Form No. 606-TAA *(Revised 02/2025)* **Applicant Name**

APPLICATION TO CHANGE A WATER RIGHT

TECHNICAL ANALYSES ADDENDUM

§ 85-2-402, MCA

Answer every question and applicable follow-up questions. Use the checkboxes to denote yes ("Y") or no ("N"). Questions that require items to be submitted to the Department have a submitted ("S") checkbox, which is marked when the required item is attached to the Technical Analyses Addendum. Label all submitted items with the question number for which they were submitted. Narrative responses that are larger than the space provided can be answered in an attachment. If an attachment is used, mark the see attachment ("A") checkbox on this form and label the attachment with the question number. If no attachment is needed, leave the see attachment ("A) checkbox blank. Constrain narrative responses to the specific question as is asked on the form; do not respond to multiple questions in one narrative. Responses in the form of a table may be entered into the table provided on this form or in an attachment. If an attachment is used, the table must have the exact headings found on this form, and the see attachment ("A") checkbox on this form must be marked. Label units in narrative responses and tables.

APPLICATION DETAILS

Questions, Narrative Responses, and Tables	Check-boxes
1. Did you have a preapplication meeting AND complete a Change Preapplication Meeting Form (Form 606P)?	☐ Y ☐ N
a. If no, complete the remainder of Form 606-TAA. Skip to question 2.	
b. If yes,	
i. Do the technical analyses submitted with Form 606 remain unchanged from those completed during the preapplication meeting process?	☐ Y ☐ N
1. If yes, has any element of the project described in Form 606 changed from the mandatory elements of the project described in Forms 606P-A and/or 606P-B?	☐ Y ☐ N
a. If yes, complete the remainder of Form 606-TAA. Skip to question 2.	
b. If no, Form 606-TAA is complete.	
2. If no,	
a. Are you submitting new technical analyses with Form 606 to replace the technical analyses completed during the preapplication meeting process?	☐ Y ☐ N
i. If yes, complete the remainder of Form 606-TAA. Skip to question 2.	
ii. If no, are you correcting the technical analyses in response to a Departmental scientific credibility review completed during the preapplication meeting process?	☐ Y ☐ N

1. If yes, does every element of the project described in Form 606 remain unchanged from the mandatory elements of the project described in Forms 606P-A and/or 606P-B AND do the corrected technical analyses analyze the project exactly as proposed on Forms 606 and 606P-A/606P-B?	☐ Y ☐ N
a. If yes, Form 606-TAA is complete.	
b. If no, complete the remainder of Form 606-TAA. Move on to question 2.	

HISTORICAL USE

Questions, Narrative Responses, and Tables	Check-boxes
2. Is the proposed change on a non-filed water project?	☐ Y ☐ N
a. If yes, please submit a Non-Filed Water Project Addendum (Form 606/634-NFWPA).	☐ S
3. What type of water rights are proposed for change? Answer question 4 for each Statement of Claim, 5 for each Provisional Permit, and 6 for each other type of water right. _____ _____	☐ A
4. In the table below, write the water right number for each Statement of Claim proposed for change in the "Statement of Claim Number" column. If there is one or more previous change authorizations, write the application numbers for the change authorizations in the "Previous Change Authorization Number" column. If there are no previous change authorizations, write "none" in the "Previous Change Authorization Number" column and "N/A" in all the remaining columns. Write the date of the Project Completion Notice for each previous change authorization in the "Project Completion Notice" column and if the previous change authorization does not have a Project Completion Notice, write "none" instead.	☐ A

Statement of Claim Number	Previous Change Authorization Number	Project Completion Notice Date

5. In the table below, write the water right number for each Provisional Permit proposed for change in the "Provisional Permit Number" column. If a Project Completion Notice has been submitted, write the date in the "Project Completion Notice" column, and if no Project Completion Notice has been submitted, write "none" instead. Write the application number for each previous change authorization in the "Previous Change Authorization Number" column. If there are no previous change authorizations, write "none" in the "Previous Change Authorization" column and "N/A" in all the remaining columns. Write the date of the Project Completion Notice for each previous change authorization in the "Previous Change Project Completion Notice" column and if no Project Completion Notice has been submitted, write "none" instead.

☐ A

Provisional Permit Number	Project Completion Notice Date	Previous Change Authorization Number	Previous Change Project Completion Notice Date

6. In the table below, write the water right number for each water right proposed for change that is not a Statement of Claim or Provisional Permit, the type of water right, and the completion date. If a Groundwater Certificate, the completion date will be the date of filing. If an exempt or non-filed water right, the completion date will be July 1, 1973. If there are one or more previous change authorizations, write the application number for each change authorization in the "Previous Change Authorization Number" column. If there are no previous change authorizations, write "none" in the "Previous Change Authorization Number" column and "N/A" in all the remaining columns. Write the date of the Project Completion Notice for each previous change authorization in the "Previous Change Project Completion Notice Date" column and if the previous change authorization does not have a Project Completion Notice, write "none" instead.

☐ A

Water Right Number	Water Right Type	Completion Date	Previous Change Authorization Number	Previous Change Project Completion Notice Date

7. Are there previous Montana Water Court approved stipulations, Water Master reports, or prior Montana Water Court or Department decisions related to the water rights being changed?

☐ Y ☐ N

a. If yes, explain.

☐ A

_____

_____

_____

_____

8. Do you have knowledge of historical use?	☐ Y ☐ N
a. If yes,	
i. Is this firsthand knowledge?	☐ Y ☐ N
ii. Who has this knowledge and what was their role? _____ _____ _____	☐ A
b. If no, from where was the historical use data derived? _____ _____	☐ A

Fill out the remaining Historical Use questions (questions 9 to 29) ***one time for each*** *water right proposed for change. Use the "Additional Water Right Historical Use (606-TAA)" sheet for each additional water right. You may answer* ***one time for all*** *water rights proposed for change that have the same purposes, place of use, supplemental water rights, points of diversion, period of use, conveyance, diverted volume parameters, and consumptive volume parameters.*

9. For which water right number(s) will question 10 through question 29 be answered? _____	☐ A

Historical Use: Place of Use

10. The historical use map submitted for Form 606 must clearly identify the entire place of use for each overlapping water right that intersects the historical place of use. Does your historical use map meet this requirement?	☐ Y ☐ N
11. Are you proposing to change all water rights associated with the historical place of use?	☐ Y ☐ N
a. If no, identify the water rights associated with the historical place of use that are not included in this application. Provide the priority date for each water right and explain why all overlapping water rights are not included in the application. Include water received via contract from a company, district, or water users' association.	☐ A

Water Right No.	Priority Date	Reason Not Included in Change

12. Answer the section of this question relevant to the historical purpose. If there is more than one purpose, then answer all relevant parts of this question.	
a. All purposes	
i. Does the legal land description from the abstract encompass the actual location of the historical place of use?	☐ Y ☐ N
ii. If no, explain the discrepancy and submit historical aerial photographs and/or other data sources to corroborate the location of these historical places of use, and, if a Statement of Claim, submit documentation of a written request submitted to the Water Court for amendment of the Claim. _____ _____	☐ S
b. Irrigation	
i. Is the water right being changed a Statement of Claim?	☐ Y ☐ N
1. If yes, does the Water Resources Survey corroborate the acres irrigated listed on the abstract?	☐ Y ☐ N
a. If no, submit evidence that can corroborate the historical place of use, including number of irrigated acres. This includes, but is not limited to, aerial photographs, irrigation journals, or logs.	☐ S
2. If no, submit one or more aerial photographs that can corroborate the historical place of use, including the number of irrigated acres.	☐ S
c. Lawn and garden	
i. Submit aerial photographs that can corroborate the historical place of use, including the number of irrigated acres.	☐ S
d. Stock	
i. Submit aerial photographs, grazing records, or other records to corroborate the historical place of use.	☐ S
ii. Did the stock drink direct from source or direct from ditch?	☐ Y ☐ N
1. If no, submit data sources that make clear the location of the stock watering infrastructure.	☐ S
e. Multiple domestic, domestic, municipal, mining, commercial, and other purposes	
i. Submit aerial photographs, deeds, other recorded documents or records, affidavits, or other published documents, such as magazine articles, to corroborate the historical place of use.	☐ S

Historical Use: Point of Diversion

Continue to answer questions for water right(s) identified in question 9. Applications corroborating historical flow rate with the Historical Use Addendum (Form 606-HUA) may be eligible to skip question 15; see the Form 606-HUA for more information.

13. For all historical points of diversion, identify the means, location (¼ ¼ ¼ section), and if they are proposed for change. Label using the same POD ID letter as for the Historical Use Map from Form 606. ☐ A

POD ID	Means	Location (¼ ¼ ¼ Section)	Proposed for Change?
			☐ Y ☐ N
			☐ Y ☐ N
			☐ Y ☐ N

14. Do the legal land descriptions from the abstract encompass the actual locations of all historical points of diversion?	☐ Y ☐ N
a. If no, explain the discrepancy and submit historical aerial photographs and/or other data sources to corroborate the location of these historical points of diversion, and, if a Statement of Claim, submit documentation of a written request submitted to the Water Court for amendment of the Claim. _____ _____	☐ S
15. Answer questions below related to the diversion means for each historical point of diversion.	
a. Headgate	
i. For each headgate, provide dimensions in feet (FT), slope of the channel at the headgate (%), material of the headgate, estimated historical capacity in gallons per minute (GPM) or cubic feet per second (CFS) and the method used to estimate historical capacity. Label using the same POD ID letter as for the Historical Use Map from Form 606.	☐ A

POD ID	Dimensions	Slope	Material	Estimated Capacity			Method
	FT	*%*		*Cap.*	*GPM*	*CFS*	
					☐	☐	
					☐	☐	
					☐	☐	
					☐	☐	

b. Pump, dike, dam, or other surface water point of diversion	
i. For each pump, dike, dam, or other surface water point of diversion, provide an estimate of the historical capacity (GPM or CFS) and the method used to estimate the historical capacity. Label using the same POD ID letter as for the Historical Use Map from Form 606.	☐ A

POD ID	Estimated Capacity			Method
	Cap.	*GPM*	*CFS*	
		☐	☐	
		☐	☐	
		☐	☐	
		☐	☐	

c. Well, pit, or other groundwater point of diversion	
i. For each well, pit, or other groundwater point of diversion, provide an estimate of the historical capacity (GPM or CFS) and the method used to estimate the historical capacity. Label using the same POD ID letter as for the Historical Use Map from Form 606.	☐ A

POD ID	Estimated Capacity			Method
	Cap.	*GPM*	*CFS*	
		☐	☐	
		☐	☐	
		☐	☐	
		☐	☐	

16. Do other water rights share any of the points of diversion?	☐ Y ☐ N
a. If yes, list the water rights, their flow rates (GPM or CFS), and the nature of the relationship. Label using the same POD ID letter as for the Historical Use Map from Form 606.	☐ A

POD ID	Water Right No.	Estimated Capacity			Relationship
		Cap.	*GPM*	*CFS*	
			☐	☐	
			☐	☐	
			☐	☐	
			☐	☐	
			☐	☐	

Historical Use: Period of Diversion

Continue to answer questions for water right(s) identified in question 9.

17. Are the period of diversion and the period of use the same?	☐ Y ☐ N
a. If no,	
i. Why are they different? _____ _____	☐ A
ii. Is there a place of storage?	☐ Y ☐ N
18. When was water diverted for the purposes of the water rights being changed?	☐ A

Start Date (Month (MM)/Day (DD))	End Date (MM/DD)

19. Does the Department have a standard, found in ARM 36.12.112, for the period of diversion for all purposes for which water is used?	☐ Y ☐ N
a. If yes, does the period of diversion for all purposes fall within Department standards?	☐ Y ☐ N
b. If no, or if any period of diversion falls outside Department standards, explain how the period of diversion is reasonable for the purpose(s). _____ _____ _____ _____ _____ _____	☐ A

Historical Use: Historical Diverted Volume

Continue to answer questions for water right(s) identified in question 9. Applications corroborating historical diverted volume with the Historical Use Addendum (Form 606-HUA) may be eligible to skip question parts of question 20; see the Form 606-HUA for more information.

20. Answer all relevant sections of this question based on whether the historical purpose was irrigation, non-irrigation, or both.	
a. Irrigation	
i. Do you want ARM 36.12.1902(10) to be used to calculate historical diverted volume?	☐ Y ☐ N
1. If no, submit a Historical Water Use Addendum (Form 606-HUA).	☐ S
ii. What were the crop(s) grown? _____	☐ A
1. How many cuttings were there per season and how many days did cuttings last? Did irrigation cease throughout the place of use for cuttings? Explain whether diversions ceased during times irrigation did not occur. _____ _____ _____ _____	☐ A
b. Non-irrigation	
i. Explain your historical diversion schedule, with sufficient detail to estimate the volume of water historically diverted. This may include, but is not limited to, days per year water was historically diverted or the number of diversions per year and the duration of each diversion. _____ _____ _____ _____ _____	☐ A
ii. Explain water diverted but not consumed by the non-irrigation purpose(s). This includes, but is not limited to, wastewater discharge and conveyance loss. Ditch-Specific Questions (questions 91 to 92) will gather information necessary for estimating losses from conveyance ditches. _____ _____ _____ _____ _____ _____	☐ A

iii. Did historical diversions serve more than one non-irrigation purpose?	☐ Y ☐ N
1. If yes, how much of the diversions served each non-irrigation purpose and how did you determine this? _____ _____ _____ _____	☐ A
21. Did diversions ever regularly cease within the period of use due to insufficient water in source or calls based on priority date?	☐ Y ☐ N
a. If yes, please explain. _____ _____ _____ _____	☐ A

Historical Use: Historical Consumed Volume

Continue to answer questions for water right(s) identified in question 9. Applications corroborating historical consumptive volume with the Historical Use Addendum (Form 606-HUA) may be eligible to skip parts of question 23; see the Form 606-HUA for more information.

22. What are the historical purposes? Mark each purpose and answer the applicable questions below. ☐ Irrigation. Answer question 23. ☐ Lawn and garden. Answer question 24. ☐ Stock. Answer question 25. ☐ Domestic and multiple domestic. Answer question 26. ☐ Municipal. Answer question 27. ☐ Other. Answer question 28.	
23. Irrigation	
a. Will you use Department standards for historical consumptive use as defined in Department standard practice and administrative rule?	☐ Y ☐ N
i. If no, submit a Historical Water Use Addendum (Form 606-HUA) to the Department.	☐ S
ii. If yes,	
1. What is the historical irrigation method type and subtype? Irrigation method types include flood and sprinkler. Flood irrigation subtypes include level border, graded border, furrow, contour ditch, or wild flood. Sprinkler subtypes include wheel line and center pivot. _____	☐ A
2. What was the slope of the historical place of use? _____	☐ A

3. Are there any factors beyond irrigation method type/subtype and place of use slope that may influence percent efficiency of irrigation?	☐ Y ☐ N
a. If yes, submit evidence to support the modified percent efficiency of irrigation in the Historical Water Use Addendum (Form 606-HUA). These factors may include, but are not limited to, infrastructure age, soil characteristics, or field improvements.	☐ S
4. Based on answers to the above questions, what is the percent efficiency of irrigation? _____	☐ A
5. What is the County Management Factor associated with the county of the historical place of use? _____	☐ A
6. What is evapotranspiration (ET) based on the irrigation method and county? _____	☐ A
7. What percent of applied water are irrecoverable losses per ARM 36.12.1902(17)? _____	☐ A
24. Lawn and garden	
a. Will you use a Department standard for historical consumptive use volume for lawn and garden? Department standards include 2.5 acre-feet per acre (ARM 36.12.115(2)(b)), or a calculated volume based on Irrigation Water Requirements for turf grass.	☐ Y ☐ N
i. If yes, which standard? _____	☐ A
ii. If no, please provide an estimate of historical water use based on expert analysis and summarize the methods used to determine this estimate. _____ _____ _____ _____	☐ A
25. Stock	
a. Which volume standard for animal units applies to historical use and why? The standards are either 15 gallons per animal unit per day for new appropriations or 30 gallons per animal unit per day for claims. _____	☐ A
b. How many animal units were historically served? _____	☐ A
c. Did these animal units rely entirely on the water rights proposed for change for their full water demand?	☐ Y ☐ N
i. If no, explain. _____ _____ _____	☐ A

26. Domestic and multiple domestic	
a. How many households were served? _____	☐ A
i. Will the Department standard of 1 acre-foot per household be used? The same standard is applied to historical and proposed uses.	☐ Y ☐ N
ii. If no, what standard will be used? _____ _____	☐ A
b. Did the historical use include wastewater disposal and treatment?	☐ Y ☐ N
i. If yes, which of the following best describes the wastewater disposal and treatment system? Individual drain fields, central treatment facility with minimal consumption, or evaporation basin or land application? _____ _____	☐ A
27. Municipal	
a. What is the volume of water (AF) historically consumed for municipal purposes? _____	☐ A
i. Submit evidence to support historical municipal use. The data sources may include records that tie water use to the U.S. Census, estimates of historical system capacity, and estimates of leakage.	☐ S
28. Other	
a. Specify the other purposes. _____	☐ A
b. What is the volume of water (AF) historically consumed for other purposes? _____	☐ A
c. Submit evidence to support the volume of water historically consumed.	☐ S

Historical Use: Historical Places of Storage

Continue to answer questions for water right(s) identified in question 9.

29. Did the historical use include one or more places of storage? This does not include reservoirs, pits, pit-dams, or ponds with a capacity less than 0.1 AF; water tanks; or cisterns (ARM 36.12.113(6)).	☐ Y ☐ N
a. If yes, for each historical place of storage please provide the surface area in acres (AC), capacity (AF), annual net evaporation (FT/YR), and number of times per year the place of storage was filled. Use the same ID as for the historical use map (Form 606).	☐ A

ID	Surface Area (AC)	Capacity (AF)	Annual Net Evaporation (FT/YR)	# of Annual Fillings

SURFACE WATER

Questions, Narrative Responses, and Tables	Check-boxes
30. Is the proposed source surface water?	☐ Y ☐ N
a. If yes, move on to question 31.	
b. If no, skip to question 37.	

Return Flow Analysis

31. Do the purposes of the water rights proposed for change include irrigation?	☐ Y ☐ N
a. If yes, does the proposed change include a change in place of use *and/or* a change in purpose? If you propose to retire acres in the historical place of use and/or add new acres outside the historical place of use, this constitutes a change in place of use.	☐ Y ☐ N
i. If yes, a return flow analysis is required. Move on to question 32.	
ii. If no, this section is complete, and you may skip to question 77.	
b. If no, this section is complete, and you may skip to question 77.	
32. Does the proposed change include a change in purpose?	☐ Y ☐ N
a. If yes, consumptive use information is collected in the Change in Purpose section (questions 84 to 89), skip to question 33.	
b. If no, skip to question 33.	
33. Does the proposed change include a change in place of use? If yes, move on to question 34. If no, skip to question 37.	☐ Y ☐ N
34. Submit a map showing the new, unchanged historical, and retired historical places of use. Create map on an aerial photograph or topographic map that shows the following: section corners, township and range, scale bar, and north arrow. If you have shapefiles associated with this map, in addition to submitting an image of the map, please submit electronic copies of the shapefiles to the Department.	☐ S

35. How many acres, if any, will be retired from the historical place of use? _____	☐ A
36. Are irrigated acres proposed that are outside the historical place of use?	☐ Y ☐ N
a. If yes,	
i. How many acres? _____	☐ A
ii. What is the proposed irrigation method type (e.g., flood or sprinkler) and subtype (e.g., level border, graded border, furrow, contour ditch, wild flood, center pivot, or wheel line) for the new acres? _____	☐ A
iii. What is the slope (%) of the new place of use? _____	☐ A
iv. Based on questions 36.a.ii to 36.a.iii, what is the percent efficiency of irrigation for the new acres? _____	☐ A
v. What is the County Management Factor for the new acres? _____	☐ A
vi. What is the ET based on the irrigation method and county for the new acres? _____	☐ A
vii. What percent of applied water are irrecoverable losses for new acres? _____	☐ A
37. Did you elect on Form 606 to have the Department conduct the technical analyses?	☐ Y ☐ N
a. If yes,	
i. Do you have information for the Department to consider about the source and location where return flows historically accrued?	☐ Y ☐ N
1. If yes, explain. _____ _____ _____ _____	☐ A
ii. If an extended return flow analysis is necessary to analyze impacts to identified surface water rights for the purpose of evaluating adverse effect, pursuant to ARM 36.12.1303(3)(c)(iii), do you elect for the Department to use publicly available water quantity data for the extended return flow analysis? If the extended return flow analysis is required and sufficient publicly available water quantity data is not available, then the Department will not be able to conduct the extended analysis, and the extended analysis will not be available for the Department to assess the adverse effect criterion pursuant to ARM 36.12.1903.	☐ Y ☐ N

b. If no, do either of the following conditions apply to your return flow analysis? - Return flows enter back to the source upstream of or at the location of the next appropriator. - Water is left instream so historically diverted flows are available downstream of the point of diversion or upstream of the next appropriator.	☐ Y ☐ N
i. If yes,	
1. List which conditions apply and explain why. _____ _____ _____ _____ _____ _____ _____ _____ _____ _____	☐ A
2. Skip to question 77 because no extended return flow analysis is necessary to analyze impacts to identified surface water rights for the purpose of evaluating adverse effect, pursuant to ARM 36.12.1303(3)(c)(iii).	
ii. If no, an extended return flow analysis is necessary to analyze impacts to identified surface water rights for the purpose of evaluating adverse effect, pursuant to ARM 36.12.1303(3)(c)(iii). Answer the questions in the section "Extended Return Flow Analysis" (questions 71 to 76).	

GROUNDWATER

Questions, Narrative Responses, and Tables	**Check-boxes**
38. Is the proposed source groundwater?	☐ Y ☐ N
a. If yes, move on to question 37.	
b. If no, skip to question 77.	

Groundwater Analysis for Changes

39. Does the proposed change include a change in point of diversion?	☐ Y ☐ N
a. If no, this section is complete; skip to question 52.	
b. If yes, a groundwater analysis for changes is required; answer questions specific to the groundwater diversion type.	
i. What is the groundwater diversion type? _____	☐ A

Well/ Pumping Pit	Answer questions 40 to 44	**Developed Spring**	Answer questions 45 to 49	**Pond**	Answer questions 50 to 51

Groundwater: Adequacy of Diversion: Well/Pumping Pit

☐ Applicable ☐ Not Applicable

40. Submit an Aquifer Test Data Form (Form 633) for each *new* well/pumping pit that will be constructed prior to technical analyses or *existing* well/pumping pit that is added by the change. If an aquifer test was already conducted for an *existing* well/pumping pit, and you would like to use that instead of conducting a new aquifer test, submit it and explain. _____ _____ _____	☐ S
41. Submit the Aquifer Testing Addendum (Form 600/606-ATA) and associated materials (e.g., well logs).	☐ S
42. Are you requesting a variance from ARM 36.12.121?	☐ Y ☐ N
a. If yes, submit Form 653.	☐ S
43. Have all the wells/pumping pits been constructed?	☐ Y ☐ N
a. If no,	
i. Submit a list of the POD IDs for all wells/pumping pits and mark whether they have or have not been constructed.	☐ S
ii. When will the proposed wells/pumping pits be constructed? _____	☐ A
iii. Is the requested volume for each proposed well/pumping pit known?	☐ Y ☐ N
1. If yes, list the flow rate and volume requested for each proposed well/pumping pit. Label with POD ID. _____ _____	☐ A
2. If no, what is the total requested volume (AF) and the number of proposed PODs? _____	☐ A
44. What is the flow rate (GPM or CFS), volume (AF), and period of diversion (MM/DD-MM/DD) required at each new well/pumping pit ("*new*") or existing well/pumping pit that is added by the change ("*existing*")? If the well/pumping pit is not yet constructed, use the estimated volume based on question 43.a.iii.2. What is the well/pumping pit depth (FT), if available, or estimated well/pumping pit depth (FT)? Label using the same POD ID number as the Proposed Use Map (Form 606) and, if available, GWIC ID. List whether the POD is *new* or an *existing* well added by the change.	☐ A

POD ID	**GWIC ID**	**Flow Rate**			**Volume**	**Period of Diversion**	**Depth**	**Measured or Estimated**	**New or Existing**
	(if available)	*Flow*	*GPM*	*CFS*	*AF*	*MM/DD-MM/DD*	*FT*		
			☐	☐					
			☐	☐					
			☐	☐					
			☐	☐					
			☐	☐					

Groundwater: Adequacy of Diversion: Developed Spring

☐ Applicable ☐ Not Applicable

45. Submit measurements to the Department for each *new* developed spring or *existing* developed spring that will be added by the change.	☐ S
46. Do you have flow rate (GPM or CFS) and volume measurements?	☐ Y ☐ N
47. With what method were measurements collected? _____ _____	☐ A
48. What is the interval of measurements? _____	☐ A
49. Is the interval of measurements sufficient to comply with the Department standard of monthly flow measurements taken at regular intervals or at department-approved intervals during the proposed period of diversion?	☐ Y ☐ N

Groundwater: Adequacy of Diversion: Pond

☐ Applicable ☐ Not Applicable

50. Submit Form 653 to apply for a variance from ARM 36.12.121 for the Aquifer Test.	☐ S
a. Submit bathymetry data, survey, or engineering plans for each *new* pond added or *existing* pond added or modified by the proposed change. Label using the same POD ID number as the Proposed Use Map (Form 606). List whether the pond is *new* or an *existing* pond.	☐ S
51. Are any of the *new* ponds, or *existing* ponds added or modified by the proposed change the pond, fed or drained by surface water in addition to groundwater?	☐ Y ☐ N
a. If yes,	
i. Explain. _____ _____ _____ _____	☐ A
ii. Submit measurements of the connected surface water source. These may include inflow and outflow measurements.	☐ S

Surface Water Depletion Analysis for Changes

52. Does the proposed change include any of the following scenarios that necessitate a surface water depletion analysis pursuant to ARM 36.12.1303(5)(c)? - Change in point of diversion - Change in place of use, purpose of use, or place of storage that result in a change in consumptive use or pumping schedule.	☐ Y ☐ N
a. If no, this section is complete; skip to question 64.	

b. If yes, a surface water depletion analysis is required; answer questions specific to the groundwater diversion type (see the table below) and questions for the extended surface water depletion analysis (questions 71 to 76).	
i. What is the groundwater diversion type? _____	☐ A

Well/ Pumping Pit	Answer questions 53 to 54	**Developed Spring**	Answer question 55	**Pond**	Answer questions 56 to 57

Surface Water Depletion Analysis: Well/Pumping Pit

53. Provide the following information for each well/pumping pit on the current version of the water rights proposed for change that will either remain on the water rights after the change ("*unchanged*") or will be retired ("*retired*"): flow rate (GPM or CFS), volume (AF), period of diversion required (MM/DD-MM/DD), well/pumping pit depth (FT) (if available, otherwise or estimated well/pumping pit depth (FT)), and whether it is *unchanged* or *retired*. Please use the same POD ID as the Historical Use Map (Form 606) and, if available, provide the GWIC ID number. ☐ A

POD ID	**GWIC ID**	**Flow Rate**			**Volume**	**Period of Diversion**	**Depth**	**Measured or Estimated**	**Unchanged or Retired**
	(if available)	*Flow*	*GPM*	*CFS*	*AF*	*MM/DD-MM/DD*	*FT*		
			☐	☐					
			☐	☐					
			☐	☐					
			☐	☐					
			☐	☐					

54. Provide the pumping schedule for each well/pumping pit (*new*, *existing*, *unchanged*, or *retired*) for both *before* and *after* the proposed change. Use the same POD ID as the project maps. For *new* and *existing* wells/pumping pits, use the Proposed Use Map (Form 606). For *unchanged* and *retired* wells/pumping pits use the Historical Use Map (Form 606). Attach any additional pumping schedules using *"Additional Pumping Schedule (606-TAA)"* sheet. For *retired* wells/pumping pits, mark "N/A" checkbox for after the change and for *new* wells/pumping pits, mark "N/A" checkbox for before the change. Mark the checkbox "Diverted volume/# of Days" if it is a year-round use and the pump schedule is an allocation of diverted volume by the number of days in the month. Mark the checkbox "80% dry year IWR" if it is an irrigation/lawn and garden use and the pump schedule is the 80% dry year net irrigation requirement (IWR, NRCS 2003). ☐ A

(Before) POD ID			
☐ Diverted volume/# of Days ☐ 80% dry year IWR ☐ N/A			
Month	**Volume (AF)**	**Month**	**Volume (AF)**
January		July	
February		August	
March		September	
April		October	
May		November	
June		December	

(After) POD ID			
☐ Diverted volume/# of Days ☐ 80% dry year IWR ☐ N/A			
Month	**Volume (AF)**	**Month**	**Volume (AF)**
January		July	
February		August	
March		September	
April		October	
May		November	
June		December	

Surface Water Depletion Analysis: Developed Spring

55. Is the type of groundwater diversion for your proposed project a developed spring? If yes, skip to question 64 because no surface water depletion analysis will be necessary.	☐ Y ☐ N

Surface Water Depletion Analysis: Pond

56. Are there any ponds on the current version of the water rights proposed for change that will remain on the water rights unchanged ("*unchanged*") or will be retired ("*retired*")?	☐ Y ☐ N
a. If yes,	
i. Did you skip questions 50 to 51.a.ii because there is no change in POD?	☐ Y ☐ N
1. If yes,	
a. Submit Form 653 to apply for a variance from ARM 36.12.121 for the Aquifer Test.	☐ S
ii. Submit bathymetry data, survey, or engineering plans for each *unchanged* pond or *retired* pond. Label the submittal with the POD ID and whether the pond is *unchanged* or *retired*.	☐ S
iii. Are any of the *unchanged* or *retired* ponds fed or drained by surface water, in addition to groundwater?	☐ Y ☐ N
1. If yes,	
a. Explain. _____ _____ _____ _____ _____	☐ A
b. Submit measurements of the connected surface water source. These may include inflow and outflow measurements.	☐ S
b. If no, this section is complete; skip to question 58.	

57. Provide the schedule of diversions for out-of-pond use for each pond (*new*, *existing*, *unchanged*, or *retired*) for both *before* and *after* the proposed change. Use the same POD ID as the project maps. For *new* and *existing* ponds, use the Proposed Use Map (Form 606). For *unchanged* and *retired* ponds use the Historical Use Map (Form 606). Attach any additional diversion schedules using the same format as the table below. For *retired* ponds, mark "N/A" checkbox for after the change and for *new* ponds, mark "N/A" checkbox for before the change. Mark the checkbox "Diverted volume/# of Days" if it is a year-round use and the diversion schedule is an allocation of diverted volume by the number of days in the month. Mark the checkbox "80% dry year IWR" if it is an irrigation or lawn and garden use and the diversion schedule is the 80% dry year net irrigation requirement (IWR, NRCS 2003).	☐ A

(Before) POD ID			
☐ Diverted volume/# of Days ☐ 80% dry year IWR ☐ N/A			
Month	**Diversions for Out-of-Pond Use (AF)**	**Month**	**Diversions for Out-of-Pond Use (AF)**
January		July	
February		August	
March		September	
April		October	
May		November	
June		December	

(After) POD ID			
☐ Diverted volume/# of Days ☐ 80% dry year IWR ☐ N/A			
Month	**Diversions for Out-of-Pond Use (AF)**	**Month**	**Diversions for Out-of-Pond Use (AF)**
January		July	
February		August	
March		September	
April		October	
May		November	
June		December	

Extended Surface Water Depletion Analysis

58. Did you elect on Form 606 for the Department to conduct the technical analyses?	☐ Y ☐ N
a. If yes, the information required to answer questions 59 to 63 is not available prior to the technical analyses. In lieu of answering questions 59 to 63, do you elect for the Department to use publicly available water quantity data for the extended surface water depletion analysis? If this extended surface water depletion analysis is needed and sufficient publicly available water quantity data are not available, then the Department will not be able to conduct the extended surface water depletion analysis, and the extended analysis will not be available for the Department to assess the adverse effect criterion pursuant to ARM 36.12.1903. This section is complete, skip to question 64.	☐ Y ☐ N

b. If no, list the hydraulically connected surface water sources and answer questions 59 to 63 one time per source. Use the "Additional Hydraulically Connected Source (606-TAA)" sheet for each additional source. _____ _____ _____	☐ A
59. What is the surface water source for which you are answering questions 60 to 63? _____	☐ A
60. Are stream gage data available?	☐ Y ☐ N
a. If yes, answer question 61.	
b. If no, answer 62.	
61. Stream gage data are available	
a. Is one stream gage located above, and one stream gage located below the point of net depletion accumulation?	☐ Y ☐ N
i. If no, is only one stream gage located near the point of net depletion accumulation?	☐ Y ☐ N
1. If yes, is the stream gage upstream or downstream? _____	☐ A
b. List the gage name(s). Write "N/A" for Gage 2 if one gage available. Gage 1: _____ Gage 2: _____	☐ A
c. What is the distance between the gage(s) and the point of net depletion accumulation? Write "N/A" for Gage 2 if one gage available. Gage 1: _____ Gage 2: _____	☐ A
d. Is there a limiting or controlling factor on the source between the stream gage(s) and the point of net depletion accumulation? This includes dams that control the flow and streams with large gaining and/or losing reaches.	☐ Y ☐ N
i. If yes, explain. _____ _____	☐ A
e. How long is the period of record? Write "N/A" for Gage 2 if one gage is available. Gage 1: _____ Gage 2: _____	☐ A
f. Who operates and maintains the gage(s)? Write "N/A" for Gage 2 if one gage is available. Gage 1: _____ Gage 2: _____	☐ A

g. Is each available stream gage operated and maintained by USGS or DNRC?	☐ Y ☐ N
i. If yes, skip to question 61.h.	
ii. If no, answer the following questions for each gage not operated and maintained by USGS or DNRC.	
1. How frequently are stage data recorded? Write “N/A” for Gage 2 if only one gage is not operated or maintained by USGS. Gage 1: _____ Gage 2: _____	☐ A
2. If data gaps were to occur, are they identified and left unfilled or estimated using interpolation, ice correction, or indirect discharge measurements methods? Answer below.	
a. Gage 1.	☐ Y ☐ N
b. Gage 2. Write “N/A” on the line instead of answering yes or no, if only one gage is not operated or maintained by USGS or DNRC. _____	☐ Y ☐ N
3. Was the rating curve established and maintained throughout the duration of the period of record using measurements taken near the reference gage and stage recorder according to USGS protocols? Answer below.	
a. Gage 1.	☐ Y ☐ N
b. Gage 2. Write “N/A” on the line instead of answering yes or no, if only one gage is not operated or maintained by USGS or DNRC. _____	☐ Y ☐ N
4. Were there requirements for maintaining a permanent gage datum and meeting specified accuracy limits? Answer below.	
a. Gage 1.	☐ Y ☐ N
b. Gage 2. Write “N/A” on the line instead of answering yes or no, if only one gage is not operated or maintained by USGS or DNRC. _____	☐ Y ☐ N
h. Do the data for one or more available stream gages meet the Department’s standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the months with net depletions? See the "Department Standard Practice for Determining Physical Surface Water Availability" in the Permit Manual for more information.	☐ Y ☐ N
i. If yes, record how many meet the standard, then skip to question 64 because this section is complete. _____	☐ A
ii. If no, answer question 62.	

62. If no gage data are available or if available gage data do not meet the Department's standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the months with net depletions, is the source otherwise measured?	☐ Y ☐ N
a. If no, measurements may be necessary. The Department cannot deem the application correct and complete until the Department receives gage data and/or measurements that meet the Department's measurement standards or, in combination with an approved request to deviate from the Department's standards, are sufficient to complete any necessary technical analyses or scientific credibility reviews and to evaluate the applicable criteria. Skip to question 63.	
b. If yes,	
i. Submit measurements to the Department.	☐ S
ii. Who collected the measurements? _____	☐ A
iii. With what method were the data collected? _____ _____	☐ A
iv. What is the period of record? _____	☐ A
v. What is the frequency of measurement? _____	☐ A
vi. Are there gaps in the data?	☐ Y ☐ N
1. If yes, what is the nature of the gaps and how are gaps handled to ensure data quality? _____ _____	☐ A
vii. Is there a process for maintaining the data and meeting specified accuracy limits?	☐ Y ☐ N
1. If yes, explain. _____ _____	☐ A
viii. Do available measurement data meet the Department's standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the months with net depletions? Refer to the "Department Standard Practice for Determining Physical Surface Water Availability" in the Permit Manual for more information.	☐ Y ☐ N
1. If yes, this section is complete. Skip to question 64.	
2. If no, answer question 63.	

63. Do the available measurement data, gage and/or otherwise measured, meet the Department's standard of including a minimum of high, moderate, and low flows to be sufficient to use for calibration of a Department-accepted estimation technique? If the Department finds that your measurements are not sufficient to validate an estimation technique or that no estimation technique is appropriate for the source characteristics, further measurements may be required. Refer to the "Department Standard Practice for Determining Physical Surface Water Availability" in the Permit Manual for more information.	☐ Y ☐ N
a. If yes,	
i. Describe how the measurements are representative of high, moderate, and low flows. _____ _____ _____	☐ A
ii. If you conducted the technical analyses, summarize the estimation technique. If the Department will conduct the technical analyses, write "N/A" instead. _____ _____ _____	☐ A
b. If no, but a Department-accepted estimation technique will be appropriate for the hydraulically connected source:	
i. Did you request to deviate from the requirements of "Department Standard Practice for Determining Physical Surface Water Availability" found in the Permit Manual? Please note that the application cannot be deemed correct and complete until the Department receives measurements that meet these requirements or, in combination with an approved request to depart, are sufficient to complete any necessary technical analyses or scientific credibility reviews and to evaluate the applicable criteria.	☐ Y ☐ N
1. If yes, submit a copy of the request to deviate and, if available, the Department's decision.	☐ S
c. If no, because no Department-accepted estimation technique will be appropriate for the hydraulically connected source:	
i. Describe why no Department-accepted estimation technique is appropriate for the source characteristics. _____ _____ _____ _____	☐ A
ii. Do the available measurement data, gage and/or otherwise measured, meet the Department's standard for monthly measurements throughout the months with net depletions?	☐ Y ☐ N

1. If no, did you request to deviate from the requirements of "Department Standard Practice for Determining Physical Surface Water Availability" found in the Permit Manual? Please note that the application cannot be deemed correct and complete until the Department receives measurements that meet these requirements or, in combination with an approved request to depart, are sufficient to complete any necessary technical analyses or scientific credibility reviews and to evaluate the applicable criteria.	☐ Y ☐ N
a. If yes, submit a copy of the request to depart, and if available, the Department's decision.	☐ S

Return Flow Analysis

64. Do the purposes of the water rights proposed for change include irrigation?	☐ Y ☐ N
a. If yes, does the proposed change include a change in place of use *and/or* a change in purpose? If you propose to retire acres in the historical place of use and/or add new acres outside the historical place of use, this constitutes a change in place of use.	☐ Y ☐ N
i. If yes, a return flow analysis is required. Move on to answer question 65.	
ii. If no, this section is complete and the "Extended Return Flow Analysis" section is not required; skip to question 77.	
b. If no, this section is complete and the "Extended Return Flow Analysis" section is not required; skip to question 77.	
65. Does the proposed change include a change in purpose?	☐ Y ☐ N
a. If yes, consumptive use information is collected in the Change in Purpose section (questions 84 to 89), skip to question 66.	
b. If no, skip to question 66.	
66. Does the proposed change include a change in place of use? If yes, move on to question 67. If no, skip to question 70.	☐ Y ☐ N
67. Submit a map showing the new, unchanged historical, and retired historical places of use. Create map on an aerial photograph or topographic map that shows the following: section corners, township and range, scale bar, and north arrow. If you have shapefiles associated with this map, in addition to submitting an image of the map, please submit electronic copies of the shapefiles to the Department.	☐ S
68. How many acres, if any, will be retired from the historical place of use? _____	☐ A
69. Are irrigated acres proposed that are outside the historical place of use?	☐ Y ☐ N
a. If yes,	
i. How many acres? _____	☐ A
ii. What is the proposed irrigation method type (e.g., flood or sprinkler) and subtype (e.g., level border, graded border, furrow, contour ditch, wild flood, center pivot, or wheel line) for the new acres? _____	☐ A
iii. What is the slope (%) of the new place of use? _____	☐ A

iv. Based on question 69.a.ii to 69.a.iii, what is the percent efficiency of irrigation for the new acres? _____	☐ A
v. What is the County Management Factor for the new acres? _____	☐ A
vi. What is the ET based on the irrigation method and county for the new acres? _____	☐ A
vii. What percent of applied water are irrecoverable losses for new acres? _____	☐ A
70. Did you elect on Form 606 to have the Department conduct the technical analyses?	☐ Y ☐ N
a. If yes,	
i. Do you have information for the Department to consider about the source and location where return flows historically accrued?	☐ Y ☐ N
1. If yes, explain. _____ _____ _____	☐ A
ii. If an extended return flow analysis is necessary to analyze impacts to identified surface water rights for the purpose of evaluating adverse effect, pursuant to ARM 36.12.1303(5)(d)(iii), do you elect for the Department to use publicly available water quantity data for the extended return flow analysis? If the extended return flow analysis is required and sufficient publicly available water quantity data is not available (such as if measurements are required), then the Department will not be able to conduct the extended analysis, and the extended analysis will not be available for the Department to assess the adverse effect criterion pursuant to ARM 36.12.1903.	☐ Y ☐ N
b. If no, do either of the following conditions apply to your return flow analysis? - Return flows enter back to the source upstream of or at the location of the next appropriator. - Water is left instream so historically diverted flows are available downstream of the point of diversion or upstream of the next appropriator.	☐ Y ☐ N

i. If yes, list which conditions apply and explain why. Skip to question 77 because no extended return flow analysis is necessary to analyze impacts to identified surface water rights for the purpose of evaluating adverse effect, pursuant to ARM 36.12.1303(5)(d)(iii). _____ _____ _____ _____ _____ _____ _____ _____ _____	☐ A
ii. If no, an extended return flow analysis is necessary to analyze impacts to identified surface water rights for the purpose of evaluating adverse effect, pursuant to ARM 36.12.1303(5)(d)(iii). Answer the questions in the section "Extended Return Flow Analysis" (questions 71 to 76).	

PROJECT-SPECIFIC QUESTIONS

Extended Return Flow Analysis

Questions, Narrative Responses, and Tables	Check-boxes
71. If you conducted the technical analyses and question 31 or question 64 identified the need for a return flow analysis, did question 37 or question 70 identify that an extended return flow analysis is necessary? If yes, answer questions 72 to 76 one time for each surface water source receiving return flows that requires an extended return flow analysis. If there is more than one, use an "Additional Return Flow Source (606-TAA)" sheet for each additional source. If no, this section is complete; skip to question 77.	☐ Y ☐ N
72. What is the surface water source for which you are answering questions 73 to 76? _____	☐ A
73. Are stream gage data available?	☐ Y ☐ N
a. If yes, answer question 74.	
b. If no, answer question 75.	
74. Stream gage data are available	
a. Is one stream gage located above, and one stream gage located below the location where return flows accrue?	☐ Y ☐ N
i. If no, is only one stream gage located near the location where return flows accrue?	☐ Y ☐ N
1. If yes, is the stream gage upstream or downstream? _____	☐ A
b. List the gage name(s). Write "N/A" for Gage 2 if one gage available. Gage 1: _____ Gage 2: _____	☐ A

c. What is the distance between the gage(s) and the location where return flows accrue? Write "N/A" for Gage 2 if one gage available. Gage 1: _____ Gage 2: _____	☐ A
d. Is there a limiting or controlling factor on the source between the stream gage(s) and the location where return flows accrue? This includes dams that control the flow and streams with large gaining and/or losing reaches.	☐ Y ☐ N
i. If yes, explain. _____ _____	☐ A
e. How long is the period of record? Write "N/A" for Gage 2 if one gage is available. Gage 1: _____ Gage 2: _____	☐ A
f. Who operates and maintains the gage(s)? Write "N/A" for Gage 2 if one gage is available. Gage 1: _____ Gage 2: _____	☐ A
g. Is each available stream gage operated and maintained by USGS or DNRC?	☐ Y ☐ N
i. If yes, skip to question 74.h.	
ii. If no, answer the following questions for each gage not operated and maintained by USGS or DNRC.	
1. How frequently are stage data recorded? Write "N/A" for Gage 2 if only one gage is not operated or maintained by USGS. Gage 1: _____ Gage 2: _____	
2. If data gaps were to occur, are they identified and left unfilled or estimated using interpolation, ice correction, or indirect discharge measurements methods? Answer below.	
a. Gage 1.	☐ Y ☐ N
b. Gage 2. Write "N/A" on the line instead of answering yes or no, if only one gage is not operated or maintained by USGS or DNRC. _____	☐ Y ☐ N
3. Was the rating curve established and maintained throughout the duration of the period of record using measurements taken near the reference gage and stage recorder according to USGS protocols? Answer below.	
a. Gage 1.	☐ Y ☐ N
b. Gage 2. Write "N/A" on the line instead of answering yes or no, if only one gage is not operated or maintained by USGS or DNRC. _____	☐ Y ☐ N
4. Were there requirements for maintaining a permanent gage datum and meeting specified accuracy limits? Answer below.	
a. Gage 1.	☐ Y ☐ N
b. Gage 2. Write "N/A" on the line instead of answering yes or no, if only one gage is not operated or maintained by USGS or DNRC. _____	☐ Y ☐ N

h. Do the data for one or more available stream gages meet the Department's standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the months when return flows accrue? See the "Department Standard Practice for Determining Physical Surface Water Availability" in the Permit Manual for more information.	☐ Y ☐ N
i. If yes, record how many meet the standard, then skip to question 77 because this section is complete. _____	☐ A
ii. If no, answer question 75.	
75. If no gage data are available or if available gage data do not meet the Department's standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the months when return flows accrue, is the source otherwise measured?	☐ Y ☐ N
a. If no, measurements may be necessary. The Department cannot deem the application correct and complete until the Department receives gage data and/or measurements that meet the Department's measurement standards or, in combination with an approved request to deviate from the Department's standards, are sufficient to complete any necessary technical analyses or scientific credibility reviews and to evaluate the applicable criteria. Skip to question 76.	
b. If yes,	
i. Submit measurements to the Department.	☐ S
ii. Who collected the measurements? _____	☐ A
iii. With what method were the data collected? _____ _____	☐ A
iv. What is the period of record? _____	☐ A
v. What is the frequency of measurement? _____	☐ A
vi. Are there gaps in the data?	☐ Y ☐ N
1. If yes, what is the nature of the gaps and how are gaps handled to ensure data quality? _____ _____	☐ A
vii. Is there a process for maintaining the data and meeting specified accuracy limits?	☐ Y ☐ N
1. If yes, explain. _____ _____	☐ A

viii. Do available measurement data meet the Department's standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the months when return flows accrue? Refer to the "Department Standard Practice for Determining Physical Surface Water Availability" in the Permit Manual for more information.	☐ Y ☐ N
1. If yes, this section is complete. Skip to question 77.	
2. If no, answer question 76.	
76. Do the available measurement data, gage and/or otherwise measured, meet the Department's standard of including a minimum of high, moderate, and low flows to be sufficient to use for calibration of a Department-accepted estimation technique? If the Department finds that your measurements are not sufficient to validate an estimation technique or that no estimation technique is appropriate for the source characteristics, further measurements may be required. Refer to the "Department Standard Practice for Determining Physical Surface Water Availability" in the Permit Manual for more information.	☐ Y ☐ N
a. If yes,	
i. Describe how the measurements are representative of high, moderate, and low flows. _____ _____ _____	☐ A
ii. If you conducted the technical analyses, summarize the estimation technique. If the Department will conduct the technical analyses, write "N/A" instead. _____ _____ _____ _____ _____ _____	☐ A
b. If no, but a Department-accepted estimation technique will be appropriate for the source receiving return flows:	
i. Did you request to deviate from the requirements of "Department Standard Practice for Determining Physical Surface Water Availability" found in the Permit Manual? Please note that the application cannot be deemed correct and complete until the Department receives measurements that meet these requirements or, in combination with an approved request to depart, are sufficient to complete any necessary technical analyses or scientific credibility reviews and to evaluate the applicable criteria.	☐ Y ☐ N
1. If yes, submit a copy of the request to deviate and, if available, the Department's decision.	☐ S
c. If no, because no Department-accepted estimation technique will be appropriate for the source receiving return flows:	
i. Describe why no Department-accepted estimation technique is appropriate for the source characteristics. _____ _____ _____ _____	☐ A

ii. Do the available measurement data, gage and/or otherwise measured, meet the Department's standard for monthly measurements throughout the months when return flows accrue?	☐ Y ☐ N
1. If no, did you request to deviate from the requirements of "Department Standard Practice for Determining Physical Surface Water Availability" found in the Permit Manual? Please note that the application cannot be deemed correct and complete until the Department receives measurements that meet these requirements or, in combination with an approved request to depart, are sufficient to complete any necessary technical analyses or scientific credibility reviews and to evaluate the applicable criteria.	☐ Y ☐ N
a. If yes, submit a copy of the request to depart, and if available, the Department's decision.	☐ S

Temporary Change

77. Does the proposal include a temporary change? *This includes proposing to add a place of use on State of Montana Trust Land, with all points of diversion on private land, because the change authorization will be temporary for the duration of the lease term*. If yes, answer the questions in this section (questions 78 to 82). If no, this section is complete; skip to question 83.	☐ Y ☐ N
78. What elements of the water rights are being temporarily changed? _____	☐ A
79. For what purpose will the water rights be temporarily used? _____	☐ A
80. For how many years will the water rights be temporarily changed? _____	☐ A
81. Will the temporary change be intermittent over the years?	☐ Y ☐ N
a. If yes, explain. _____ _____	☐ A
82. Is the quantity of water subject to the temporary change being made available from the development of a new water conservation or storage project?	☐ Y ☐ N
a. If yes, explain the water conservation or storage project. _____ _____ _____ _____	☐ A

Change in Purpose

83. Does the project involve a change in purpose? If yes, answer the questions in this section (questions 84 to 89). If no, this section is complete, and you can skip to question 90.	☐ Y ☐ N
84. Identify the new and unchanged purposes and for each purpose, the period of diversion (mm/dd-mm/dd), period of use (mm/dd-mm/dd), flow rate (GPM or CFS), and volume (AF).	☐ A

Purpose	**New or Un-changed**	**Period of Diversion**	**Period of Use**	**Flow Rate**			**Volume**
		(MM/DD-MM/DD)	*(MM/DD-MM/DD)*	*Flow Rate*	*GPM*	*CFS*	*(AF)*
					☐	☐	
					☐	☐	
					☐	☐	
			Total		☐	☐	

85. Answer the questions specific to each new and unchanged purpose identified in question 84.	

Lawn and garden	Question 86	**Stock**	Question 87	**Domestic and multiple domestic**	Question 88	**Other purpose**	Question 89

86. Lawn and garden	
a. Will consumptive use be based on the standard of 2.5 acre-feet per acre or a calculated volume based on Irrigation Water Requirements for turf grass?	☐ Y ☐ N
i. If yes, which standard? _____	☐ A
ii. If no, describe how consumptive use will be estimated. This must be based on expert analysis. _____ _____ _____	☐ A
87. Stock	
a. How many animal units will be served? _____	☐ A
88. Domestic and multiple domestic	
a. How many households will be served? _____	☐ A
b. Will the Department standard of 1 acre-foot per household be used to determine consumptive use?	☐ Y ☐ N
i. If no, what standard will be used? _____	☐ A

c. Will the proposed use include wastewater disposal and treatment?	☐ Y ☐ N
i. If yes, which of the following best describes the wastewater disposal and treatment system? Individual drain fields, central treatment facility with minimal consumption, or evaporation basin or land application? _____ _____	☐ A
89. Other purpose	
a. What is the other purpose (e.g., municipal, commercial)? _____	☐ A
b. What is the percentage of consumption for the proposed use? Please explain. _____ _____ _____ _____	☐ A

Ditch-Specific Questions

Applications corroborating historical diverted volume with the Historical Use Addendum (Form 606-HUA) may be eligible to skip one or more questions in this section; see the Form 606-HUA for more information.

90. Does the historical use of water include at least one conveyance ditch? If yes, answer questions 91 to 92. If no, skip to question 93.	☐ Y ☐ N
91. Submit a Historical Use Ditch Map that shows every ditch conveying water for the historical use of all water rights proposed for change. Label the ditch names, PODs, the POUs, and the ditch measurement locations (requested in question 92.d). The map should be created on a historical image or topographic map with the following: section corners, township and range, scale bar, and north arrow.	☐ S
92. Answer questions 92.a to 92.h one time for each historical conveyance ditch. If there is more than one historical conveyance ditch, use an “Additional Historical Ditch (606-TAA)” sheet for each additional ditch.	
a. What is the ditch name? _____	☐ A
b. List the water rights proposed for change that were conveyed by the ditch. _____ _____	☐ A
c. What is the distance water was historically carried by the conveyance ditch? Only include segments between the POD and start of the POU; do not include segments within the POU. _____	☐ A

d. Provide at least one set of ditch measurements, which include width (FT), depth (FT), and slope (%). Include the location of each measurement, labeled with the 2-digit measurement ID number, used on the map submitted for question 91.	☐ A

ID #	Width (FT)	Depth (FT)	Slope (%)	Date of Measurement

e. What is a reasonable Manning's n value? List the factors used for estimation. _____ _____ _____	☐ A
f. What type of soils compose the historical conveyance ditch? For lined ditches, write "lined" instead. _____ _____ _____	☐ A
g. Are other water rights conveyed by the historical conveyance ditch?	☐ Y ☐ N
i. If yes,	
1. List the water right numbers and their flow rates. _____ _____ _____	☐ A
2. What is the sum of the flow rates, including the water rights proposed for change? _____ _____	☐ A
3. Submit a map with your best estimate of the historical POUs for the other water rights conveyed by the historical conveyance ditch. Include only POUs between the historical POD and your historical POU. The map should be created on an aerial photograph or topographic map and show the following: section corners, township and range, scale bar, and north arrow. If you elected for the Department to conduct technical analyses, write "N/A" instead if you agree with the Department using publicly available data to create the map. _____	☐ S

h. Were any water rights proposed for change part of one historical water right that was split?	☐ Y ☐ N
i. If yes, were all split water rights split in such a way to ensure each post-split water right could stand alone and not be reliant on the others for carriage water?	☐ Y ☐ N
1. If no, do any of the water rights proposed for change have a carriage water requirement?	☐ Y ☐ N
a. If yes,	
i. List the water rights with a carriage water requirement _____ _____	☐ A
ii. Update your Historical Use Ditch Map (question 91) to label the ditch segments where a carriage water requirement exists for a water right proposed for change. Also, use your best estimate to label the POUs for all water rights included in the carriage water requirement.	☐ S
93. Does the proposed use include at least one existing or new conveyance ditch? If yes, answer questions 94 to 95. If no, skip to question 96.	☐ Y ☐ N
94. Submit a Proposed Use Ditch Map that shows every ditch conveying the water rights proposed for change, including any unchanged portions. Label all unchanged and proposed PODs, all unchanged and proposed POUs, and additional ditch measurement locations (requested in question 95.e). The map should be created on an aerial photograph or topographic map with the following: section corners, township and range, scale bar, and north arrow.	☐ S
95. Answer questions 95.a to 95.i.i one time for each proposed use conveyance ditch. Use an "Additional Proposed Ditch (606-TAA)" sheet for each additional ditch.	
a. What is the ditch name? _____	☐ A
b. Is this ditch a historical conveyance ditch detailed in questions 91 to 92?	☐ Y ☐ N
i. If yes, have any of the following details changed, to the best of your knowledge, from historical conditions: ditch length, distance water conveyed, ditch lining, or water rights conveyed by the ditch?	☐ Y ☐ N
1. If yes, answer questions 95.c to 95.i.i using current data.	
2. If no, do not answer questions 95.c to 95.i.i for this ditch because the information remains unchanged. Move on to the next proposed use conveyance ditch, or if none remain, skip to question 96.	
c. List the water rights proposed for change that are going to be conveyed by the ditch. _____ _____	☐ A
d. What is the distance water will be carried by the conveyance ditch? Only include segments between the POD and start of the POU; do not include segments within the POU. _____ _____	☐ A

e. Provide at least one set of ditch measurements, which include width (FT), depth (FT), and slope (%). Include the location of each measurement, labeled with the 2-digit measurement ID number, used on the map submitted for question 94. ☐ A

ID #	Width (FT)	Depth (FT)	Slope (%)	Date of Measurement

f. What is a reasonable Manning's n value? List the factors used for estimation. ☐ A

_____

_____

_____

g. What type of soils compose the proposed conveyance ditch? For lined ditches, write "lined" instead. ☐ A

_____

_____

_____

h. Are other water rights conveyed by the proposed conveyance ditch? ☐ Y ☐ N

i. If yes,

1. List the water right numbers and their flow rates. ☐ A

_____

_____

_____

2. What is the sum of the flow rates, including the proposed flow rates of the water rights proposed for change? ☐ A

_____

_____

3. Submit a map with your best estimate of the current POUs for the other water rights conveyed by the proposed conveyance ditch. Include only POUs between the POD and your proposed POU. The map should be created on an aerial photograph or topographic map and show the following: section corners, township and range, scale bar, and north arrow. If you elected for the Department to conduct technical analyses, write "N/A" instead if you agree with the Department using publicly available data to create the map. _____ ☐ S

i. Were any water rights proposed for change identified as having a carriage water requirement in question 92.h.i.1.a.i? ☐ Y ☐ N

i. If yes, update your Proposed Use Ditch Map to label the ditch segments where a carriage water requirement exists for a water right proposed for change. Also, use your best estimate to label the POUs for all water rights included in the carriage water requirement. If you elected for the Department to conduct technical analyses, write "N/A" instead if you agree with the Department using publicly available data to create the map. _____ ☐ S

Change in Place of Storage

96. Does the project involve a change in place of storage? If yes, answer the questions in this section (questions 97 to 102) for each individual place of storage. Use the "Additional Place of Storage (606-TAA)" sheet for additional places of storage. If no, this section is complete; skip to question 103.	☐ Y ☐ N
97. Is this application to add a new place of storage or change an existing place of storage? _____	☐ A
a. If you propose to change an existing place of storage, list the water rights that include the place of storage and a short description of the proposed change; otherwise write "NA." _____ _____ _____	☐ A
98. Is the place of storage located on-stream?	☐ Y ☐ N
a. If no, describe any losses related to conveyance that are not detailed in "Ditch-Specific Questions." _____ _____ _____	☐ A
99. What is the proposed capacity of the place of storage? Use bathymetry data, survey, or engineering plans for capacity. Submit the data source used with this form. In lieu of these data sources, use the following equation: *Surface Acres x Maximum Depth (FT) x 0.5 = Capacity (AF)* _____	☐ S
100. What is the proposed surface area of the place of storage? _____	☐ A
101. What is the annual net evaporation of water from the place of storage based on proposed capacity and proposed surface area, using the standards in ARM 36.12.116(1) and the Department's Gridded Net Evaporation map layer? _____ _____	☐ A
102. Will the place of storage be lined?	☐ Y ☐ N

Mitigation, Aquifer Recharge, and Marketing for Mitigation/Aquifer Recharge

103. Does your application include one of the following purposes? If no, this section is complete; skip to question 108.	☐ Y ☐ N
a. Mitigation water. If yes, answer questions 104 and 105.	☐ Y ☐ N
b. Aquifer recharge water. If yes, answer questions 106 and 107.	☐ Y ☐ N
c. Marketing for mitigation/aquifer recharge. If yes, answer question 107.	☐ Y ☐ N

104. Mitigation Water and Aquifer Recharge Water

a. Identify the water right(s) for which the mitigation water/aquifer recharge will be used. ☐ A

_____

b. Identify the application or preapplication number where these water rights were identified as needing mitigation or aquifer recharge to meet the adverse effect criterion. ☐ A

_____

c. What is the timing, flow rate, and volume of net depletions identified as needing mitigation or aquifer recharge water to meet the adverse effect criterion? ☐ A

Month	**Days**	**Flow Rate**			**Volume**	**Month**	**Days**	**Flow Rate**			**Volume**
		Flow	*GPM*	*CFS*	*AF*			*Flow*	*GPM*	*CFS*	*AF*
January			☐	☐		July			☐	☐	
February			☐	☐		August			☐	☐	
March			☐	☐		September			☐	☐	
April			☐	☐		October			☐	☐	
May			☐	☐		November			☐	☐	
June			☐	☐		December			☐	☐	

d. Will other water contribute to the need for mitigation or aquifer recharge water? This may include water rights with a mitigation or aquifer recharge purpose, marketing for mitigation contracts, or mitigation water secured via other types of contracts. ☐ Y ☐ N

i. If yes, describe the origin of this water and in the table below, list how much it will contribute. ☐ A

_____

Month	**Days**	**Flow Rate**			**Volume**	**Month**	**Days**	**Flow Rate**			**Volume**
		Flow	*GPM*	*CFS*	*AF*			*Flow*	*GPM*	*CFS*	*AF*
January			☐	☐		July			☐	☐	
February			☐	☐		August			☐	☐	
March			☐	☐		September			☐	☐	
April			☐	☐		October			☐	☐	
May			☐	☐		November			☐	☐	
June			☐	☐		December			☐	☐	

105. Mitigation Water

a. What is the legal land description (¼ ¼ ¼ section of start and end) of the mitigation reach and the start of net depletions for which mitigation water will be used? ☐ A

_____

b. By what means will mitigation water be made available? ☐ A

_____

_____

_____

_____

c. Submit a copy of all relevant discharge permits (§ 85-2-364, MCA). If there are no relevant discharge permits, write “N/A” instead. _____ ☐ S

106. Aquifer Recharge Water	
a. What is the legal land description (¼ ¼ ¼ section) of the start of net depletions for which the aquifer recharge water will be used? _____	☐ A
b. What is the volume of net depletions that will be offset by the aquifer recharge water? *The volume of aquifer recharge water injected may not equal the volume of net depletions.* _____	☐ A
c. Describe the method of aquifer recharge. Include, if available, a preliminary design. _____ _____ _____ _____ _____	☐ A
d. Submit a copy of all relevant discharge permits (§ 85-2-364, MCA). If there are no relevant discharge permits, write "N/A" instead. _____	☐ S
e. Describe any constraints on the aquifer recharge schedule, such as priority date limitations. _____ _____	☐ A
f. What is the proposed area or location of aquifer recharge? *The location is subject to refinement during the technical analyses.* If you elected to do your own technical analyses, write "N/A" instead. _____ _____ _____	☐ A
107. Marketing for Mitigation/Aquifer Recharge	
a. What is the proposed location of the reach where water is to be marketed (¼ ¼ ¼ section of start and end of reach)? _____	☐ A
b. Is this marketing for mitigation?	☐ Y ☐ N
i. If yes, by what means will mitigation water be made available? _____ _____ _____ _____	☐ A

c. Is this marketing for aquifer recharge?	☐ Y ☐ N
i. If yes,	
1. Describe the method of aquifer recharge. Include a preliminary design. _____ _____ _____ _____	☐ A
2. Submit a copy of all relevant discharge permits (§ 85-2-364, MCA). If there are no relevant discharge permits, write "N/A" instead. _____	☐ S
3. What is the volume of water that will be used for aquifer recharge? _____	☐ A
4. Describe any constraints on the aquifer recharge schedule, such as priority date limitations. _____ _____	☐ A
5. What is the proposed area or location of aquifer recharge? *The location is subject to refinement during the technical analyses.* If you elected to do your own technical analyses, write "N/A" instead. _____ _____ _____	☐ A
d. Describe your ability to measure and operate all existing diversions to adjust flow rate as water is sold or leased. _____ _____ _____ _____	☐ A
e. How will you cease diversions for the existing beneficial use as water is sold or leased? _____ _____ _____ _____	☐ A

Instream Flow Change

108. Does the project involve an instream flow change? If yes, answer the questions in this section (questions 109 to 114). If no, this section is complete; skip to question 115.	☐ Y ☐ N
109. What is the source name where streamflow will be maintained or enhanced? _____	
110. What is the location (¼ ¼ ¼ section of start and end of reach) and length (FT) of the protected reach? _____	☐ A

111. Describe the way the streamflow is to be maintained or enhanced. _____ _____	☐ A
112. Do you propose to retire all water use associated with the historical purposes throughout the entire period of use? This includes conveyance loss associated with historical ditches.	☐ Y ☐ N
a. If no, describe the proposed change to existing purposes, including flow rate, volume, and, if applicable, acres. _____ _____ _____ _____	☐ A
113. If you conducted the technical analyses, do historical return flows go back to the source of supply? If you elected for the Department to conduct technical analyses, this information will not yet be available for creation of the instream flow proposal; write "NA": _____	☐ Y ☐ N
114. Is the amount of water proposed for change in the application made available through creation of a "water saving method," as defined in ARM 36.12.101?	☐ Y ☐ N
a. If yes, complete the Salvage Water section (questions 115 to 118).	

Salvage Water

115. Does this project involve salvage water? Salvage water does not include destroying phreatophytes, removing vegetation, converting to a less consumptive crop, or converting to a partial irrigation schedule. If yes, answer the questions in this section (questions 116 to 118). If no, this section is complete.	☐ Y ☐ N
116. What water saving method was implemented? This may include lining an unlined ditch or canal, converting unlined ditch or canal to pipeline, converting high profile or high-pressure sprinklers to low pressure, and others. Explain. _____ _____ _____	☐ A
117. How much water was salvaged from implementation of the water saving method? Include flow rate (GPM or CFS) and volume (AF). _____	☐ A
118. How did you determine the amount of water salvaged? _____ _____ _____ _____ _____	☐ A