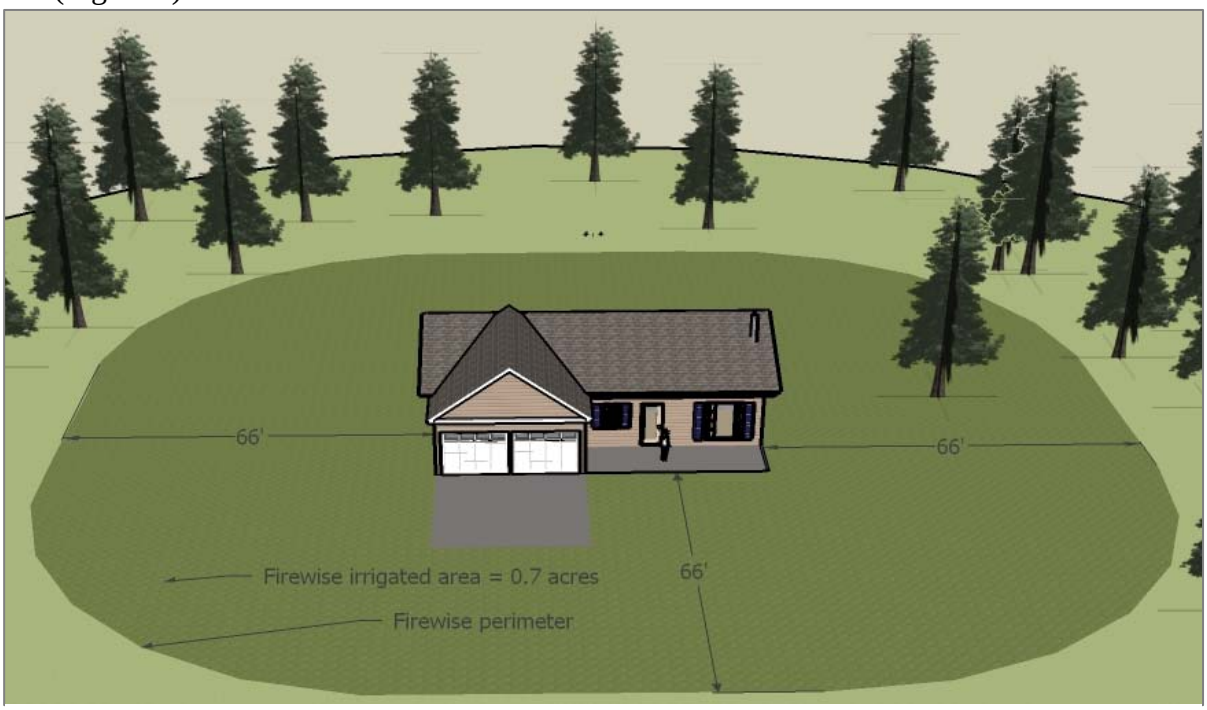

Figure 3: Firewise yard 66-foot boundary equates to 0.7 acres for a typical home.

I based annual lawn and garden volume estimates on irrigation water requirements of alfalfa during dry years. I used 1.75 AF/acre (21 inches) as a net irrigation rate for alfalfa as predicted by the NRCS Irrigation Water Requirements software using weather data from the Polson Weather Station (Appendix B). The consumption rate, when applied to a 0.7-acre firewise yard, rounds up to an annual 1.30 AF total. Typical lawn and garden application efficiency likely lies somewhere between periodic move gun type sprinklers and fixed laterals; which range between 50 to 75 percent in efficiency (Table 3). I applied a 65 percent efficiency standard, ten

Table 3: Sprinkler Application Efficiency Values by Type

Type	Ea (%)
Periodic move lateral	60 – 75
Periodic move gun type or boom sprinklers	50 – 60
Fixed laterals (solid set)	60 – 75
Traveling sprinklers (gun type or boom)	55 – 65
Center pivot - standard	75 – 85
Linear (lateral) move	80 – 87
LEPA - center pivot and linear move	90 – 95

(NRCS, 1997)

percent of which is lost to evaporation (consumptive) and 25 percent of which bypasses the root system and eventually becomes return flow (diverted but not consumed). Factoring in the efficiency yields a total diverted annual volume of approximately 1.9 AF and a total consumed annual volume of 1.4 AF for a 0.7-acre firewise yard (Table 4).

Volume and Flow Rate Results:

I combined in-house and lawn and garden diverted and consumed annual volumes (Table 4). These values are assumed to include all typical purposes required for a household. The total diverted 2.4 AF maximum volume threshold constitutes a 76% reduction from the current State of Montana 602 standard of 10 AF. Although not specifically listed in the table, the amount is intended to include purposes in addition to domestic and lawn and garden, so long as the total annual consumed volume does not exceed 2.40.

Table 4: Annual Diverted and Consumed Water Volume Estimates		**AF Per Year**		
		Household	**Irrigation**	**Total**
Five-person household with 0.7-acre firewise lawn	Diversions	0.50	1.9	2.4
	Consumption	0.06	1.4	1.5

An adequate max flow rate should include peak simultaneous uses of all requisite diverted volumes per unit time, inclusive of overage for situations where oversized pumps are utilized. It needs to be noted, that maximum flow rates are the exception rather than the norm. Max flow rates are not consistent, and only at maximum withdraw, will a small household system achieve this value.

My max flow rate calculations showed a clear need for irrigation zoning, should an applicant decide to develop the entire 0.7-acre lawn. In fact, when combined with total maximum in-house flow rate requirements, my calculations exceed the current State of Montana standard of 35 GPM. As a result, I recommend that the exception not provide for all possible simultaneous uses, but instead apply the expectation that when running one of the four-hour irrigation sets, in-house flow rates be limited, therefore, I recommend using 35 GPM as a maximum flow rate for this exception.

Table 5: Maximum Flow Rate Calculations for 0.7 Acre Firewise Lawn and Five-person Household with Three Zones

IWR Rate (AF/Acre)	Irrigated Acres	IWR + Efficiency Total (AF)	IWR + Efficiency Total (gal)	Hours	Zones	Flow Rate Irrigation (GPM)	Flow Rate In-House (GPM)	Flow Rate Total (GPM)
0.083	0.7	0.058	18932	4	1	78.88	14	92.88
0.083	0.35	0.029	9466	4	2	39.44	14	53.44
0.083	0.24	0.020	6491	4	3	27.05	14	41.05

Terminology and design:

Household, in this case, means the dwelling, house, or other domestic facilities where an individual, family or social unit lives. I recommend this exception excludes commercial facilities and other buildings that are not dwellings. I recommend this exception require a connection to a household and allows for one and only one connection.

Flow Rate is a measurement of the rate at which water flows or is diverted, impounded, or withdrawn from the source of supply for beneficial use, and commonly measured in cubic feet per second (CFS) or gallons per minute (GPM). *Diverted volume* is total amount of diverted volume, including both the consumptive volume and return flow. Volumes are expressed as either gallons (gal) or acre-feed (AF). I recommend using the diverted volume and flow rates as the maximum volume for this type of exception (2.4 AF and 35 GPM).

MCA 85-2-102(29) defines *well* to mean any artificial opening or excavation in the ground, however made, by which ground water is sought or can be obtained or through which it flows under natural pressures or is artificially withdrawn. This broad definition is the one used when implementing MCA 85-2-306(3) *Notice of Completion of Groundwater Development* exceptions. The exception statute, in conjunction with the well definition allows for ponds, pits, excavations, and reservoirs to be developed so long as they meet the other criteria requirements.

In Montana, licensed well drillers operate under a separate definition of the term *water well* as per MCA 37-43-102(7):

> *(a) "Water well" means an excavation that is drilled, cored, bored, washed, driven, dug, jetted, or otherwise constructed and intended for the location, diversion, artificial recharge, or acquisition of ground water.*
> *(b) The term does not include:*
> *(i) spring development or excavations, by backhoe or otherwise, for recovery and use of surface waters or for the purpose of stock watering or irrigation when the depth is 25 feet or less; or*
> *(ii) an excavation made for the purpose of obtaining or prospecting for oil, natural gas, minerals, or products of mining or quarrying or for inserting media to repressure oil- or natural-gas-bearing formations or for storing petroleum, natural gas, or other product*

The MCA 37-43-102(7) definition is narrower than MCA 85-2-102(29) used for the *Notice of Completion of Groundwater Development* and specifically excludes excavations. I recommend using this definition, or one similar, which will limit the exception to household use.

Well casings are steel or plastic pipes which serve as the lining of a well, preventing it from caving in and protecting groundwater from contamination by surface water. *Well casing head* is a heavy, flanged steel fitting connected to the first string of casing. I suggest adding both requirements to exemptions, as it will further restrict exemptions to households and add the benefit of protecting groundwater resources from contaminants.

Summary Recommendations:

Establishing a limited household exception on the Flathead Indian Reservation will allow small water users to legally develop water systems that enable basic living functions without having to undergo the expense and time restriction of applying for and obtaining a standard water right authorization. To mandate standard water right acquisitions for these small domestic uses puts a disproportionately large burden on the applicant for what amounts to a relatively small volume of water as compared to other uses. Allocating water management staff to process standard water right acquisition requests for these small domestic uses will detract time which should be spent on more substantial resource management issues.

The exception should allow for up to but not exceeding 2.4 AF diverted volume per year and a 35 GPM flow rate. These values are maximums. The limitation greatly reduces the likelihood of adversely affecting senior water right holders. The flow rate, in particular, will only reach 35 gpm at maximum-use and cannot be sustained long-term as the volume maximum is limiting.

To achieve maximum build-out of a 0.7-acre firewise lawn, an appropriator will need to zone lawn irrigation and stagger application and in-home use. I recommend that the exception include limited stock, fish, wildlife, and other uses associated with household domestic, so long as the maximum flow rate and volumes are not exceeded.

The definition of the term well should approximate MCA 37-43-102(7), thereby limiting the exception and excluding ponds, pits, excavations, and reservoirs. The exception should mandate well shaft casings and well head casings, but allow developed springs. The exception should mandate the well be connected to one and only one household. The exceptions should accommodate controlled groundwater area management restrictions as they exist at the time of the compact agreement and allow for future changes, by the Unitary Management Board or otherwise named governing entity, as controlled groundwater area boundaries and specific regulations change to reflect future conditions.

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Appendix A:

Form No. 602 R 4/21/2009

NOTICE OF COMPLETION OF GROUNDWATER DEVELOPMENT

Use this form for completed groundwater developments where the water has been put to use for the purposes identified with a maximum use of 35 GPM not to exceed 10 AC-FT per year.

Incomplete forms will be returned.

Filing Fee $125.00

FOR DEPARTMENT USE ONLY

Notice No. _____ Basin _____
Priority Date _____ Time _____AM - PM
Rec'd By _____
Fee Rec'd $ _____ Check No. _____
Deposit Receipt # _____
Payor (if different from name(s) listed in item 1 below)
_____
Refund $ _____ Date _____
Deficiency Letter Sent _____

⇨ Your priority is determined by the date of filing. If it is determined this form was improperly filed, your priority date may be changed.
⇨ If your development is within a Controlled Ground Water Area, the regional office will contact you to explain the correct filing requirements.

1. **NAME** _____
MAILING ADDRESS _____
CITY _____ **STATE** _____ **ZIP** _____
WORK PHONE _____ **HOME PHONE** _____ **CELL PHONE** _____

2. **DIVERSION USED TO OBTAIN GROUNDWATER**
☐ Well – Attach well log, if available Water Well Contractor Name: _____
☐ Developed Spring (Excavation performed at the spring location.)
☐ Pit/Pond – Surface Area _____ Acres _____Depth

3. **FLOW RATE USED** _____GPM

4. **COMBINATION OR SHARED DEVELOPMENT**
a. Will this development be used in combination with another well or spring? ☐ Yes ☐ No
b. Will this development be shared by other users? ☐ Yes ☐ No
If yes for either question, list the water right numbers and explain how the development is used. _____

5. **PURPOSE AND PERIOD OF USE**

Domestic	Number of homes supplied _____ Year round use? ☐ Yes ☐ No If no, from _____ to _____, inclusive of each year.
Lawn & Garden	Total Size of lawn and/or garden - length x width _____ April 1 – October 31 ☐ Yes ☐ No If no, from _____ to _____, inclusive of each year.
Irrigation	Type of crop _____ Total Crop Acres Irrigated _____ April 1 – October 31 ☐ Yes ☐ No If no, from _____ to _____, inclusive of each year.
Stock (Example: 100 Cows & 1 Horse)	Number and type _____ Year round use? ☐ Yes ☐ No If no, from _____ to _____, inclusive of each year.
Other	Describe the purpose of the use _____ Amount of water used _____ gallons per day Number of days used _____ Year round use? ☐ Yes ☐ No If no, from _____ to _____, inclusive of each year.

6. **POINT OF DIVERSION –** Location of Ground water Development
_____1/4 _____1/4 _____1/4 Section _____ Twp _____N / S Rge _____E /W County _____
Lot _____ Block _____Tract No. _____ Subdivision Name _____
Government Lot No. _____ COS No. _____
Street or Road Address, including City, State & Zip Code of the Development _____

7. **PLACE OF USE -** Enter the 17 digit geocode applicable to the place of use legal land description. _____ If there are multiple places of use, attach additional sheets and list the geocode for each legal land description. The geocodes can be found in county records.
Is the place where water is used the same as the point of diversion? ☐ Yes ☐ No
If no, enter the place of use land description below. Attach additional sheets if necessary.
☐ Domestic ☐ Stock ☐ Irrigation ☐ Other
_____1/4 _____1/4 _____1/4 Section _____ Twp _____N / S Rge _____E /W County _____
Lot _____ Block _____Tract No. _____ Subdivision Name _____
Government Lot No. _____ COS No. _____
Street or Road Address, including City, State & Zip Code of the Place of Use _____

8. **AFFIDAVIT OF OWNERSHIP OR WRITTEN CONSENT**
I have possessory interest in the property where the water has been put to beneficial use and I have the exclusive property rights in the ground water development works **OR** I have attached written consent of the person owning the ground water development works and/or written notification to the land owner pursuant to MCA 85-2-306(1).

The statements appearing here are to the best of my knowledge true and correct.

Appropriator's Signature _____ Date: _____

_____ Date: _____

Go to web site http://www.dnrc.mt.gov/wrd/ to learn additional information about the use of this form.

602 INS Revised 04/21/2009

FORM 602, NOTICE OF COMPLETION OF GROUNDWATER DEVELOPMENT EXCEPTIONS FOR A SMALL GROUND WATER DEVELOPMENT
INSTRUCTIONS

To use this form, the following must apply to your water use.

- The ground water must have been put to use for the purpose(s) identified.
- The development is not located within the boundaries of a Controlled Ground Water Area.
- The source is ground water, meaning any water located beneath the ground surface. The water is typically diverted from the ground via a well, developed spring, or a collection of water in a ground water pit or pond.
- The flow rate used is 35 gallons per minute or less. This is the rate you are taking water from the source.
- The total volume used from the development does not exceed 10 acre-feet per year. If you share a well with others, the total volume used by all of the users cannot exceed 10 acre-feet per year. When the water use exceeds that amount, then you must file an Application for Beneficial Water Use Permit.

If a map is included with your filing, it must include the following information - North Arrow, Section, Township, Range and mark an X where the development is located. If the required information is included on the map, DNRC will confirm the written land description matches the map. If it does not, DNRC will change the written description to match the map.

Complete items 1 through 8 ONLY if you have determined this is the correct form to file.

All of the required information must be entered for your application to be considered correct and complete as required under 85-2-306, MCA.

Item 1. Enter the complete name of the person to be listed as the water right owner(s), their mailing address, and phone numbers.

Item 2. Check the type of ground water development used to obtain the ground water. If the source is a well, provide the well driller's name. If the source is a ground water pit or pond, provide the surface area and depth of the pond. This information will be used to determine the evaporation that will occur from the pond.

Item 3. Enter the flow rate used. To determine the actual flow rate you are pumping, turn the water on until the pump comes on and stays on. Time how many seconds it takes to fill a 5-gallon bucket. Use the following formula to calculate the flow rate. *300/# of seconds = flow rate in GPM.* You can also turn on the bathtub faucet and time (in minutes) how long it takes to fill a 1 or 5 gallon bucket.

Item 4. Check yes if the development is connected with another well or spring. Check yes if the development is shared by other users. For example, two homes on well. If you answer yes to either question, provide the water right number and document how the development is used. If a shared well agreement exists, provide a copy of that agreement.

Item 5. Check the purposes for which the water is used. If the water is used during the months specified, check 'yes'. If not, check 'no' and enter the month and day water is used each year.

Item 6. Enter the land description for the location of the development. Describe the location to the nearest 10 acres if possible. Legal land descriptions, subdivisions, geocodes, and certificate of survey information may be obtained from the well log; the county records; or from the Montana Cadastral system at: http://gis.mt.gov/ .

Subdivisions –	In addition to the above description, enter the lot and block or tract number, subdivision name.
Government Lots –	In addition to the land description, enter the government lot number.
Certificate of Survey -	In addition to the land description, enter the survey number.
Street or Road Address –	Enter the physical address of the development including city, state, and zip code.

Item 7. Enter the land description for where the water is used. Describe the location to the nearest 10 acres if possible. Legal land descriptions, subdivisions, geocodes, and certificate of survey information may be obtained from the well log; the county records; or from the Montana Cadastral system at: http://gis.mt.gov/ .

Subdivisions –	In addition to the above description, enter the lot and block or tract number, subdivision name.
Geocode(s) -	Enter the geocode(s) for the land description entered.
Government Lots –	In addition to the land description, enter the government lot number.
Certificate of Survey -	In addition to the land description, enter the survey number.
Street or Road Address –	Enter the physical address of the development including city, state, and zip code.

Item 8. If the statements are correct, sign the form.

Appendix B:

Irrigation Water Requirements

Crop Data Summary

Job: **Exempt Wells**
Location: **MRO**
By: **Mace**
Weather Station: **POLSON**
Latitude: **4741** Longitude: **11410**
Computation Method: **Blaney Criddle (TR21)**
Crop Curve: **Blaney Criddle Perennial Crop**
Begin Growth: **5/10** End Growth: **9/22**

Crop: **Alfalfa Hay**
County: **Lake, MT**
Date: **05/13/08**
Sta No: **MT6635**
Elevation: **2990** feet above sea level

Net irrigation application: **1** inches
Estimated carryover moisture used at season:
Begin: **0.5** inches End: **0.5** inches

Month	Total Monthly ET (3) inches	Dry Year 80% Chance (1)		Normal Year 50% Chance (1)		Average Daily ETc inches	Peak Daily ETPk inches
		Effective Precipitation inches	Net Irrigation Reqirements inches (2)	Effective Precipitation inches	Net Irrigation Reqirements inches (2)		
January	0.00	0.00	0.00	0.00	0.00	0.00	
February	0.00	0.00	0.00	0.00	0.00	0.00	
March	0.00	0.00	0.00	0.00	0.00	0.00	
April	0.00	0.00	0.00	0.00	0.00	0.00	
May	2.49	0.60	1.39	0.78	1.21	0.11	
June	5.93	0.97	4.96	1.26	4.67	0.20	0.24
July	7.53	0.62	6.91	0.81	6.73	0.24	0.31
August	6.55	0.64	5.91	0.83	5.72	0.21	0.26
September	2.72	0.41	1.81	0.53	1.69	0.12	
October	0.00	0.00	0.00	0.00	0.00	0.00	
November	0.00	0.00	0.00	0.00	0.00	0.00	
December	0.00	0.00	0.00	0.00	0.00	0.00	
TOTAL	**25.23**	**3.24**	**20.99**	**4.21**	**20.02**		

(1) For 80 percent occurrence, growing season effective precipitation will be equaled or exceeded 8 out of 10 years. For 50 percent chance occurrence, effective precipitation will be equaled or exceeded 1 out of 2 years.

(2) Net irrigation requirements is adjusted for carryover moisture used at the beginning of the season and carryover moiature used at the end of the growing season.

(3) ET Evapotranspiration) is adjusted upwards 10% per 1000 meters above sea level.

Date: 5/14/2008

DRAFT

UNITARY ADMINISTRATION AND MANAGEMENT ORDINANCE

DRAFT DOMESTIC ALLOWANCE & RELATED SECTIONS ONLY

PROPOSED FLATHEAD RESERVATION UNITARY WATER CODE
From: SEPTEMBER 20, 2011 DRAFT
For
Water Policy Interim Committee
January 2012

Updated Public Review Draft—Not Agreed to by Any Party

For complete text of Draft Ordinance see:
http://www.dnrc.mt.gov/rwrcc/Compacts/CSKT/2011/September/RevisedDraftAdministrativeOrdinance.pdf

This is a working draft of revisions to the Draft Unitary Administration and Management Ordinance ("Draft Ordinance"). This document has not been finally approved by any Party. Nothing in the potential settlement is agreed to until everything is agreed to.

Several provisions in this draft are under development or review by the Parties. The Parties will update the Public Review Draft as other sections become ready.

Several provisions in this draft reference forms to be filed or certificates to be issued in connection with various actions. With the exception of those forms that have already been made public in connection with the public release of particular sections of this draft Ordinance, the content of these forms and certificates remain under development by the negotiating parties.

Comments on this draft should be sent to the Confederated Salish and Kootenai Tribes (CSKT) or the Montana Reserved Water Rights Compact Commission for review by the Parties. Comments to CSKT should be sent to Rhonda Swaney at rhondas@cskt.org, comments to the Compact Commission should be sent to Bill Schultz at bischultz@mt.gov.

2-2-117 Domestic Allowances for household and small business; process for application, review, and issuance.

1. Domestic Allowances include: Individual Domestic Allowances, Shared Domestic Allowances and Development Domestic Allowances.
2. Domestic Allowances may be appropriated only by a person who has a Possessory Interest in the property where the water is to be put to beneficial use and property rights in the diversionary works.
3. Domestic Allowances may be sourced from either Groundwater Wells or Developed Springs.
4. Domestic Allowances may not be used to fill or maintain Pits, Pit-Dams, Constructed Ponds, or Reservoirs.
5. Inside the boundaries of a Temporary or Permanent Groundwater Management Area, Domestic Allowances may be appropriated only according to the specific provisions of that particular aquifer management designation, which may or may not provide for the issuance of a Domestic Allowance pursuant to this section.
6. Before appropriating water for Domestic Use for a single Home or Business, an approved Individual Domestic Allowance from the Water Engineer is required. The Water Engineer can approve an Individual Domestic Allowance if:
    a. The Well construction complies with the requirements of Section 1-1-110 of this Ordinance;
    b. The maximum flow rate is 35 gallons per minute or less;
    c. The maximum annual diverted volume is 2.4 acre-feet or less;
    d. The means of diversion is a single Well or Developed Spring;

e. The allowance is physically connected to and serves one and only one Home or Business;

f. The means of diversion includes Well Shaft Casing;

g. Stock Water use associated with the appropriation is dispensed using Stock Tanks; and

h. The maximum irrigation allowed for land associated with the Domestic Allowance is 0.7 acres.

7. Before appropriating water for Domestic Use to be shared among multiple Homes or Businesses, an approved Shared Domestic Allowance from the Water Engineer is required. The Water Engineer can approve a Shared Domestic Allowance if:

a. The Well construction complies with the requirements of Section 1-1-110 of this Ordinance;

b. The maximum flow rate is 35 gallons per minute or less;

c. The maximum annual diverted volume is 2.4 acre-feet or less;

d. The means of diversion is a single Well or Developed Spring;

e. The allowance is physically connected to two and not more than three Homes or Businesses that are not Developments;

f. The means of diversion includes Well Shaft Casing;

g. Stock Water use associated with the appropriation is dispensed using Stock Tanks;

h. If the well is connected to two homes or businesses, the maximum irrigation allowed for land associated with the Shared Domestic Allowances is 0.5 acres. If the well is connected to three homes or businesses, the maximum irrigation allowed for land associated with the Shared Domestic Allowances is 0.75 acres;

i. The application includes a copy of the Shared Well Agreement signed by all parties; and

j. The allowance includes the water supply requirements for all Homes and Businesses connected to the well and all cumulative appropriations of all purposes do not exceed the limits set forth in (b) of this subsection.

8. Before appropriating water for Domestic Use for a Development of Homes or Businesses an approved Development Domestic Allowance from the Water Engineer is required. The Water Engineer can approve a Development Domestic Allowance if:
   a. The Well construction complies with the requirements of Section 1-1-110 of this Ordinance;
   b. The maximum flow rate from each well or developed spring is 35 gallons per minute or less;
   c. The combined maximum annual diverted volume from all wells and developed springs is 10 acre-feet or less;
   d. Board approved measurement devices are installed on each Well or Developed Spring which record cumulative volume;
   e. The means of diversion is one or more Wells and/or Developed Springs not to exceed one Well or Developed Spring per Home or Business within the Development;
   f. The means of diversion includes Well Shaft Casing;
   g. The allowance is physically connected to multiple Homes or Businesses;
   h. Stockwater associated with the appropriation is dispensed using Stock Tanks;
   i. The maximum irrigable landscape associated with each home or business within the Development is 0.25 acres or less;

j. The application includes a copy of any Shared Well Agreement(s) signed by all parties, if applicable;

k. The allowance includes the water supply requirements for all Homes and Businesses within the entire Development and all cumulative appropriations for all purposes associated with the entire Development do not exceed the limits set forth in (b) of this subsection; and

l. The applicant includes a copy of the development plan, plat, or equivalent as required by the associated county government.

9. Reporting requirements for Development Domestic Allowances are addressed in subsection 14 of this Section.

10. An applicant must fill out completely an application and obtain an approved Domestic Allowance from the Water Engineer before drilling any Well(s) or developing any spring(s) and putting water to use pursuant this section. In addition to all form requirements, an application shall also include proof that the applicant has the possessory interest or the written consent of the person with possessory interest in the property where the point of diversion is located and where the water is to be put to beneficial use. The application must contain a site-map showing the location of all proposed Wells and Developed Springs including latitude and longitude in decimal degrees. The map must also show a minimum of 500 feet in radius around the proposed Well(s) or Developed Spring(s) and include any existing or proposed by the applicant:

a. Well(s) including purpose of each well;

b. Sewage facilities including septic tanks and drainfields;

c. Buildings on the site, including identification well(s) connections;

d. Property lines and ownerships;

e. Irrigated acres per lot or unit well(s); and

f. Means of conveyance, water right points of diversions, and surface water features.

11. Upon certified receipt of an application for Domestic Allowance under subsection 10 of this section, the office of the Water Engineer shall review the application within 45 days and may either approve the appropriation or return a defective application to the applicant, together with the reasons for returning it. If a corrected application is submitted within 30 days of its return by the office of the Water Engineer, no new filing fee shall be required. Upon receiving a corrected application, the office of the Engineer has 30 days from the certified receipt of the corrected application to approve or deny the application. If the office of the Water Engineer does not approve or return an application within the initial 45 day review period, the application shall be deemed approved. If the office of the Water Engineer does not approve or deny a corrected application within 30 days of certified receipt, the application shall be deemed approved.

12. Once an applicant meets the requirements of subsections 6, 7, or 8 of this Section, as applicable, and also meets the requirements of subsection 10 of this Section, an application is approved by the Engineer under subsection 11 of this Section and the Approval to Develop a Domestic Allowance shall be issued by the Engineer. The Approval to Develop a Domestic Allowance allows an appropriator to construct a Domestic Allowance within, but not to exceed, 365 days of the date of approval.

13. An appropriation of a Domestic Allowance becomes valid and final when, within 120 days of completing the Well(s) or Developed Spring(s), an appropriator files a Domestic Allowance completion form accurately and entirely, which must include a copy of the companion Well Log Report(s).
14. For each Development Domestic Allowance, a Development Domestic Allowance Water Measurement Report must be submitted by March 31st of the year following the year covered by the report.

Applicable Terms from Section 1-1-104 Definitions

6. "Approval to Develop a Domestic Allowance" means preliminary approval or authorization from the Office of the Engineer to Develop a Domestic Allowance. This approval must be obtained before drilling a Well or developing a spring.
14. "Developed Spring" means any artificial opening or excavation in the ground, however made, including any physical alteration at the point of discharge regardless of whether it results in any increase in the yield of ground water, from which ground water is sought or can be obtained or through which it flows under natural pressures or is artificially withdrawn.
15. "Development" means contiguous or closely grouped parcels of land under the same or affiliated ownership, including, but not limited to, housing subdivisions or any combination of business and residential units [*additional State review underway*].
16. "Domestic Allowance" means an entitlement to use water issued to households and small businesses pursuant to the provisions of Section 2-2-117 of this Ordinance; Domestic

Allowances include Individual Domestic Allowances, Shared Domestic Allowances, and Development Domestic Allowances.

17. “Domestic Use” means those water uses common to a household, including: washing; drinking; bathing; waste disposal; cooling and heating; domestic animals; and garden and landscape irrigation. Domestic Use does not include the filling of ponds, pits, pit-dams or reservoirs.

24. “Groundwater” means any water that is below the surface of the earth.

25. “Home” means a house, apartment, or other shelter that is a permanent or temporary residence of a person, family, or household.

40. Shared Well” means a single Well that is physically manifold to multiple homes and/or businesses and is cooperatively used pursuant a Shared Well Agreement.

41. “Shared Well Agreement” means a legally binding document that stipulates the manner in which a Shared Well is cooperatively used between or among all Homes or Businesses connected to the well; it is signed by all possessory interest representatives for all individual homes and businesses that are connected to a Shared Well.

43. “Spring” means a perennial hydrologic occurrence of water involving the natural flow of water originating from beneath the land surface and arising to the surface of the ground.

56. “Well” means any artificial opening or excavation in the ground, however made, by which ground water is sought or can be obtained or through which it flows under natural pressures or is artificially withdrawn.

58. “Well Shaft Casing” means an impervious durable pipe placed in a well or developed spring to prevent the walls from caving, to seal off surface drainage, or undesirable water,

gas, or other fluids to prevent their entering the well, and to prevent the waste of groundwater.

Section 1-1-110 is referenced in the Domestic Allowance Section:

1-1-110. Groundwater Diversion Standards

1. Wells:
    a. Individuals that drill, make, or construct Wells or monitoring Wells on the Flathead Indian Reservation shall comply with MCA Title 37 Chapter 43 and ARM 36 Chapter 21 licensing, conduct, and regulatory requirements.
    b. All Well construction on the Flathead Indian Reservation shall meet the standards set forth in ARM 36 Chapter 21.
    c. Construction and operations of all Wells must comply with all applicable Federal, State, Tribal, and Local environmental regulations.
2. Developed Springs:
    a. All Developed Spring collection components, including but not limited to infiltration galleries, infiltration basins, and French drains, shall be installed and buried under the surface of the ground.
    b. All means of storage and conveyance, including but not limited to supply pipes, cisterns, and pump housings, shall be sealed and made impervious to water and designed in a manner that protects the source from backflow and surface contamination.
    c. Open pits, ponds, or excavations shall not be used as a means of diversion for Developed Springs.
    d. Construction and operation of all Developed Springs must comply with all applicable Federal, State, Tribal, and Local environmental regulations.