

NOTICE AREA

Application No. 76M 30164554

Regional Office # 09

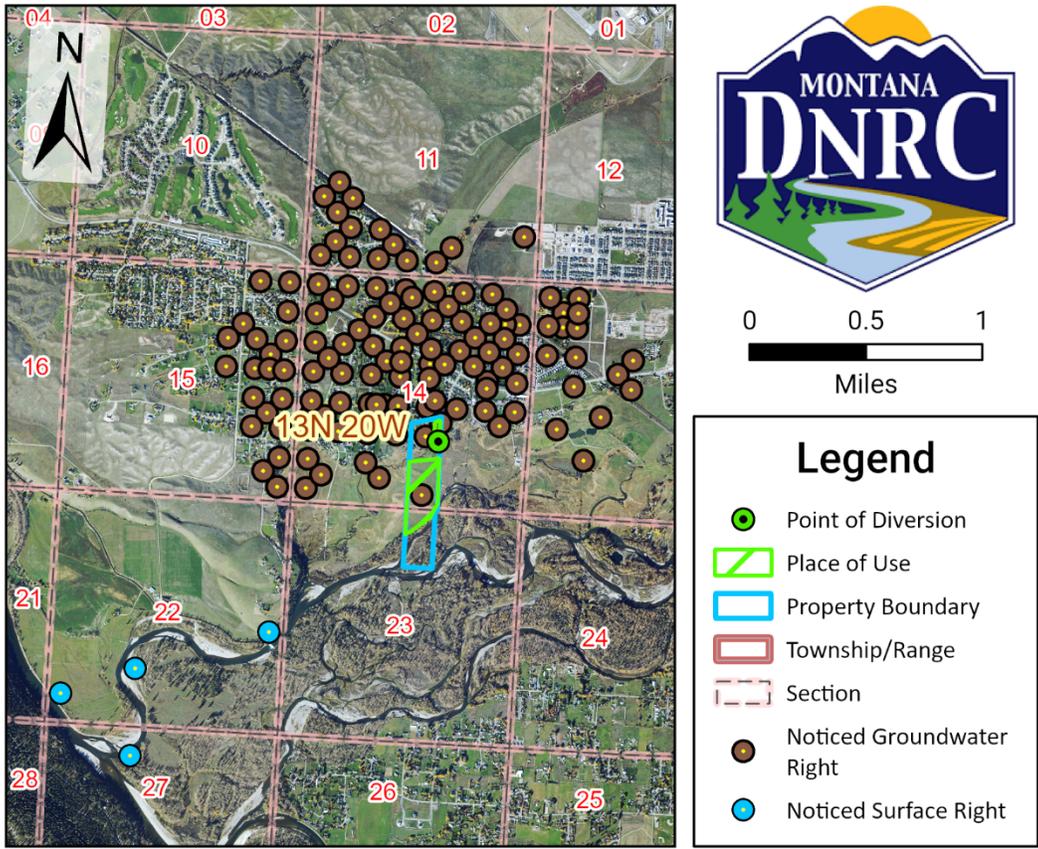
Applicant's Name David G. Miller & Susan E. Miller

Indian Reservation Yes No If yes, Reservation _____

Irrigation District Yes No If yes, District _____

Specialist Benjamin Thomas Date 3/11/2026

Permit Application 76M 30164554 - David & Susan Miller



Map of surface water diversions downstream of the point where depletions to the Clark Fork River begin and groundwater diversions within the proposed well's zone of influence. Locations are approximate, and some water rights may be displayed as having overlapping points of diversion.

| Interested Party | |
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| Applicant: David G Miller & Susan E Miller | |
| Consultant: Julie Merritt, WGM Group | |
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| Avista Corporation | |
| Bureau of Indian Affairs | |
| Clark Fork Coalition | |
| Department of Environmental Quality | |
| Department of Fish Wildlife & Parks | |
| Lolo National Forest | |
| Missoula County Clerk & Recorder | |
| Missoula County Clerk of Court | |
| Missoula County Conservation District | |
| Missoulia | |
| Montana Board of Land Commissioners | |
| Northwestern Energy | |
| PPL Montana LLC | |
| Trout Unlimited | |
| U.S. Forest Service | |
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| Water Right Owner | Water Right # |
| OLD HELLGATE VILLAGE, INC | 76M 598 00 |
| FLORENCE O WOOD | 76M 2555 00 |
| BETTY KALDAHL; DALE KALDAHL | 76M 6947 00 |
| EDMUND DENNY; HOPE E DENNY | 76M 7949 00 |
| KASEY SCHRIVER; MEAGAN Y SCHRIVER | 76M 9809 00 |
| CASEY M BLACK; JENNIFER A BLACK | 76M 11138 00 |
| BLACK, PATRICK & SUE LIVING TRUST | 76M 12573 00 |
| ANTONY CROONENBERGHS | 76M 12849 00 |
| COWART, GILBERT & SANDRA LIVING TRUST 7/14/23 | 76M 14030 00 |
| CHRISTINE M WATSON; DOUGLAS B WATSON | 76M 15763 00 |
| ARLEN ARENDS; LISA ARENDS | 76M 16413 00 |
| JOHN WESTER | 76M 16467 00 |
| RANDY S ROSENQUIST; ROBIN R ROSENQUIST; WORKEES LLC | 76M 16844 00 |
| HANS J ANDERSEN | 76M 17987 00 |
| MARIJANE THOMAS | 76M 19245 00 |
| STACY L JOHNSON | 76M 19246 00 |
| KIM D RIGGLEMAN | 76M 19247 00 |
| CASTLE CREIGHTON; CARLIE GEHRMAN | 76M 19248 00 |
| ALEKSEY A CHINIKAYLO; ERINA CHINIKAYLO; LYUBOV I CHINIKAYLO; YEVGENIY A CHINIKAYLO | 76M 19249 00 |
| MISSOULA COUNTY ATTORNEYS OFFICE | 76M 20881 00 |
| BRANDON PETERSON | 76M 22506 00 |
| DAVID C TOOLE; NANCY L TOOLE | 76M 22529 00 |
| MEGHAN BABBITT; OBEDIAH BABBITT | 76M 22803 00 |
| MEGAN A BUGONI; PETER T BUGONI | 76M 23214 00 |
| JOHN BORGIALLI | 76M 23217 00 |
| MARGARET BAACK; MATTHEW BAACK | 76M 23578 00 |
| THOMAS C DZOMBA | 76M 24202 00 |
| CATHERINE C KIRGAN; STEVEN C KIRGAN | 76M 25662 00 |
| JON B CUSKER; PATRICIA J CUSKER | 76M 26375 00 |
| TIMOTHY M CRIDER | 76M 28514 00 |

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| ERIK D SKILLMAN; LESIA M SKILLMAN | 76M 34371 00 |
| FLYNN, KATHRYN R FAMILY LTD PARTNERSHIP | 76M 36557 00 |
| DALE R HANSON; JANET HANSON | 76M 40038 00 |
| JESSE LAFLESCH | 76M 41233 00 |
| NELLIE J BOONE; WILLIAM J BOONE | 76M 41667 00 |
| ALFRED S TULLY; ALICE M TULLY | 76M 43642 00 |
| REED C PORTER; TAMMY PORTER | 76M 45452 00 |
| JOYCE J LOOMIS; MICHAEL E LOOMIS | 76M 47093 00 |
| JENNY L WARREN; MARK WARREN | 76M 48136 00 |
| BENJAMIN M MINEO | 76M 49142 00 |
| ANDERSON, JAMES R & CAROLINE L LIVING TRUST | 76M 52101 00 |
| ALFRED S TULLY; ALICE M TULLY | 76M 53925 00 |
| PAUL D WIMBERLY; PAULA WIMBERLY | 76M 57703 00 |
| JAMES F MCCALLUM | 76M 57802 00 |
| BOBBI BEARD; MARK J BRADY | 76M 62511 00 |
| ROBERT G DAHL; BETTY I LA BELLE | 76M 62564 00 |
| GORDON STAVISH | 76M 62585 00 |
| SUSAN M VUKE | 76M 62647 00 |
| SHAWN MORTENSEN | 76M 63643 00 |
| CHARLES P WILSON; TRACY L WILSON | 76M 63655 00 |
| SUNSET MEMORIAL CEMETARY AND FUNERAL HOME | 76M 67710 00 |
| RICHARD A VARNER | 76M 67721 00 |
| JOHN DRAKE PROPERTIES LLC | 76M 67724 00 |
| DEBRA S BRAULT; KELLY J BRAULT | 76M 69614 00 |
| DANI C MCLAUGHLIN; THOMAS H MCLAUGHLIN | 76M 69623 00 |
| MARION DAVIDSON; WILLIAM L DAVIDSON | 76M 70306 00 |
| CLAUDINE M SHELDEN; JAMES P SHELDEN | 76M 70438 00 |
| JEFRFREY R CROONENBERGHS | 76M 72200 00 |
| DEBRA GARRIN; LARRY GARRIN | 76M 73882 00 |
| DARRELL S BECKWITH; JOETTE C BECKWITH | 76M 74302 00 |
| JAMES W BURFEIND; LINDA I BURFEIND | 76M 74782 00 |
| AMBER BEAUDETTE; RANDY BEAUDETTE | 76M 74810 00 |
| DORETHA M LUMPRY; DUANE E LUMPRY | 76M 75237 00 |
| THOMAS A FONT | 76M 75720 00 |
| DAWN FULKERSON; JAMES A FULKERSON | 76M 75743 00 |
| BACKSTROM RAYMOND C & MARY T LIVING TRUST | 76M 78471 00 |
| DONNA BOURKE | 76M 78947 00 |
| MOUNTAIN VIEW BAPTIST CHURCH | 76M 78974 00 |
| JAMES D SCHNEITER; PAMELA L SCHNEITER | 76M 80936 00 |
| JASON J LOMAN; NATASHA L LOMAN | 76M 80966 00 |
| LAUREN B ERICKSON; LEE T ERICKSON | 76M 80994 00 |
| RODNEY HARRIS; SHAWN HARRIS | 76M 81397 00 |
| JAMES M BEECHER; CHAD J HARBERD; KAYE A HARBERD | 76M 81426 00 |
| PETER A BORN-ROPP; VICKIE BORN-ROPP | 76M 81441 00 |
| FINLEY AND LAMEY FAMILY TRUST | 76M 81735 00 |
| JESSICA M ROUSE; SCOTT W ROUSE | 76M 81779 00 |
| ANNE BROOKS; CURTIS M BROOKS | 76M 82059 00 |
| GREG MALONE; JILL MALONE | 76M 82062 00 |
| WENDY T GARNER | 76M 82084 00 |
| ARNOLD E KIMMEL; DOUGLAS R KIMMEL; EDDIE H KIMMEL | 76M 82107 00 |
| IRENE TANNER | 76M 82138 00 |
| ROBERT G DAHL; BETTY I LA BELLE | 76M 82182 00 |

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| DENNIS GEORGE; RICK GEORGE | 76M 82812 00 |
| HANNAH C AMES; JOEL T WOODRUFF | 76M 83621 00 |
| KATHERINE ONEILL; JACK WOLDTVEDT | 76M 83671 00 |
| DENNIS L CHAPEL; JEANNETTE M CHAPEL | 76M 83699 00 |
| RICK D KAMURA | 76M 83749 00 |
| DEAN H MIKES | 76M 83896 00 |
| CHRISTINE HOVDEY; DALE R HOVDEY | 76M 84545 00 |
| ANGELA N JONES; KEVIN C JONES | 76M 84580 00 |
| MARTI A LEIBENGUTH | 76M 84639 00 |
| ALEXANDRIA HANSON | 76M 85261 00 |
| JAYLA FOWKE; JOSHUA A FOWKE | 76M 85859 00 |
| ANN O CARVER; CLINTON O CARVER | 76M 86715 00 |
| CAROL J STOVALL; DALE E STOVALL | 76M 86750 00 |
| SUSAN MATHIS | 76M 86771 00 |
| KENNETH J AULT | 76M 86772 00 |
| SAUL MCMEEKIN; MEGAN TAYLOR | 76M 87717 00 |
| HUMPHREYS REVOCABLE LIVING TRUST 3/18/04 | 76M 87723 00 |
| ERIK C RODIN | 76M 87730 00 |
| PATRICIA A BOWMAN; ROBERT R BOWMAN | 76M 87738 00 |
| ALLAN D FREY | 76M 87748 00 |
| LARRY T GARRISON | 76M 87765 00 |
| LOPEZ LIVING TRUST | 76M 87790 00 |
| OWINGS FAMILY TRUST | 76M 87824 00 |
| JANIS FONTAINE; SHAWN FONTAINE | 76M 87829 00 |
| TIM A WITTMIER | 76M 87851 00 |
| SARA K SHELDON | 76M 88539 00 |
| CRAIG STEVENS; KRISTIN STEVENS | 76M 89359 00 |
| CONNIE FRAZIER; DOUG FRAZIER | 76M 89379 00 |
| RICHARD A BOOTH | 76M 89381 00 |
| COLEY M JONES | 76M 89463 00 |
| LEANNA GREEN | 76M 89471 00 |
| APRYL A LANGE; SHANNON L LANGE | 76M 90475 00 |
| BECKY WALTERS; BRUCE WALTERS | 76M 91209 00 |
| KEELY M MARKUSON; RYAN L MARKUSON | 76M 91271 00 |
| DAVID R SCOTT; GLENDA L SCOTT | 76M 91346 00 |
| CASEY MEIDINGER; JUSTIN MEIDINGER | 76M 91359 00 |
| HAROLD H POLAKOW | 76M 91381 00 |
| ALAN M BALLEW; JULIE K BALLEW | 76M 92110 00 |
| KIM BENNETT; WILLIAM D BENNETT | 76M 92153 00 |
| KRYSTAL L GUILHEMOTONIA; SEBASTIEN M GUILHEMOTONIA | 76M 92154 00 |
| CYNTHIA S CHESEMORE; JAMES R CHESEMORE; KAITLYNN H CHESEMORE | 76M 92159 00 |
| OSCAR ALLESTAD; SHEILA ALLESTAD | 76M 92198 00 |
| MOLLIE A AILENE; ZACH B PEO | 76M 93254 00 |
| LINDA K GUTHRIE; VINTON R GUTHRIE | 76M 93260 00 |
| MICHELE M ADAMS | 76M 93265 00 |
| DONI L ULLAND; IAN M ULLAND | 76M 93288 00 |
| CHARLES H RODGERS | 76M 93289 00 |
| SCOTT W OCHSNER; SELENA V OCHSNER | 76M 93303 00 |
| SCOTT A ESSERT; LAURA L HENNING | 76M 93369 00 |
| JACK A DARK; LOREE E DARK | 76M 93411 00 |
| LEROY J OLESON; PEGGY A OLESON | 76M 94176 00 |
| DENNIS W GREENO | 76M 94201 00 |

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| CHRISTOPHER W ROBERTS; TERESA M ROBERTS | 76M 94230 00 |
| FRANCES A SCHMIDT | 76M 94236 00 |
| GARD, NORMAN C & CAROLYN J JOINT REV TRUST 7/27/16 | 76M 94256 00 |
| RYSON G SPARACINO | 76M 94266 00 |
| CANTU, OCTAVIO P REVOCABLE INTER-VIVOS TRUST | 76M 94267 00 |
| KERRY J KELLY | 76M 94973 00 |
| THOMAS R COMBS | 76M 95012 00 |
| ERIK R HAMILTON | 76M 95021 00 |
| LANGE STEWART FAMILY TRUST | 76M 95964 00 |
| LUCY WEEDER | 76M 95966 00 |
| KATIE COTNER; KEVIN COTNER | 76M 95984 00 |
| AX MHC KATOONAH LODGES LLC | 76M 96913 00 |
| JASON LONG | 76M 96982 00 |
| COLIN HILLIS; DALAYNA L HILLIS | 76M 97038 00 |
| MICHELLE CLEMENT | 76M 98034 00 |
| DANIEL BROWDER; PHYLLIS E BROWDER | 76M 98054 00 |
| BRIAN BOURGEOIS | 76M 98182 00 |
| CLIFFORD L WALKER | 76M 98472 00 |
| ANDREA HREN; LUCAS HREN | 76M 98487 00 |
| PEGGY Z FRAME; RALPH A FRAME | 76M 98501 00 |
| BRIAN L WALKER; LILIANA R WALKER | 76M 98542 00 |
| COLLIN R JONES; TAWNI G JONES | 76M 99613 00 |
| JOEL J GAERTIG; STEPHANIE A GAERTIG | 76M 99697 00 |
| YOUNGBAUER FAMILY TRUST | 76M 100374 00 |
| DARCY A TRENT; WILLIAM A TRENT | 76M 100393 00 |
| JONATHAN CARL; MONICA CARL | 76M 100433 00 |
| DONALD C SCOTT | 76M 100439 00 |
| MARVEL CARVER | 76M 100446 00 |
| ALLAN B TIMS; LISA K TIMS | 76M 100458 00 |
| CAROL KNIEPER; KENNETH KNIEPER | 76M 100496 00 |
| ERIC HAMER; SARINA J HAMER | 76M 100888 00 |
| ROBERT N SKOGLEY | 76M 100940 00 |
| TYLER CARPENTER | 76M 100981 00 |
| CAMI THOMPSON; REX THOMPSON | 76M 100996 00 |
| SCOTT PROVOST | 76M 102082 00 |
| JULIE MCMAHON; WILLIAM A STAVERS | 76M 102376 00 |
| CHAD F BOWKER; JANET M BOWKER | 76M 102460 00 |
| DARRYL I JUDEN | 76M 103404 00 |
| BECKY HARRIS; JOHN J HARRIS; KAYCEE G HARRIS; KELLY HARRIS; MICHAEL G HARRIS; WINDI G HARRIS UMLAND | 76M 103723 00 |
| JACQUELINE GOLDHAHN; LYNN D GOLDHAHN | 76M 103898 00 |
| MARK D BANCALE; SUZANNE J BANCALE | 76H 104150 00 |
| JARED BARNARD; JENNIFER BARNARD | 76M 105225 00 |
| BARBARA M FOSSEN | 76M 105226 00 |
| CORY S SOVA; SHERRY L SOVA | 76M 107033 00 |
| TOM D PETERSON | 76M 107372 00 |
| LARRY LACKNER; LISA M LACKNER | 76M 108573 00 |
| LARA A PORRINI; NICK PORRINI | 76M 108609 00 |
| LINDA JO MILLER | 76M 108679 00 |
| KATHRYN R DOUCETTE | 76M 109634 00 |
| GRASS VALLEY FRENCH DITCH CO | 76M 110490 00 |
| DOUGLAS ERNST; YIZHOU ERNST | 76M 110681 00 |

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| NATHAN HAMPSON; ERICA WESTLING | 76M 110712 00 |
| BRENDA M COGAR | 76M 112318 00 |
| HAROLD E PINKSTON | 76M 112996 00 |
| CARROL J KARLSGODT; GREGORY B KARLSGODT | 76M 114479 00 |
| JENNIFER BERNHART; JOSHUA R BERNHART | 76M 117405 00 |
| OLD HELLGATE VILLAGE, INC | 76M 123876 00 |
| OLD HELLGATE VILLAGE, INC | 76M 123877 00 |
| OLD HELLGATE VILLAGE, INC | 76M 149103 00 |
| SUSAN EDWARDS-MILLER; DAVID G MILLER | 76M 149677 00 |
| JOSEPH HEITT; ESTHER P MCLATCHY; PATRICK H MCLATCHY; SONIA SHEARER | 76M 151537 00 |
| GREENFIELD PROPERTIES LLC | 76M 215134 00 |
| LISA R HELEAN; MICHAEL J HELEAN | 76M 30000015 |
| ANDREE A VAN NICE; DONALD W VAN NICE | 76M 30001001 |
| KELLUM FAMILY REVOCABLE TRUST DATED 9/26/2024 | 76M 30001282 |
| STACY L JOHNSON | 76M 30001671 |
| DONA L JOHNSON; RANDALL W JOHNSON | 76M 30005744 |
| JAMIE L SPARR; MICHAEL J SPARR | 76M 30006695 |
| BRENDA J THOMAS; PERRY M THOMAS | 76M 30006817 |
| CHARLES THOMAS; CONNIE R THOMAS | 76M 30006851 |
| SETH BOID; MAURA MALL | 76M 30007509 |
| CHRISTOPHER J DOVE; KATE E PAPPE | 76M 30007633 |
| FARMER JOHNS SUSTAINABLE FARMING LLC | 76M 30008993 |
| JUSTIN AUCH; MEAGAN AUCH | 76M 30009996 |
| KEVIN LUU; JOYCE NGUYEN | 76M 30010000 |
| GEORGE THOMPSON | 76M 30010691 |
| JEFFREY R KUCHEL | 76M 30011123 |
| ANNETTE J BARNHILL; EMERY M BARNHILL | 76M 30011557 |
| LISA A BISHOP | 76M 30011624 |
| JOHN W THUNSTROM; LORRAINE THUNSTROM | 76M 30011656 |
| JAMES STANICAR; JENNIFER STANICAR | 76M 30011660 |
| JEFFREY L BRANDT | 76M 30012031 |
| JUSTIN J FLUHARTY; LIANNE M FLUHARTY | 76M 30012136 |
| DEBRA M TIPTON; RONALD C TIPTON | 76M 30012744 |
| DAVID BORGONOVO; SYLVIA BORGONOVO | 76M 30014142 |
| CARI MENDENHALL; RODNEY MENDENHALL | 76M 30015373 |
| JUSTIN AUCH; MEAGAN AUCH | 76M 30016974 |
| REGINA Y OLSON; TRACY R OLSON | 76M 30018417 |
| ELIZABETH H CRAWFORD; TAYLOR G CRAWFORD | 76M 30019657 |
| PAMELA A BAERTSCH; SHANE R BAERTSCH | 76M 30019698 |
| JUSTIN MEHLHOFF; TAMMY MEHLHOFF | 76M 30019747 |
| GENE BOSCHEE; BOSCHEE FAMILY TRUST 9 24 2014 | 76M 30019838 |
| BRENT G BYRAM | 76M 30020046 |
| JENNIFER A WHITMIRE; KURT WHITMIRE | 76M 30020185 |
| COREY STONEFIELD; JESSICA STONEFIELD | 76M 30021302 |
| JASMINE OLSON; TADD OLSON | 76M 30022704 |
| JOE FEATHERLY; SHERRIE FEATHERLY | 76M 30022739 |
| LILLIE M SMITH; PATRICIA J SMITH CUSKER; CYNTHIA A SMITH HEITMANN; BETTY I SMITH LABELLE; ADA M SMITH OSTEEN | 76M 30024303 |
| MARJORIE J SOLEM; STEPHEN J SOLEM | 76M 30024541 |
| ANDREW MICKELSON; SHERYL MICKELSON | 76M 30024553 |
| MATTHEW A CAVANAUGH; TRISHA J CAVANAUGH | 76M 30024617 |
| AMANA BEIERLE; TAYLOR BEIERLE; JOSEPH SAMPLE; STEFANIE SAMPLE | 76M 30025040 |

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| MATTHEW PLUTE; WENDY PLUTE | 76M 30027041 |
| DAVID MUZZANA; KAYE MUZZANA | 76M 30029163 |
| AMY MCKETHEN; NICHOLAS MCKETHEN | 76M 30029168 |
| BONNIE J MEKEAL; CHARLES E MEKEAL | 76M 30029545 |
| WILLIAM BIGGS | 76M 30030201 |
| DEBRA JONES; PRESTON JONES | 76M 30030248 |
| DAVID R OLSON; KELLY R OLSON | 76M 30042087 |
| CHRISTINA HORTON; SHAWN HORTON | 76M 30042658 |
| LONNIE MURPHY; NICOLE MURPHY | 76M 30045236 |
| BRIAN J LIPPY; JENNIFER L LIPPY | 76M 30045725 |
| ASHLEY I FINNERTY; STEVEN R FINNERTY | 76M 30045956 |
| SHATTUCK FAMILY TRUST | 76M 30046356 |
| MICHAEL VALAHU | 76M 30046702 |
| JAMIE L SPARR; MICHAEL J SPARR | 76M 30049454 |
| KARI A CRONK; SHANE H CRONK | 76M 30051379 |
| CORAL E BECK; KEVIN D BROWN | 76M 30051609 |
| ALEXANDER W MOORE; SARAH MOORE | 76M 30052397 |
| KENT E MCDERMOTT; LORA K YATES | 76M 30062778 |
| JEREMY HARGIS; KAREN L HARGIS | 76M 30063109 |
| JEFFREY D SCHAFFER; TRACI J SCHAFFER | 76M 30063203 |
| CHARLES M NAU; PATRICIA M NAU | 76M 30063697 |
| JENNIFER L FRITZ | 76M 30068626 |
| C FREDRICK FREY | 76M 30069580 |
| JONATHAN GREEN; KRISTIN GREEN | 76M 30069843 |
| REBEKAH J BLEECKER; STEVEN M BLEECKER | 76M 30070080 |
| JACQUELINE R CASELTON; NEIL J CASELTON | 76M 30070184 |
| JENNIFER HURST | 76M 30070393 |
| CASSANDRA MURPHY; JACOB MURPHY | 76M 30070472 |
| DALE BAUTZ | 76M 30071618 |
| KORY J GARMAN; MELISSA R GARMAN | 76M 30072092 |
| ANN MCHUGH; JAMES MCHUGH | 76M 30072660 |
| DOUGLAS B WATSON | 76M 30094711 |
| BARRY MISEVIC; WENDY MISEVIC | 76M 30102999 |
| RHONDA HARRIS; STACY L HARRIS | 76M 30103105 |
| MORGAN MARTIN | 76M 30104028 |
| LAURA KEATING; PHILIP R KEATING | 76M 30104146 |
| KRIS SCHULTE | 76M 30104224 |
| CAROLYN UNDERWOOD; GERALD E UNDERWOOD | 76M 30105180 |
| SHANAHAN, TIFFANY M LIVING TRUST | 76M 30106260 |
| LINDA REDFERN; SAM REDFERN | 76M 30107040 |
| MARTHA SILVERMAN | 76M 30108402 |
| YER THAO; MAI SHOUA VANG | 76M 30108768 |
| DON WATERS; MARIA WATERS | 76M 30109159 |
| AISLING PROPERTIES LLC | 76M 30111437 |
| JENNIFER E MUSEE; JOEL M MUSEE | 76M 30112636 |
| JAMIE M SCHLIESMAN; JOSEPH R SCHLIESMAN | 76M 30114171 |
| THERESE R ALBEE | 76M 30114250 |
| ANDREW TRAVER; KYLEE TRAVER | 76M 30117021 |
| WILLIAM M & LOIS M ST PETER REV LIV TRST 3/10/2025 | 76M 30118271 |
| RANDY S ROSENQUIST; ROBIN R ROSENQUIST | 76M 30118733 |
| CYD HOBLITT | 76M 30121079 |
| EILEEN BROWN; HAYWOOD BROWN | 76M 30121562 |

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| COUNCIL VALLEY LLC | 76M 30122648 |
| GRETCHEN MORITZ; KARL J MORITZ | 76M 30124718 |
| DURRANT, MICHAEL T REVOCABLE LIVING TRUST | 76M 30124803 |
| JOHN J ERICKSON | 76M 30125857 |
| JOSEPHINE P HORNE; SCOTT D HORNE | 76M 30126084 |
| DEBRA M TIPTON; RONALD C TIPTON | 76M 30134756 |
| KATHY S LEE | 76M 30135067 |
| ERIC S POWELL; JUDITH N POWELL | 76M 30135079 |
| HANH CHAU; MINH HUYNH | 76M 30136072 |
| ALI KELLY; MYLES KELLY | 76M 30148758 |
| HOLLY M GRATTON; SAMUEL GRATTON | 76M 30149149 |
| FRANK J DINENNA; JULIE A WULF | 76M 30150508 |
| LOUIS VAN BLARIGAN | 76M 30150621 |
| ROBERT W MING; CAROL D NELSON | 76M 30151747 |
| YOUNGGREN, RODNEY & JULIE FAMILY TRUST | 76M 30152013 |
| EMOE NET INC | 76M 30153196 |
| JENNIFER A THOMPSON; ROBERT S THOMPSON | 76M 30153214 |
| HEIDI L LEE; MICHAEL R LEE | 76M 30154477 |
| SNEAD, IDA M REVOCABLE TRUST | 76M 30154821 |
| ALEXA RAUSER; JADE RAUSER | 76M 30157855 |
| LINDA L SCALLY | 76M 30158222 |
| LINDA L SCALLY | 76M 30158223 |
| SERGEY KIRICHENKO | 76M 30158235 |
| LAURA A HUNTER-MICHELS; JAMES K MICHELS | 76M 30159091 |
| BAO LEE VANG; NOR JAR VANG | 76M 30159319 |
| ADRIAN AYERS; ANN SELTZER | 76M 30159422 |
| DEBBIE S DUBE; ROBERT J DUBE | 76M 30159753 |
| JEFF R SMITH | 76M 30160612 |
| CODY FREY; TIFFANY FREY | 76M 30160735 |
| NICOLE K HERMOSO; WESLEY Q THOMAS | 76M 30160812 |
| BRANDON RIGONI; KATHRYN J RIGONI | 76M 30161281 |
| AMANDA CORSON; GERALD CORSON | 76M 30162001 |
| NANCY ARNOLD; STEPHEN LARANCE | 76M 30162300 |
| TIMOTHY P DONOVAN | 76M 30163353 |
| FARMER JOHNS SUSTAINABLE FARMING LLC | 76M 30163356 |
| DAVID G MILLER; SUSAN E MILLER | 76M 30164554 |
| JOHN A GOTTULA; LISA A GOTTULA | 76M 30164610 |
| MIRANDA M EDWARDS; ANTHONY J MILLER | 76M 30165300 |
| JOHN STAHL | 76M 30165615 |
| TOM KALARIS | 76M 30171115 |
| ALANE M NICKEL; JACK A NICKEL | 76M 30172000 |

**If owner listed twice, only one notice sent*

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

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

- 1. Applicant/Contact name and address:**
David G Miller & Susan E Miller
6610 Mullan Rd
Missoula, MT 59808-5654
- 2. Type of action:** Change Application 76M 30164554
- 3. Water source name:** Groundwater
- 4. Location affected by project:** Sections 14 and 23, Township 13 North, Range 20 West, Missoula County. Clark Fork River from the northern boundary of the SWNE Section 23, T13N, R20W to the confluence of the Clark Fork and the Bitterroot rivers in the NWNW Sec. 27, T13N, R20W.
- 5. Narrative summary of the proposed project, purpose, action to be taken, and benefits:** David and Susan Miller propose to irrigate 23 acres in the SWNWNE and W2NWSE of Section 14 and the NWNWNE of Section 23, all in Township 13 North, Range 20 West, Missoula County. The depletions resulting from this appropriation will be mitigated by water made available in Change Application 76M 30165370. The DNRC shall issue a permit if an applicant proves the criteria in 85-2-311 MCA are met.
- 6. Agencies consulted during preparation of the Environmental Assessment:**
Montana Department of Fish, Wildlife & Parks (DFWP)
Montana Department of Environmental Quality (DEQ)
Montana Natural Heritage Program Species of Concern Report
U.S. Fish & Wildlife Service (USFWS) National Wetlands Inventory
USDA Natural Resources Conservation Service (NRCS) Web Soil Survey

Part II. Environmental Review

Environmental Impact Checklist:

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| <h3>PHYSICAL ENVIRONMENT</h3> |
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WATER QUANTITY, QUALITY AND DISTRIBUTION

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

This reach of the Clark Fork River is not identified as a chronically or periodically dewatered stream by DFWP. The depletions in the Clark Fork River resulting from this application will be offset by Change Application 76M 30165370.

Determination: No significant impact

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

The Clark Fork River from Rattlesnake Creek to Fish Creek is considered by DEQ to be an impaired water fully supporting use for agriculture and drinking water but not fully supporting recreation or aquatic life. The proposed application is not expected to negatively affect water quality.

Determination: No significant impact

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

This application is for a reduction in groundwater appropriation, which will result in 0.78AF of water historically depleted from the Bitterroot River being left undiverted. No negative effects on groundwater quality or supply are anticipated as a result of this change.

The technical analysis conducted by the DNRC determined that depletions in the amount of 44.34 AF per year would result in the Clark Fork River as a result of this application. These depletions will be fully mitigated by Change Application 76M 30165370. After 5 years under the proposed pumping schedule, no well will experience drawdown greater than 1 foot. The proposed project is not anticipated to affect groundwater quality.

Determination: No significant impact

DIVERSION WORKS - Assess whether the means of diversion, construction and operation of the appropriation works of the proposed project will impact any of the following: channel impacts, flow modifications, barriers, riparian areas, dams, well construction.

All depletions to the Clark Fork River resulting from the proposed application will be mitigated by Change Application 76M 30165370. The construction and operation of this well will not preclude the construction and operation of other wells in the future.

Determination: No significant impacts.

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

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

The Montana Natural Heritage Program website was reviewed to determine if there are any "threatened" or "endangered" fish, wildlife, plants, or aquatic species that could potentially be impacted by this project. "Species of special concern" were also included in this search.

According to the Montana Natural Heritage Program, observations from the past 50 years indicate that 19 animal species of concern and 1 plant species of concern may be found in the area of potential impact. Of these, 2 species are listed as threatened by the USFWS in this area: the Grizzly Bear (*Ursus arctos*) and the Bull Trout (*Salvelinus confluentus*).

Animal species of concern include:

American Goshawk (*Astur atricapillus*)
Bobolink (*Dolichonyx oryzivorus*)
Brewer's Sparrow (*Spizella breweri*)
Brown Creeper (*Certhia americana*)
Bull Trout (*Salvelinus confluentus*)
Cassin's Finch (*Haemorhous cassinii*)
Evening Grosbeak (*Coccothraustes vespertinus*)
Great Blue Heron (*Ardea herodias*)
Grizzly Bear (*Ursus arctos*)
Lewis's Woodpecker (*Melanerpes lewis*)
Northern Hoary Bat (*Lasiurus cinereus*)
Pacific Wren (*Troglodytes pacificus*)
Pileated Woodpecker (*Dryocopus pileatus*)
Silver-Haired Bat (*Lasionycteris noctivagans*)
Varied Thrush (*Ixoreus naevius*)
Veery (*Catharus fuscenscens*)
Western Skink (*Pleistodon skiltonianus*)
Westslope Cutthroat Trout (*Oncorhynchus lewisi*)
Worm Stygobromid (*Stygobromus tritus*)

Plant species of concern include:
Woolly Clover (*Trifolium microcephalum*)

This change is to provide groundwater for irrigation on land that has historically been irrigated by surface water. No impact to any species of concern is anticipated as a result of this change.

Determination: No significant impact.

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

The applicant's property contains riparian forested areas and emergent palustrine wetlands. The proposed application is not anticipated to negatively impact wetland resources.

Determination: No significant impact.

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

Determination: N/A – This project does not involve ponds.

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

The proposed project is to allow the applicant to irrigate with groundwater instead of surface water. No other change from historic practice will occur; therefore, no impacts are anticipated. Soils in this area are considered nonsaline to very slightly saline with a low surface salinization risk.

Determination: No significant impact

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

No change in irrigated area is proposed, and no establishment or spread of noxious weeds is anticipated.

Determination: No significant impact

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

No negative effects to air quality are expected as a result of this proposal.

Determination: No significant impact

HISTORICAL AND ARCHEOLOGICAL SITES - Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project if it is on State or Federal Lands. If it is not on State or Federal Lands simply state NA-project not located on State or Federal Lands.

Determination: N/A – Project not located on State or Federal Lands

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

No additional impacts to land, water, or energy are anticipated.

Determination: No significant impact

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| HUMAN ENVIRONMENT |
|--------------------------|

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

This project does not violate any known locally adopted environmental plans or regulations.

Determination: No significant impact

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

The proposed project will not inhibit, alter, or impair access to present recreational opportunities in the area. The project is not expected to create any significant pollution, noise, or traffic congestion in the area that may alter the quality of recreational opportunities. The proposed place of use and diversion do not exist on land designated as wilderness.

Determination: No significant impact

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

No impacts on human health are anticipated as a result of this project.

Determination: No significant impact

PRIVATE PROPERTY - Assess whether there are any government regulatory impacts on private property rights.

Yes ___ No X If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.

Determination: No significant impact

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

Impacts on:

- (a) Cultural uniqueness and diversity? None identified
 - (b) Local and state tax base and tax revenues? None identified
 - (c) Existing land uses? None identified
 - (d) Quantity and distribution of employment? None identified
 - (e) Distribution and density of population and housing? None identified
 - (f) Demands for government services? None identified
 - (g) Industrial and commercial activity? None identified
 - (h) Utilities? None identified
 - (i) Transportation? None identified
 - (j) Safety? None identified
 - (k) Other appropriate social and economic circumstances? None identified
2. ***Secondary and cumulative impacts on the physical environment and human population:***
- Secondary Impacts: None identified
- Cumulative Impacts: None identified
3. ***Describe any mitigation/stipulation measures:*** None
4. ***Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:*** None identified

PART III. Conclusion

- 1. ***Preferred Alternative***
Issue a water use permit if the Applicant proves the criteria in 85-2-402 MCA are met.
- 2 ***Comments and Responses***
None.

3. Finding:

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

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action:

No significant environmental impacts were identified as a result of the EA.

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

Name: Benjamin Thomas

Title: Water Conservation Specialist

Date: 2/18/2026



Missoula Water Resources Regional Office
PO Box 5004
2705 Spurgin Road, Bldg. C
Missoula, MT 59806-5004
(406) 721-4284

March 10, 2026

David G Miller & Susan E Miller

6610 Mullan Rd

Missoula, MT 59808-5654

Subject: Updated Draft Preliminary Determination to Grant Beneficial Water Use Permit
Application No. 76M 30164554

Dear Applicants,

The Department of Natural Resources and Conservation (Department or DNRC) has reviewed any information submitted to your application during the granted extension. This review consists of an updated evaluation of the criteria for issuance of a permit found in §85-2-311, MCA. The Department has preliminarily determined that the criteria are met, and this application should be granted. A copy of the updated Draft Preliminary Determination (PD) to Grant your application is attached.

The Department will prepare a notice of opportunity to provide public comment per §85-2-307(4), MCA. If no public comments are received, the Department will issue the updated Draft PD as final pursuant to §85-2-307(5)(c), MCA. If public comments are received, the Department will consider the public comments and issue a non- draft PD within 30 days of the closing date of the public comment period

Please let me know if you have any questions.



Sincerely,

Benjamin Thomas

Benjamin Thomas

Water Conservation Specialist II

Missoula Regional Office

benjamin.thomas@mt.gov | (406) 542-5883



**BEFORE THE DEPARTMENT OF
NATURAL RESOURCES AND CONSERVATION
OF THE STATE OF MONTANA**

| | |
|---|--|
| APPLICATION FOR BENEFICIAL WATER) USE PERMIT NO. 76M 30164554) BY DAVID & SUSAN MILLER) | DRAFT PRELIMINARY DETERMINATION TO GRANT PERMIT |
|---|--|

On October 21, 2025, David G Miller & Susan E Miller (Applicant) submitted Application for Beneficial Water Use Permit No. 76M 30164554 to the Missoula Regional Office of the Department of Natural Resources and Conservation (Department or DNRC) for 220 GPM and 55.43 AF for the purpose of irrigation. The Department published receipt of the application on its website. The Department sent the Applicant a deficiency letter under § 85-2-302, Montana Code Annotated (MCA), dated October 29, 2025. The Applicant responded with information dated November 26, 2025. A preapplication meeting was held between the Department and the Applicant on October 2, 2024, in which the Applicant designated that the technical analyses for this application would be completed by the Department. The Applicant returned the completed Preapplication Meeting Form on March 12, 2025. The Department delivered the completed technical analysis on May 1, 2025. The application was determined to be correct and complete as of December 26, 2025. The Applicant submitted a request for extension of time per § 85-2-307(3), MCA on March 9, to which the Department granted 7 days to submit additional information. The Applicant submitted additional information on March 9, 2026. An Environmental Assessment for this application was completed on February 18, 2026.

INFORMATION

The Department considered the following information submitted by the Applicant, which is contained in the administrative record.

Application as filed:

- Application for Beneficial Water Use Permit, Form 600
- Addenda:
 - Basin Closure Addendum, Form 600-BCA
 - Mitigation Addendum, Form 600/606-MIT
- Attachments:
 - Pump Performance Datasheet for Franklin Electric 220 GPM 5" STS Sub-Turbine (Build Center)

- Maps:
 - Proposed Use, undated aerial imagery
 - System Diagram, undated aerial imagery
- Department-completed technical analyses based on information provided in the Preapplication Checklist, dated May 1, 2025

Information Received after Application Filed

- Deficiency response, dated November 26, 2025, received by the Department on November 26, 2025

Information within the Department's Possession/Knowledge

- The Department also routinely considers the following information. The following information is not included in the administrative file for this application but is available upon request. Please contact the Missoula Regional Office at (406) 721-4284 to request copies of the following documents.
 - Technical Memorandum: Physical and Legal Availability of Ground Water, dated April 22, 2019
 - Technical Memorandum: Physical Availability of Surface Water with Gage Data, dated November 1, 2019
 - Department Memorandum: Permitting in the Open Clark Fork and Flathead Basins, dated June 9, 2008
 - Department Memorandum: Permitting in the Open Clark Fork and Flathead Basins Follow up to June 9, 2008, Memorandum, dated May 1, 2009

The Department has fully reviewed and considered the evidence and argument submitted in this application and preliminarily determines the following pursuant to the Montana Water Use Act (Title 85, chapter 2, part 3, MCA).

For the purposes of this document, Department or DNRC means the Department of Natural Resources & Conservation; CFS means cubic feet per second; GPM means gallons per minute; AF means acre-feet; AC means acres; and AF/YR means acre-feet per year.

PROPOSED APPROPRIATION

FINDINGS OF FACT

1. The Applicant proposes to divert water from the Missoula Valley Aquifer by means of a 100-foot well from April 15 to October 15 at 220 GPM up to 55.43 AF, from a point in the SWNWSE Draft Preliminary Determination to GRANT

Section 14, T13N, R20W, Missoula County, for irrigation use from April 15 to October 15. The Applicant proposes to irrigate 23 acres. The place of use is located in the SWNWSE and W2SWSE of Section 14 and the NWNWNE of Section 23, all in Township 13 North, Range 20 West, Missoula County.

2. The proposed point of diversion is located approximately 60 feet to the southeast of an unnamed tributary of the Clark Fork River and approximately 4200 feet to the north of the Clark Fork River.

3. The consumptive volume of the proposed diversion is 38.8 AF. Depletions from the proposed use are expected to accrue to the Clark Fork River beginning at the northern edge of the SWNE of Section 23, T13N, R20W. The source aquifer is not hydraulically connected to Grant Creek; therefore, no depletions are expected to accrue to this source.

4. The proposed appropriation of water has a place of use which overlaps with that of Statement of Claim 76M 149678-00, a surface water right. Water availability in the source of supply for the existing claim is unreliable, with water generally being unavailable after May. The Applicant intends to rely solely on the proposed permit for irrigation and does not plan to supplement its use with water from the existing claim.

Basin Closure

5. This application is for the purpose of irrigation. This application is located within the Administrative Grant Creek Basin Closure, in which the Department must reject surface water permit applications for consumptive use and surface water permit applications for nonconsumptive use which decrease the source of supply, disrupt stream conditions below the point of return, or adversely effect prior appropriators within the reach of stream between the point of diversion and point of return per ARM 36.12.1011. The proposed application is for groundwater, and the Department-completed technical analysis shows that the source aquifer is not hydraulically connected to Grant Creek.

6. Applicant submitted a hydrogeologic assessment report per §§ 85-2-360 and -361, MCA, determined to be correct and complete by the Department.

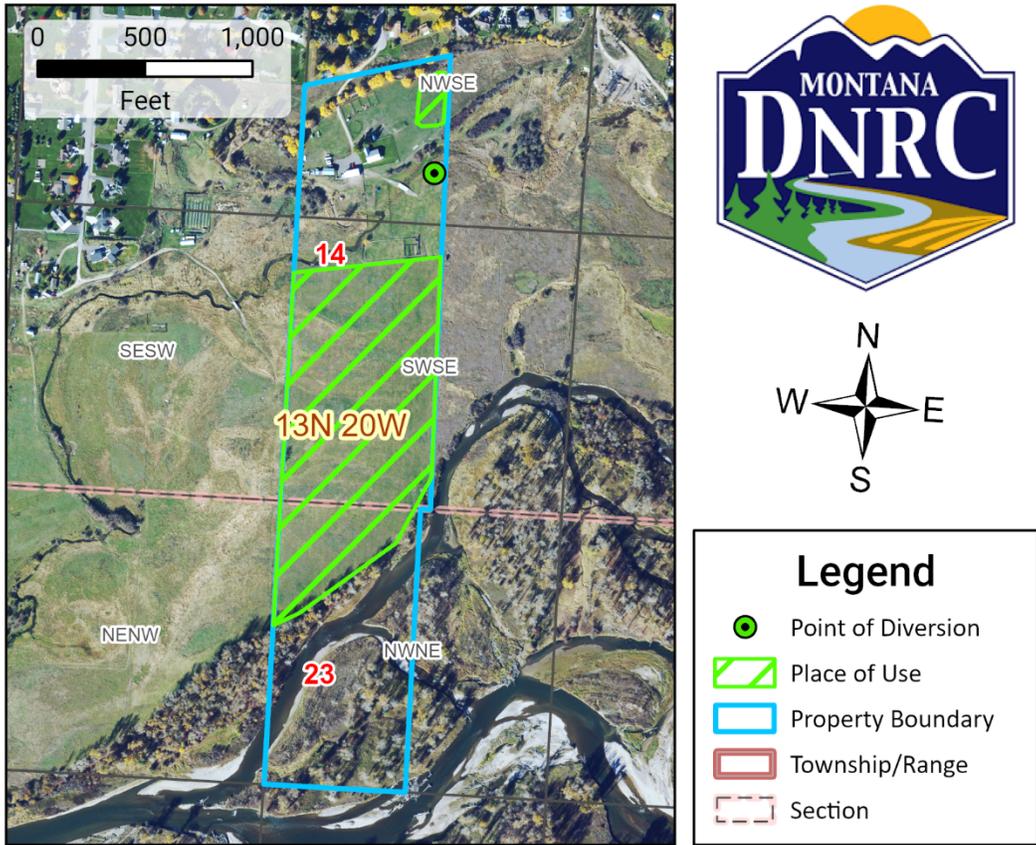


Figure 1. Map of proposed appropriation.

§ 85-2-311, MCA, BENEFICIAL WATER USE PERMIT CRITERIA

GENERAL CONCLUSIONS OF LAW

- 7. The Montana Constitution expressly recognizes in relevant part that:
 - (1) All existing rights to the use of any waters for any useful or beneficial purpose are hereby recognized and confirmed.
 - (2) The use of all water that is now or may hereafter be appropriated for sale, rent, distribution, or other beneficial use . . . shall be held to be a public use.
 - (3) All surface, underground, flood, and atmospheric waters within the boundaries of the state are the property of the state for the use of its people and are subject to appropriation for beneficial uses as provided by law.

Mont. Const. Art. IX, § 3. While the Montana Constitution recognizes the need to protect senior appropriators, it also recognizes a policy to promote the development and use of the waters of the state by the public. This policy is further expressly recognized in the water policy adopted by the Legislature codified at § 85-2-102, MCA, which states in relevant part:

(1) Pursuant to Article IX of the Montana constitution, the legislature declares that any use of water is a public use and that the waters within the state are the property of the state for the use of its people and are subject to appropriation for beneficial uses as provided in this chapter. . . .

(3) It is the policy of this state and a purpose of this chapter to encourage the wise use of the state's water resources by making them available for appropriation consistent with this chapter and to provide for the wise utilization, development, and conservation of the waters of the state for the maximum benefit of its people with the least possible degradation of the natural aquatic ecosystems. In pursuit of this policy, the state encourages the development of facilities that store and conserve waters for beneficial use, for the maximization of the use of those waters in Montana . . .

8. Pursuant to § 85-2-302(1), MCA, except as provided in §§ 85-2-306 and 85-2-369, MCA, a person may not appropriate water or commence construction of diversion, impoundment, withdrawal, or related distribution works except by applying for and receiving a permit from the Department. See § 85-2-102(1), MCA. An Applicant in a beneficial water use permit proceeding must affirmatively prove all of the applicable criteria in § 85-2-311, MCA. Section § 85-2-311(1) states in relevant part:

... the department shall issue a permit if the Applicant proves by a preponderance of evidence that the following criteria are met:

(a) (i) there is water physically available at the proposed point of diversion in the amount that the Applicant seeks to appropriate; and

(ii) water can reasonably be considered legally available during the period in which the Applicant seeks to appropriate, in the amount requested, based on the records of the department and other evidence provided to the department. Legal availability is determined using an analysis involving the following factors:

(A) identification of physical water availability;

(B) identification of existing legal demands on the source of supply throughout the area of potential impact by the proposed use; and

(C) analysis of the evidence on physical water availability and the existing legal demands, including but not limited to a comparison of the physical water supply at the proposed point of diversion with the existing legal demands on the supply of water.

(b) the water rights of a prior appropriator under an existing water right, a certificate, a permit, or a state water reservation will not be adversely affected. In this subsection (1)(b), adverse effect must be determined based on a consideration of an Applicant's plan for the exercise of the permit that demonstrates that the Applicant's use of the water will be controlled so the water right of a prior appropriator will be satisfied;

(c) the proposed means of diversion, construction, and operation of the appropriation works are adequate;

(d) the proposed use of water is a beneficial use;

(e) the Applicant has a possessory interest or the written consent of the person with the possessory interest in the property where the water is to be put to beneficial use, or if the proposed use has a point of diversion, conveyance, or place of use on national forest system lands, the Applicant has any written special use authorization

required by federal law to occupy, use, or traverse national forest system lands for the purpose of diversion, impoundment, storage, transportation, withdrawal, use, or distribution of water under the permit;

(f) the water quality of a prior appropriator will not be adversely affected;

(g) the proposed use will be substantially in accordance with the classification of water set for the source of supply pursuant to 75-5-301(1); and

(h) the ability of a discharge permit holder to satisfy effluent limitations of a permit issued in accordance with Title 75, chapter 5, part 4, will not be adversely affected.

(2) The Applicant is required to prove that the criteria in subsections (1)(f) through (1)(h) have been met only if a valid objection is filed. A valid objection must contain substantial credible information establishing to the satisfaction of the department that the criteria in subsection (1)(f), (1)(g), or (1)(h), as applicable, may not be met. For the criteria set forth in subsection (1)(g), only the department of environmental quality or a local water quality district established under Title 7, chapter 13, part 45, may file a valid objection.

To meet the preponderance of evidence standard, “the Applicant, in addition to other evidence demonstrating that the criteria of subsection (1) have been met, shall submit hydrologic or other evidence, including but not limited to water supply data, field reports, and other information developed by the Applicant, the department, the U.S. geological survey, or the U.S. natural resources conservation service and other specific field studies.” Section 85-2-311(5), MCA (emphasis added). The determination of whether an application has satisfied the § 85-2-311, MCA criteria is committed to the discretion of the Department. *Bostwick Properties, Inc. v. Montana Dept. of Natural Resources and Conservation*, 2009 MT 181, ¶ 21. The Department is required grant a permit only if the § 85-2-311, MCA, criteria are proven by the Applicant by a preponderance of the evidence. *Id.* A preponderance of evidence is “more probably than not.” *Hohenlohe v. DNRC*, 2010 MT 203, ¶¶ 33, 35, 357 Mont. 438, 240 P.3d 628.

9. Pursuant to § 85-2-312, MCA, the Department may condition permits as it deems necessary to meet the statutory criteria:

(1) (a) The department may issue a permit for less than the amount of water requested, but may not issue a permit for more water than is requested or than can be beneficially used without waste for the purpose stated in the application. The department may require modification of plans and specifications for the appropriation or related diversion or construction. The department may issue a permit subject to terms, conditions, restrictions, and limitations it considers necessary to satisfy the criteria listed in 85-2-311 and subject to subsection (1)(b), and it may issue temporary or seasonal permits. A permit must be issued subject to existing rights and any final determination of those rights made under this chapter.

E.g., Montana Power Co. v. Carey (1984), 211 Mont. 91, 96, 685 P.2d 336, 339 (requirement to grant applications as applied for, would result in, “uncontrolled development of a valuable natural

resource” which “contradicts the spirit and purpose underlying the Water Use Act.”); *see also*, *In the Matter of Application for Beneficial Water Use Permit No. 65779-76M by Barbara L. Sowers* (DNRC Final Order 1988)(conditions in stipulations may be included if it further compliance with statutory criteria); *In the Matter of Application for Beneficial Water Use Permit No. 42M-80600 and Application for Change of Appropriation Water Right No. 42M-036242 by Donald H. Wyrick* (DNRC Final Order 1994); Admin. R. Mont. (ARM) 36.12.207.

10. The Montana Supreme Court further recognized in *Matter of Beneficial Water Use Permit Numbers 66459-76L, Ciotti: 64988-G76L, Starner*, 278 Mont. 50, 60-61, 923 P.2d 1073, 1079, 1080 (1996), *superseded by legislation on another issue*:

Nothing in that section [85-2-313], however, relieves an Applicant of his burden to meet the statutory requirements of § 85-2-311, MCA, before DNRC may issue that provisional permit. Instead of resolving doubts in favor of appropriation, the Montana Water Use Act requires an Applicant to make explicit statutory showings that there are unappropriated waters in the source of supply, that the water rights of a prior appropriator will not be adversely affected, and that the proposed use will not unreasonably interfere with a planned use for which water has been reserved.

See also, *Wesmont Developers v. DNRC*, CDV-2009-823, First Judicial District Court, *Memorandum and Order* (2011). The Supreme Court likewise explained that:

.... unambiguous language of the legislature promotes the understanding that the Water Use Act was designed to protect senior water rights holders from encroachment by junior appropriators adversely affecting those senior rights.

Montana Power Co., 211 Mont. at 97-98, 685 P.2d at 340; *see also* Mont. Const. art. IX §3(1).

11. An appropriation, diversion, impoundment, use, restraint, or attempted appropriation, diversion, impoundment, use, or restraint contrary to the provisions of § 85-2-311, MCA is invalid. An officer, agent, agency, or employee of the state may not knowingly permit, aid, or assist in any manner an unauthorized appropriation, diversion, impoundment, use, or other restraint. A person or corporation may not, directly or indirectly, personally or through an agent, officer, or employee, attempt to appropriate, divert, impound, use, or otherwise restrain or control waters within the boundaries of this state except in accordance with this § 85-2-311, MCA. Section 85-2-311(6), MCA.

12. The Department may take notice of judicially cognizable facts and generally recognized technical or scientific facts within the Department's specialized knowledge, as specifically identified in this document. ARM 36.12.221(4).

PHYSICAL AVAILABILITY

FINDINGS OF FACT

13. The Applicant proposes to divert up to 55.43 AF of water at a flow rate of 220 GPM for irrigation of 23 acres.

14. The Department evaluated the volume of water that is physically available from the source aquifer using applicant-supplied data from an 8-hour drawdown and yield test on the diversion well (GWIC ID 324678). Department Groundwater Hydrologist Melissa Brickl used the data from this test to produce the May 1, 2025 Groundwater Permit Technical Analysis Report Part A. A variance was granted by the Department from Aquifer Testing Requirements listed in sections (3)(a), (3)(d), (3)(e), and (3)(e)(iii) of ARM 36.12.121 on January 8, 2025. This variance allowed the Applicant to forgo a 72-hour test and submit data from a nonstandard 8-hour test. The proposed diversion is located in the well-studied Missoula Valley Aquifer. The Department determined that it possessed sufficient testing data from previous studies to identify aquifer properties in this location.

15. Using the Cooper-Jacob (1946) solution, an aquifer transmissivity (T) value of 150,000 ft²/day, specific yield of 0.1 (Lohman, 1972), and a pumping schedule modeled on irrigation requirements, the model predicted the 0.01-foot drawdown contour or zone of influence (ZOI) occurs 4,617 ft from the proposed well. Groundwater flux through the ZOI is equal to 46,421 AF/year.

16. The Department finds that groundwater is physically available in the amount the applicant seeks to appropriate during the proposed period of diversion.

LEGAL AVAILABILITY

FINDINGS OF FACT

17. The Department determined the legal availability of water in the source aquifer by subtracting the legal demands of existing water rights within the zone of influence of the proposed point of diversion from the amount of water physically available in the source aquifer.

18. The Department defined the zone of influence to be the area within which existing wells would experience a drawdown of 0.01 feet or more as a result of the proposed diversion. This was calculated to be an approximately 2.40 square mile area around the proposed point of diversion, described in the Department's technical analysis. There are 321 active groundwater rights within the ZOI.

19. Of the 321 active groundwater rights within the ZOI, there are 271 with volumes assigned to them and 50 without. The combined legal demand of water rights with assigned volumes is 1146.9 AF.
20. The Department followed its standard practice for quantifying the legal demands of water rights without listed volume. The standard method is dependent on the kind and purpose of the water right.
21. Ground Water Certificates account for 48 of the 50 rights without assigned volumes. The remaining 2 are Statements of Claim: 76M 30134756, with a domestic use purpose, and 76M 149103-00, with an irrigation purpose on 6.9 acres.
22. Within the ZOI, there were 255 Ground Water Certificates with listed volumes; the average volume for these rights, 2.90 AF, was assigned to each of the Ground Water Certificates without a listed volume, resulting in an additional legal demand of 139.30 AF.
23. Statements of Claim with a domestic purpose are all assigned 1.5 AF. Claims with an irrigation purpose are assigned the lowest permissible value for 60% efficient irrigation for the climatic area in which their place of use lies. Statement of Claim 76M 149103-00 lies in climatic area III and was assigned 2.43 AF/ac per ARM 36.12.115(2)(e), for a total of 16.77 AF on 6.9 acres.
24. The total legal demands for all water rights within the ZOI was calculated to be 1304.47 AF. A list of all water rights within the ZOI can be found in the Department's technical analysis.
25. The amount of water legally available in the source aquifer is 45,116.53 AF (46,421 AF physically available - 1,304.47 AF legal demands = 45,116.53 AF legally available).
26. The Department determined in its technical analysis that the Clark Fork River is hydraulically connected to the source aquifer. The location where depletions begin to accrue was identified as the northern boundary of the SWNE Sec. 23, T13N, R20W, and the area of potential impact was defined as the reach between this point and the confluence of the Clark Fork River and the Bitterroot River.
27. The Department calculated the consumptive use of the proposal to determine the amount of depletions that would result in the Clark Fork River. The diverted volume proposed is 55.43. Using the proposed diverted volume of 55.43 AF and an irrigation efficiency of 70% for sprinkler systems, the consumptive volume for this permit would be 38.8 AF. The timing of these depletions was modeled in the Department's technical analysis and is shown in Table 1 of Part A.

28. The Department calculated the legal availability of water in the Clark Fork River at the point of depletions by subtracting the legal demands of water rights in the area of potential impact from the amount of water physically available at the point of depletions.

29. Physical availability of water at the point of depletions throughout the year was derived from the median of the mean monthly flow rate at USGS Gage #12340500 – Clark Fork above Missoula MT. This gage is located approximately 9 miles upstream of the location of depletions. The legal demands of water rights between the gage and the point of depletions were subtracted from the monthly flows recorded at the gage to arrive at the flow rate of water physically available at the point of depletions, as shown in Table 2.

Table 2. Physical Availability of Water for Proposed Permit

| Month | Median of the Mean Monthly Flow at Gage 12340500 (CFS) | Existing Legal Demands from Gage 12340500 to Point of Depletions (CFS) | Physically Available Flow Rate at Point of Depletions (CFS) | Physically Available Volume at Point of Depletions (AF) |
|--------------|---|---|--|--|
| January | 1221 | 30.24 | 1190.76 | 73088.85 |
| February | 1378.5 | 30.24 | 1348.26 | 74747.53 |
| March | 1794.5 | 33.58 | 1760.92 | 108085.3 |
| April | 3387 | 332.47 | 3054.53 | 181439.1 |
| May | 7281.5 | 332.53 | 6948.97 | 426527.8 |
| June | 7673.5 | 332.55 | 7340.95 | 436052.4 |
| July | 2786.5 | 332.55 | 2453.95 | 150623.5 |
| August | 1429.5 | 332.55 | 1096.95 | 67330.79 |
| September | 1354.5 | 332.55 | 1021.95 | 60703.83 |
| October | 1495.5 | 332.44 | 1163.06 | 71388.62 |
| November | 1509.5 | 135.04 | 1374.46 | 81642.92 |
| December | 1337 | 30.24 | 1306.76 | 80208.93 |

30. There are three water rights with points of diversion located within the area of potential impact: Statements of Claim 76M 110490-00, 76M 110493-00, and 76M 30122648. Two of these rights were for stock water with no flow rate listed; these were assigned a flow rate of 0.08 CFS, consistent with the methodology for calculating physical availability described in the Department’s technical analysis. The legal demands of these water rights were subtracted from the physical availability at the point of depletions to determine legal availability of water at the point of depletions, as shown in Table 3.

Table 3. Legal Availability of Water for Proposed Permit

| Month | Physically Available Flow Rate at Point of Depletions (CFS) | Legal Demands on Flow Rate in Area of Potential Impact (CFS) | Legally Available Flow Rate at Point of Depletions (CFS) | Legally Available Volume at Point of Depletions (AF) |
|--------------|--|---|---|---|
| January | 1190.76 | 0.08 | 1190.68 | 73083.94 |
| February | 1348.26 | 0.08 | 1348.18 | 74743.10 |
| March | 1760.92 | 0.08 | 1760.84 | 108080.36 |
| April | 3054.53 | 105.91 | 2948.62 | 175148.03 |
| May | 6948.97 | 105.91 | 6843.06 | 420027.02 |
| June | 7340.95 | 105.91 | 7235.04 | 429761.38 |
| July | 2453.95 | 105.91 | 2348.04 | 144122.70 |
| August | 1096.95 | 105.91 | 991.04 | 60830.04 |
| September | 1021.95 | 105.91 | 916.04 | 54412.78 |
| October | 1163.06 | 105.91 | 1057.15 | 64887.87 |
| November | 1374.46 | 0.16 | 1374.3 | 81633.42 |
| December | 1306.76 | 0.16 | 1306.6 | 80199.11 |

31. In addition to considering the area of potential impact local to the proposed appropriation, the Department must also consider downstream hydropower water rights owned by Avista Corporation at Noxon Dam per the final order issued for Application for Beneficial Water Permit No. 76N 30010429 on December 21, 2006.

32. To evaluate the legal availability of the Clark Fork River at Noxon Dam, the existing demands of Avista’s hydropower water rights were subtracted from the median of the mean monthly flow of the Clark Fork River as recorded at USGS gage #12391400 (Clark Fork bl Noxon Rapids Dam nr Noxon MT). Table 4, below, lists the median of the mean monthly flow rates used to quantify the legal availability of the Clark Fork River near the Noxon Rapids Dam. The analysis shows that there is not sufficient legally available water in the lower reach of the Clark Fork River to satisfy Avista’s legal demands in any month of the year.

Table 4. Legal Availability of Water on the Clark Fork River near Noxon Rapids Dam

| Month | Median of the Mean Monthly Flow at USGS Gage (CFS) | Avista Water Right Demands (CFS) | Legal Availability at Gage (CFS) |
|--------------|---|---|---|
| January | 13,905 | 50,000 | -36,095 |
| February | 12,890 | 50,000 | -37,110 |
| March | 14,785 | 50,000 | -35,215 |
| April | 21,160 | 50,000 | -28,840 |
| May | 38,030 | 50,000 | -11,970 |
| June | 47,320 | 50,000 | -2,680 |
| July | 22,280 | 50,000 | -27,720 |
| August | 10,720 | 50,000 | -39,280 |
| September | 10,166 | 50,000 | -39,834 |
| October | 11,240 | 50,000 | -38,760 |
| November | 12,605 | 50,000 | -37,395 |
| December | 13,335 | 50,000 | -36,665 |

33. The Applicant has addressed legal availability of surface water by providing a mitigation plan which proposes to mitigate the depletions to surface water in full. This mitigation plan is fully addressed under the “Adverse Effect” section below.

34. The Department finds the proposed appropriation of 220 GPM and up to 55.43 AF to be legally available in the groundwater aquifer during the proposed period of use.

ADVERSE EFFECT

FINDINGS OF FACT

35. To determine if the proposed application would adversely affect other water users, the Department’s Water Science Bureau modeled whether any extant wells near the proposed point of diversion would experience drawdown of 1 foot or more in its technical analysis. No wells met this criterion. It was therefore determined that no groundwater rights would be adversely affected by drawdown from the proposed diversion.

36. The Department’s technical analysis also identified the Clark Fork River as a surface water hydraulically connected to the source aquifer. Surface water was analyzed using USGS stream gage and DNRC water rights data, proving that water is physically and legally available for use

and that the depletions arising from this application will not result in adverse effect on prior appropriators (Tables 2, 3).

37. In the event that a legitimate call for water is made, the Applicant plans to cease diversion by shutting off the well pump.

38. Because the depletions resulting from the proposed application are greater than 10 AF and 35 GPM, the Department must also consider downstream hydropower rights. The Department used USGS stream gage data and information about Avista Corporation's water rights to analyze physical and legal availability. The Department determined that water is not legally available in any month of the year, and that Avista Corporation's hydropower water rights would be adversely affected by the proposed appropriation.

39. The Applicant proposed to mitigate their depletions to the Clark Fork River using water made available in Change Application 76M 30165370. The proposed change retires 2287.5 irrigated acres under Statements of Claim 76M 123868-00, 76M 123869-00, and 76M 118513-00. Statement of Claim 76M 123870-00, which is for stock water, will also be retired. The historically consumed volume for these rights is 2,676.5 AF, and the historically diverted volume is 4407 AF. The water made available by the retirement of these rights will be used for the mitigation of this permit, Permit Applications 76M 30163329 and 76M 30165615, and for marketing for mitigation.

40. Statement of Claim 76M 118513-00 is the most junior retired right under Change Application 76M 30165370, with a priority date of July 28, 1919. The most senior of Avista Corporation's hydropower rights is Statement of Claim 125799-00, which has a priority date of February 20, 1951. The most junior retired right has priority over the most senior of Avista Corporation's rights, the retired rights will successfully mitigate the hydropower rights.

41. The 38.8 AF depletions arising from this Permit Application will be entirely offset by 38.8 AF of mitigation water made available under Change Application 76M 30165370.

42. Since Avista Corporation's rights are for water storage for the purpose of hydropower generation, the Department finds it necessary for mitigation water to match the amount of depletions, but not the timing.

43. The Department finds the Applicant's mitigation plan to be adequate to prevent adverse effect to existing water users as the plan will offset depletions to surface water in the necessary amount and location.

44. The Applicant will be held to the following conditions to ensure that the adverse effect criterion is met:

THE APPROPRIATOR'S USE OF WATER UNDER THIS PERMIT IS CONDITIONED UPON THE 38.8 AC-FT OF MITIGATION VOLUME REQUIRED TO OFFSET ADVERSE EFFECTS FROM NET DEPLETION TO THE CLARK FORK RIVER. DIVERSION UNDER THIS PERMIT MAY NOT COMMENCE UNTIL THE MITIGATION PLAN AS SPECIFICALLY DESCRIBED AND APPROVED THROUGH CHANGE AUTHORIZATION 76M 30165370 IS LEGALLY IMPLEMENTED. DIVERSION UNDER THIS PERMIT MUST STOP IF MITIGATION AS HEREIN REQUIRED IN AMOUNT, LOCATION, AND DURATION CEASES.

THE APPROPRIATOR SHALL MAINTAIN CURRENT ELECTRICAL INFORMATION SO AVERAGE SYSTEM DISCHARGE AND PUMP MOTOR POWER CONSUMPTION MAY BE CALCULATED. A RECORD OF ANY SYSTEM CHANGES ALONG WITH WRITTEN RECORDS OF THE DIVERSION SCHEDULE SHALL ALSO BE MAINTAINED. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL OBTAIN ELECTRICAL CONSUMPTION RECORDS AND FROM THOSE RECORDS CALCULATE THE VOLUME OF WATER DIVERTED. RECORDS SHALL BE SUBMITTED BY NOVEMBER 30 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR UNTIL THE PROVISIONAL PERMIT IS PERFECTED AND THE DEPARTMENT RECEIVES A PROJECT COMPLETION NOTICE. IF CONDITION IS MET AND THE APPROPRIATION IS PERFECTED PURSUANT TO THE AUTHORIZATION, THE DEPARTMENT WILL REMOVE THE CONDITION UPON VERIFICATION OF THE PERMIT. IN THE EVENT THAT PERMITTED FLOW RATES AND/OR VOLUMES HAVE BEEN EXCEEDED DURING PERFECTION OF THE PROVISIONAL PERMIT OR THE APPROPRIATOR FAILS TO SUBMIT ANNUAL REPORTS, THE DEPARTMENT MAY CONTINUE TO REQUIRE ANNUAL SUBMISSIONS OF MONTHLY FLOW RATE AND VOLUME RECORDS. FAILURE TO SUBMIT REPORTS MAY BE CAUSE FOR REVOCATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE WATER RESOURCES REGIONAL OFFICE.

45. The Department finds the proposed use of 55.43 AF of diverted volume, 38.8 AF of consumed volume, and 220 GPM will not have an adverse effect on existing water users.

ADEQUATE MEANS OF DIVERSION

FINDINGS OF FACT

46. The means of diversion consists of a 100-foot well (GWIC ID 324678) fitted with a Franklin Electric 5" STS pump. Water is conveyed from the well by a buried 6-inch pipeline that directs

water both north and south. The southern portion of the place of use consists of 22.5 acres serviced by a wheel line sprinkler system with 30 heads, each requiring a flow rate of 5 GPM. Water delivered to the north irrigates 0.5 acres by means of a big gun sprinkler requiring a flow rate of 25 GPM.

47. The Department's analysis of drawdown within the Applicant's well found that after one year of pumping, drawdown in the Applicant's well will be 3.7 ft, leaving 92.3 ft of water above the bottom of the perforated interval.

48. The Department finds that the proposed means of diversion and conveyance are capable of diverting and conveying the proposed flow rate and volume.

BENEFICIAL USE

FINDINGS OF FACT

49. The Applicant proposes to divert 55.43 AF of water at 220 GPM to irrigate 23 acres from April 15 to October 15, with a consumptive use of 38.8 AF.

50. The Department's permitting standards for volume and period of use are listed in ARM 36.12.115(2)(e) and ARM 36.12.112(1)(c), respectively. The proposed diversion of 55.43 AF and period of use of April 15 to October 15 are in accord with DNRC's standards for USDA NRCS climatic area III, in which the proposed place of use lies.

51. The requested flow rate of 220 GPM is the flow rate required to run the irrigation system at full capacity. The wheel line is fitted with 30 sprinkler heads, each requiring a flow rate of 5 GPM, while the big gun requires a flow rate of 25 GPM. In total, this amounts to a flow requirement of 175 GPM. The additional 45 GPM is necessary to offset pressure loss due to elevation gain and distance travelled through the conveyance system.

52. The consumptive use was calculated by the Department based on the diverted volume standards for climatic area III and 70% irrigation efficiency, per Department standards for sprinkler irrigation.

53. The Department finds that the proposed water use is beneficial, and that the requested flow rate of 220 GPM, diverted volume of 55.43 AF, and consumed volume of 38.8 AF are reasonably justified per ARM 36.12.1801(3).

POSSESSORY INTEREST

FINDINGS OF FACT

54. The Applicant signed the application form affirming the Applicant has possessory interest or the written consent of the person with the possessory interest, in the property where the water is to be put to beneficial use.

CONCLUSIONS OF LAW

BASIN CLOSURE

55. The Department shall reject applications for surface water permits within the Grant Creek Basin for any diversions, including infiltration galleries, for consumptive uses during the period from July 1 through September 30 per ARM 36.12.1011. The Grant Creek Basin consists of the Grant Creek drainage area, from its headwaters to its confluence with the Clark Fork River. The proposed well is located within the Grant Creek Basin Closure.

56. This application is for groundwater, and no depletions to Grant Creek will result from the proposed appropriation. Therefore, the application does not meet the conditions for restriction in the Grant Creek Basin Closure. ARM 36.12.1011(4).

57. In reviewing an application for groundwater in a closed basin, the District Court in *Sitz Ranch v. DNRC* observed:

The basin from which Applicants wish to pump water is closed to further appropriations by the legislature. The tasks before an Applicant to become eligible for an exception are daunting. The legislature set out the criteria discussed above (§85-2-311, MCA) and placed the burden of proof squarely on the Applicant. The Supreme Court has instructed that those burdens are exacting. It is inescapable that an Applicant to appropriate water in a closed basin must withstand strict scrutiny of each of the legislatively required factors.

Sitz Ranch v. DNRC, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 7.

58. A basin closure exception does not relieve the Department of analyzing § 85-2-311, MCA criteria. Qualification under a basin closure exception allows the Department to accept an application for processing. The Applicant must still prove the requisite criteria. *E.g., In the Matter of Application for Beneficial Water Use Permit No. 41K-30043385 by Marc E. Lee* (DNRC Final Order 2011); *In the Matter of Application for Beneficial Water Use Permit No. 41K-30045713 by Nicholas D. Konen*, (DNRC Final Order 2011).

PHYSICAL AVAILABILITY

59. Pursuant to § 85-2-311(1)(a)(i), MCA, an Applicant must prove by a preponderance of the evidence that “there is water physically available at the proposed point of diversion in the amount that the Applicant seeks to appropriate.”

60. It is the Applicant’s burden to produce the required evidence. *In the Matter of Application for Beneficial Water Use Permit No. 27665-411 by Anson* (DNRC Final Order 1987) (Applicant produced no flow measurements or any other information to show the availability of water; permit denied); *In the Matter of Application to Change Water Right No. 41H 1223599 by MGRR #1, LLC.*, (DNRC Final Order 2005).

61. An Applicant must prove that at least in some years there is water physically available at the point of diversion in the amount the Applicant seeks to appropriate. *In the Matter of Application for Beneficial Water Use Permit No. 72662s76G by John Fee and Don Carlson* (DNRC Final Order 1990); *In the Matter of Application for Beneficial Water Use Permit No. 85184s76F by Wills Cattle Co. and Ed McLean* (DNRC Final Order 1994).

62. Use of published upstream gauge data minus rights of record between gauge and point of diversion adjusted to remove possible duplicated rights shows water physically available. *In the Matter of Application for Beneficial Water Use Permit No. 41P-105759 by Sunny Brook Colony* (DNRC Final Order 2001)

63. The Applicant has proven that water is physically available at the proposed point of diversion in the amount Applicant seeks to appropriate. Section 85-2-311(1)(a)(i), MCA. (FOFs 14-16)

LEGAL AVAILABILITY

64. Pursuant to § 85-2-311(1)(a), MCA, an Applicant must prove by a preponderance of the evidence that:

(ii) water can reasonably be considered legally available during the period in which the Applicant seeks to appropriate, in the amount requested, based on the records of the department and other evidence provided to the department. Legal availability is determined using an analysis involving the following factors:

- (A) identification of physical water availability;
- (B) identification of existing legal demands on the source of supply throughout the area of potential impact by the proposed use; and
- (C) analysis of the evidence on physical water availability and the existing legal demands, including but not limited to a comparison of the physical water supply at the proposed point of diversion with the existing legal demands on the supply of water.

E.g., ARM 36.12.101 and 36.12.120; *Montana Power Co.*, 211 Mont. 91, 685 P.2d 336 (Permit granted to include only early irrigation season because no water legally available in late irrigation)

season); *In the Matter of Application for Beneficial Water Use Permit No. 81705-g76F by Hanson* (DNRC Final Order 1992).

65. It is the Applicant's burden to present evidence to prove water can be reasonably considered legally available. *Sitz Ranch v. DNRC*, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 7 (the legislature set out the criteria (§ 85-2-311, MCA) and placed the burden of proof squarely on the Applicant. The Supreme Court has instructed that those burdens are exacting.); *see also Matter of Application for Change of Appropriation Water Rights Nos. 101960-41S and 101967-41S by Royston* (1991), 249 Mont. 425, 816 P.2d 1054 (burden of proof on Applicant in a change proceeding to prove required criteria); *In the Matter of Application to Change Water Right No. 41H 1223599 by MGRR #1, LLC.*, (DNRC Final Order 2005) (it is the Applicant's burden to produce the required evidence.); *In the Matter of Application for Beneficial Water Use Permit No. 41H 30023457 by Utility Solutions, LLC* (DNRC Final Order 2007) (permit denied for failure to prove legal availability); *see also* ARM 36.12.1705.

66. Pursuant to *Montana Trout Unlimited v. DNRC*, 2006 MT 72, 331 Mont. 483, 133 P.3d 224, the Department recognizes the connectivity between surface water and ground water and the effect of pre-stream capture on surface water. *E.g., Wesmont Developers v. DNRC*, CDV-2009-823, Montana First Judicial District Court, *Memorandum and Order*, (2011) Pgs. 7-8; *In the Matter of Beneficial Water Use Permit Nos. 41H 30012025 and 41H 30013629 by Utility Solutions LLC* (DNRC Final Order 2006) (mitigation of depletion required), *affirmed, Faust v. DNRC et al.*, Cause No. CDV-2006-886, Montana First Judicial District (2008); *see also Robert and Marlene Takle v. DNRC et al.*, Cause No. DV-92-323, Montana Fourth Judicial District for Ravalli County, *Opinion and Order* (June 23, 1994) (affirming DNRC denial of Applications for Beneficial Water Use Permit Nos. 76691-76H, 72842-76H, 76692-76H and 76070-76H; underground tributary flow cannot be taken to the detriment of other appropriators including surface appropriators and ground water appropriators must prove unappropriated surface water, *citing Smith v. Duff*, 39 Mont. 382, 102 P. 984 (1909), and *Perkins v. Kramer*, 148 Mont. 355, 423 P.2d 587 (1966)); *In the Matter of Beneficial Water Use Permit No. 80175-s76H by Tintzman* (DNRC Final Order 1993) (prior appropriators on a stream gain right to natural flows of all tributaries in so far as may be necessary to afford the amount of water to which they are entitled, *citing Loyning v. Rankin* (1946), 118 Mont. 235, 165 P.2d 1006; *Granite Ditch Co. v. Anderson* (1983), 204 Mont. 10, 662 P.2d 1312; *Beaverhead Canal Co. v. Dillon Electric Light & Power Co.* (1906), 34 Mont. 135, 85 P. 880); *In the Matter of Beneficial Water Use Permit No. 63997-42M by Joseph F. Crisafulli* (DNRC Final Order 1990) (since there is a relationship between surface flows and the ground water source

proposed for appropriation, and since diversion by Applicant's well appears to influence surface flows, the ranking of the proposed appropriation in priority must be as against all rights to surface water as well as against all groundwater rights in the drainage).

67. Because the Applicant bears the burden of proof as to legal availability, the Applicant must prove that the proposed appropriation will not result in prestream capture or induced infiltration and cannot limit its analysis to ground water. Section 85-2-311(a)(ii), MCA. Absent such proof, the Applicant must analyze the legal availability of surface water in light of the proposed ground water appropriation. *In the Matter of Application for Beneficial Water Use Permit No. 41H 30023457 By Utility Solutions LLC* (DNRC Final Order 2007) (permit denied); *In the Matter of Application for Beneficial Water Use Permit No. 76H-30028713 by Patricia Skergan and Jim Helmer* (DNRC Final Order 2009); *Sitz Ranch v. DNRC*, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 5 ; *Wesmont Developers v. DNRC*, CDV-2009-823, First Judicial District Court, *Memorandum and Order*, (2011) Pgs. 11-12.

68. Where a proposed ground water appropriation depletes surface water, Applicant must prove legal availability of amount of depletion of surface water throughout the period of diversion either through a mitigation /aquifer recharge plan to offset depletions or by analysis of the legal demands on, and availability of, water in the surface water source. *Robert and Marlene Takle v. DNRC*, Cause No. DV-92-323, Montana Fourth Judicial District for Ravalli County, *Opinion and Order* (June 23, 1994); *In the Matter of Beneficial Water Use Permit Nos. 41H 30012025 and 41H 30013629 by Utility Solutions LLC* (DNRC Final Order 2006) (permits granted), *affirmed*, *Faust v. DNRC et al.*, Cause No. CDV-2006-886, Montana First Judicial District (2008); *In the Matter of Application for Beneficial Water Use Permit 41H 30019215 by Utility Solutions LLC* (DNRC Final Order 2007)(permit granted), *affirmed*, *Montana River Action Network et al. v. DNRC*, Cause No. CDV-2007-602, Montana First Judicial District (2008); *In the Matter of Application for Beneficial Water Use Permit No. 41H 30023457 by Utility Solutions LLC* (DNRC Final Order 2007) (permit denied for failure to analyze legal availability outside of irrigation season (where mitigation applied)); *In the Matter of Application for Beneficial Water Use Permit No. 41H 30026244 by Utility Solutions LLC* (DNRC Final Order 2008); *In the Matter of Application for Beneficial Water Use Permit No. 76H-30028713 by Patricia Skergan and Jim Helmer* (DNRC Final Order 2009)(permit denied in part for failure to analyze legal availability for surface water depletion); *Sitz Ranch v. DNRC*, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 5 (Court affirmed denial of permit in part for failure to prove legal availability of stream depletion to slough and Beaverhead River); *Wesmont Developers v. DNRC*, CDV-2009-823, First Judicial

District Court, *Memorandum and Order*, (2011) Pgs. 11-12 (“DNRC properly determined that Wesmont cannot be authorized to divert, either directly or indirectly, 205.09 acre-feet from the Bitterroot River without establishing that the water does not belong to a senior appropriator”; Applicant failed to analyze legal availability of surface water where projected surface water depletion from groundwater pumping); *In the Matter of Application for Beneficial Water Use Permit No. 76D-30045578 by GBCI Other Real Estate, LLC* (DNRC Final Order 2011) (in an open basin, Applicant for a new water right can show legal availability by using a mitigation/aquifer recharge plan or by showing that any depletion to surface water by groundwater pumping will not take water already appropriated; development next to Lake Koocanusa will not take previously appropriated water). Applicant may use water right claims of potentially affected appropriators as a substitute for “historic beneficial use” in analyzing legal availability of surface water under § 85-2-360(5), MCA. *Royston, supra*.

69. In analyzing legal availability for surface water, Applicant was required to evaluate legal demands on the source of supply throughout the “area of potential impact” by the proposed use under § 85-2-311(1)(a)(ii), MCA, not just within the “zone of influence.” *Sitz Ranch v. DNRC*, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 6.

70. Use of published upstream gauge data minus rights of record between gauge and point of diversion adjusted to remove possible duplicated rights shows water physically available. Using same methodology and adding rights of record downstream of point of diversion to the mouth of the stream shows water legally available. *In the Matter of Application for Beneficial Water Use Permit No. 41P-105759 by Sunny Brook Colony* (DNRC Final Order 2001); *In the Matter of Application for Beneficial Water Use Permit No. 81705-g76F by Hanson* (DNRC Final Order 1992);

71. Based on the Applicant’s proposed mitigation plan, the Department finds that the Applicant has proven by a preponderance of the evidence that surface water can reasonably be considered legally available during the period in which the Applicant seeks to appropriate, in the amount requested. (FOF 33)

72. Applicant has proven by a preponderance of the evidence that water can reasonably be considered legally available during the period in which the Applicant seeks to appropriate, in the amount requested, based on the records of the Department and other evidence provided to the Department. Section 85-2-311(1)(a)(ii), MCA. (FOF 34)

ADVERSE EFFECT

73. Pursuant to § 85-2-311(1)(b), MCA, the Applicant bears the affirmative burden of proving by a preponderance of the evidence that the water rights of a prior appropriator under an existing water right, a certificate, a permit, or a state water reservation will not be adversely affected. Analysis of adverse effect must be determined based on a consideration of an Applicant's plan for the exercise of the permit that demonstrates that the Applicant's use of the water will be controlled so the water right of a prior appropriator will be satisfied. See *Montana Power Co.*, 211 Mont. 91, 685 P.2d 336 (1984) (purpose of the Water Use Act is to protect senior appropriators from encroachment by junior users); *Bostwick Properties, Inc.*, ¶ 21.

74. An Applicant must analyze the full area of potential impact under the § 85-2-311, MCA criteria. In *the Matter of Beneficial Water Use Permit No. 76N-30010429 by Thompson River Lumber Company* (DNRC Final Order 2006). While § 85-2-361, MCA, limits the boundaries expressly required for compliance with the hydrogeologic assessment requirement, an Applicant is required to analyze the full area of potential impact for adverse effect in addition to the requirement of a hydrogeologic assessment. *Id.* ARM 36.12.120(5).

75. Applicant must prove that no prior appropriator will be adversely affected, not just the objectors. *Sitz Ranch v. DNRC*, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, 4 (2011).

76. In analyzing adverse effect to other appropriators, an Applicant may use the water rights claims of potentially affected appropriators as evidence of their "historic beneficial use." See *Matter of Application for Change of Appropriation Water Rights Nos. 101960-41S and 101967-41S by Royston*, 249 Mont. 425, 816 P.2d 1054 (1991).

77. It is the Applicant's burden to produce the required evidence. *E.g.*, *Sitz Ranch v. DNRC*, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, 7 (2011) (legislature has placed the burden of proof squarely on the Applicant); *In the Matter of Application to Change Water Right No. 41H 1223599 by MGRR #1, LLC.*, (DNRC Final Order 2005). The Department is required to grant a permit only if the § 85-2-311, MCA, criteria are proven by the Applicant by a preponderance of the evidence. *Bostwick Properties, Inc.*, ¶ 21.

78. Section 85-2-311 (1)(b) of the Water Use Act does not contemplate a de minimis level of adverse effect on prior appropriators. *Wesmont Developers v. DNRC*, CDV-2009-823, First Judicial District Court, *Memorandum and Order*, 8 (2011).

79. A plan to prove legal availability and prevent adverse effect can be to use mitigation or augmentation. Section 85-2-360, MCA; *e.g.*, *In the Matter of Beneficial Water Use Permit*

Application Nos. 41H 30012025 and 41H 30013629 by Utility Solutions, LLC (DNRC Final Order 2006) (permit conditioned to mitigate/augment depletions to the Gallatin River by use of infiltration galleries in the amount of .55 cfs and 124 AF), *affirmed, Faust v. DNRC*, Cause No. CDV-2006-886, Montana First Judicial District (2008); *In the Matter of Beneficial Water Use Permit Application Nos. 41H 30019215 by Utility Solutions, LLC* (DNRC Final Order 2007) (permit conditioned to mitigate 6 gpm up to 9.73 AF of potential depletion to the Gallatin River), *affirmed, Montana River Action Network v. DNRC*, Cause No. CDV-2007-602, Montana First Judicial District Court, (2008); *Sitz Ranch v. DNRC*, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 7; *Wesmont Developers v. DNRC*, CDV-2009-823, First Judicial District Court, *Memorandum and Order*, (2011) Pg. 12; *In the Matter of Application for Beneficial Water Use Permit No. 41H 30026244 By Utility Solutions LLC* (DNRC 2008) (permit conditioned on mitigation of 3.2 gpm up to 5.18 AF of depletion to the Gallatin River); *In the Matter of Application for Beneficial Water Use Permit No. 76H-30028713 by Patricia Skergan and Jim Helmer* (HB 831, DNRC Final Order 2009) (permit denied in part for failure to analyze legal availability for surface water for depletion of 1.31 AF to Bitterroot River); § 85-2-360, MCA. The Department has a history of approving new appropriations where Applicant will mitigate/augment to offset depletions caused by the new appropriation. *In the Matter of Beneficial Water Use Permit Application No. 41I-104667 by Woods and Application to Change Water Right No 41I-G(W) 125497 by Ronald J. Woods* (DNRC Final Order 2000); *In The Matter of Application To Change Appropriation Water Right 76GJ 110821 by Peterson and MT Department of Transportation* (DNRC Final Order 2001); *In The Matter of Application To Change Appropriation Water Right No. 76G-3235699 by Arco Environmental Remediation LLC* (DNRC Final Order 2003) (allows water under claim 76G-32356 to be exchanged for water appropriated out of priority by permits at the wet closures and wildlife to offset consumption). *In The Matter of Designation of the Larsen Creek Controlled Groundwater Area as Permanent, Board of Natural Resources Final Order* (1988). Montana case law also provides a history of mitigation, including mitigation by new or untried methods. See *Thompson v. Harvey* (1974), 154 Mont. 133, 519 P.2d 963; *Perkins v. Kramer* (1966), 148 Mont. 355, 423 P.2d 587. Augmentation/mitigation is also recognized in other prior appropriation states for various purposes. E.g. C.R.S.A. § 37-92-302 (Colorado); A.R.S. § 45-561 (Arizona); RCWA 90.46.100 (Washington); ID ST § 42-1763B and § 42-4201A (Idaho).

The requirement for mitigation in closed basins has been codified in § 85-2-360, *et seq.*, MCA. Section 85-2-360(5), MCA provides in relevant part:

A determination of whether or not there is an adverse effect on a prior appropriator as the result of a new appropriation right is a determination that must be made by

the *department based on the amount*, location, and duration of the amount of net depletion that causes the adverse effect relative to the historic beneficial use of the appropriation right that may be adversely affected.

(Emphasis added.)

80. Pursuant to § 85-2-362, MCA, a mitigation plan must include: where and how the water in the plan will be put to beneficial use; when and where, generally, water reallocated through exchange or substitution will be required; the amount of water reallocated through exchange or substitution that is required; how the proposed project or beneficial use for which the mitigation plan is required will be operated; evidence that an application for a change in appropriation right, if necessary, has been submitted; evidence of water availability; and evidence of how the mitigation plan will offset the required amount of net depletion of surface water in a manner that will offset an adverse effect on a prior appropriator.

81. In this case Applicant proposes to mitigate its full consumptive use under the proposed appropriation. This mitigation provides mitigation of full depletion of surface waters by the proposed appropriation in amount, location, and duration of the depletion. Because Applicant proposes to mitigate the full amount of its consumptive use, there is no adverse effect from depletion of surface waters to the historic beneficial use of surface water rights. *E.g., In the Matter of Application for Beneficial Water Use Permit No. 41H 30026244 By Utility Solutions LLC* (DNRC Final Order 2008).

82. The Applicant has proven by a preponderance of the evidence that the water rights of a prior appropriator under an existing water right, a certificate, a permit, or a state water reservation will not be adversely affected. Section 85-2-311(1)(b), MCA. (FOF 45)

ADEQUATE DIVERSION

83. Pursuant to § 85-2-311(1)(c), MCA, an Applicant must demonstrate that the proposed means of diversion, construction, and operation of the appropriation works are adequate.

84. The adequate means of diversion statutory test merely codifies and encapsulates the case law notion of appropriation to the effect that the means of diversion must be reasonably effective, i.e., must not result in a waste of the resource. *In the Matter of Application for Beneficial Water Use Permit No. 33983s41Q by Hoyt* (DNRC Final Order 1981); § 85-2-312(1)(a), MCA.

85. Water wells must be constructed according to the laws, rules, and standards of the Board of Water Well Contractors to prevent contamination of the aquifer. *In the Matter of Application for Beneficial Water Use Permit No. 41I-105511 by Flying J Inc.* (DNRC Final Order 1999).

86. Information needed to prove that proposed means of diversion, construction, and operation of the appropriation works are adequate varies, based upon project complexity design by licensed engineer adequate. *In the Matter of Application for Beneficial Water Use Permit No. 41C-11339900 by Three Creeks Ranch of Wyoming LLC* (DNRC Final Order 2002).

87. Applicant has proven by a preponderance of the evidence that the proposed means of diversion, construction, and operation of the appropriation works are adequate for the proposed beneficial use. Section 85-2-311(1)(c), MCA (FOF 48)

BENEFICIAL USE

88. Under § 85-2-311(1)(d), MCA, an Applicant must prove by a preponderance of the evidence the proposed use is a beneficial use.

89. An appropriator may appropriate water only for a beneficial use. See also, § 85-2-301 MCA. It is a fundamental premise of Montana water law that beneficial use is the basis, measure, and limit of the use. *E.g., McDonald; Toohey v. Campbell* (1900), 24 Mont. 13, 60 P. 396. The amount of water under a water right is limited to the amount of water necessary to sustain the beneficial use. *E.g., Bitterroot River Protective Association v. Siebel, Order on Petition for Judicial Review*, Cause No. BDV-2002-519, Montana First Judicial District Court, Lewis and Clark County (2003), *affirmed on other grounds*, 2005 MT 60, 326 Mont. 241, 108 P.3d 518; *In The Matter Of Application For Beneficial Water Use Permit No. 43C 30007297 by Dee Deaterly* (DNRC Final Order), *affirmed other grounds, Dee Deaterly v. DNRC*, Cause No. 2007-186, Montana First Judicial District, *Order Nunc Pro Tunc on Petition for Judicial Review* (2009); *Worden v. Alexander* (1939), 108 Mont. 208, 90 P.2d 160; *Allen v. Petrick* (1924), 69 Mont. 373, 222 P. 451; *In the Matter of Application for Beneficial Water Use Permit No. 41S-105823 by French* (DNRC Final Order 2000).

90. Amount of water to be diverted must be shown precisely. *Sitz Ranch v. DNRC*, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, 3 (2011) (citing *BRPA v. Siebel*, 2005 MT 60, and rejecting Applicant's argument that it be allowed to appropriate 800 acre-feet when a typical year would require 200-300 acre-feet).

91. It is the Applicant's burden to produce the required evidence. *Bostwick Properties, Inc. v. DNRC*, 2013 MT 48, ¶ 22, 369 Mont. 150, 296 P.3d 1154 ("issuance of the water permit itself does not become a clear, legal duty until [the applicant] proves, by a preponderance of the evidence, that the required criteria have been satisfied"); *Sitz Ranch v. DNRC*, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 7; *In the Matter of Application*

to Change Water Right No. 41H 1223599 by MGRR #1, LLC., (DNRC Final Order 2005); see also Royston; Ciotti.

92. Applicant proposes to use water for irrigation which is a recognized beneficial use. Section 85-2-102(5), MCA. Applicant has proven by a preponderance of the evidence that irrigation is a beneficial use and that 55.43 AF of diverted volume and 220 GPM is the amount needed to sustain the beneficial use. Section 85-2-311(1)(d), MCA. (FOF 53)

POSSESSORY INTEREST

93. Pursuant to § 85-2-311(1)(e), MCA, an Applicant must prove by a preponderance of the evidence that it has a possessory interest or the written consent of the person with the possessory interest in the property where the water is to be put to beneficial use, or if the proposed use has a point of diversion, conveyance, or place of use on national forest system lands, the Applicant has any written special use authorization required by federal law to occupy, use, or traverse national forest system lands for the purpose of diversion, impoundment, storage, transportation, withdrawal, use, or distribution of water under the permit.

94. Pursuant to ARM 36.12.1802:

(1) An Applicant or a representative shall sign the application affidavit to affirm the following:

(a) the statements on the application and all information submitted with the application are true and correct and

(b) except in cases of an instream flow application, or where the application is for sale, rental, distribution, or is a municipal use, or in any other context in which water is being supplied to another and it is clear that the ultimate user will not accept the supply without consenting to the use of water on the user's place of use, the Applicant has possessory interest in the property where the water is to be put to beneficial use or has the written consent of the person having the possessory interest.

(2) If a representative of the Applicant signs the application form affidavit, the representative shall state the relationship of the representative to the Applicant on the form, such as president of the corporation, and provide documentation that establishes the authority of the representative to sign the application, such as a copy of a power of attorney.

(3) The department may require a copy of the written consent of the person having the possessory interest.

95. The Applicant has proven by a preponderance of the evidence that it has a possessory interest, or the written consent of the person with the possessory interest, in the property where the water is to be put to beneficial use. Section 85-2-311(1)(e), MCA. (54)

PRELIMINARY DETERMINATION

Subject to the terms, analysis, and conditions in this Order, the Department preliminarily determines that this Application for Beneficial Water Use Permit No. 76M 30164554 should be GRANTED.

The Department determines the Applicant may divert water from the groundwater aquifer, by means of a 100-ft well, from April 15 to October 15 at 220 GPM up to 55.43 AF, from a point in the SWNWSE Section 14, T13N, R20W, Missoula County, for irrigation use from April 15 to October 15. The Applicant may irrigate crops on 23 acres. The place of use is located in the SWNWSE and W2SWSE of Section 14 and the NWNWNE of Section 23, all in Township 13N, Range 20W, Missoula County.

The application will be subject to the following conditions, limitations, or restrictions:

- 1) THE APPROPRIATOR'S USE OF WATER UNDER THIS PERMIT IS CONDITIONED UPON THE 38.8 AC-FT OF MITIGATION VOLUME REQUIRED TO OFFSET ADVERSE EFFECTS FROM NET DEPLETION TO THE CLARK FORK RIVER. DIVERSION UNDER THIS PERMIT MAY NOT COMMENCE UNTIL THE MITIGATION PLAN AS SPECIFICALLY DESCRIBED AND APPROVED THROUGH CHANGE AUTHORIZATION 76M 30165370 IS LEGALLY IMPLEMENTED. DIVERSION UNDER THIS PERMIT MUST STOP IF MITIGATION AS HEREIN REQUIRED IN AMOUNT, LOCATION, AND DURATION CEASES.

- 2) THE APPROPRIATOR SHALL MAINTAIN CURRENT ELECTRICAL INFORMATION SO AVERAGE SYSTEM DISCHARGE AND PUMP MOTOR POWER CONSUMPTION MAY BE CALCULATED. A RECORD OF ANY SYSTEM CHANGES ALONG WITH WRITTEN RECORDS OF THE DIVERSION SCHEDULE SHALL ALSO BE MAINTAINED. ON A FORM PROVIDED BY THE DEPARTMENT, THE APPROPRIATOR SHALL OBTAIN ELECTRICAL CONSUMPTION RECORDS AND FROM THOSE RECORDS CALCULATE THE VOLUME OF WATER DIVERTED. RECORDS SHALL BE SUBMITTED BY NOVEMBER 30 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR UNTIL THE PROVISIONAL PERMIT IS PERFECTED AND THE DEPARTMENT RECEIVES A PROJECT COMPLETION NOTICE. IF CONDITION IS MET AND THE APPROPRIATION IS PERFECTED PURSUANT TO THE AUTHORIZATION, THE DEPARTMENT WILL REMOVE THE CONDITION UPON VERIFICATION OF THE PERMIT. IN THE EVENT THAT PERMITTED FLOW RATES AND/OR VOLUMES HAVE BEEN EXCEEDED DURING PERFECTION OF THE PROVISIONAL PERMIT OR THE APPROPRIATOR FAILS TO SUBMIT ANNUAL REPORTS, THE DEPARTMENT MAY CONTINUE TO REQUIRE ANNUAL SUBMISSIONS OF MONTHLY FLOW RATE AND VOLUME RECORDS. FAILURE TO SUBMIT

REPORTS MAY BE CAUSE FOR REVOCATION OF A PERMIT OR CHANGE. THE RECORDS MUST BE SENT TO THE WATER RESOURCES REGIONAL OFFICE.

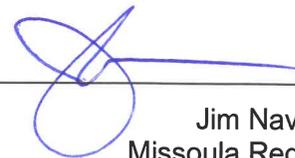
Diversion under this Permit may not commence until the mitigation or aquifer recharge plan described in this decision is legally implemented. Diversion under this Permit must stop if the mitigation or aquifer recharge plan as herein required in amount, location and duration ceases in whole or in part.

The area that will be depleted is located along the Clark Fork River; to mitigate the affected reach the appropriator will obtain mitigation water from the City of Missoula. Through Change Application 76M 30165370, the City retired irrigation rights 76M 123868 00, 76M 123869 and 76M 118513 00 and stock right 76M 123870 00. The historically consumed volume of these rights is adequate to mitigate the calculated depletions of 38.8 AF that are associated with this proposed appropriation.

NOTICE

The Department will provide a notice of opportunity for public comment on this application and the Department's Draft Preliminary Determination to Grant pursuant to § 85-2-307, MCA. The Department will set a deadline for public comments to this application pursuant to §§ 85-2-307, and -308, MCA. If this application receives public comment pursuant to § 85-2-307(4), the Department shall consider the public comments, respond to the public comments, and issue a preliminary determination to grant the application, grant the application in modified form, or deny the application. If no public comments are received pursuant to § 85-2-307(4), MCA, the Department's preliminary determination will be adopted as the final determination.

Dated this 10th day of March, 2026.



Jim Nave, Manager
Missoula Regional Office
Montana Department of Natural Resources and Conservation

CERTIFICATE OF SERVICE

This certifies that a true and correct copy of the DRAFT PRELIMINARY DETERMINATION TO GRANT was served upon all parties listed below on this 10th day of March, 2026, by first class United States mail.

DAVID & SUSAN MILLER
6610 MULLAN RD
MISSOULA, MT 59808-5654

ATTN: JULIE MERRITT
WGM GROUP
1111 E BROADWAY
MISSOULA, MT 59802-4909

A handwritten signature in blue ink that reads "Benjamin Thomas". The signature is written in a cursive style and is positioned above a horizontal line.

Benjamin Thomas
Missoula Regional Office
(406) 542-5883



Missoula Water Resources Regional Office
PO Box 5004
2705 Spurgin Road, Bldg. C
Missoula, MT 59806-5004
(406) 721-4284

March 10, 2026

David G Miller & Susan E Miller

6610 Mullan Rd

Missoula, MT 59808-5654

Subject: Request for extension of time to submit additional information for Beneficial Water Use Permit Application No. 76M 30164554

Dear Applicants,

The Department of Natural Resources and Conservation (Department or DNRC) has granted your request for an extension of time for the purpose of submitting additional information for the consideration of Beneficial Water Use Permit Application No. 76M 30164554.

You have 7 days to submit additional information to the Missoula Regional Office. Please note that additional information submitted may be considered an amendment to your application, which may reset application timelines pursuant to ARM 36.12.1401. Should the Department consider additional information submitted to be an amendment to the application, the applicant will be required to submit an Application Amendment Form (Form 655).

Pursuant to §85-2-307(3)(b), MCA, the Department shall issue an updated Draft Preliminary Determination (PD) within 60 days of the earliest date of either the extension deadline set, or the Department's receipt of written notice from Applicant attesting that all information to be considered has been submitted to the Department.



If the Department's updated Draft PD is to deny the application, you will be notified, and your application will be forwarded to the DNRC Hearings Unit to schedule a hearing to show cause why your application should not be denied, per §85-2-310(1), MCA.

If the Department's updated Draft PD is to grant the application or to grant the application in modified form, you will be notified, and the Department will then prepare a notice of opportunity to provide public comment on the updated Draft PD to Grant or Grant in Modified Form, per §85-2-307(4), MCA.

If you determine that you do not intend to further pursue this application, you can request the application to be withdrawn at any time during this process.

Please let me know if you have any questions

Sincerely,



Benjamin Thomas

Water Conservation Specialist II

Missoula Regional Office

benjamin.thomas@mt.gov | (406) 542-5883



Thomas, Benjamin

From: Patrick Doyle <pdoyle@wgmgroup.com>
Sent: Monday, March 9, 2026 2:43 PM
To: Thomas, Benjamin
Cc: Scharf, Mallory
Subject: [EXTERNAL] 76M 30164554 Extension Request

Good afternoon, Benjamin,

I am writing to request an extension of time to submit additional information for the Department to consider regarding the Permit Application for David and Susan Miller, 76M 30164554. We have submitted all the information we want the Department to consider, which was provided in a previous email from February 25 and is included below.

I have reviewed the Preliminary Determination document for David and Susan Miller's permit application for 76M 30164554. The place of use for section 14 is listed incorrectly on page 2, 3, and 26 of the document. It is listed as the **SWNWNE and W2NWSE** of Section 14 and the NWNWNE of Section 23, all in Township 13N, Range 20W, Missoula County. The correct locations are the **SWNWSE and W2SWSE** of Section 14. The place of use in Section 23 is correct.

Additionally, the consumed volume in the PD included a 10% irrecoverable loss of the 55.43AF diverted volume. This increases the consumptive volume listed on the Technical Analysis from 38.8AF to 44.34AF.

If there is anything else you need, please let me know.

Thank you for your attention to this matter,

Patrick

Patrick Doyle

Water Rights Technician & GIS Coordinator

M: [406-665-5727](tel:406-665-5727) O: [406-728-4611](tel:406-728-4611)
1111 East Broadway
Missoula, Montana 59802
www.wgmgroup.com [www.wgmgroup.com]





Missoula Water Resources Regional Office
PO Box 5004
2705 Spurgin Road, Bldg. C
Missoula, MT 59806-5004
(406) 721-4284

December 26, 2025

David G. Miller & Susan E. Miller
6610 Mullan Rd
Missoula, MT 59808-5654

Subject: Correct and Complete Application for Beneficial Water Use Permit No. 76M 30164554

Dear Applicant,

The Department of Natural Resources and Conservation (Department) has determined that your application is correct and complete pursuant to ARM 36.12.1601. Please remember that correct and complete **does not mean that your application will be granted.** The purpose of this letter is to indicate that the Department has enough information to analyze your water right application.

The Department will issue a Draft Preliminary Determination within 60 days of the date of this letter per §85-2-307(2)(b), MCA.

Following issuance of the Draft Preliminary Determination, you (Applicant) will have 15 business days to request an extension of time to submit additional information, if desired pursuant to §85-2-307(3)(a), MCA.

If no extension of time is requested and the Draft Preliminary Determination decision is to grant your application or grant your application in modified form, the Department will prepare a notice of opportunity to provide public comment, per §85-2-307(4)(a), MCA.



If no extension of time is requested and the Draft Preliminary Determination decision is to deny your application, the Department will adopt the Draft Preliminary Determination as the final determination per §85-2-307(3)(d)(ii), MCA.

If you have any questions or concerns about the application process, please contact me.

Best,



Benjamin Thomas

Water Conservation Specialist II

Missoula Regional Office

benjamin.thomas@mt.gov | (406) 542-5883

CC:

Julie Merritt, WGM group



MEMORANDUM

DATE: November 26, 2025

TO: Benjamin Thomas, Alex Dalgleish, and Jim Nave
Montana Department of Natural Resources and Conservation

FROM: Patrick Doyle, Water Right Technician, WGM Group, Inc.

CC: David Miller and Susan Miller, Applicants
Julie Merritt, Water Rights Specialist III, WGM Group, Inc.

RE: Flynn Lowney Ditch Deficiency Letter Response

Below are the responses to the elements identified in the Deficiency Letter dated October 29, 2025 for Permit Application 76M 30164554

1. QUESTION 3.

If your application is for groundwater, not surface water, and one or more of your points of diversion are in a Basin Closure Area, then submit the Basin Closure Area Addendum (Form 600-BCA).

This Application meets both criteria listed in this question. Please submit Form 600-BCA.

The Form 600-BCA is attached.

2. QUESTION 23.a.

If yes, summarize how the supplemental and proposed water rights will be operated as a whole to serve the purpose.

Please provide an explanation as to how/why Statement of Claim 76M 149678 00 will not contribute to the proposed irrigation when there is significant overlap in their places of use.

The new well will supply a consistent and easily manageable source of water. The Applicant anticipates the well water will completely replace use of Statement of Claim 76M 149678 00.

3. QUESTION 24.

For each supplemental or overlapping water right, please list the water right number, typical period of diversion and use, flow rate, and the volume of water contributed to the shared place of sue.

Please describe any water rights with overlapping places of use, even if the water contributed amounts to 0AF.

| Water Right # | Average Period of Diversion | Average Period of Use | Flow Rate | Volume Contributed |
|---------------|-----------------------------|------------------------|-----------|--------------------|
| 76M 149678 00 | April 15 to October 15 | April 15 to October 15 | 160 GPM | 0AF |

4. QUESTION 36

Provide a plan of operations, which includes specific information about how water is delivered within the place of use. This may include, where applicable, the range of flow rates needed for a pivot.

The described operation appears to require 175 gpm, but you have requested a flow rate of 220 gpm. Please show how a flow rate of 220 gpm is required to operate the proposed system or reduce the proposed flow rate to match the requirements of the system.

The pump installed in the well is rated at 220 gpm per the pump curve that was submitted with the application. This exceeds the exact flow required for the combination of sprinkler heads. Additional flow at the wellhead is needed in order maintain enough pressure in the system to operate the big gun and the wheel line simultaneously. The distance between the well and the beginning of the field covered by the big gun is approximately 200 ft and there is 15 ft of elevation gain across this distance, contributing a substantial amount of pressure loss. The big gun travels about 300 ft on each pass.

The distance between the well and the first riser for the wheel line is approximately 400 ft and there is little, if any, elevation change over this distance. The mainline with the risers for the wheel line is approximately 600 ft long. The wheel line itself is approximately 1000 ft long. Again, additional flow is needed at the wellhead in order to maintain enough pressure to operate all 30 of the sprinkler heads, especially when the wheel line is operating from the last riser on the mainline.



APPLICATION FOR BENEFICIAL WATER USE PERMIT
BASIN CLOSURE ADDENDUM
§§ 85-2-360, 85-2-361, 85-2-362, MCA
ARM 36.12.120

The Department cannot process an application located in a basin closure area unless it qualifies as a basin closure exception. The Department will determine whether an application in a basin closure area can be processed based on the information received from the applicant and will document its findings before it will review the application to determine whether it is correct and complete. You will be required to mitigate the net depletion of water that may create an adverse effect to groundwater and hydraulically connected surface water rights.

Answer every question and applicable follow-up questions. Use the checkboxes to denote yes ("Y") or no ("N"). Questions that require Applicant to submit items to the Department have a submitted ("S") checkbox, which is marked when the required item is attached to the Basin Closure Addendum. Label all submitted items with the question number for which they were submitted. Responses that are larger than the space provided can be answered in an attachment. If an attachment is used, specify "see attachment" on this form. Label all attachments with the question number.

- 1. [X] Y [] N For groundwater applications filed pursuant to § 85-2-360, MCA, did the Hydrogeologic Assessment Report indicate that the proposed groundwater use will affect a surface water source? If yes, continue through the addendum. If no, this addendum is complete. To be clear, this project is in the Grant Creek Closure which is NOT subject to 85-2-360 so no HAR was conducted. There will be an impact to A surface water source but not THE surface water source included in the closure.

- 2. What surface water source will be affected by the groundwater use?
CLARK FORK RIVER not GRANT CREEK

During the pre-application meeting, it was determined that GW in this area is not connected to Grant Creek.

- 3. [X] S Submit a map showing the location of the effect on surface water. Create the map on an aerial photograph or topographic map and include the following: section corners, township and range, scale bar, and north arrow.

- 4. What amount of effect will occur to surface water? max in July: 63.6 [X] GPM -or- [] CFS
Again, this effect is to the Clark Fork NOT Grant Creek 38.8 [X] Acre-Feet

- 5. What is your plan to mitigate the amount of water identified in question 4?
a. [X] One or more Applications to Change a Water Right (Form 606) to mitigate the adverse effect created. Applications to Change a Water Right must be submitted with the Application for Beneficial Water Use (Form 600).
b. [] Alternative mitigation plan, in lieu of an Application to Change a Water Right, to mitigate the adverse effect created. Submit your alternative mitigation plan with Form 600/606-MIT.
c. [] A mitigation plan is not required.
i. [] S Submit all documentation to show a mitigation plan is not required.



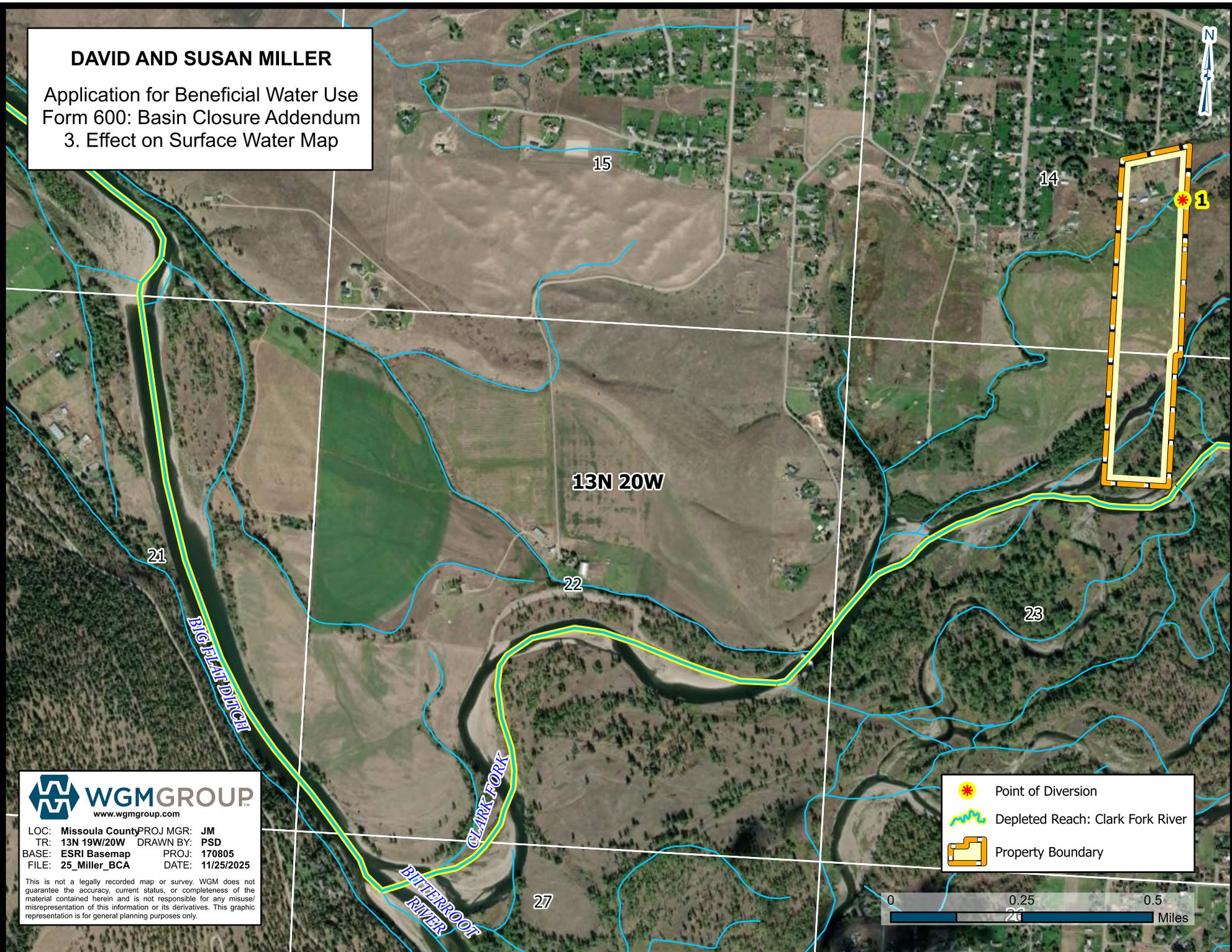
6. Y N Are there existing documented hazards that could be affected or exacerbated by the proposed project, such as areas of subsidence? If yes, describe a plan to mitigate any of those conditions or impacts.

NOTE: Information required for the hydrogeologic assessment may not be sufficient to meet applicable criteria under § 85-2-311, MCA, including but not limited to adverse effect to a prior appropriator. The applicant for a beneficial water use permit pursuant to § 85-2-311, MCA, is responsible for providing sufficient evidence to meet all applicable criteria.



DAVID AND SUSAN MILLER

Application for Beneficial Water Use
Form 600: Basin Closure Addendum
3. Effect on Surface Water Map



LOC: Missoula County PROJ MGR: JM
TR: 13N 19W/20W DRAWN BY: PSD
BASE: ESRI Basemap PROJ: 170805
FILE: 25_Miller_BCA DATE: 11/25/2025

This is not a legally recorded map or survey. WGM does not guarantee the accuracy, current status, or completeness of the material contained herein and is not responsible for any misuse/misrepresentation of this information or its derivatives. This graphic representation is for general planning purposes only.

- Point of Diversion
- Depleted Reach: Clark Fork River
- Property Boundary





Missoula Water Resources Regional Office
PO Box 5004
2705 Spurgin Road, Bldg. C
Missoula, MT 59806-5004
(406) 721-4284

October 29, 2025

David & Susan Miller
6610 Mullan Rd
Missoula, MT 59808-5654

Subject: Deficiency letter for Beneficial Water Use Permit Application No. 76M 30164554

Dear Applicant,

The Department of Natural Resources and Conservation (DNRC or Department) has begun reviewing your application. This letter is to notify you of the deficiencies in your application as required in ARM 36.12.1501(1) and §85-2-302(5)(b), MCA. An Applicant is required to submit substantial and credible information addressing the rules and statutes that are relative to your application. You must provide the information specified below for your application to be considered correct and complete. "Correct and complete" means all of the information provided is substantial and credible and provides all of the information as required by applicable rules and statutes. The application as submitted contains deficiencies in the following section(s):

- Question 3: If your application is for groundwater, not surface water, and one or more of your points of diversion are in a Basin Closure Area, then submit the Basin Closure Area Addendum (Form 600-BCA).*

This Application meets both criteria listed in this question. Please submit Form 600-BCA.

- Question 23.a: If yes, summarize how the supplemental and proposed water rights will be operated as a whole to serve the purpose(s).*

Please provide an explanation as to how/why Statement of Claim 76M 149678-00 will not contribute to the proposed irrigation when there is significant overlap in their places of use.



- ❑ *Question 24: For each supplemental or overlapping water right, please list the water right number, typical period of version and use (MM/DD-MM/DD), flow rate (GPM or CFS), and the volume of water (AF) contributed to the shared place of use.
Please describe any water rights with overlapping places of use, even if the water contributed amounts to 0 AF.*

- ❑ *Question 36: Provide a plan of operations, which includes specific information about how water is delivered within the place of use. This may include, where applicable, the range of flow rates needed for a pivot.
The described operation appears to require 175 GPM (30 sprinkler heads × 5 GPM + 1 big gun × 25 GPM = 175 GPM), but you have requested a flow rate of 220 GPM. Please show how a flow rate of 220 GPM is required to operate the proposed system or reduce the proposed flow rate to match the requirements of the system.*

As stated above, the information submitted to address the rules and statutes listed in this deficiency letter must be substantial credible information to be acceptable at the correct and complete determination. §§85-2-102 (9) and (26), MCA.

Please submit the information specified above to the Missoula Regional Office by February 26, 2026. This is the only deficiency letter that will be sent. An application not corrected or completed within 120 days from the date of this letter is terminated per ARM 36.12.1501(2) and §85-2-302(6)(a), MCA.

Please let me know if you have any questions.

Best,



Benjamin Thomas
Water Conservation Specialist II
Missoula Regional Office
benjamin.thomas@mt.gov | (406) 542-5883

CC: Julie Merritt, WGM Group

IMPORTANT NOTICE: This will be the final opportunity for you to provide the required information to the Department. If all of the requested information in this letter is not postmarked or submitted within 120 days of this letter, the application will be terminated within 30 days and the application fee will not be refunded.





APPLICATION FOR BENEFICIAL WATER USE PERMIT

§ 85-2-302, MCA

Form No. 600 (02/2025)

For Department Use Only

RECEIVED

OCT 21 2025

MONTANA D.N.R.C MISSOULA REGIONAL OFFICE

FILING FEE

\$2900/\$1600 - Inside a Basin Closure Area, Controlled Groundwater Area or Compact Closure; without/with filing fee reduction.

\$2500/\$1200 - Outside a Basin Closure Area; Controlled Groundwater Area or Compact Closure; without/with filing fee reduction.

INFORMATION

An application will be eligible for a filing fee reduction and expedited timelines if the applicant completes a preapplication meeting with the Department (ARM 36.12.1302(1)), which includes submitting any follow-up information identified by the Department (ARM 36.12.1302(3)(c)) and receiving either Department-completed technical analyses or Department review of applicant-submitted technical analyses (ARM 36.12.1302(4) and (5)). An application for the proposed project also must be submitted within 180 days of delivery of Department technical analyses or scientific credibility review and no element on the submitted application can be changed from the completed preapplication meeting form (ARM 36.12.1302(6)). If application is eligible for a filing fee reduction, \$500 paid for Form 600P-B will be credited toward filing fees shown above.

Application # 30164534 Basin 76M
Priority Date 10/21/25 Time 0855 AM/PM
Rec'd By [signature]
Fee Rec'd \$ 700- Check # 83433
Deposit Receipt # M952664818
Payor WGM Group
Refund \$ Date

Applicant Information: Add more as necessary.

Applicant Name DAVID AND SUSAN MILLER
Mailing Address 6610 MILLER RD City MISSOULA State MT Zip 59808
Phone Numbers: Home Work Cell
Email Address

Applicant Name
Mailing Address City State Zip
Phone Numbers: Home Work Cell
Email Address

Applicant Name
Mailing Address City State Zip
Phone Numbers: Home Work Cell
Email Address

Contact/Representative Information: Add more as necessary.

Contact/Representative is: [] Applicant [x] Consultant [] Attorney [] Other
Contact/Representative Name JULIE MERRITT
Mailing Address 1111 E BROADWAY City MISSOULA State MT Zip 59802
Phone Numbers: Home 406-728-4611 Work Cell
Email Address jmerritt@wgmgrou.com

NOTE: If a contact person is identified as an attorney, all communication will be sent only to the attorney unless the attorney provides written instruction to the contrary (ARM 36.12.122(2)). If a contact person is identified as a consultant, employee, or lessee, the individual filing the water right form or objection form will receive all correspondences, and a copy may be sent to the contact person (ARM 36.12.122(3)).



Answer every question and applicable follow-up questions. Use the checkboxes to denote yes ("Y"), no ("N"), or not applicable ("NA"). 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 Application. 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, specify "see attachment" on this form, and label the attachment with the question number. 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 "see attachment" must be entered as a response to the relevant question. Clearly label all units in tables and narrative responses.

PREAPPLICATION AND TECHNICAL ANALYSES INFORMATION

- 1. Y N Do you elect for Department technical analyses to be used for criteria assessment?
- 2. Y N Did you have a preapplication meeting AND complete a Permit Preapplication Meeting Form Part A and Part B (Form 600P-A and 600P-B)?

IF QUESTION 2 IS NO, answer 2.a and 2.b:

- 2.a. S Submit the Technical Analyses Addendum (Form 600-TAA).
- 2.b. S NA Submit the technical analyses, if you elected in question 1 for Applicant technical analyses to be used for criteria assessment. Select "NA" if you elected for Departmental technical analyses.

IF QUESTION 2 IS YES, answer 2.c, 2.d, and 2.e:

- 2.c. Y N Has any element of the project described in this application changed from the mandatory elements of the project described in the completed form 600P? **If yes:**
 - 2.c.i. Please explain.

- 2.c.ii. S Submit the Technical Analyses Addendum (Form 600-TAA).

- 2.d. Y N Are the technical analyses to be used for criteria assessment exactly the same as those completed during the preapplication process? **If no:**
 - 2.d.i. Please explain.

- 2.d.ii. S Submit the Technical Analyses Addendum (Form 600-TAA).

- 2.e. Y N Did you elect in Question 1 for Department technical analyses to be used for criteria assessment? **If no:**
 - 2.e.i. S Submit the technical analyses.



APPLICATION ADDENDA AND REVIEW

3. S NA If your application is for groundwater, not surface water, and one or more of your points of diversion are in a Basin Closure Area, then submit the Basin Closure Area Addendum (Form 600-BCA).
4. S NA If your application is for groundwater and one or more points of diversion are in a Basin Closure Area, then your project must have a Hydrogeologic Report that conforms with MCA 85-2-361 to comply with the requirements of § 85-2-360, MCA. A Hydrogeologic Report Addendum (Form 600-HRA) or Department Technical Analyses may be used to meet these requirements. Please mark the box below that best applies, then select "S" if submitting a Hydrogeologic Report or "NA" if one is not required. This question does not apply to surface water points of diversion in a Basin Closure Area.
- If you elected to conduct Technical Analyses, you must submit the Hydrogeologic Report Addendum (Form 600-HRA).
 - If you elected for DNRC to conduct Technical Analyses but did not have a preapplication meeting AND complete a Form 600P Permit Preapplication Meeting Form (or changes have occurred since the completed Form 600P), you must submit the Hydrogeologic Report Addendum (Form 600-HRA).
 - If you elected for DNRC to conduct Technical Analyses, had a preapplication meeting, completed a Form 600P, and the Technical Analyses remain unchanged since the preapplication meeting, you do not need to submit Form 600-HRA because the Department's Technical Analyses meet the report requirements of § 85-2-360 and § 85-2-361, MCA.
5. S NA If the project is for one or more groundwater points of diversion located in a Controlled Groundwater Area, then submit the Controlled Groundwater Area Addendum (Form 600-CGWA).
6. S NA If the project involves an appropriation that is greater than 5.5 CFS and 4,000 acre-feet, then submit a Criteria Addendum Application for Beneficial Water Use Permit for Appropriations Greater than 5.5 CFS and 4,000 AC-FT (Form 600-B).
7. S NA If the project involves out-of-state water use, then submit the Out-of-State Use Addendum (Form 600/606-OSA).
8. S NA If you require mitigation water to meet the criteria of issuance, then submit a Mitigation Purpose Addendum (Form 600/606-MIT).
9. S NA If the proposed purposes include marketing or selling water, (not marketing for mitigation/aquifer recharge), then submit the Marketing Purpose Addendum (Form 600/606-WMA).
10. S NA If the project involves one or more places of storage, then submit a Permit Storage Addendum (Form 600-SA). 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)).
11. S NA If the project is in designated sage grouse habitat, then submit a review letter from the Montana Sage Grouse Habitat Conservation Program.
12. S NA If the project includes a point of diversion and/or place of use on State of Montana Trust Land, submit documentation of consent from the DNRC Trust Lands Management Division.
13. S NA You must provide a written notice of the application to each owner of an appropriation right sharing a point of diversion or means of conveyance (e.g., canal, ditch, flume, pipeline, or constructed waterway) pursuant to §85-2-302(4)(c), MCA. Submit a copy of this notice and the recipient list.



PURPOSE AND DIVERSION INFORMATION

14. Y N Is the proposed use temporary?

14.a. If yes, when will the appropriation cease? _____

15. Is the proposed source surface water or groundwater? GROUNDWATER

16. What is the source name? GROUNDWATER

17. S Attach a map utilizing an aerial photograph or topographic map that shows the following: section corners; township and range; north arrow; scale bar; all proposed points of diversion labeled with a unique Point of Diversion (POD) ID number and, if applicable, GWIC number; all proposed places of use; all proposed conveyance facilities and or routes; all proposed places of storage labeled with a unique Storage ID number; and places of use (POU) for all overlapping water rights. More than one map may be submitted, if necessary to clearly convey all required information.

18. Fill out the table below. Means of diversion for surface water includes headgate, pump, dam, and others. Means of diversion for groundwater includes well, developed spring, pit pond, and others.

| Purpose | Means of Diversion | Acres Irrigated (if appl.) | Period of Diversion (Month/Day - Month/Day) | Period of Use (Month/Day - Month/Day) | Flow Rate | | Volume (Acre-Feet) |
|-------------------------------------|--------------------|----------------------------|---|---------------------------------------|---|------------------------------|--------------------|
| | | | | | <input checked="" type="checkbox"/> GPM | <input type="checkbox"/> CFS | |
| IRRIGATION | WELL | 23 | 04/15 TO 10/15 | 04/15 TO 10/15 | 220GPM | | 55.43AF |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Total Flow Rate and Volume Required | | | | | | 220gpm | 55.43AF |

19. Y N Does the proposed use include on or more of the following purposes: domestic, multiple domestic, stock, or irrigation? If yes, fill out the following table, where applicable.

| Purpose | Requested Information | Response |
|-------------------------------|---|-----------|
| Domestic or multiple domestic | Number of dwellings | |
| Stock | Number of animal units | |
| Irrigation | Method of irrigation type (sprinkler or flood) and subtype (if flood: level border, graded border, furrow, contour ditch, or other; if sprinkler: center pivot, wheel line, or other) | SPRINKLER |
| Irrigation (flood only) | Design slope | |



POINT(S) OF DIVERSION

20. Describe the proposed location of the point(s) diversion to the nearest 1/4 1/4 1/4 Section. Label each POD with the POD ID number used for the project map (question 17).

| POD # | 1/4 | 1/4 | 1/4 | Sec. | Twp. | Rge. | County | Lot | Block | Tract | Subdivision | Gov. Lot |
|-------|-----|-----|-----|------|------|------|----------|-----|-------|-------|-------------|----------|
| 1 | SW | NW | SE | 14 | 13N | 20W | MISSOULA | | | | | |
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PLACE OF USE

21. What are the geocodes of the place of use?

| | |
|-------------------|--|
| 04219914402010000 | |
| 04219923101020000 | |
| | |
| | |

22. Describe the legal land description for the proposed place of use and, if applying for an irrigation or lawn and garden purpose, list the number of irrigated acres.

| Acres | Gov. Lot | Block | 1/4 | 1/4 | 1/4 | Sec. | Twp. | Rge. | County |
|-------|----------|-------|-----|-----|-----|------|------|------|----------|
| 0.5 | | | SW | NW | SE | 14 | 13N | 20W | MISSOULA |
| 17.5 | | | W2 | SW | SE | 14 | 13N | 20W | MISSOULA |
| 5 | | | NW | NW | NE | 23 | 13N | 20W | MISSOULA |
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SUPPLEMENTAL AND OVERLAPPING WATER RIGHTS

23. Y N Will other water rights supplement or overlap the place of use to contribute to the purpose(s)?

23.a. If yes, summarize how the supplemental and proposed water rights will be operated as a whole to serve the purpose(s).

The overlapping water right 76M 149678 00 will not contribute to the proposed irrigation.

24. For each supplemental or overlapping water right, please list the water right number, typical period of diversion and use (MM/DD-MM/DD), flow rate (GPM or CFS), and the volume of water (AF) contributed to the shared place of use.

| Water Right # | Average Period of Diversion | Average Period of Use | Flow Rate | Volume Contributed |
|---------------|-----------------------------|-----------------------|-----------|--------------------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

25. Y N Will this application supplement contract water from a Federal Project, ditch company, or other source?

25.a. If yes, explain.

ADVERSE EFFECT

26. Explain how you can control your diversion in response to a call being made.

The diversion consists of a well with a pump that can be shut off in response to a call being made.



27. Describe any plans you have for ensuring existing water rights will be satisfied during times of water shortage.

Irrigation can be stopped by turning off the well pump to satisfy existing water rights during times of water shortage.

28. Y N Are you aware of any calls that have been made on the source of supply or, if groundwater, on nearby surface water sources?

28.a. If yes, explain.

29. Y N Does a water commissioner distribute water or oversee water distribution on your proposed source?

29.a. If yes, list the source(s).

30. Y N Do other water rights share any of the proposed points of diversion?

30.a. If yes, describe how the proposed project will not adversely affect these water rights.

31. Y N Do other water rights share any conveyance infrastructure associated with the proposed project?

31.a. If yes, describe how the proposed project will not adversely affect these water rights.



ADEQUATE MEANS OF DIVERSION AND OPERATION

32. **S** Submit a diagram of how you will operate your system from all proposed points of diversion to all proposed places of use.

33. Describe specific information about the capacity of all proposed diversionary structures. This may include, where applicable: pump curves and total dynamic head calculations, headgate design specifications, and dike or dam height and length.
SEE ATTACHED

34. Describe the size, materials, capacity, and configuration of infrastructure to convey water from all proposed points of diversion to all proposed places of use. This may include but is not limited to, pipelines and ditches. Include a description of any losses related to the proposed conveyance. Ditch conveyance losses may be estimated numerous ways, which include a ditch loss rate or Department standard methods.
SEE ATTACHED

35. Describe how the proposed diversion and conveyance infrastructure can provide the required flow and volume, for the purposes plus any conveyance losses and storage, throughout the proposed period of diversion.
SEE ATTACHED



36. Provide a plan of operations, which includes specific information about how water is delivered within the place of use. This may include, where applicable, the range of flow rates needed for a pivot.
SEE ATTACHED

37. Y N Does the proposed conveyance require easements?

37.a. If yes, explain.

38. Y N Do you own the land where all proposed points of diversion are located?

38.a. S If no, submit documentation to show you have the right to use all points of diversion located on each property you do not own. This may include, but is not limited to, a well agreement, an easement, or permission of the party that owns the property where the proposed point(s) of diversion are located.

39. Y N Will your system be designed to discharge water from the project?

IF YES,

39.a. Explain the wastewater disposal method.

39.b. Y N NA Have the necessary permits been obtained to comply with §§ 75-5-410 and 85-2-364, MCA?

40. Y N Do you have any plans to measure your diversion and use?

40.a. If yes, describe the plan and the type of measurements you will take.

Measurements will be taken of the electricity used by the pump.



POSSESSORY INTEREST

45. Y N Do you meet one of the exceptions to possessory interest requirements, pursuant to ARM 36.12.1802? Exceptions include cases where the application is for sale, rental, distribution, or is a municipal use, or in any other context in which water is being supplied to another and it is clear that the ultimate user will not accept the supply without consenting to the use of water on the user's place of use.

45.a. If yes, explain.

46. Y N NA Do you own all proposed places of use? Mark "NA" if you meet one of the exceptions to the possessory interest requirement.

IF NO,

46.a. S Explain and submit documentation that shows you either have possessory interest or written permission of the parties with possessory interest of the place of use.

46.b. Y N Would you like the water right to be appurtenant to the land? Please note that if your water right is not appurtenant to land it will not transfer by default with the conveyance of the property, pursuant to § 85-2-403, MCA.

46.b.i. If no, explain.

PROPOSED COMPLETION PERIOD

47. How much time will be needed to complete this project and to submit to the DNRC a Project Completion Notice (Form 617)? 5 years

48. Please describe why this amount of time is needed to complete this project.

This amount of time is requested to ensure a variety of seasonal weather conditions are encountered during the project completion period to accurately reflect the irrigation needs on this property.



AFFIDAVIT & CERTIFICATION

Read carefully before you sign and review with legal counsel if you have any questions. All owners (or trustees) must sign the form. ***If the owner is a business or trust, include the title of the representative(s) signing the form (i.e., president, trustee, managing partner, etc.) and provide documentation that establishes the authority of the representative to sign the application.*

I affirm the information provided for this application is to the best of my knowledge true and correct. If a preapplication meeting form was submitted, I am aware that my application for this project will not qualify for a discounted filing fee and expedited timelines if upon submittal of the application to the Department, I changed any element of the proposed application from the preapplication meeting form and follow-up materials (ARM 36.12.1302(6)(a)).

I affirm I have possessory interest, or the written consent of the person with the possessory interest, in the property where the water is to be put to beneficial use, unless this application meets an exception to the possessory interest requirements in ARM 36.12.1802(1)(b).

I understand that making a false statement under oath or affirmation in this application and official proceedings throughout the examination of my application may subject me to prosecution under § 45-7-202, MCA, a misdemeanor punishable by a jail term not to exceed 6 months or a fine not to exceed \$500, or both. I have read this Affidavit and understand the terms and conditions.

I declare under penalty of perjury and under the laws of the state of Montana that the foregoing is true and correct.

Printed Name David G. Miller

Applicant Signature David G. Miller Date: 10/20/25

Printed Name Susan Miller

Applicant Signature Susan Miller Date: 10/20/25

Printed Name _____

Applicant Signature _____ Date: _____

**DAVID AND SUSAN MILLER
APPLICATION FOR BENEFICIAL WATER USE PERMIT
FORM NO. 600**

Adequate Means of Diversion and Operation

33. Describe specific information about the capacity of all proposed diversionary structures. This may include, where applicable: pump curves and total dynamic head calculations, headgate design specifications, and dike or dam height and length.

The pump installed in the well is a Franklin Electric 5" STS pump. The pump curve can be viewed below. The diversion is capable of pumping the 220 gpm requested flow rate.

34. Describe the size, materials, capacity, and configuration of infrastructure to convey water from all proposed points of diversion to all proposed places of use. This may include but is not limited to, pipelines and ditches. Include a description of any losses related to the proposed conveyance. Ditch conveyance losses may be estimated numerous ways, which include a ditch loss rate or Department standard methods.

Water is pumped from a well into a buried 6-inch PVC pipeline that directs water both north and south. The water directed to the north is distributed using a movable big gun sprinkler. Water that is directed to the south is connected to a wheel line that distributes the water to the southern field.

35. Describe how the proposed diversion and conveyance infrastructure can provide the required flow and volume, for the purposes plus any conveyance losses and storage, throughout the proposed period of diversion.

There will be no conveyance loss as the water is transported through a buried pipeline. The well and pump have demonstrated that they are capable of producing the required flow rate and volume.

36. Provide a plan of operations, which includes specific information about how water is delivered within the place of use. This may include, where applicable, the range of flow rates needed for a pivot.

Water in the northern place of use is delivered using a big gun sprinkler that has a flow rate of 25 gpm. The southern place of use distributes water through a wheel line sprinkler system with 30 sprinkler heads, each with a 5 gpm flow rate. The big gun sprinkler and the wheel line will be moved as necessary to obtain full coverage of the irrigated fields.

Pump Performance Datasheet

FS 220STS5SR
0503CXXG

| | |
|------------------------|---------|
| Company Name | |
| Company contact number | |
| Quote Number | 1146232 |
| Project name | Default |

| | |
|-------------------------------|---|
| Model/Order No. | 220 GPM 5" STS Sub-Turbine (Build Center) |
| Stages | 5 (1/4x/0x) |
| Quantity of pumps in parallel | 1 |
| Based on curve number | 5STS-220-04 |
| Saved Date | 23 Oct 2023 10:32 PM |

Operating Conditions

Flow, rated : 220.0 USgpm
 Differential head / pressure, rated (requested) : 142.2 ft
 Differential head / pressure, rated (actual) : 142.2 ft
 Suction pressure, rated / max : 0.00 / 0.00 psi.g
 NPSH available, rated : Ample
 Site Supply Frequency : 60 Hz

Performance

Speed criteria : Synchronous
 Speed, rated : 3450 rpm
 Impeller diameter, rated : 1A+4B
 Impeller diameter, maximum : A
 Impeller diameter, minimum : C
 Efficiency : 73.95 %
 PEI (CL) : 0.91
 NPSH required / margin required : 19.83 / 0.00 ft
 Ns (imp. eye flow) / Nss (imp. eye flow) : 3,795 / 5,448 US Units
 * MCSF : 143.8 USgpm
 Head, maximum, rated diameter : 267.6 ft
 Head rise to shutoff : 88.16 %
 Flow, best eff. point : 205.4 USgpm
 Flow ratio, rated / BEP : 107.10 %
 Diameter ratio (rated / max dia) : 100.00 %
 Head ratio (rated dia / max dia) : 88.72 %
 Cq/Ch/Ce/Cn [ANSI/HI 9.6.7-2010] : 1.00 / 1.00 / 1.00 / 1.00
 Selection status : Acceptable

Liquid

Liquid type : Water
 Additional liquid description :
 Solids diameter, max : 0.00 in
 Solids concentration, by volume : 0.00 %
 Temperature, max : 68.00 deg F
 Fluid density, rated / max : 1.000 / 1.000 SG
 Viscosity, rated : 1.00 cP
 Vapor pressure, rated : 0.34 psi.a

Material

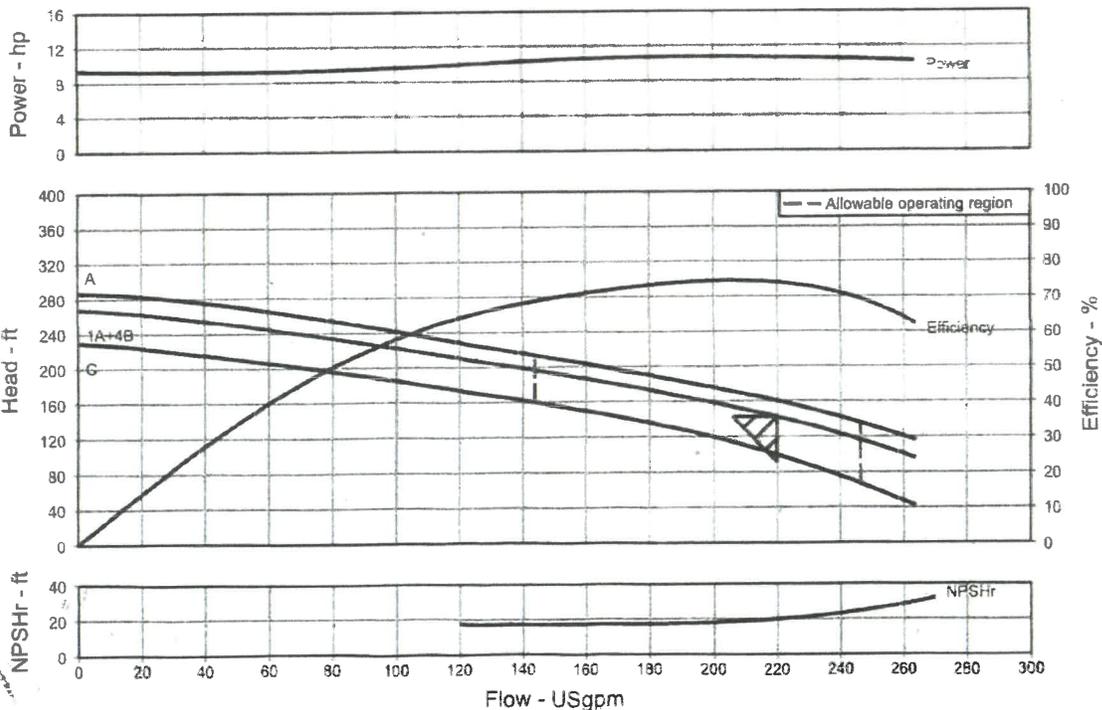
Material selected : Standard

Pressure Data

Shut off pressure : 115.8 psi.g
 Maximum allowable working pressure : N/A
 Maximum allowable suction pressure : N/A
 Hydrostatic test pressure : N/A

Driver & Power Data (@Max density)

Driver sizing specification : Rated power
 Margin over specification : 0.00 %
 Service factor : 1.15 (used)
 Power, hydraulic : 7.90 hp
 Power, rated : 10.68 hp
 Power, maximum, rated diameter : 10.76 hp
 Minimum recommended motor rating : 10.00 hp / 7.46 kW



FE SELECT



APPLICATION FOR BENEFICIAL WATER USE PERMIT OR APPLICATION TO CHANGE A WATER RIGHT MITIGATION ADDENDUM

§§ 85-2-420, 85-2-362, 85-2-402, 85-2-311, MCA

Answer every applicable question and use the prompts to craft a plan for mitigation, aquifer recharge, or marketing for mitigation/aquifer recharge. Use the checkboxes to denote yes ("Y") or no ("N"). Narrative responses that are larger than the space provided can be answered in an attachment. If an attachment is used, specify "see attachment" on this form. Label all attachments and submitted items with the question number. Label all units in tables and narrative responses.

In some cases, the information required to correctly and completely answer the questions on this form will not be available until technical analyses are completed. It is highly recommended all technical analyses required for the project are completed before filling out this form.

1. How many applications will you need to file with the Department for this project? Applications include Application for Beneficial Water Use Permit (Form 600) and Application to Change a Water Right (Form 606). 2

1.a. [X] Y [] N Will you need to file more than one application with the Department for this project?

If yes,

1.a.i. [X] Y [] N You are only required to answer the remaining questions on Form 600/606-MIT one time per project. The Department cannot begin criteria assessment for any application required for the project until you have submitted a completed Form 600/606-MIT, including answers to the remaining questions. Will you answer the remaining questions on a Form 600/606-MIT submitted with another application?

1.a.ii. If yes, briefly explain, then this form is complete.

The remaining questions will be answered in a Change Application filed by the City of Missoula with the application number 76M 30165370.

1.a.iii. If no, move on to question 2.



2. Which of the following scenarios best describes the proposed project? Check all that apply and answer the questions specific to each scenario; then answer question 6 and 7.

Identified need for mitigation/aquifer recharge water AND change application(s) to supply the mitigation/aquifer recharge water: Mitigation or aquifer recharge water is required to meet the criteria of issuance for a project, which is either in the preapplication meeting stage or has a pending Application for Beneficial Water Use or Application to Change a Water Right, and is proposed to be made available through a change in purpose of one or more water rights to mitigation or aquifer recharge. Answer question 3.

Identified need for mitigation/aquifer recharge water AND water contract(s) to supply the mitigation/aquifer recharge water: Mitigation and aquifer recharge water is required to meet the criteria of issuance for a project, which is either in the preapplication meeting stage or has a pending Application for Beneficial Water Use or Application to Change a Water Right, and is proposed to be made available through one or more contracts for water, such as from water with a marketing for mitigation purpose. Answer questions 3 and 4.

Marketing for mitigation/aquifer recharge: Water right(s) being changed to a marketing for mitigation or marketing for aquifer recharge purpose that will be sold or leased to other entities. Answer question 5.

3. Will the proposed diversion and/or net depletions to surface water occur in an open or closed basin? Answer question 3.a for open basins or question 3.b for closed basins.

Open **Closed**

If an open basin:

3.a. Submit an aquifer recharge or mitigation plan with sufficient detail to explain why the plan is adequate to offset the net depletions of the proposed new appropriation in an amount greater than the difference between the amount of water physically available and legal demands, on a monthly timestep. The plan must include:

3.a.i. description of the method by which water will be made available for aquifer recharge or mitigation purpose(s);

3.a.ii. the amount, timing, and location of mitigation water delivery and/or net accretions to the depleted source;

3.a.iii. comparison of the elements of 3.a.ii to the amount, timing, and location of the net depletions of the proposed new appropriation.



If a closed basin:

- 3.b.** If the hydrogeologic report conducted pursuant to § 85-2-361, MCA, predicts a net depletion of surface water, submit an aquifer recharge or mitigation plan. Per § 85-2-362, MCA, the plan must include:
 - 3.b.i.** where and how the water in the plan will be put to beneficial use;
 - 3.b.ii.** when and where, generally, water for aquifer recharge or mitigation will be required;
 - 3.b.iii.** the amount of water that is required for aquifer recharge or mitigation;
 - 3.b.iv.** how the proposed project or beneficial use for which the aquifer recharge or mitigation plan is required will be operated;
 - 3.b.v.** evidence that an application for a change in appropriation right, if necessary, has been submitted;
 - 3.b.vi.** evidence of water availability;
 - 3.b.vii.** evidence of how the aquifer recharge or mitigation plan will offset the required amount of net depletion of surface water in a manner that will offset an adverse effect on a prior appropriator; and
 - 3.b.viii.** evidence that the appropriate water quality permits have been granted pursuant to Title 75, chapter 5, as required by § 75-5-410, MCA, and § 85-2-364, MCA.
 - 3.b.ix.** In addition to 3.b.i through 3.b.viii, an aquifer recharge plan must include a description of the process by which water will be reintroduced to the aquifer.
- 4.** Describe details about the contract(s) for water and submit a copy of the contract(s). In doing so, be sure to address the following sub-questions:
 - 4.a.** Is the contract a lease or sale?
 - 4.a.i.** If a lease, what is the duration of the contract and what is the process to renew the lease?
 - 4.b.** Does the contract water have a marketing for mitigation or marketing for aquifer recharge purpose? If yes,
 - 4.b.i.** What are the water right numbers with a marketing for mitigation or marketing for aquifer recharge purpose?
 - 4.b.ii.** What is the change authorization number that authorized the marketing for mitigation purpose?
 - 4.b.iii.** What is the mitigation reach identified in the change authorization?
- 5.** Submit a marketing for mitigation/aquifer recharge plan that addresses the following:
 - 5.a.** Describe your ability to measure and operate all existing diversions to adjust flow rate as water is sold or leased.
 - 5.b.** How will you cease diversions for the existing beneficial use of the water right(s) as water is sold or leased for the purpose of marketing for mitigation/ aquifer recharge?
 - 5.c.** Describe the need for mitigation water within the proposed place of use of the new appropriation.



6. How do the priority dates of the water rights proposed for change to mitigation, aquifer recharge, and/or marketing for mitigation/aquifer recharge purpose(s) compare to other water rights on the source?

7. Y N Do you have measurement records or Water Commissioner records that show the reliability of the water rights proposed for change to mitigation, aquifer recharge, and/or marketing for mitigation/aquifer recharge? If yes, submit them to the Department.



DAVID AND SUSAN MILLER

APPLICATION FORM 600
17. PROPOSED USE



14

13N 20W

CLARK FORK

-  Point of Diversion: GWIC 324678
-  Pipeline
-  Irrigation Place of Use: 23 acres
-  Property Boundary
-  Overlapping Water Right
-  76M 149678 00



 **WGMGROUP**
www.wgmgroup.com

| | |
|---------------------------|-----------------|
| LOC: Missoula County | PROJ MGR: JM |
| TR: 13N 20W | DRAWN BY: PSD |
| BASE: ESRI Basemap | PROJ: 170805 |
| FILE: 11_Miller App Map 1 | DATE: 5/22/2025 |

This is not a legally recorded map or survey. WGM does not guarantee the accuracy, current status, or completeness of the material contained herein and is not responsible for any misuse/misrepresentation of this information or its derivatives. This graphic representation is for general planning purposes only.

DAVID AND SUSAN MILLER

APPLICATION FORM 600
32. SYSTEM DIAGRAM



 Point of Diversion

 Pipeline

Irrigation System: 23 acres

 Big Gun: 0.5 acres

 Wheel Line: 22.5 acres

 Property Boundary



 **WGMGROUP**
www.wgmgroup.com

LOC: Missoula County PROJ MGR: JM
TR: 13N 20W DRAWN BY: PSD
BASE: ESRI Basemap PROJ: 170805
FILE: 13_Miller App Map 2 DATE: 5/22/2025

This is not a legally recorded map or survey. WGM does not guarantee the accuracy, current status, or completeness of the material contained herein and is not responsible for any misuse/misrepresentation of this information or its derivatives. This graphic representation is for general planning purposes only.



ATTACHEMENT 1

Missoula Water Resources Regional Office
PO Box 5004
2705 Spurgin Road, Bldg. C
Missoula, MT 59806-5004
(406) 721-4284

May 1, 2025

David and Susan Miller
6610 Mullan Rd
Missoula, MT 59808

Subject: Completed Technical Analyses Report for Beneficial Water Use Permit Preapplication No. 76M 30164554

Dear Applicant,

As designated on the submitted Preapplication Meeting Form per §85-2-302(3)(b), MCA, the Department of Natural Resources and Conservation (DNRC or Department) has completed the technical analyses for Beneficial Water Use Permit Preapplication No. 76M 30164554 based on the information provided in your Preapplication Meeting Form accepted by the Department on March 19, 2025. The technical analyses can be found in the attached report. Please note this Groundwater Permit Technical Analyses Report is a two-part publication, comprised of a Part A completed by Melissa Brickl from Water Sciences Bureau, and a Part B completed by Benjamin Thomas from the Missoula Regional Office.

This Technical Analyses Report **IS**: A collection of facts that the DNRC has gathered, including content provided in the Preapplication Meeting Form materials. The Department will use these data to analyze the criteria in §85-2-311, MCA if you submit an application for the project described in the completed Preapplication Meeting Form.

This Technical Analyses Report **IS NOT**: An analysis or discussion of whether the Preapplication Meeting Form as filed meets the criteria (§85-2-311, MCA).

You have 180 days to submit the Beneficial Water Use Permit Application Form 600 considering the information provided in the technical analyses and Preapplication Meeting Form. If the Application Form is not submitted to the Missoula Regional Office by October 28, 2025, a new preapplication meeting will be required to process the Application with expedited timelines (ARM 36.12.1302(6)(b)). If any details described in the submitted Application are changed from that of the submitted Preapplication Meeting Form, the discounted filing fee and expedited timelines will not apply (ARM 36.12.1302(6)(a)). Please note that the technical analyses will expire one year from the date of this letter (ARM 36.12.1302(8)).

Please let me know if you have any questions.

Best,



Benjamin Thomas

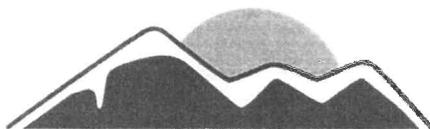
Water Conservation Specialist

Missoula Regional Office

benjamin.thomas@mt.gov | (406) 542-5883

CC:

Julie Merritt, WGM Group





Missoula Water Resources Regional Office
PO Box 5004
2705 Spurgin Road, Bldg. C
Missoula, MT 59806-5004
(406) 721-4284

May 1, 2025

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Please let me know if you have any questions.

Best,



Benjamin Thomas
Water Conservation Specialist
Missoula Regional Office
benjamin.thomas@mt.gov | (406) 542-5883

CC:

Julie Merritt, WGM Group





Groundwater Permit Technical Analyses Report - Part A

Department of Natural Resources and Conservation (DNRC) Water Resources Division

Melissa Brickl, Groundwater Hydrologist, Water Sciences Bureau (WSB)

| | | | |
|------------------------|--------------|--|--|
| Application No. | 76M 30164554 | Point of Diversion Legal Land Description | Section 14, Township 13 North, Range 20 West |
| Applicant | David Miller | | |

Overview

This report is Part A of a two-part publication which analyzes data submitted by the Applicant in support of the above-mentioned water right application. This report provides technical analyses as required under the Administrative Rules of Montana (ARM) 36.12.1303 in support of the water rights criteria assessment as required in §85-2-311, Montana Code Annotated (MCA). For applications in closed basins, this report fulfills the requirements of MCA 85-2-361.

This Groundwater Permit Technical Analyses Report – Part A contains the following sections:

| | |
|--|----|
| Overview | 1 |
| 1.0 Executive Summary | 2 |
| 2.0 Hydrogeologic Setting | 3 |
| 3.0 Drawdown and Yield Test Summary..... | 5 |
| 4.0 Aquifer Properties | 6 |
| 5.0 Modeling Inputs | 7 |
| 6.0 Adequacy of Diversion Analysis | 8 |
| 7.0 Physical Availability Analysis..... | 10 |
| 8.0 Adverse Effect Analysis | 11 |
| 8.1 Groundwater - Drawdown in Existing Wells..... | 11 |
| 8.2 Surface Water - Net Depletion..... | 12 |
| Review | 19 |
| References..... | 19 |
| Appendix A: Groundwater Rights Within Area of Potential Impact | |



1.0 Executive Summary

Application Details

The Applicant requests to divert 220.0 gallons per minute (gpm) and up to 55.4 acre-feet (AF) of groundwater from one well for the purpose of irrigation of 23 acres. The period of diversion and use is April 15 to October 15. Statement of Claim No. 76M 149678-00 is supplemental to the proposed use. However, the surface water source associated with the supplemental claim is unreliable and as such the Applicant has proposed the use of a new well.

Approved Variances from ARM 36.12.121

A recommendation to grant variances from 3(a), 3(d), 3(d)(i), 3(e), 3(e)(i), 3(e)(ii), and 3(e)(iii) aquifer test requirements in ARM 36.12.121 was sent to the Missoula Regional Office from the WSB on December 20, 2024. Information regarding variances requests is found in that review. Variances were granted by the DNRC on January 8, 2025.

WSB Technical Findings

Based on information submitted, the WSB estimated aquifer properties, evaluated the production well(s) available water column, quantified the water available in the source aquifer, and evaluated potential impacts to existing groundwater and surface water rights. These technical analyses are in support of the following criteria assessment: adequacy of diversion, physical availability, and adverse effect. A summary of WSB findings described in subsequent sections are listed below.

TECHNICAL ANALYSES FINDINGS

| | |
|------------------------------|--|
| AQUIFER TEST ANALYSIS | In lieu of an aquifer test on the proposed well, the estimation of Transmissivity (T) of 150,000 ft ² /day was derived from nearby estimates of hydraulic conductivity (K) and the saturated aquifer thickness (b). The Specific Yield (S _y) of 0.1 is defined from literature for sand and gravel aquifers (Lohman, 1972). |
| MODELING INPUTS | The following aquifer properties were used to complete adequacy of diversion, physical availability and adverse effect technical analyses: T of 150,000 ft ² /day and S _y of 0.1 from Lohman (1972). Pumping schedules and boundaries used to model each criterion are identified within the document. |
| ADEQUACY OF DIVERSION | The proposed well would experience 3.7 feet (ft) of drawdown after the first year, leaving approximately 92.3 ft of available water column above the bottom of the perforated interval. |
| PHYSICAL AVAILABILITY | The 0.01-foot drawdown contour, or zone of influence (ZOI), occurs 4,617 ft from the proposed well. Groundwater flux through the ZOI is equal to 46,421 AF/year. There are 321 active or severed groundwater rights completed within the ZOI and source aquifer that need to be evaluated as a legal demand (Appendix A). |



| | |
|--|--|
| ADVERSE EFFECT (DRAWDOWN IN EXISTING WELLS) | After five years, assuming the proposed well is pumped according to the schedule identified in Table 3 , zero groundwater rights in the source aquifer are predicted to experience drawdown equal to or greater than one foot (Figure 5). |
| ADVERSE EFFECT (NET DEPLETION TO SURFACE WATER) | The Clark Fork River, center point approximately 4,209 ft south of the proposed well, is identified as being hydraulically connected to the source aquifer. Monthly net depletions resulting from the proposed use of groundwater are identified in Table 1 and the starting point of the depleted reach in Figure 6 . |

Table 1: Total consumed volume and net depletion to surface water for the production well.

| Month | Irrigation Diverted Volume (AF) | Total Consumed Volume (AF) | Clark Fork River Depletions (AF) | Clark Fork River Depletions (gpm) |
|--------------|---------------------------------|----------------------------|----------------------------------|-----------------------------------|
| January | 0.00 | 0.00 | 0.7 | 5.1 |
| February | 0.00 | 0.00 | 0.5 | 4.4 |
| March | 0.00 | 0.00 | 0.5 | 3.9 |
| April | 1.6 | 1.1 | 1.2 | 9.2 |
| May | 7.1 | 5.0 | 4.0 | 29.2 |
| June | 11.1 | 7.8 | 6.2 | 47.1 |
| July | 15.4 | 10.7 | 8.7 | 63.6 |
| August | 12.9 | 9.0 | 8.0 | 58.3 |
| September | 6.5 | 4.5 | 4.9 | 37.1 |
| October | 0.9 | 0.6 | 2.0 | 14.4 |
| November | 0.00 | 0.00 | 1.1 | 8.1 |
| December | 0.00 | 0.00 | 0.8 | 6.2 |
| Total | 55.4 | 38.8 | 38.8 | |

2.0 Hydrogeologic Setting

As identified in **Figure 1**, the Production Well GWIC ID [324678](#) (aquifer code: 110ALVM), is completed 100 ft below ground surface (bgs) with a perforated interval between 90 and 100 ft bgs.

The Missoula Valley Aquifer is a highly transmissive, unconfined, fluvial-deposited sand and gravel aquifer. The primary Missoula Valley Aquifer delineated by Clark (1986) is within the Quaternary fill of the Missoula Valley. The saturated aquifer thickness ranges from 50 feet to 120 feet. The well derives water from an alluvial sedimentary package known as the Missoula Valley Aquifer of the Clark Fork River (Clark, 1986).



The Missoula Valley is an elongated intermontane depression resultant of basin and range extension coupled with right-lateral movement along the Ninemile fault system (Fields et al., 1985; Woessner, 1988). The valley is bound by the Belt Supergroup to the east, and by Tertiary sediments to the north and southeast. The valley is composed of Tertiary and Quaternary sediments which are estimated to be over a mile thick at its center (Woessner, 1988). Water supplies in the Missoula Valley are derived from the younger, fluvial-deposited sand, gravel, and cobble sediments that dominate the upper few hundred feet of the valley fill material.

A groundwater model by Miller (1991) and water level measurements by LaFave (2006) and Smith et al. (2013) suggest that the basin fill sediments in the Missoula Valley respond as a single connected aquifer system and not as a group of separate aquifers. Hydrographs from wells completed in the shallow and deep basin-fill sediments within the Missoula Valley show seasonal groundwater recharge from Clark Fork River high flows (Woessner, 1988). Tritium was detected at concentrations indicative of recharge less than 50 years old in all the samples from the shallow basin-fill aquifers (Smith et al., 2013). Records from MBMG show that 4,931 wells have been drilled into the Missoula Valley Aquifer. The median reported well yield is 40 gpm, but 76 wells have reported well yields greater than 1,000 gpm (Smith et al., 2013).

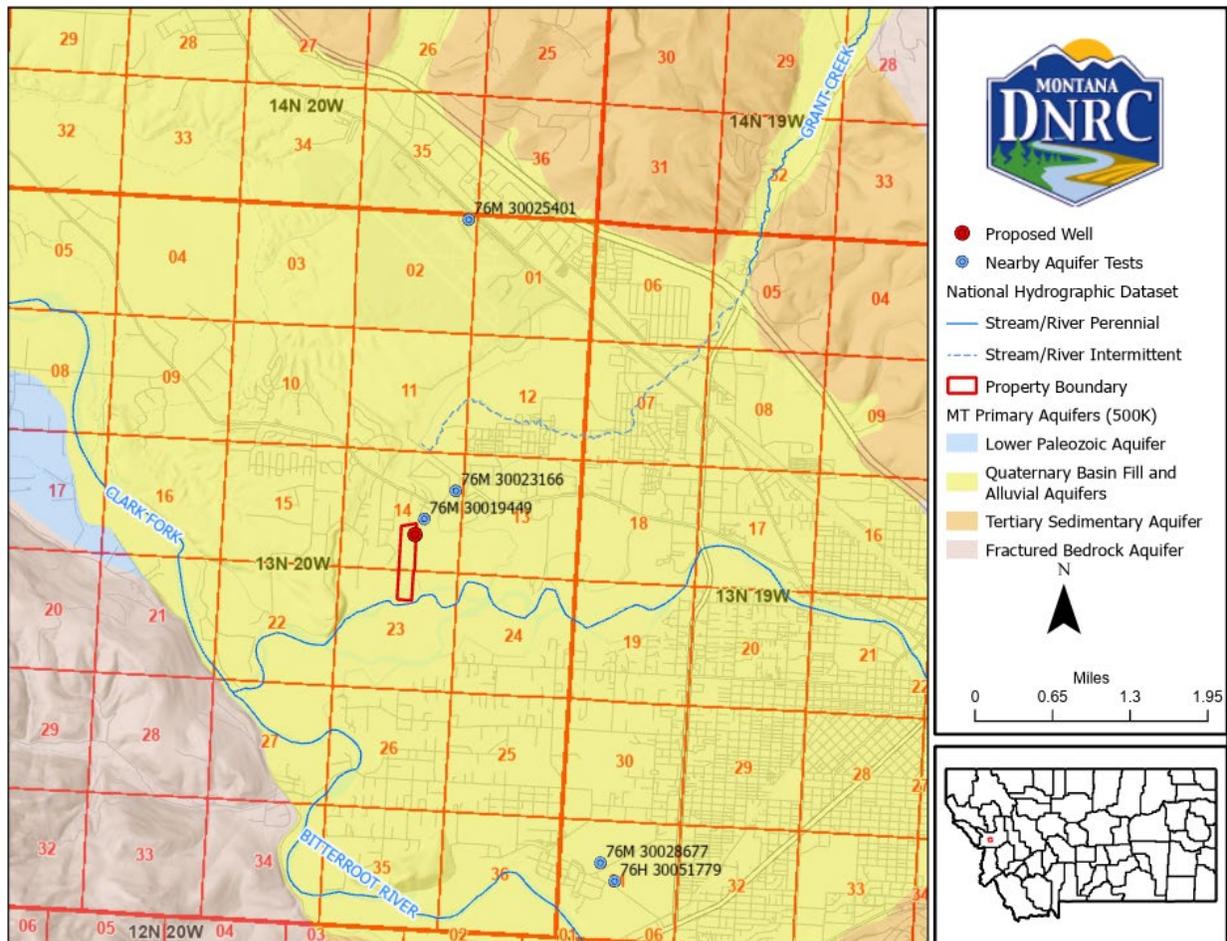


Figure 1: Map of the Applicant's proposed well and other nearby aquifer tests.



3.0 Drawdown and Yield Test Summary

DNRC requires two different types of tests, “Aquifer Tests” and “Drawdown and Yield Tests.”

- An “Aquifer Test” is a pumping test that is meant to provide data to model aquifer properties. The minimum duration of these tests is either 24 hours or 72 hours, depending on the proposed flow rate and volume (AMR 36.12.121(3)(e)), and DNRC only requires one of these tests per application. Aquifer Tests must include observation well data, and pre-test monitoring data as well as post-test recovery data.
- A “Drawdown and Yield Test” is a pumping test that is meant to evaluate well construction and the ability of the aquifer to yield water to the well. This is also known as demonstrating “adequacy of diversion.” The minimum duration of these tests is 8 hours, and every well that is a part of the application must be tested for at least 8 hours. Observation wells, pre-test data, and post-test data are not required for Drawdown and Yield Tests.

The Applicant was granted a variance from completing an aquifer test. Existing publications and nearby aquifer tests were used to derive aquifer properties instead. The Applicant fulfilled the requirements of completing a drawdown and yield test.

Field Methods and Equipment

An 8.0-hour drawdown and yield test was conducted on the Production Well, GWIC ID 324678. Water levels during the test were collected using an In-situ Level meter 500 transducer. The discharge rate was not measured. Instead, pumped water was applied to a field via 15 sprinklers with an output of 6.0 gpm each and one big gun sprinkler with an output 25.0 gpm.

Background Data

Background data is not required as part of drawdown and yield tests and was not collected.

Drawdown Data

The 8.0-hour drawdown and yield test started on July 18, 2024, at 08:33 A.M. on the Production Well and is considered ($t = 0$) for the computation of drawdown. Discharge was not measured but applied to a field using 16 sprinklers with a total output of 115.0 gpm. The maximum drawdown in the Production Well was 2.91 ft below the static water level (swl) of 6.01 ft below top of casing (btc), leaving 91.08 ft of available water column above the bottom of the perforated interval. A plot of drawdown and recovery data is provided in **Figure 2**.

Recovery Data

Recovery groundwater level data were monitored for 35 minutes after the cessation of pumping. At the end of the recovery period, the Production Well swl was 0.78 ft above the pre-test swl.

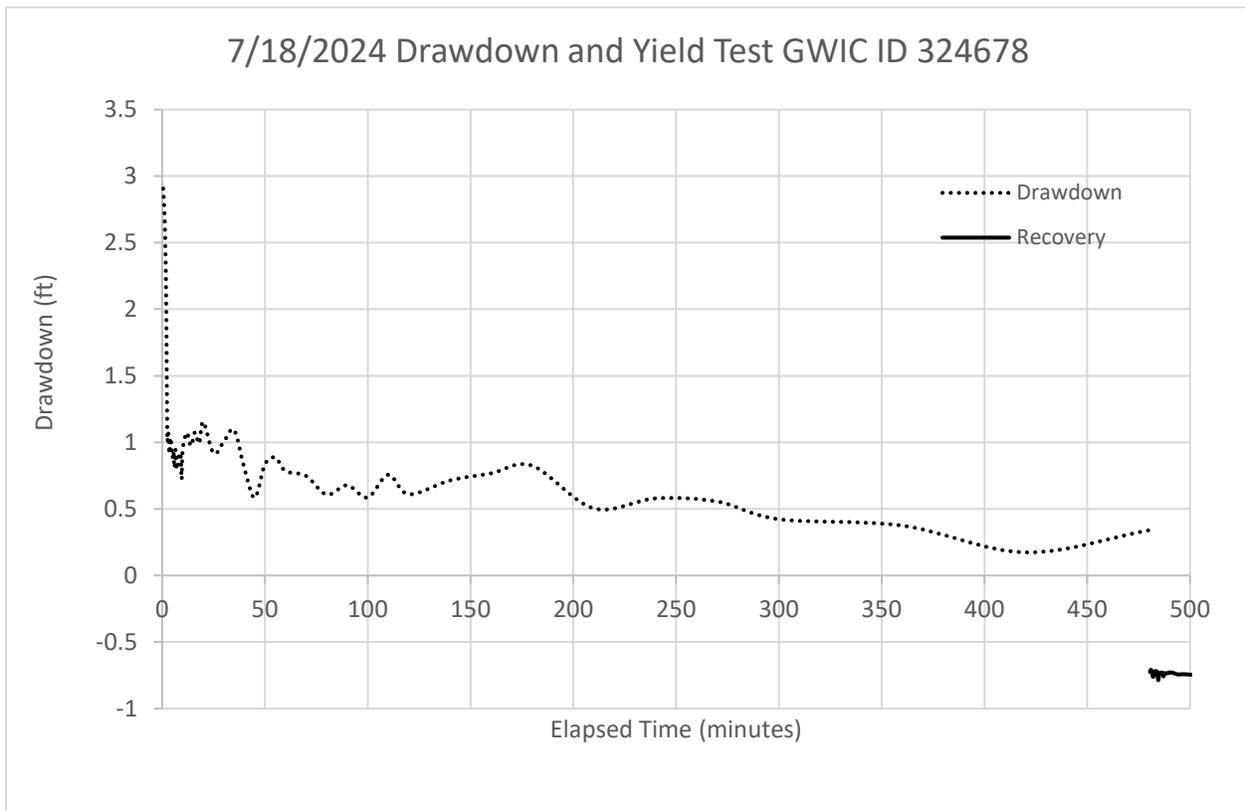


Figure 2: Drawdown and recovery data for the 8-hour drawdown and yield test on the Production Well.

4.0 Aquifer Properties

Information submitted by the Applicant, existing publications (**Table 2**), and nearby aquifer tests greater than 24 hours (**Figure 1; Table 3**) were used to derive and support the aquifer properties recommended for forward modeling. The recommended K of 1,500 ft/day is the approximate value from Maxim Technologies (2006), and on the lower end of the range of values from Woessner (1988). The saturated aquifer thickness of 100 ft was determined from an average swl of 25 ft from wells within one mile of the proposed well, and mapped thickness of Quaternary unconsolidated deposits from Smith (2006) of approximately 125 ft. The recommended T value of 150,000 ft²/day (**Eq. 1**) is within the range of values in **Table 2** and **Table 3**.

$$T = K \cdot b \qquad \text{Eq. 1}$$



Table 2: Reported Missoula Valley Aquifer Properties.

| Source | T (ft ² /day) | Estimated K (ft/day) |
|------------------------------|--------------------------|----------------------|
| Woessner (1988) | 100,261 – 228,594 | 1,380 - 3,417 |
| Smith (1992) | 116,918 | 2,790 |
| Geomatrix Consultants (2006) | 138,396 | 4,210 |
| Maxim Technologies (2006) | 142,000 | 1,520 |
| DNRC (2010) | 50,000 | --- |
| WGM (2012) | 140,000 – 300,000 | --- |

Table 3: Nearby Missoula Valley Aquifer Tests (Note: T = Transmissivity; NA = Not available).

| Water Right No. | GWIC ID | Well Completion Depth (feet) | Distance from Applicant Well (miles) | Aquifer Test Length (hours) | Pumping Rate (gpm) | T (ft ² /day) |
|-----------------|---------|------------------------------|--------------------------------------|-----------------------------|--------------------|--------------------------|
| 76M 30023166 | 227593 | 110 | 0.7 | 72 | 330 | 204,782 |
| 76M 30023166 | 227602 | 112 | 0.7 | 39 | 327 | 143,353 |
| 76M 30019449 | 227675 | 121 | 0.7 | 72 | 318 | 142,000 |
| 76M 30025401 | 228086 | 233 | 2.6 | 25 | 150 | 54,430 |
| 76M 30028677 | 237277 | 60 | 2.9 | 24 | 125 | 46,000 |
| 76H 30051779 | 69327 | 120 | 3.1 | 72 | 1,194 | 45,000 |
| 76M 114446 00 | 182404 | 140 | 3.9 | 72 | 800 | 269,041 |
| 76M 30041556 | 243834 | 146 | 3.9 | 68 | 1,050 | 151,000 |
| 76M 30025519 | NA | 120 | 3.9 | 24 | 139 | 63,179 |

5.0 Modeling Inputs

Technical analyses in support of the following criteria assessment: adequacy of diversion, physical availability, and adverse effect were modeled in FWD:SOLV (HydroSOLVE INC., 2024) using the following inputs:

- Theis (1935) solution for fully penetrating wells in isotropic single-porosity aquifer.
- Well radius of 0.36 ft and screened interval of 10 ft for the proposed well.
- T = 150,000 ft²/day
- Sy = 0.1 (Lohman, 1972)

Monthly pumping schedules and boundaries used to complete technical analyses are identified in subsequent criteria sections.



6.0 Adequacy of Diversion Analysis

The potential available water column remaining in the proposed well was assessed. The predicted theoretical drawdown was modeled in FWD:SOLV (HydroSOLVE INC., 2024) using the modeling inputs found in Section 5 of this report and following pumping schedule:

- Monthly pumping schedule of GWIC ID 324678 identified in column 4 of **Table 4** for the period of diversion.

The Applicant requested volume was apportioned based on the monthly percent of the total net irrigation requirement for alfalfa hay calculated using the using the Missoula WSO Airport Station (MT5747) listed in the Irrigation Water Requirement (IWR) program (NRCS, 2003).

Table 4: Monthly pumping schedule for adequacy of diversion and adverse effect analysis.

| Month | IWR Missoula WSO Airport (inches) | Diverted Volume (AF) | Diverted Flow Rate (gpm) |
|--------------|-----------------------------------|----------------------|--------------------------|
| January | 0.0 | 0.00 | 0.0 |
| February | 0.0 | 0.00 | 0.0 |
| March | 0.0 | 0.00 | 0.0 |
| April | 0.7 | 1.6 | 11.8 |
| May | 3.2 | 7.1 | 52.1 |
| June | 5.0 | 11.1 | 84.1 |
| July | 6.9 | 15.4 | 112.3 |
| August | 5.8 | 12.9 | 94.4 |
| September | 2.9 | 6.5 | 48.8 |
| October | 0.4 | 0.9 | 6.5 |
| November | 0.0 | 0.00 | 0.0 |
| December | 0.0 | 0.00 | 0.0 |
| Total | 24.9 | 55.4 | |

Table 5 identifies the total drawdown as the sum of interference drawdown and predicted drawdown with well loss. One well is proposed, therefore there is no interference drawdown. Well loss is calculated by dividing the predicted theoretical maximum drawdown (**Figure 3**) by a well efficiency value. Well efficiency is calculated by dividing the FWD:SOLV modeled maximum drawdown for the drawdown and yield test by the maximum observed drawdown of the test (2.91 ft).

Table 5 also identifies the predicted total drawdown and remaining available water column after July of the first year of pumping in GWIC ID 324678. The remaining available water column for the proposed well is equal to the available drawdown above the bottom of the perforations minus total drawdown including any interference drawdown.



Table 5: Remaining available water column for proposed wells.

| Drawdown Estimate | GWIC ID 324678 |
|---|-----------------------|
| Total Depth at Bottom of Perforated Interval (ft btc) ¹ | 102.0 |
| Pre-Test Static Water Level (ft btc) | 6.01 |
| Available Drawdown Above Bottom of Perforations(ft) | 96.0 |
| Drawdown & Yield Test Observed Drawdown (ft) | 2.91 |
| Modeled Drawdown Using Average Test Rate (ft) | 0.19 |
| Well Efficiency (%) | 6.5 |
| Predicted Theoretical Maximum Drawdown from assumed monthly pumping schedule (ft) | 0.24 |
| Predicted Drawdown with Well Loss (ft) | 3.68 |
| Interference Drawdown (ft) | 0.0 |
| Total Drawdown (ft) | 3.68 |
| Remaining Available Water Column (ft) | 92.3 |

¹The total well depth measuring point (bgs) was adjusted to the top of well casing based on a 2.0 ft well casing stickup reported on the well log. 2.0 ft was added.

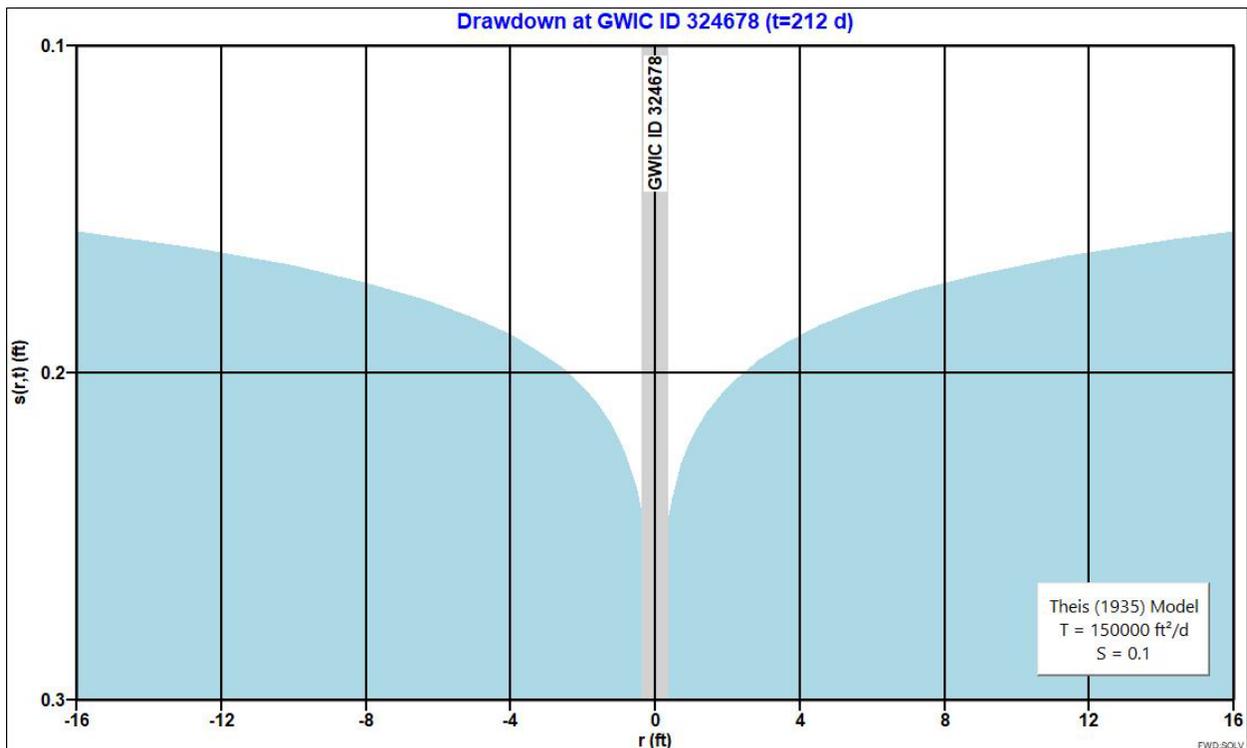


Figure 3: Theis (1935) radial plot of the theoretical drawdown at the end of the first July of the assumed monthly pumping schedule for GWIC ID 324678.



7.0 Physical Availability Analysis

An evaluation of groundwater availability in the source aquifer for the purpose of evaluating physical and legal availability was done by calculating groundwater flux through a zone of influence (ZOI) corresponding to the 0.01-foot drawdown contour. The 0.01-foot drawdown contour was modeled in FWD:SOLV (HydroSOLVE INC., 2024) using the modeling inputs found in Section 5 of this report and the following pumping schedule and boundaries:

- Constant pumping rate of 68.1 gpm April 15 – October 15 for GWIC ID 324678, which is a normalized rate derived from the requested volume of 55.4 AF and period of diversion.
- Constant head boundary 4,209 ft south of GWIC ID 324678 to represent the center point of the Clark Fork River.

As identified in **Figure 4**, the 0.01-foot drawdown extends 4,617 ft from GWIC ID 324678. The direction of groundwater flow is predominantly to the southwest and west (LaFave, 2006), as such the width of the ZOI that is perpendicular to groundwater flow equals 9,234 ft. **Appendix A** lists the 321 groundwater rights in the Missoula Valley Aquifer that need to be evaluated as a legal demand. The calculation for groundwater flux (Q) through the delineated area is given by Eq. 2 and is 5,540,400 ft³/day or 46,421 AF/year:

$$Q = Twi \qquad \text{Eq. 2}$$

where:

T = Transmissivity = 150,000 ft²/day

W = Width of Zone of Influence = 9,234 ft

i = Groundwater Gradient (LaFave, 2006, potentiometric surface map) = 0.004 ft/ft.

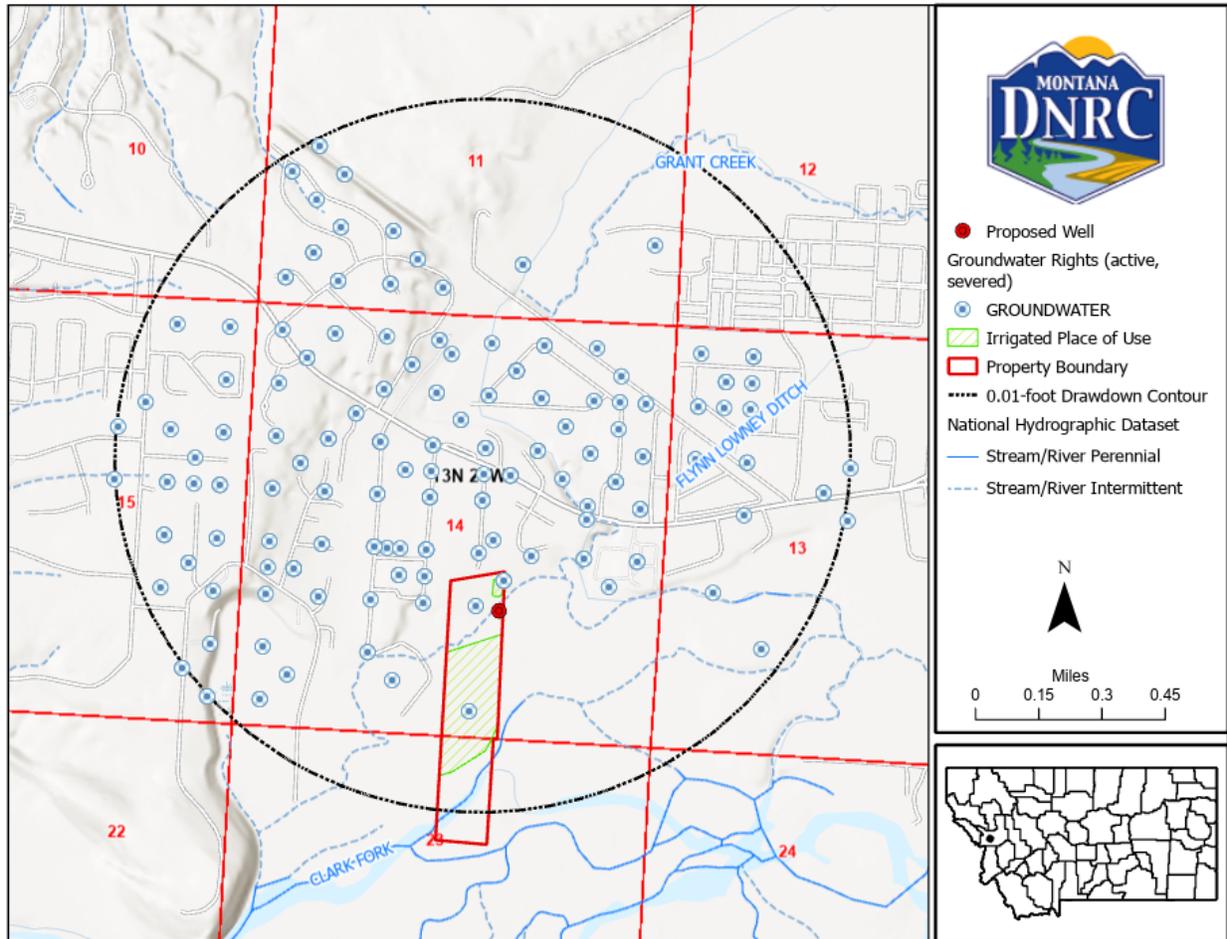


Figure 4: Existing groundwater rights within the 0.01-foot drawdown contour for Application No. 76M 30164554.

8.0 Adverse Effect Analysis

Using the Applicant’s proposed pumping schedule and associated annual volume, potential impacts to existing water rights is evaluated by modeling drawdown in nearby wells and net depletions to surface water(s).

8.1 Groundwater - Drawdown in Existing Wells

The drawdown in existing wells was modeled in FWD:SOLV (HydroSOLVE INC., 2024) using the modeling inputs found in Section 5 of this report and following pumping schedule and boundaries.

- The monthly pumping schedule for GWIC ID 324678 as identified in column 4 of **Table 4** for a period of five years.
- Constant head boundary 4,209 ft south of GWIC ID 324678 to represent the center point of the Clark Fork River.



The drawdown is the largest at the end of July of the fifth year using the proposed pumping schedule. As identified in **Figure 5**, the maximum modeled drawdown at GWIC ID 324678 is 0.23 ft at the end of July of the fifth year. As such zero water rights are predicted to experience drawdown equal to or greater than one foot.

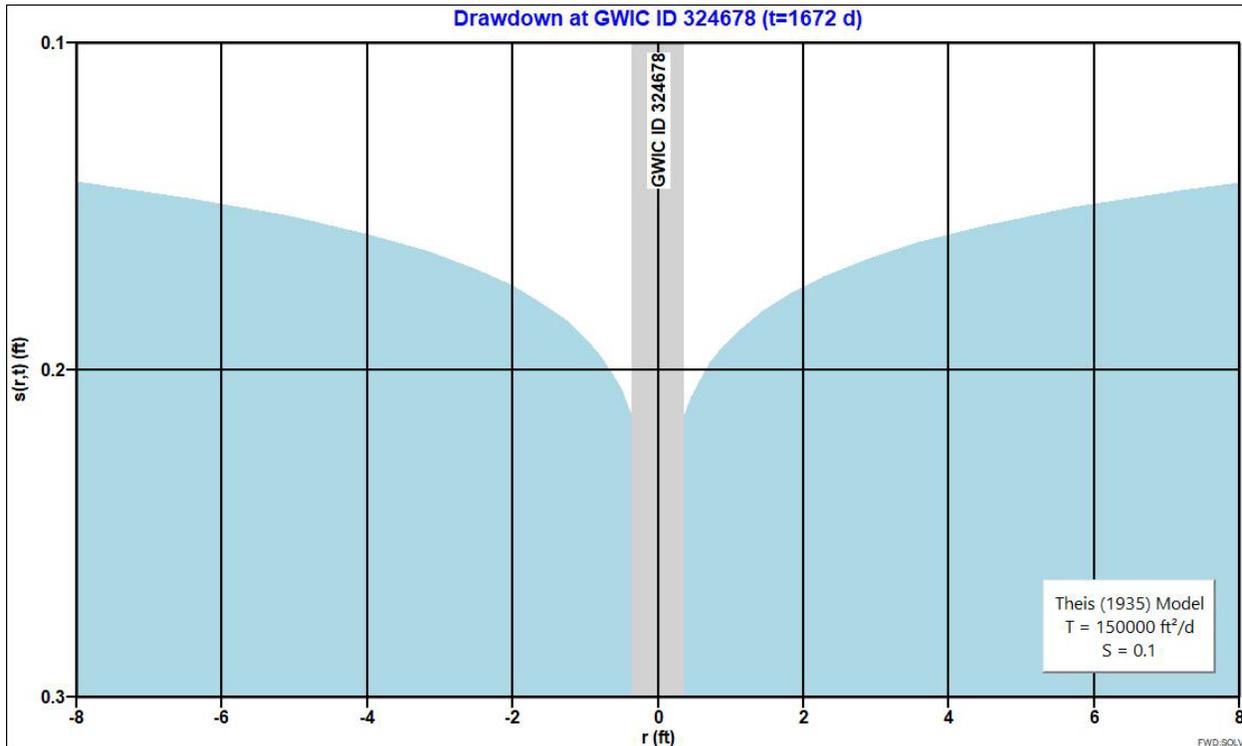


Figure 5: Theis (1935) radial plot at the end of the fifth July of the assumed monthly pumping schedule for GWIC ID 324678.

8.2 Surface Water - Net Depletion

Pursuant to *Montana Trout Unlimited v. DNRC*, 2006 MT 72, 331 Mont. 483, 133 P.3d 224, the DNRC recognizes the connection between surface water and groundwater, and the effect of pre-stream capture and induced infiltration on surface waters.

Net depletions to surface water depend on propagation of drawdown to areas of the aquifer from which water can be captured. Captured water consists of two possible sources – a reduction in the natural discharge (outflow) rate of groundwater from the aquifer (pre-stream capture) or an increase in the natural/artificial recharge (inflow) rate to the aquifer (e.g. induced infiltration). Two important assumptions are made when evaluating net depletions: first, the stream and underlying aquifer remain hydraulically connected by a continuous saturated zone, and second, the stream does not become dry. In addition, net depletion is not a function of groundwater flow rate or direction (Theis, 1938; Leake, 2011) and drawdown from pumping can propagate through the entire thickness of the confining layer to overlying aquifers or surface waters (Konikow and Neuzil, 2007).



As such, net depletions are identified for hydraulically connected surface water sources, not including ditches or ephemeral streams. Net depletion is equal to consumption for a proposed groundwater use and is described as the calculated volume, rate, timing, and location of reductions to surface water that are offset by return flows (non-consumed water). Net depletion is evaluated by 1) quantifying the consumed volume associated with the proposed use; 2) identifying hydraulically connected surface waters; and 3) calculating the monthly rate and timing of net depletions to affected surface water(s).

1. Consumed Volume

Consumed groundwater does not return to the source aquifer. Consumed volume depends on the proposed use and its associated percentage of known consumption. Depletion is assumed to be equivalent to consumption on an annual basis unless return flows do not accrete to the potentially affected surface water.

Monthly consumption for irrigation, not including turf grass, can be calculated using ARM 36.12.115 irrigation standards and associated efficiency values or the net irrigation requirement (dry year 80% chance) calculated using the USDA Natural Resources Conservation Service (NRCS) IWR program with inputs consistent with DNRC consumptive use rules in ARM 36.12.1902. Monthly consumption for irrigation of turf grass (lawns) is calculated using either a minimum efficiency value of 70% and ARM 36.12.115 lawn and garden standards or the net irrigation requirement from IWR with inputs consistent with DNRC (2010) Consumptive Use Methodology for turf grass.

Consumption for other purposes are listed in **Table 6** and are based on the results of studies by Kimsey and Flood (1987), Vanslyke and Simpson (1974), Paul, Poeter, and Laws (2007), DNRC (2018), wastewater treatment method, operation of systems, or DNRC policy. Net evaporation is calculated using gridded monthly net evaporation values and methodologies associated with DNRC (2023).

Table 6: Percent consumption by purpose.

| Purpose | Method of treatment/Use | Consumed |
|---|---|----------|
| Domestic/Municipal*/Commercial | Individual drain fields | 10% |
| Domestic/Municipal*/Commercial | Central treatment facility with minimal consumption | 5% |
| Domestic/Municipal*/Commercial | Evaporation basin or land application | 100% |
| Municipal Use for Municipality | Variable | 100% |
| Water Marketing/Agriculture Spraying/Stock Water/some Industrial Uses | Variable | 100% |
| Commercial/Industrial | Aggregate Washing – construction standard for moisture allowed in the finished aggregate product. | 5% |
| Commercial | Snow Making – depends on time of day, machine, weather at time of operation, etc. | 10-30% |
| Fisheries, Recreation, Storage for Irrigation | Net evaporation off reservoir surface, gridded monthly net evaporation values and methodologies | AF/acre |

*Municipal use for a non-municipality, such as a Water District.



WSB Findings

For the subject application, the proposed use is irrigation. Following DNRC standards in ARM 36.12.115(2)(e) for 70% efficient sprinkler irrigation in Climatic Area III the Applicant requested 55.4 AF for 23 acres. Assuming a 70% efficiency the total consumed volume is 38.8 AF (**Table 1**).

2. Hydraulically Connected Surface Water(s)

Potentially affected surface waters in a net depletion evaluation are identified by their hydraulic connection, both direct and indirect, to the source aquifer of a proposed groundwater diversion. Hydraulic connection depends on the depth to groundwater beneath the beds of surface waters, connection between deep and overlying shallow aquifers, vertical gradients, and can vary along a reach and with time of year.

Procedures for evaluating hydraulic connection and identifying one or more potentially affected surface water(s) for a proposed well in an unconfined/confined aquifer or regional bedrock aquifer can be found in DNRC (2018) and DNRC (2019), respectively. Net depletion is apportioned between multiple potentially affected surface waters generally following procedures described in Section 3.2 of a guidance document developed by the Province of British Columbia (2016) for determining the effect of groundwater diversion on specific streams.

Following protocols in DNRC (2018), **Table 7** identifies published information used to assess hydraulically connected surface water(s). Not all data may be available for each project and is noted as “NA” when that occurs.



Table 7: Published information used to identify hydraulically connected surface water(s). See **Figure 6** for location of NHD, GWIC wells, and soil survey data (NA = not available)

| Data Source | Surface Water Source | Surface Water Source |
|--|--|--|
| | Grant Creek | Clark Fork River |
| USGS National Hydrographic Dataset (NHD) ¹ | Intermittent | Perennial |
| USGS PROSPER Dataset ² | No* | Yes |
| GWIC wells (< 1,000 ft from surface waters, < 50 ft deep, < 10 ft swl from elevation of streambed (DNRC, 2018)) ³ | No | Yes |
| Published Water Table Maps, Publications, Previous Water Rights. | LaFave (2006) | |
| Gridded National Soil Survey Geographic Database ⁴ | Hydric conditions mapped along small length of reach | Hydric conditions mapped along majority of reach |
| Aerial imagery | Dry and wet channel segments (NAIP, 2013-2023) | Wet channel (NAIP, 2013-2023) |
| Affidavits, photographs, etc. | NA | |

¹ Review NHD to identify perennial, intermittent, and ephemeral classifications for surface water sources most proximal to the proposed diversion(s). North of I-90 Grant Creek is considered perennial, near project site intermittent.

² USGS PROSPER probability of streamflow permanence (50 percent or greater chance of streamflow). *Grant Creek near project site is mapped as 0.52 perennial with error bars overlapping 0.50, indicating high probability of classification error.

³ Per DNRC (2018) hydraulic connection of individual stream reaches to ground water is evaluated by comparing streambed elevations to static ground water elevations measured in MBMG GWIC wells less than 50 ft deep and within 1,000 ft of surface water or from published water table maps. Surface water within that area is considered hydraulically connected to the unconfined aquifer if static ground water elevations are above or within 10 ft of the elevation of the stream bed.

⁴ Gridded National Soil Survey Geographic Database to identify hydric soils or shallow water tables near surface water sources.

Additional Hydraulic Connection Information

Permit Application Nos. 76M 30019449 and 76M 30023166 state there is an unsaturated zone between Grant Creek and Missoula Valley Aquifer water table as Grant Creek flows onto the valley floor sediments. The previous permits and a review of well logs on the valley margin near Grant Creek show a thick layer of fine-grained deposits. This evidence indicates that Grant Creek is hydraulically disconnected from the Missoula Valley Aquifer.

Evidence supporting the Clark Fork River as hydraulically connected to the Missoula Valley Aquifer from Clark (1986) and Woessner (1988) show that the river incises into the alluvium. Further, Clark (1986) indicates that the Clark Fork River loses water to the Missoula Valley

Aquifer as it flows out of Hellgate Canyon in the east and then gains water from the alluvium at the western edge of the Missoula Valley.

WSB Findings

Based on the review of the published information in **Table 7**, the source aquifer is hydraulically connected to the Clark Fork River, a perennial surface water source and not connected to Grant Creek. The Clark Fork River is considered hydraulically connected to the Missoula Valley Aquifer starting at the northern edge of the SWNE of Section 23, Range 13 North, Township 20 West (**Figure 6**).

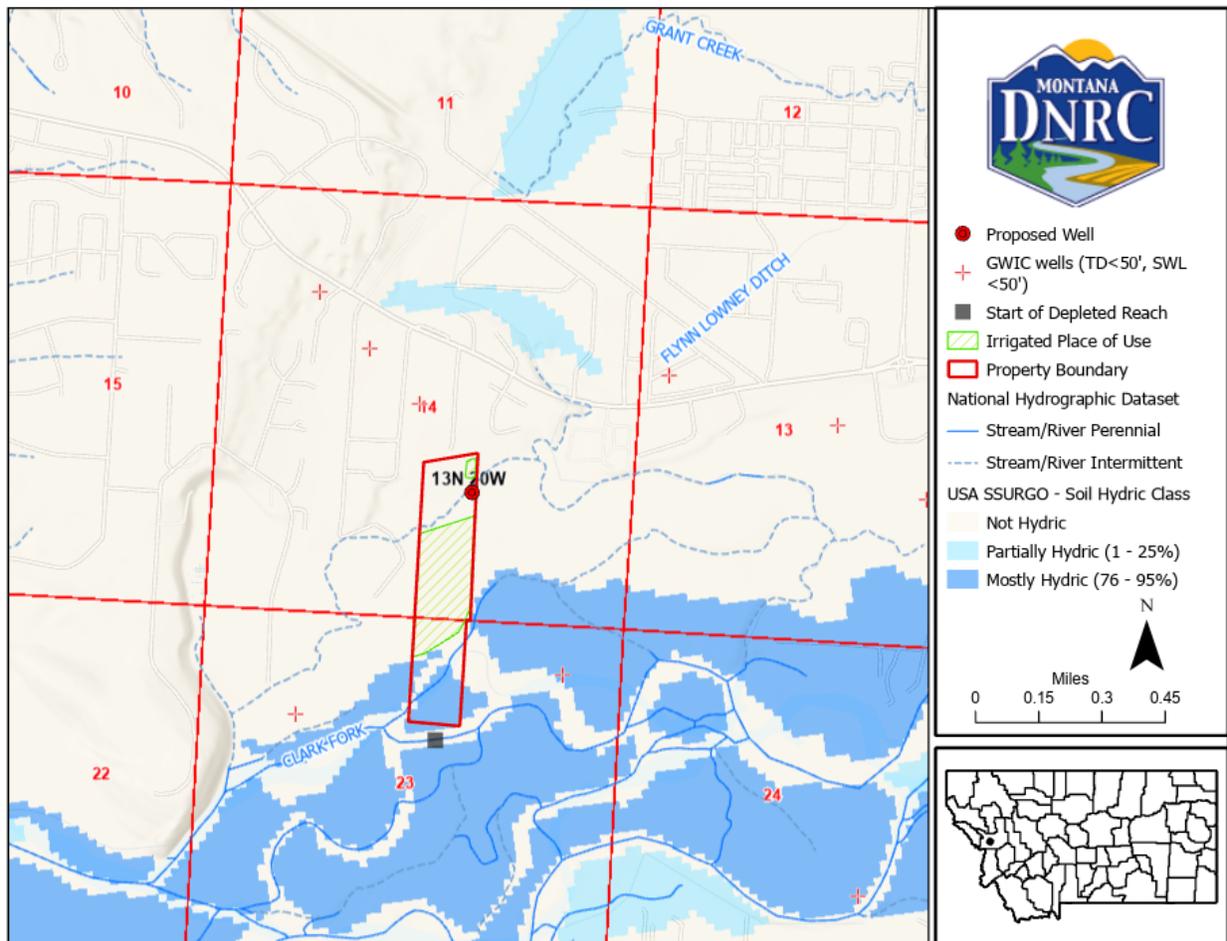


Figure 6: Information used to evaluate hydraulic connectivity and starting point of the depleted reach for Permit Application No.76M 30164554.

3. Rate and Timing of Depletions

Evaluations of the rate and timing of depletions caused by pumping are based on the basic concept that groundwater pumping eventually is offset by an equivalent increase in recharge or decrease in discharge (Theis, 1940; Leake et al., 2008), a process defined as capture by Lohman (1972). Capture occurs as drawdown propagates to surface water and areas of phreatophyte vegetation



(areas of groundwater discharge) that takes water directly from groundwater. In the absence of credible evidence to the contrary, capture of ET by phreatophytes is neglected and net depletion is assumed to equal total capture. This assumption is justified because published estimates for conditions common in Montana alluvial valleys indicate capture of ET generally is less than 10 percent of total capture (Xunhong, 2006). Capture of ET in ephemeral drainages may be significant and will be evaluated on an application-by-application basis.

The rate and timing of net depletion caused by pumping may be modeled using a variety of analytical and numerical models selected to fit site-specific conditions and needs. Simple models including the Alluvial Water Accounting System (AWAS), the Well Pumping Depletion Model (WPDM) or FWD:SOLV (HydroSOLVE, 2024) typically are used by DNRC to model depletions to one source with simple aquifer boundaries. Adjustments may be made for more complex conditions or multiple sources using methods like those described by Contor (2011), analytical models by Hunt (2003) and Butler et al. (2001) or a superposition numerical groundwater flow model.

Modeling may not be necessary in some situations such as where a proposed use is constant year-round, the source aquifer is confined, or the distance to potentially affected stream reaches is greater than one mile. Modeling of net depletions can be simplified if the proposed place of use is located the same relative distance from the potentially affected surface water as the proposed wells and all non-consumed water infiltrates the source aquifer and returns to the potentially affected surface water as return flows. Under those simplifying assumptions, net depletion can be modeled based on withdrawal of the monthly consumed amounts. Otherwise, net depletion by the full withdrawals and return flows need to be modeled separately with net depletion calculated as depletion minus return flows.

Net depletion by pumping in the source aquifer primarily occurs through propagation of drawdown through the unconfined aquifer to the potentially affected reach of the Clark Fork River. This process is modeled in FWD:SOLV (HydroSOLVE, 2024) using the modeling inputs found in Section 5 of this report and following pumping schedule and boundaries:

- Theis (1941)/Glover and Balmer (1954) solution for unconfined aquifer and fully penetrating stream.
- The monthly consumed volume schedule for GWIC ID 324678 as identified in **Table 1** modeled for 100 years.
- Stream boundary 4,209 ft south of GWIC ID 324678 to represent the center point of the Clark Fork River (**Figure 7**).

The solution and plan view of modeling inputs is identified in **Figure 7**. The timing and rate of net depletion to the Clark Fork River can be found in **Table 1**.

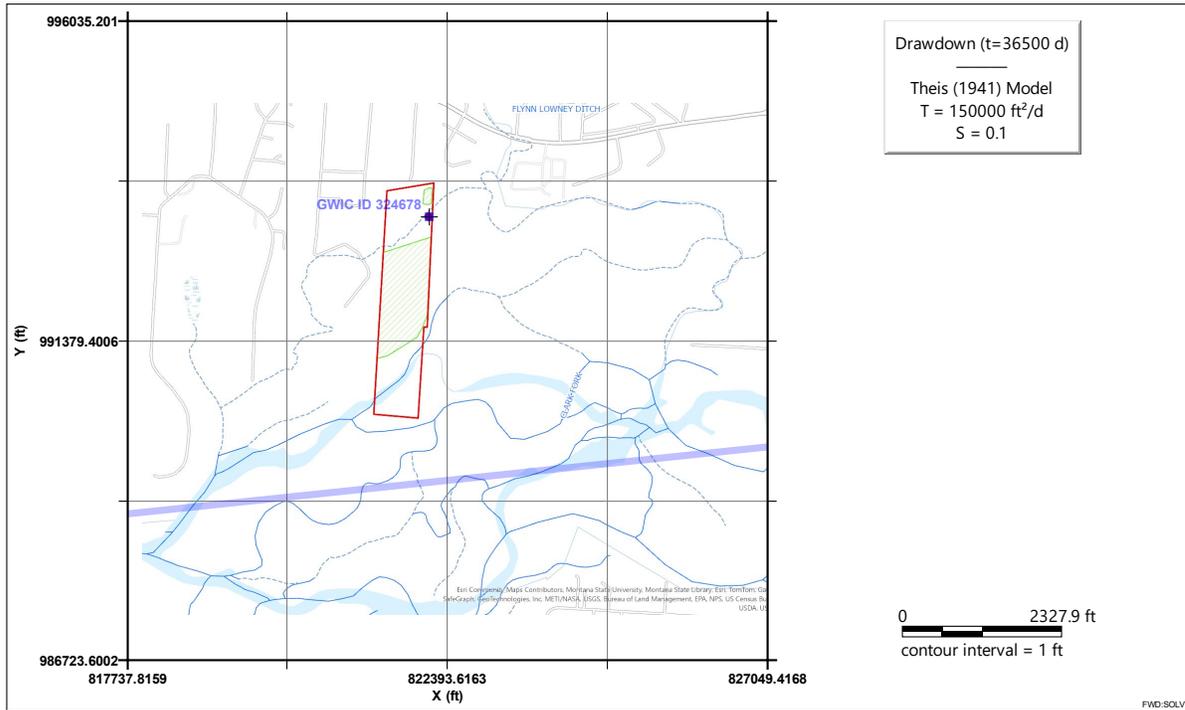


Figure 7: Clark Fork River, stream boundary (light blue line) and pumping well (GWIC ID 324678) for modeling net depletions to hydraulically connected surface waters in FWD:SOLV (HydroSOLVE, 2024).



Review

This document has been reviewed on 4/24/2025 in accordance with Category 7 of [DNRC's Water Sciences Bureau Minimum Standards of Review](#), Version 2, February 2024.

References

Alluvial Water Accounting System (AWAS), 2003. Integrated Support System at Colorado State University, <http://www.ids.colostate.edu/projects.php?project=awas>.

Butler, J.J., Zlotnik, V.A., and Tsou, M.S., 2001. Drawdown and stream depletion produced by pumping in the vicinity of a partially penetrating stream. *Ground Water* 39 (5), 651–659.

Clark, K.W., 1986. Interactions between the Clark Fork River and Missoula Aquifer, Missoula County, Montana, University of Montana Masters Thesis.

Contor, B.A., 2011. Adaptation of the Glover/Balmer/Jenkins Analytical Stream-Depletion Methods for No-Flow and Recharge Boundaries, Idaho Water Resources Research Institute, Technical Completion Report, 15 p.

Cooper, H.H. and C.E. Jacob, 1946. A generalized graphical method for evaluating formation constants and summarizing well field history, *Am. Geophysical Union Trans.*, vol. 27, pp. 526- 534.

DNRC, 2010. Consumptive Use Methodology – Turf Grass (New Projects). March 23, 2010.

DNRC, 2018. Technical Memorandum: Standard Practices for Net Surface Water Depletion from Ground Water Pumping. July 6, 2018.

DNRC, 2019. Technical Memorandum: Physical and Legal Availability of Ground Water, dated April 22, 2019.

DNRC, 2010. Memo to Missoula Water Resources Regional Office, State of Montana Department of Natural Resources and Conservation, Missoula, MT. 10 March 2010.

DNRC, 2023. Technical Memorandum: Pond and Wetland Evaporation/Evapotranspiration, dated June 7, 2023.

du Breuil, P., 1983. Investigation of stream flow variation in Grant Creek, Missoula County, Montana. Univ. of Montana Senior Thesis, Dept. of Geology, unpublished, 37 pp.

Fields, R.W., Tabrum, A.R., Rasmussen, D.L., Nichols, R., 1985. Cenezoic rocks of the intermontane basins of western Montana and eastern Idaho: A summary. *Rocky Mountain Section, S.E.P.M., Rocky Mountain Paleogeography Symposium* 3, 36 pp.

Glover, R. E., and Balmer, C. G., 1954, River depletion resulting from pumping a well near a river: *Am. Geophys. Union Trans.*, v. 35, pt. 3, p. 468-470.

Geomatrix Consultants Inc. 2006 Hydrogeologic Summary Report: The Valley Subdivision. EQ#06-2116. Montana Department of Environmental Quality.



Groundwater Information Center (GWIC), 2025. Montana Bureau of Mines and Geology, <http://mbmgtgwic.mtech.edu/>.

Harbaugh, A.W., 2000. MODFLOW-2000, the U.S. Geological Survey Modular Groundwater Model—User Guide to Modularization Concepts and the Groundwater Flow Process. U.S. Geological Survey Open File Report 00-92.

Hubbel, J.M., C.W. Bishop, G.S. Johnson, and J.G. Lucas, 1997. Numerical ground-water flow modeling of the Snake River Plain Aquifer using superposition technique, *Ground Water*, V. 35, N. 1, p. 59-66.

Hunt, B., 2003. Unsteady stream depletion when pumping from semi-confined aquifer. *Journal of Hydrologic Engineering* 8, no. 1: 12-19.

HydroSOLVE, Inc. 2007. AQTESOLV for Windows, v.4.5. written by G.M. Duffield, <http://www.aqtesolv.com/>.

HydroSOLVE, Inc. 2024 FWD: SOLV Predictive Modeling Software v.2. written by G.M. Duffield. <http://www.aqtesolv.com/fwdsolv.htm>

Johnson, G.S. and D.M. Cosgrove, 1999. Application of steady state response ratios to the Snake River plain aquifer. Idaho Water Resources Research Institute, University of Idaho, Moscow, ID, 26 pp.

Kimsey, D.W. and P.K. Flood, 1987. Domestic consumptive use, technical memorandum to the Chief Engineer of the State of Colorado, 16 p.

Konikow, L. F. and C. E. Neuzil, 2007. A method to estimate groundwater depletion from confining layers, *Water Resources Research.*, 43, *W07417*, doi:10.1029/2006WR005597.

LaFave, John I., 2006, Potentiometric surface of the basin-fill and bedrock aquifers, Mineral and Missoula counties, Montana: Montana Bureau of Mines and Geology Montana Ground-Water Assessment Atlas 4-B-06, 1 sheet, scale 1:100,000.

Leake, S. A., Pool, D. R., and Leenhouts, J. M., 2008. Simulated effects of ground-water withdrawals and artificial recharge on discharge to streams, springs, and riparian vegetation in the Sierra Vista Subwatershed of the Upper San Pedro Basin, southeastern: U.S. Geological Survey Scientific Investigations Report 2008-5207, 14 p. <http://pubs.usgs.gov/sir/2008/5207/sir2008-5207.pdf>.

Leake, S.A., 2011. Capture – rates and direction of groundwater flow don't matter! *Groundwater*, Vol. 49, No. 4, p. 456 – 458.

Lohman, S.W., 1972. Definitions of selected ground-water terms: Revisions and conceptual refinements, U.S. Geological Survey Water Supply Paper, 1988, 21 p., http://pubs.usgs.gov/wsp/wsp_1988/pdf/wsp_1988.pdf.

Maxim Technologies. 2006 Addendum to the Application for Beneficial Water Rights for Riverwalk Subdivision, 76M 30019449. Montana Department of Natural Resources and Conservation.



Miller, R.D., 1991. Numerical flow model of the Missoula Aquifer: Interpretation of aquifer properties and river interaction, 301 pp., Unpublished Masters Thesis, Department of Geology, The University of Montana.

Moench, A.F., 1994. Specific yield as determined by type-curve analysis of aquifer-test data: *Groundwater*, v. 32, No. 6, p. 949-957.

Natural Resources Conservation Service (NRCS), 2003. Irrigation Water Requirement (IWR) computer program,
<http://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/water/manage/?cid=stelprdb1044890>.

Neuman, S.P., 1974. Effect of partial penetration on flow in unconfined aquifers considering delayed gravity response, *Water Resources Research*, vol. 10, no. 2, pp. 303-312.

Smith, C. 1992. The Hydrogeology of the Central and Northwestern Missoula Valley. M.S. Missoula, Montana, 210 pp., Unpublished Masters Thesis, Department of Geology, The University of Montana.

Smith, L. 2006, Thickness of quaternary unconsolidated deposits in the Lolo-Bitterroot area, Mineral, Missoula, and Ravalli counties, Montana: Montana Bureau of Mines and Geology Montana Ground-Water Assessment Atlas 4-B-03, 1 sheet, scale 1:125,000.

Smith, L.N., LaFave, J.I., and Patton, T.W., 2013. Groundwater resources of the Lolo-Bitterroot area: Mineral, Missoula, and Ravalli counties, Montana Part A* - Descriptive Overview and Water-Quality Data: Montana Bureau of Mines and Geology Montana Ground-Water Assessment Atlas 4-A. 96 p.

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Soil Series Classification Database. Available online. Accessed February 2025.

Paul, W., Poeter, E., and R Laws, 2007. Consumptive loss from an individual sewage disposal system in a semi-arid mountain environment. *Colorado Water, Newsletter of the Water Center of Colorado State University*, August/September 2007, Volume 24, Issue 4.

Theis, C.V., 1935. The relation between the lowering of the piezometric surface and the rate and duration of discharge of a well using groundwater storage, *Am. Geophys. Union Trans.*, vol. 16, pp. 519-524.

Theis, C.V., 1938. The significance and nature of the cone of depression in ground-water bodies. *Journal of Economic Geologic*, vol. 33, pp. 889-902.

Theis, C.V., 1940, The source of water derived from wells— Essential factors controlling the response of an aquifer to development: *Civil Engineering*, v. 10, no. 5, p. 277–280.

U.S. Geological Survey (USGS), USGS National Hydrographic Dataset, accessed (2025) at <https://www.usgs.gov/national-hydrography/national-hydrography-dataset>

U.S. Geological Survey (USGS), Probability of streamflow permanence model (PROSPER): A spatially continuous model of annual streamflow permanence throughout the Pacific Northwest, accessed October 2024, StreamStats web application. <https://streamstats.usgs.gov/ss/>



Well Pumping Depletion Model (WPDM) software, 2001. Western Water Consulting, Inc. Littleton, Colorado, <http://westernwaterconsulting.com/WPDM.htm>.

WGM and Atkins. 2012. Application for Beneficial Water Use Permit Basin Closure Addendum. 19 p.

Woessner, W. W. 1988. Missoula Valley Aquifer Study: Hydrogeology of the Eastern Portion of the Missoula Aquifer, Missoula County, Montana. Missoula City County Health Department.

Vanslyke, G. and H. Simpson, 1974. Consumptive use of water by homes utilizing leach fields for sewage disposal, technical memorandum by the Colorado Division of Water Resources, 5 p.

Xunhong, C. 2006. Groundwater evapotranspiration captured by seasonally pumped wells in river valleys, Journal of Hydrology, V. 318, Issues 1-4, p. 334-347.

Appendix A: Groundwater Rights within Area of Potential Impact



| WRNUMBER | WRTYPE | ALL_OWNERS |
|---------------|--------------------------|--|
| 76M 96913 00 | PROVISIONAL PERMIT | AX MHC KATOONAH LODGES LLC |
| 76M 215134 00 | STATEMENT OF CLAIM | GREENFIELD PROPERTIES LLC |
| 76M 30008993 | PROVISIONAL PERMIT | W EDWIN STAHL LLC |
| 76M 45452 00 | GROUND WATER CERTIFICATE | REED C PORTER; TAMMY PORTER |
| 76M 20881 00 | PROVISIONAL PERMIT | MISSOULA COUNTY ATTORNEYS OFFICE |
| 76M 123877 00 | STATEMENT OF CLAIM | OLD HELLGATE VILLAGE, INC |
| 76M 62564 00 | EXEMPT RIGHT | ROBERT G DAHL; BETTY I LA BELLE |
| 76M 16467 00 | GROUND WATER CERTIFICATE | JOHN WESTER |
| 76M 30153196 | PROVISIONAL PERMIT | EMOE NET INC |
| 76M 22803 00 | GROUND WATER CERTIFICATE | MEGHAN BABBITT; OBEDIAH BABBITT |
| 76M 16844 00 | GROUND WATER CERTIFICATE | RANDY S ROSENQUIST; ROBIN R ROSENQUIST; WORKEES LLC |
| 76M 57802 00 | GROUND WATER CERTIFICATE | JAMES F MCCALLUM |
| 76M 82182 00 | PROVISIONAL PERMIT | ROBERT G DAHL; BETTY I LA BELLE |
| 76M 70438 00 | GROUND WATER CERTIFICATE | CLAUDINE M SHELDEN; JAMES P SHELDEN |
| 76M 22506 00 | GROUND WATER CERTIFICATE | BRANDON PETERSON |
| 76M 47093 00 | GROUND WATER CERTIFICATE | JOYCE J LOOMIS; MICHAEL E LOOMIS |
| 76M 23578 00 | GROUND WATER CERTIFICATE | MARGARET BAACK; MATTHEW BAACK |
| 76M 14030 00 | GROUND WATER CERTIFICATE | COWART, GILBERT & SANDRA LIVING TRUST 7/14/23 |
| 76M 62511 00 | GROUND WATER CERTIFICATE | BOBBI BEARD; MARK J BRADY |
| 76M 82084 00 | GROUND WATER CERTIFICATE | SEAN N GARNER; WENDY T GARNER |
| 76M 151537 00 | STATEMENT OF CLAIM | JOSEPH HEITT; ESTHER P MCLATCHY; PATRICK H MCLATCHY; SONIA SHEARER |
| 76M 95964 00 | GROUND WATER CERTIFICATE | LANGE STEWART FAMILY TRUST |
| 76M 30001001 | GROUND WATER CERTIFICATE | ANDREE A VAN NICE; DONALD W VAN NICE |
| 76M 30104224 | GROUND WATER CERTIFICATE | KRIS SCHULTE |
| 76M 30163356 | GROUND WATER CERTIFICATE | W EDWIN STAHL LLC |
| 76M 100940 00 | GROUND WATER CERTIFICATE | ROBERT N SKOGLEY |
| 76M 30069580 | GROUND WATER CERTIFICATE | C FREDRICK FREY |
| 76M 82059 00 | GROUND WATER CERTIFICATE | ANNE BROOKS; CURTIS M BROOKS |
| 76M 81779 00 | GROUND WATER CERTIFICATE | JESSICA M ROUSE; SCOTT W ROUSE |
| 76M 30102999 | GROUND WATER CERTIFICATE | BARRY MISEVIC; WENDY MISEVIC |
| 76M 112318 00 | GROUND WATER CERTIFICATE | BRENDA M COGAR |
| 76M 69614 00 | GROUND WATER CERTIFICATE | DEBRA S BRAULT; KELLY J BRAULT |
| 76M 85261 00 | GROUND WATER CERTIFICATE | ALEXANDRIA HANSON |
| 76M 25662 00 | GROUND WATER CERTIFICATE | CATHERINE C KIRGAN; STEVEN C KIRGAN |
| 76M 48136 00 | GROUND WATER CERTIFICATE | JENNY L WARREN; MARK WARREN |
| 76M 94973 00 | GROUND WATER CERTIFICATE | KERRY J KELLY |
| 76M 117405 00 | GROUND WATER CERTIFICATE | JENNIFER BERNHART; JOSHUA R BERNHART |
| 76M 80994 00 | GROUND WATER CERTIFICATE | LAUREN B ERICKSON; LEE T ERICKSON |



| | | |
|---------------|--------------------------|--|
| 76M 81441 00 | GROUND WATER CERTIFICATE | PETER A BORN-ROPP; VICKIE BORN-ROPP |
| 76M 94201 00 | GROUND WATER CERTIFICATE | DENNIS W GREENO |
| 76M 84545 00 | GROUND WATER CERTIFICATE | CHRISTINE HOVDEY; DALE R HOVDEY |
| 76M 83749 00 | GROUND WATER CERTIFICATE | RICK D KAMURA |
| 76M 81735 00 | GROUND WATER CERTIFICATE | KEVIN P LAMEY; PAULA F LAMEY |
| 76M 92153 00 | GROUND WATER CERTIFICATE | KIM BENNETT; WILLIAM D BENNETT |
| 76M 30150621 | GROUND WATER CERTIFICATE | LOUIS VAN BLARIGAN |
| 76M 109634 00 | GROUND WATER CERTIFICATE | KATHRYN R DOUCETTE |
| 76M 94256 00 | GROUND WATER CERTIFICATE | GARD, NORMAN C & CAROLYN J JOINT REV TRUST 7/27/16 |
| 76M 86771 00 | GROUND WATER CERTIFICATE | SUSAN MATHIS |
| 76M 84580 00 | GROUND WATER CERTIFICATE | ANGELA N JONES; KEVIN C JONES |
| 76M 100496 00 | GROUND WATER CERTIFICATE | CAROL KNIEPER; KENNETH KNIEPER |
| 76M 83621 00 | GROUND WATER CERTIFICATE | JOEL T WOODRUFF |
| 76M 93411 00 | GROUND WATER CERTIFICATE | JACK A DARK; LOREE E DARK |
| 76M 98054 00 | GROUND WATER CERTIFICATE | DANIEL BROWDER; PHYLLIS E BROWDER |
| 76M 82812 00 | GROUND WATER CERTIFICATE | DENNIS GEORGE; RICK GEORGE |
| 76M 93260 00 | GROUND WATER CERTIFICATE | LINDA K GUTHRIE; VINTON R GUTHRIE |
| 76M 85859 00 | GROUND WATER CERTIFICATE | JAYLA FOWKE; JOSHUA A FOWKE |
| 76M 30062778 | GROUND WATER CERTIFICATE | KENT E MCDERMOTT; LORA K YATES |
| 76M 81397 00 | GROUND WATER CERTIFICATE | RODNEY HARRIS; SHAWN HARRIS |
| 76M 62585 00 | GROUND WATER CERTIFICATE | JOHN E NYBERG; MYRNA M NYBERG |
| 76M 87738 00 | GROUND WATER CERTIFICATE | PATRICIA A BOWMAN; ROBERT R BOWMAN |
| 76M 52101 00 | GROUND WATER CERTIFICATE | CAROLINE B ANDERSON; JAMES R ANDERSON |
| 76M 96982 00 | GROUND WATER CERTIFICATE | JASON LONG |
| 76M 103898 00 | GROUND WATER CERTIFICATE | FUNK FAMILY TRUST |
| 76M 83671 00 | GROUND WATER CERTIFICATE | KATHERINE ONEILL; JACK WOLDTVEDT |
| 76M 89381 00 | GROUND WATER CERTIFICATE | RICHARD A BOOTH |
| 76M 94176 00 | GROUND WATER CERTIFICATE | LEROY J OLESON; PEGGY A OLESON |
| 76M 89471 00 | GROUND WATER CERTIFICATE | LEANNA GREEN |
| 76M 80936 00 | GROUND WATER CERTIFICATE | JAMES D SCHNEITER; PAMELA L SCHNEITER |
| 76M 75743 00 | GROUND WATER CERTIFICATE | DAWN FULKERSON; JAMES A FULKERSON |
| 76M 82062 00 | GROUND WATER CERTIFICATE | GREG MALONE; JILL MALONE |
| 76M 108679 00 | GROUND WATER CERTIFICATE | LINDA JO MILLER |
| 76M 82107 00 | GROUND WATER CERTIFICATE | ARNOLD E KIMMEL; DOUGLAS R KIMMEL; EDDIE H KIMMEL |
| 76M 94236 00 | GROUND WATER CERTIFICATE | FRANCES A SCHMIDT |
| 76M 30000015 | GROUND WATER CERTIFICATE | LISA R HELEAN; MICHAEL J HELEAN |
| 76H 104150 00 | GROUND WATER CERTIFICATE | MARK D BANCALE; SUZANNE J BANCALE |
| 76M 87790 00 | GROUND WATER CERTIFICATE | LOPEZ LIVING TRUST |
| 76M 87748 00 | GROUND WATER CERTIFICATE | ALLAN D FREY |
| 76M 30125857 | GROUND WATER CERTIFICATE | JOHN J ERICKSON |



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| 76M 30151747 | GROUND WATER CERTIFICATE | ROBERT W MING; CAROL D NELSON |
| 76M 30042658 | GROUND WATER CERTIFICATE | CHRISTINA HORTON; SHAWN HORTON |
| 76M 100374 00 | GROUND WATER CERTIFICATE | YOUNGBAUER FAMILY TRUST |
| 76M 99697 00 | GROUND WATER CERTIFICATE | JOEL J GAERTIG; STEPHANIE A GAERTIG |
| 76M 30135079 | GROUND WATER CERTIFICATE | ERIC S POWELL; JUDITH N POWELL |
| 76M 93369 00 | GROUND WATER CERTIFICATE | SCOTT A ESSERT; LAURA L HENNING |
| 76M 30051609 | GROUND WATER CERTIFICATE | CORAL E BECK; KEVIN D BROWN |
| 76M 53925 00 | EXEMPT RIGHT | ALFRED S TULLY; ALICE M TULLY |
| 76M 108609 00 | GROUND WATER CERTIFICATE | LARA A PORRINI; NICK PORRINI |
| 76M 30001671 | GROUND WATER CERTIFICATE | STACY L JOHNSON |
| 76M 30069843 | GROUND WATER CERTIFICATE | JONATHAN GREEN; KRISTIN GREEN |
| 76M 30149149 | GROUND WATER CERTIFICATE | HOLLY M GRATTON; SAMUEL GRATTON |
| 76M 93254 00 | GROUND WATER CERTIFICATE | MOLLIE A AILENE; ZACH B PEO |
| 76M 98034 00 | GROUND WATER CERTIFICATE | MICHELLE CLEMENT |
| 76M 88539 00 | GROUND WATER CERTIFICATE | SARA K SHELDON |
| 76M 105226 00 | GROUND WATER CERTIFICATE | BARBARA M FOSSEN |
| 76M 89379 00 | GROUND WATER CERTIFICATE | CONNIE FRAZIER; DOUG FRAZIER |
| 76M 70306 00 | GROUND WATER CERTIFICATE | MARION DAVIDSON; WILLIAM L DAVIDSON |
| 76M 102460 00 | GROUND WATER CERTIFICATE | CHAD F BOWKER; JANET M BOWKER |
| 76M 98487 00 | GROUND WATER CERTIFICATE | ANDREA HREN; LUCAS HREN |
| 76M 100393 00 | GROUND WATER CERTIFICATE | DARCY A TRENT; WILLIAM A TRENT |
| 76M 73882 00 | GROUND WATER CERTIFICATE | DEBRA GARRIN; LARRY GARRIN |
| 76M 72200 00 | GROUND WATER CERTIFICATE | JEFRFREY R CROONENBERGHS |
| 76M 74782 00 | GROUND WATER CERTIFICATE | JAMES W BURFEIND; LINDA I BURFEIND HUMPHREYS REVOCABLE LIVING TRUST 3/18/04 |
| 76M 87723 00 | GROUND WATER CERTIFICATE | JEFF R SMITH |
| 76M 30160612 | GROUND WATER CERTIFICATE | NANCY ARNOLD; STEPHEN LARANCE |
| 76M 30162300 | STATEMENT OF CLAIM | KATHY S LEE |
| 76M 93265 00 | GROUND WATER CERTIFICATE | JORGEN D LAURSEN |
| 76M 30152013 | GROUND WATER CERTIFICATE | YOUNGGREN, RODNEY & JULIE FAMILY TRUST |
| 76M 30112636 | GROUND WATER CERTIFICATE | JENNIFER E MUSEE; JOEL M MUSEE |
| 76M 86715 00 | GROUND WATER CERTIFICATE | ANN O CARVER; CLINTON O CARVER |
| 76M 30063109 | GROUND WATER CERTIFICATE | JEREMY HARGIS; KAREN L HARGIS |
| 76M 30121562 | GROUND WATER CERTIFICATE | EILEEN BROWN; HAYWOOD BROWN |
| 76M 30159422 | GROUND WATER CERTIFICATE | ADRIAN AYERS; ANN SELTZER |
| 76M 30136072 | GROUND WATER CERTIFICATE | HANH CHAU; MINH HUYNH |
| 76M 86772 00 | GROUND WATER CERTIFICATE | KENNETH J AULT |
| 76M 30108402 | GROUND WATER CERTIFICATE | BRANDON D BRETZ |
| 76M 30104146 | GROUND WATER CERTIFICATE | LAURA KEATING; PHILIP R KEATING |
| 76M 30070080 | GROUND WATER CERTIFICATE | REBEKAH J BLEECKER; STEVEN M BLEECKER |
| 76M 108573 00 | GROUND WATER CERTIFICATE | LARRY LACKNER; LISA M LACKNER |



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| 76M 30150508 | GROUND WATER CERTIFICATE | FRANK J DINENNA; JULIE A WULF |
| 76M 41233 00 | GROUND WATER CERTIFICATE | JESSE LAFLESCH |
| 76M 63643 00 | GROUND WATER CERTIFICATE | SHAWN MORTENSEN |
| 76M 103723 00 | GROUND WATER CERTIFICATE | BECKY HARRIS; JOHN J HARRIS; KAYCEE G HARRIS; KELLY HARRIS; MICHAEL G HARRIS; WINDI G HARRIS UMLAND |
| 76M 30108768 | GROUND WATER CERTIFICATE | YER THAO; MAI SHOUA VANG |
| 76M 95012 00 | GROUND WATER CERTIFICATE | THOMAS R COMBS |
| 76M 30072092 | GROUND WATER CERTIFICATE | KORY J GARMAN; MELISSA R GARMAN |
| 76M 30114250 | GROUND WATER CERTIFICATE | THERESE R ALBEE |
| 76M 93303 00 | GROUND WATER CERTIFICATE | SCOTT W OCHSNER; SELENA V OCHSNER |
| 76M 30049454 | GROUND WATER CERTIFICATE | JAMIE L SPARR; MICHAEL J SPARR |
| 76M 102376 00 | GROUND WATER CERTIFICATE | JULIE MCMAHON; WILLIAM A STAVERS |
| 76M 92198 00 | GROUND WATER CERTIFICATE | OSCAR ALLESTAD; SHEILA ALLESTAD |
| 76M 90475 00 | GROUND WATER CERTIFICATE | APRYL A LANGE; SHANNON L LANGE |
| 76M 91271 00 | GROUND WATER CERTIFICATE | KEELY M MARKUSON; RYAN L MARKUSON |
| 76M 94266 00 | GROUND WATER CERTIFICATE | RYSON G SPARACINO |
| 76M 91209 00 | GROUND WATER CERTIFICATE | BECKY WALTERS; BRUCE WALTERS |
| 76M 99613 00 | GROUND WATER CERTIFICATE | COLLIN R JONES; TAWNI G JONES |
| 76M 100888 00 | GROUND WATER CERTIFICATE | ERIC HAMER; SARINA J HAMER |
| 76M 83699 00 | GROUND WATER CERTIFICATE | DENNIS L CHAPEL; JEANNETTE M CHAPEL |
| 76M 110681 00 | GROUND WATER CERTIFICATE | DOUGLAS ERNST; YIZHOU ERNST |
| 76M 107033 00 | GROUND WATER CERTIFICATE | CORY S SOVA; SHERRY L SOVA |
| 76M 87765 00 | GROUND WATER CERTIFICATE | LARRY T GARRISON |
| 76M 86750 00 | GROUND WATER CERTIFICATE | CAROL J STOVALL; DALE E STOVALL |
| 76M 30104028 | GROUND WATER CERTIFICATE | MORGAN MARTIN |
| 76M 103404 00 | GROUND WATER CERTIFICATE | DARRYL I JUDEN |
| 76M 87824 00 | EXEMPT RIGHT | OWINGS FAMILY TRUST |
| 76M 30148758 | GROUND WATER CERTIFICATE | ALI KELLY; MYLES KELLY |
| 76M 30154821 | GROUND WATER CERTIFICATE | SNEAD, IDA M REVOCABLE TRUST |
| 76M 92154 00 | GROUND WATER CERTIFICATE | KRYSTAL L GUILHEMOTONIA; SEBASTIEN M GUILHEMOTONIA |
| 76M 67721 00 | GROUND WATER CERTIFICATE | RICHARD A VARNER |
| 76M 30109159 | GROUND WATER CERTIFICATE | KEVIN C BANDY; KRISTI L BANDY |
| 76M 89359 00 | GROUND WATER CERTIFICATE | CRAIG STEVENS; KRISTIN STEVENS |
| 76M 100433 00 | GROUND WATER CERTIFICATE | JONATHAN CARL; MONICA CARL |
| 76M 92110 00 | GROUND WATER CERTIFICATE | LINDA E SWANSON; MATHEW E SWANSON |
| 76M 87829 00 | GROUND WATER CERTIFICATE | JANIS FONTAINE; SHAWN FONTAINE |
| 76M 30070472 | GROUND WATER CERTIFICATE | CASSANDRA MURPHY; JACOB MURPHY |
| 76M 30117021 | GROUND WATER CERTIFICATE | DREW MERTEN; MADELINE A MERTEN |
| 76M 94230 00 | GROUND WATER CERTIFICATE | CHRISTOPHER W ROBERTS; TERESA M ROBERTS |



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| 76M 30105180 | GROUND WATER CERTIFICATE | CAROLYN UNDERWOOD; GERALD E UNDERWOOD |
| 76M 30161281 | GROUND WATER CERTIFICATE | BRANDON RIGONI; KATHRYN J RIGONI |
| 76M 123876 00 | STATEMENT OF CLAIM | OLD HELLGATE VILLAGE, INC |
| 76M 30107040 | GROUND WATER CERTIFICATE | LINDA REDFERN; SAM REDFERN |
| 76M 87851 00 | GROUND WATER CERTIFICATE | TIM A WITTMIER |
| 76M 87717 00 | GROUND WATER CERTIFICATE | SAUL MCMEEKIN; MEGAN TAYLOR |
| 76M 94267 00 | GROUND WATER CERTIFICATE | CANTU, OCTAVIO P REVOCABLE INTER-VIVOS TRUST |
| 76M 83896 00 | GROUND WATER CERTIFICATE | DEAN H MIKES |
| 76M 30068626 | GROUND WATER CERTIFICATE | JENNIFER L FRITZ |
| 76M 30160812 | GROUND WATER CERTIFICATE | NICOLE K HERMOSO; WESLEY Q THOMAS |
| 76M 93289 00 | GROUND WATER CERTIFICATE | CHARLES H RODGERS |
| 76M 30159319 | GROUND WATER CERTIFICATE | BAO LEE VANG; NOR JAR VANG |
| 76M 95021 00 | GROUND WATER CERTIFICATE | ERIK R HAMILTON |
| 76M 93288 00 | GROUND WATER CERTIFICATE | DONI L ULLAND; IAN M ULLAND |
| 76M 95966 00 | GROUND WATER CERTIFICATE | LUCY WEEDEE |
| 76M 30046702 | GROUND WATER CERTIFICATE | MICHAEL VALAHU |
| 76M 30124803 | GROUND WATER CERTIFICATE | DURRANT, MICHAEL T REVOCABLE LIVING TRUST |
| 76M 92159 00 | GROUND WATER CERTIFICATE | CYNTHIA S CHESEMORE; JAMES R CHESEMORE; KAITLYNN H CHESEMORE |
| 76M 30160735 | GROUND WATER CERTIFICATE | CODY FREY; TIFFANY FREY |
| 76M 30118271 | GROUND WATER CERTIFICATE | WILLIAM M & LOIS M ST PETER REV LIV TRST 3/10/2025 |
| 76M 30063203 | GROUND WATER CERTIFICATE | JEFFREY D SCHAFFER; TRACI J SCHAFFER |
| 76M 30124718 | GROUND WATER CERTIFICATE | GRETCHEN MORITZ; KARL J MORITZ |
| 76M 62647 00 | GROUND WATER CERTIFICATE | SUSAN M VUKE |
| 76M 91359 00 | GROUND WATER CERTIFICATE | CASEY MEIDINGER; JUSTIN MEIDINGER |
| 76M 30046356 | GROUND WATER CERTIFICATE | SHATTUCK FAMILY TRUST |
| 76M 30001282 | GROUND WATER CERTIFICATE | KELLUM FAMILY REVOCABLE TRUST DATED 9/26/2024 |
| 76M 97038 00 | GROUND WATER CERTIFICATE | COLIN HILLIS; DALAYNA L HILLIS |
| 76M 112996 00 | GROUND WATER CERTIFICATE | HAROLD E PINKSTON |
| 76M 30072660 | GROUND WATER CERTIFICATE | ANN MCHUGH; JAMES MCHUGH |
| 76M 100981 00 | GROUND WATER CERTIFICATE | AUSTIN H OLSEN; KACY C OLSEN |
| 76M 91381 00 | GROUND WATER CERTIFICATE | HAROLD H POLAKOW |
| 76M 98542 00 | GROUND WATER CERTIFICATE | BRIAN L WALKER; LILIANA R WALKER |
| 76M 102082 00 | GROUND WATER CERTIFICATE | SCOTT PROVOST |
| 76M 81426 00 | GROUND WATER CERTIFICATE | JAMES M BEECHER; CHAD J HARBERD; KAYE A HARBERD |
| 76M 87730 00 | GROUND WATER CERTIFICATE | ERIK C RODIN |
| 76M 114479 00 | GROUND WATER CERTIFICATE | CARROL J KARLSGODT; GREGORY B KARLSGODT |
| 76M 100439 00 | GROUND WATER CERTIFICATE | DONALD C SCOTT |



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| 76M 95984 00 | GROUND WATER CERTIFICATE | KATIE COTNER; KEVIN COTNER |
| 76M 98501 00 | GROUND WATER CERTIFICATE | PEGGY Z FRAME; RALPH A FRAME |
| 76M 107372 00 | GROUND WATER CERTIFICATE | TOM D PETERSON |
| 76M 30045725 | GROUND WATER CERTIFICATE | BRIAN J LIPPY; JENNIFER L LIPPY |
| 76M 100446 00 | GROUND WATER CERTIFICATE | MARVEL CARVER |
| 76M 78471 00 | GROUND WATER CERTIFICATE | BACKSTROM RAYMOND C & MARY T LIVING TRUST |
| 76M 98472 00 | GROUND WATER CERTIFICATE | CLIFFORD L WALKER |
| 76M 98182 00 | GROUND WATER CERTIFICATE | BRIAN BOURGEOIS |
| 76M 30071618 | GROUND WATER CERTIFICATE | ALICE BAUTZ; DALE BAUTZ |
| 76M 100996 00 | GROUND WATER CERTIFICATE | CAMI THOMPSON; REX THOMPSON |
| 76M 89463 00 | GROUND WATER CERTIFICATE | COLEY M JONES |
| 76M 30045236 | GROUND WATER CERTIFICATE | LONNIE MURPHY; NICOLE MURPHY |
| 76M 110712 00 | GROUND WATER CERTIFICATE | NATHAN HAMPSON; ERICA WESTLING |
| 76M 100458 00 | GROUND WATER CERTIFICATE | ALLAN B TIMS; LISA K TIMS |
| 76M 26375 00 | GROUND WATER CERTIFICATE | JON B CUSKER; PATRICIA J CUSKER |
| 76M 19249 00 | GROUND WATER CERTIFICATE | ALEKSEY A CHINIKAYLO; ERINA CHINIKAYLO; LYUBOV I CHINIKAYLO; YEVGENIY A CHINIKAYLO |
| 76M 69623 00 | GROUND WATER CERTIFICATE | DANI C MCLAUGHLIN; THOMAS H MCLAUGHLIN |
| 76M 74810 00 | GROUND WATER CERTIFICATE | AMBER BEAUDETTE; RANDY BEAUDETTE |
| 76M 34371 00 | GROUND WATER CERTIFICATE | ERIK D SKILLMAN; LESIA M SKILLMAN |
| 76M 19248 00 | GROUND WATER CERTIFICATE | CASTLE CREIGHTON; CARLIE GEHRMAN |
| 76M 41667 00 | EXEMPT RIGHT | NELLIE J BOONE; WILLIAM J BOONE |
| 76M 49142 00 | GROUND WATER CERTIFICATE | BENJAMIN M MINEO |
| 76M 16413 00 | GROUND WATER CERTIFICATE | ARLEN ARENDS; LISA ARENDS |
| 76M 63655 00 | GROUND WATER CERTIFICATE | CHARLES P WILSON; TRACY L WILSON |
| 76M 19246 00 | GROUND WATER CERTIFICATE | STACY L JOHNSON |
| 76M 36557 00 | GROUND WATER CERTIFICATE | FLYNN, KATHRYN R FAMILY LTD PARTNERSHIP |
| 76M 28514 00 | GROUND WATER CERTIFICATE | TIMOTHY M CRIDER |
| 76M 19247 00 | GROUND WATER CERTIFICATE | KIM D RIGGLEMAN |
| 76M 67724 00 | GROUND WATER CERTIFICATE | JOHN DRAKE PROPERTIES LLC |
| 76M 24202 00 | GROUND WATER CERTIFICATE | THOMAS C DZOMBA |
| 76M 12849 00 | GROUND WATER CERTIFICATE | ANTONY CROONENBERGHS |
| 76M 15763 00 | GROUND WATER CERTIFICATE | CHRISTINE M WATSON; DOUGLAS B WATSON |
| 76M 23214 00 | GROUND WATER CERTIFICATE | MEGAN A BUGONI; PETER T BUGONI |
| 76M 43642 00 | EXEMPT RIGHT | ALFRED S TULLY; ALICE M TULLY |
| 76M 22529 00 | GROUND WATER CERTIFICATE | JERRY D COVAULT |
| 76M 23217 00 | GROUND WATER CERTIFICATE | JOHN BORGIALLI |
| 76M 11138 00 | GROUND WATER CERTIFICATE | CASEY M BLACK; JENNIFER A BLACK |
| 76M 17987 00 | GROUND WATER CERTIFICATE | HANS J ANDERSEN |
| 76M 40038 00 | GROUND WATER CERTIFICATE | DALE R HANSON; JANET HANSON |
| 76M 19245 00 | GROUND WATER CERTIFICATE | MARIJANE THOMAS |



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| 76M 75237 00 | GROUND WATER CERTIFICATE | DORETHA M LUMPRY; DUANE E LUMPRY |
| 76M 57703 00 | GROUND WATER CERTIFICATE | PAUL D WIMBERLY; PAULA WIMBERLY |
| 76M 149677 00 | STATEMENT OF CLAIM | SUSAN EDWARDS-MILLER; DAVID G MILLER |
| 76M 30106260 | GROUND WATER CERTIFICATE | SHANAHAN, TIFFANY M LIVING TRUST |
| 76M 67710 00 | GROUND WATER CERTIFICATE | SUNSET MEMORIAL CEMETARY AND FUNERAL HOME |
| 76M 30154477 | GROUND WATER CERTIFICATE | HEIDI L LEE; MICHAEL R LEE |
| 76M 84639 00 | GROUND WATER CERTIFICATE | MARTI A LEIBENGUTH |
| 76M 91346 00 | GROUND WATER CERTIFICATE | DAVID R SCOTT; GLENDA L SCOTT |
| 76M 30159091 | GROUND WATER CERTIFICATE | LAURA A HUNTER-MICHELS; JAMES K MICHELS |
| 76M 30051379 | GROUND WATER CERTIFICATE | KARI A CRONK; SHANE H CRONK |
| 76M 30114171 | GROUND WATER CERTIFICATE | JAMIE M SCHLIESMAN; JOSEPH R SCHLIESMAN |
| 76M 80966 00 | GROUND WATER CERTIFICATE | JASON J LOMAN; NATASHA L LOMAN |
| 76M 30157855 | GROUND WATER CERTIFICATE | ALEXA RAUSER; JADE RAUSER |
| 76M 30052397 | GROUND WATER CERTIFICATE | ALEXANDER W MOORE; SARAH MOORE |
| 76M 30153214 | GROUND WATER CERTIFICATE | JENNIFER A THOMPSON; ROBERT S THOMPSON |
| 76M 30158235 | GROUND WATER CERTIFICATE | SERGEY KIRICHENKO |
| 76M 30111437 | GROUND WATER CERTIFICATE | AISLING PROPERTIES LLC |
| 76M 30162001 | GROUND WATER CERTIFICATE | AMANDA CORSON; GERALD CORSON |
| 76M 30070393 | GROUND WATER CERTIFICATE | JENNIFER HURST |
| 76M 30063697 | GROUND WATER CERTIFICATE | CHARLES M NAU; PATRICIA M NAU |
| 76M 78947 00 | GROUND WATER CERTIFICATE | DONNA BOURKE |
| 76M 30103105 | GROUND WATER CERTIFICATE | RHONDA HARRIS; STACY L HARRIS |
| 76M 30045956 | GROUND WATER CERTIFICATE | ASHLEY I FINNERTY; STEVEN R FINNERTY |
| 76M 30158223 | GROUND WATER CERTIFICATE | LINDA L SCALLY |
| 76M 30164610 | GROUND WATER CERTIFICATE | JOHN A GOTTULA; LISA A GOTTULA |
| 76M 30159753 | GROUND WATER CERTIFICATE | DEBBIE S DUBE; ROBERT J DUBE |
| 76M 75720 00 | GROUND WATER CERTIFICATE | THOMAS A FONT |
| 76M 82138 00 | GROUND WATER CERTIFICATE | IRENE TANNER |
| 76M 30094711 | GROUND WATER CERTIFICATE | DOUGLAS B WATSON |
| 76M 78974 00 | GROUND WATER CERTIFICATE | MOUNTAIN VIEW BAPTIST CHURCH |
| 76M 30121079 | GROUND WATER CERTIFICATE | CYD HOBLITT |
| 76M 74302 00 | GROUND WATER CERTIFICATE | DARRELL S BECKWITH; JOETTE C BECKWITH |
| 76M 30118733 | GROUND WATER CERTIFICATE | RANDY S ROSENQUIST; ROBIN R ROSENQUIST |
| 76M 30070184 | GROUND WATER CERTIFICATE | JACQUELINE R CASELTON; NEIL J CASELTON |
| 76M 30126084 | GROUND WATER CERTIFICATE | JOSEPHINE P HORNE; SCOTT D HORNE |
| 76M 105225 00 | GROUND WATER CERTIFICATE | JARED BARNARD; JENNIFER BARNARD |
| 76M 30158222 | GROUND WATER CERTIFICATE | LINDA L SCALLY |
| 76M 30019838 | GROUND WATER CERTIFICATE | GENE BOSCHEE; BOSCHEE FAMILY TRUST 9 24 2014 |
| 76M 30020185 | GROUND WATER CERTIFICATE | JENNIFER A WHITMIRE; KURT WHITMIRE |



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| 76M 149103 00 | STATEMENT OF CLAIM | OLD HELLGATE VILLAGE, INC |
| 76M 12573 00 | GROUND WATER CERTIFICATE | BLACK, PATRICK & SUE LIVING TRUST |
| 76M 30030201 | GROUND WATER CERTIFICATE | WILLIAM BIGGS |
| 76M 30030248 | GROUND WATER CERTIFICATE | DEBRA JONES; PRESTON JONES |
| 76M 30015373 | GROUND WATER CERTIFICATE | CARI MENDENHALL; RODNEY MENDENHALL |
| 76M 30011660 | GROUND WATER CERTIFICATE | JAMES STANICAR; JENNIFER STANICAR |
| 76M 30020046 | GROUND WATER CERTIFICATE | BRENT G BYRAM |
| 76M 30021302 | GROUND WATER CERTIFICATE | COREY STONEFIELD; JESSICA STONEFIELD |
| 76M 30018417 | GROUND WATER CERTIFICATE | REGINA Y OLSON; TRACY R OLSON |
| 76M 30024303 | GROUND WATER CERTIFICATE | LILLIE M SMITH; PATRICIA J SMITH CUSKER; CYNTHIA A SMITH HEITMANN; BETTY I SMITH LABELLE; ADA M SMITH OSTEEN |
| 76M 30014142 | GROUND WATER CERTIFICATE | DAVID BORGONOVO; SYLVIA BORGONOVO |
| 76M 30016974 | GROUND WATER CERTIFICATE | JUSTIN AUCH; MEAGAN AUCH |
| 76M 30011123 | GROUND WATER CERTIFICATE | JEFFREY R KUCHEL |
| 76M 598 00 | GROUND WATER CERTIFICATE | OLD HELLGATE VILLAGE, INC |
| 76M 30042087 | GROUND WATER CERTIFICATE | DAVID R OLSON; KELLY R OLSON |
| 76M 30019747 | GROUND WATER CERTIFICATE | JUSTIN MEHLHOFF; TAMMY MEHLHOFF |
| 76M 2555 00 | GROUND WATER CERTIFICATE | FLORENCE O WOOD |
| 76M 30012031 | GROUND WATER CERTIFICATE | JEFFREY L BRANDT |
| 76M 30010691 | GROUND WATER CERTIFICATE | GEORGE THOMPSON |
| 76M 30022704 | GROUND WATER CERTIFICATE | JASMINE OLSON; TADD OLSON |
| 76M 30011656 | GROUND WATER CERTIFICATE | JOHN W THUNSTROM; LORRAINE THUNSTROM |
| 76M 30019657 | GROUND WATER CERTIFICATE | ELIZABETH H CRAWFORD; TAYLOR G CRAWFORD |
| 76M 30006695 | GROUND WATER CERTIFICATE | JAMIE L SPARR; MICHAEL J SPARR |
| 76M 30007633 | GROUND WATER CERTIFICATE | CHRISTOPHER J DOVE; KATE E PAPPE |
| 76M 30024541 | GROUND WATER CERTIFICATE | MARJORIE J SOLEM; STEPHEN J SOLEM |
| 76M 30010000 | GROUND WATER CERTIFICATE | KEVIN LUU; JOYCE NGUYEN |
| 76M 30007509 | GROUND WATER CERTIFICATE | SETH BOID; MAURA MALL |
| 76M 30024553 | GROUND WATER CERTIFICATE | ANDREW MICKELSON; SHERYL MICKELSON |
| 76M 9809 00 | GROUND WATER CERTIFICATE | KASEY SCHRIVER; MEAGAN Y SCHRIVER |
| 76M 30006817 | GROUND WATER CERTIFICATE | BRENDA J THOMAS; PERRY M THOMAS |
| 76M 30012136 | GROUND WATER CERTIFICATE | JUSTIN J FLUHARTY; LIANNE M FLUHARTY |
| 76M 30011624 | GROUND WATER CERTIFICATE | LISA A BISHOP |
| 76M 30029163 | GROUND WATER CERTIFICATE | DAVID MUZZANA; KAYE MUZZANA |
| 76M 30009996 | GROUND WATER CERTIFICATE | JUSTIN AUCH; MEAGAN AUCH |
| 76M 30022739 | GROUND WATER CERTIFICATE | JOE FEATHERLY; SHERRIE FEATHERLY |
| 76M 6947 00 | GROUND WATER CERTIFICATE | BETTY KALDAHL; DALE KALDAHL |
| 76M 30029168 | GROUND WATER CERTIFICATE | AMY MCKETHEN; NICHOLAS MCKETHEN |
| 76M 30027041 | GROUND WATER CERTIFICATE | MATTHEW PLUTE; WENDY PLUTE |
| 76M 30011557 | GROUND WATER CERTIFICATE | ANNETTE J BARNHILL; EMERY M BARNHILL |



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| 76M 30024617 | GROUND WATER CERTIFICATE | MATTHEW A CAVANAUGH; TRISHA J CAVANAUGH |
| 76M 30012744 | GROUND WATER CERTIFICATE | DEBRA M TIPTON; RONALD C TIPTON |
| 76M 30006851 | GROUND WATER CERTIFICATE | CHARLES THOMAS; CONNIE R THOMAS |
| 76M 30134756 | STATEMENT OF CLAIM | DEBRA M TIPTON; RONALD C TIPTON |
| 76M 30025040 | GROUND WATER CERTIFICATE | AMANA BEIERLE; TAYLOR BEIERLE; JOSEPH SAMPLE; STEFANIE SAMPLE |
| 76M 30029545 | GROUND WATER CERTIFICATE | BONNIE J MEKEAL; CHARLES E MEKEAL |
| 76M 7949 00 | GROUND WATER CERTIFICATE | EDMUND DENNY; HOPE E DENNY |
| 76M 30005744 | GROUND WATER CERTIFICATE | DONA L JOHNSON; RANDALL W JOHNSON |
| 76M 30019698 | GROUND WATER CERTIFICATE | PAMELA A BAERTSCH; SHANE R BAERTSCH |



Groundwater Permit Technical Analyses Report – Part B

Department of Natural Resources and Conservation (DNRC or Department)
Water Resources Division

Benjamin Thomas, Water Conservation Specialist, Missoula Regional Office

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| Application No. | 76M 30164554 | Proposed Point of Diversion | SWNWSE Sec. 14, T13N, R20W |
| Applicant | David Miller | | |

Overview

This report is Part B of a two-part publication which analyzes data submitted by the Applicant in support of the above-mentioned water right application. This report provides technical analyses as required under the Administrative Rules of Montana (ARM) 36.12.1303 in support of the water rights criteria assessment as required in § 85-2-311, Montana Code Annotated (MCA).

This Groundwater Permit Technical Analyses Report – Part B contains the following sections:

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 2.3 Monthly Flow Rate and Volume..... 3

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Appendix A: Water Rights within the Area of Potential Impact 8



1.0 Application Details

The Applicant proposes to divert water from April 15 to October 15 from the Missoula Valley Aquifer at a rate of 220 GPM. A volume of 55.43 AF would be used between April 15 and October 15 for sprinkler irrigation in the SWNWSE and SWSE Sec. 14, and the NWNWNE Sec. 23, all within T13N, R20W, Missoula County.

| Table 1: Summary of the Proposed Use | | | | | | | | |
|---------------------------------------|-----------|-----------------|-----------------|------------|---------------|--|---------------------------|---------------------|
| Source | Flow Rate | Diverted Volume | Consumed Volume | Purpose | Period of Use | Place of Use | Point of Diversion | Period of Diversion |
| Groundwater (Missoula Valley Aquifer) | 220 GPM | 55.43 AF | 38.8 AF | Irrigation | 4/15-10/15 | SESWSE, SWSE Sec. 14 & NWNWNE Sec. 23 T13N, R20W | SWNWSE Sec. 14 T13N, R20W | 4/15-10/15 |

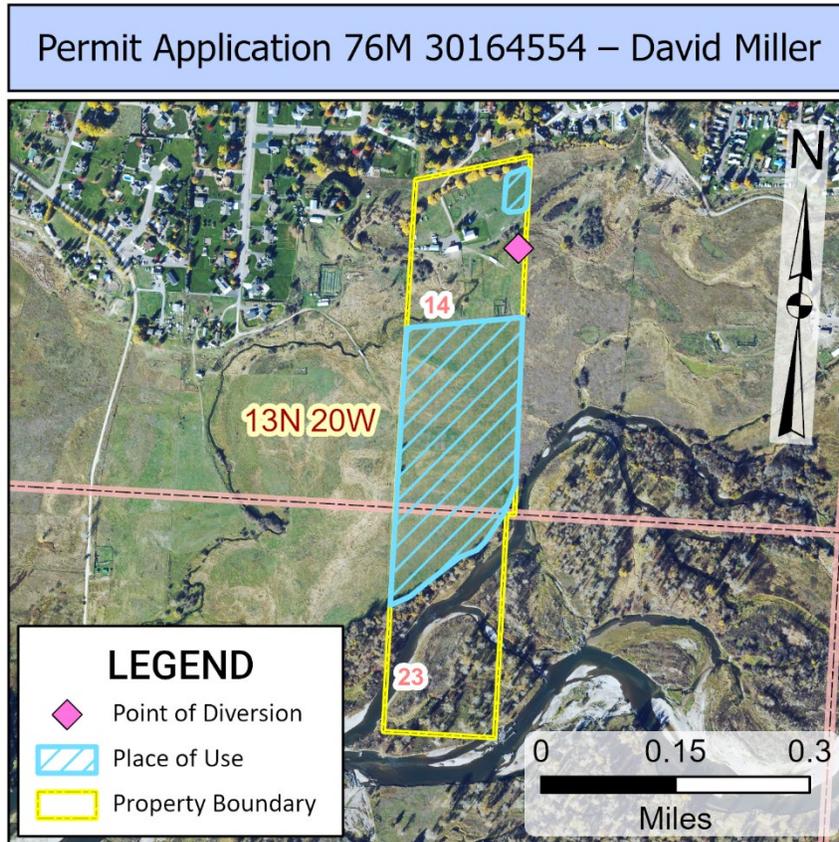


Figure 1: Map of the Applicant’s proposed POD on the source and proposed place of use.



2.0 Surface Water Analysis of Depleted Surface Water

2.1 Source Description

Part A of the Technical Analyses Report includes the Groundwater Analysis, which describes the methodologies used to identify the depleted surface water source.

Depleted Source of Water: Clark Fork River

Depleted Source Type: Perennial Stream

Location of Depletions: Downstream of the SWNE Sec. 23, T13N, R20W, Missoula County

2.2 Method of Estimation

Gage Name: Clark Fork above Missoula MT

Gage Number: USGS Gage #12340500

Period of Record: 03-01-1929 to 02-23-2025

Why this gage is considered an appropriate data source: This gage quantifies the flow of water in the Clark Fork River approximately 9 miles upstream of the location of depletions. The period of record for this gage extends back to 1929 and thus provides a substantial record from which to calculate median flows. As this gage is managed by the USGS, it meets all other departmental requirements for use in estimating physical and legal availability.

2.3 Monthly Flow Rate and Volume

Methodology: USGS Gage #12340500 is the nearest gage to the proposed POD on the Clark Fork River before its confluence with the Bitterroot River. The point where depletions begin in the Clark Fork River is downstream of the gaging station.

Physical availability of water in the Clark Fork River at the point of depletions was quantified monthly, using data from the entire period of record for the USGS gage. Department practice for estimating monthly physical availability where a gage is upstream of the point of depletions is to subtract the flow rates for a given month of existing water rights between the gage and the point of depletions from the median of the mean flow rate for that month as recorded by the gage.

The DNRC used the method below to quantify physically available monthly flows and volumes at the POD during the proposed period of diversion:

1. The Department calculated median of the mean monthly flow rates in cubic feet per second (CFS) for the Clark Fork River using USGS Gage #12340500 records (Table 1, column B). Those flows were converted to monthly volumes in AF (Table 1, column C) using the following equation found on DNRC Form 615: median of the mean monthly flow (CFS) × 1.98 (AF/day/1 CFS) × days per month = AF/month.



2. The Department calculated the monthly flows appropriated by existing users downstream of the gage on the source (Table 1, column D) by:
 - i. Generating a list of existing water rights from USGS Gage #12340500 to the point of depletions (list is included in the application file and available upon request);
 - ii. Designating irrigation and lawn and garden uses as occurring from April 1 to October 31;
 - iii. Designating all other water uses as year-round uses;
 - iv. Assigning a single combined flow rate of 0.08 CFS to all livestock direct from source rights without a designated flow rate; and,
 - v. Assuming that the flow rate of each existing right is continuously diverted throughout each month of the period of diversion. This assumption is necessary due to the difficulty of differentiating the distribution of appropriated volume over the period of diversion. This leads to an overestimation of existing uses from the source. The Department finds this an appropriate measure of assessing existing rights as it protects existing water users.

3. Since the gage used is upstream of the point of depletions, the Department subtracted the flow rates of the existing rights between USGS Gage #12340500 and the point where depletions begin (Table 1, column D) from the median of the mean monthly gage values (Table 1, column B) to determine physical availability at the POD (Table 1, column E). Physically available monthly flows were then converted to monthly volumes (Table 1, column F).

| Table 2: Physical Availability at the Point of Depletions on the Clark Fork River | | | | | |
|--|---|--|---|--|---|
| A | B | C | D | E | F |
| Month | Median of the Mean Monthly Flow at Gage 12340500 (CFS) | Median of the Mean Monthly Volume at Gage 12340500 (AF) | Existing Water Demands from Gage 12340500 to Point of Depletions (CFS) | Physically Available Water at Point of Depletions (CFS) | Physically Available Water at Point of Depletions (AF) |
| January | 1221 | 74944.98 | 30.24 | 1190.76 | 73088.85 |
| February | 1378.5 | 76424.04 | 30.24 | 1348.26 | 74747.53 |
| March | 1794.5 | 110146.41 | 33.58 | 1760.92 | 108085.3 |
| April | 3387 | 201187.80 | 332.47 | 3054.53 | 181439.1 |
| May | 7281.5 | 446938.47 | 332.53 | 6948.97 | 426527.8 |
| June | 7673.5 | 455805.90 | 332.55 | 7340.95 | 436052.4 |
| July | 2786.5 | 171035.37 | 332.55 | 2453.95 | 150623.5 |
| August | 1429.5 | 87742.71 | 332.55 | 1096.95 | 67330.79 |
| September | 1354.5 | 80457.30 | 332.55 | 1021.95 | 60703.83 |
| October | 1495.5 | 91793.79 | 332.44 | 1163.06 | 71388.62 |
| November | 1509.5 | 89664.30 | 135.04 | 1374.46 | 81642.92 |
| December | 1337 | 82065.06 | 30.24 | 1306.76 | 80208.93 |



3.0 Area of Potential Impact Analysis of Depleted Surface Water

Area of Potential Impact: The local area of potential impact of the depleted source is the Clark Fork River from the point of depletions to the confluence of the Clark Fork and Bitterroot Rivers. A total of three surface water rights exist within this reach, with legal demands totaling 105.91 CFS and 39270.63 AF. A list of these rights can be found in Appendix A.

The Department must also consider the Clark Fork River at Noxon Dam near the Idaho-Montana border as an area of potential impact due to the findings of fact in the Final Order for the Thompson River Lumber Company Application for Beneficial Use Permit No. 76N 30010429. A memo from then-acting DNRC Administrator John Tubbs dated May 1, 2009, indicates that when net depletions to surface water sources in basins 76M, 76N, and that portion of 76L west of the Flathead Reservation boundary exceed 35 GPM or 10 AF/year, senior hydropower rights at the Noxon Dam must be considered.

Since the depletions for this application are 38.8 AF/year, the Department assessed the Clark Fork River near Noxon Dam, using USGS Gage #12391400 (Clark Fork River below Noxon Rapids Dam near Noxon) to determine physical availability.

| Table 3: Physical Availability at Noxon Dam | | |
|--|---|---|
| Month | Median of the Mean Monthly Flow at USGS Gage #12391400 (CFS) | Volume Available at USGS Gage #12391400 (AF) |
| January | 13905 | 853489 |
| February | 12890 | 714622 |
| March | 14785 | 907503 |
| April | 21160 | 1256904 |
| May | 38030 | 2334281 |
| June | 47320 | 2810808 |
| July | 22280 | 1367546 |
| August | 10720 | 657994 |
| September | 10166 | 603860 |
| October | 11240 | 689911 |
| November | 12605 | 748737 |
| December | 13335 | 818502 |



Why this is an appropriate Area of Potential Impact: The Bitterroot River is a major river of a similar size to the Clark Fork River, and therefore the Department views the confluence of these two rivers to be a reasonable point at which to end the consideration of local adverse effects.

Methodology: The depletion analysis detailed in Part A of this document describes the methods used to determine the location of depletions from groundwater pumping. The confluence of two similarly sized waterways is a standard commonly used by the Department to determine the endpoint of Areas of Potential Impact. The Bitterroot and Clark Fork Rivers meet this standard, and thus their confluence was chosen as a suitable endpoint.



Review

This document has been reviewed by the Department on May 1, 2025.

References

Department Standard Practice for Determining Physical Availability of Surface Water
Department Standard Practice for Area of Potential Impact Analysis
DNRC Memo dated May 1, 2009 *Permitting in the open Clark Fork and Flathead basins –
Follow-up to June 9, 2008 Memorandum*



Appendix A: Water Rights within the Area of Potential Impact



| Water Right Number | Flow Rate (CFS) | Volume (AF) |
|---------------------------|------------------------|--------------------|
| 76M 110490-00 | 0.08 | 57.82 |
| 76M 110493-00 | 105.75 | 39155 |
| 76M 30122648 | 0.08 | 57.82 |



Missoula Water Resources Regional Office
PO Box 5004
2705 Spurgin Road, Bldg. C
Missoula, MT 59806-5004
(406) 721-4284

March 19, 2025

David & Susan Miller
6610 Mullan Rd
Missoula, MT 59808-5654

Subject: Complete Preapplication Form for Beneficial Water Use Permit Application No. 76M 30164554

Dear Applicant,

The Missoula Regional Office of the Department of Natural Resources and Conservation (DNRC or Department) received your Preapplication Meeting Form and preapplication meeting fee on March 12, and the Department deemed the submitted Preapplication Meeting Form to be successfully completed per ARM 36.12.1302 on March 19.

As designated on the submitted Preapplication Meeting Form per § 85-2-302(3)(b), MCA, the Department will produce the technical analyses based on the parameters included in the Preapplication Meeting Form (ARM 36.12.1302(4)) within 45 days of March 19.

Please let me know if you have any questions.

Best,

A handwritten signature in blue ink that reads "Benjamin Thomas". The signature is written in a cursive, flowing style.

Benjamin Thomas
Water Conservation Specialist
Missoula Regional Office
benjamin.thomas@mt.gov | (406) 542-5883



CC:
Julie Merritt
WGM Group
1111 E Broadway
Missoula, MT 59802



MEMORANDUM

DATE: March 10, 2025

TO: Jim Nave, Benjamin Thomas, Melissa Brikl,
Montana Department of Natural Resources and Conservation

FROM: Patrick Doyle, Water Right Technician, WGM Group, Inc.

CC: David Miller and Susan Miller, Applicants
Julie Merritt, Water Rights Specialist III, WGM Group, Inc.

RE: Flynn Lowney Ditch Preapplication Meeting Follow Up Responses

Follow Up Responses for the preapplication meeting form for 76M 30164554 from 10/02/2024.

1. PLACE OF USE AND VOLUME (QUESTIONS 5, 7, 8, & 42)

The initial Place of Use listed on the preapplication form was not the complete intended place of use. A parcel owned by the applicants and an additional 5 acres of irrigation should be added to the proposed place of use. The additional 5 acres of irrigation will increase the proposed volume.

5. Describe the proposed purpose information, including period of diversion, period of use, flow rate and volume.

| Purpose | Period of Diversion | Period of Use | Flow Rate | Volume |
|------------|---------------------|----------------|-----------|----------|
| Irrigation | 04/15 to 10/15 | 04/15 to 10/15 | 220 GPM | 55.43 AF |
| Total | | | 220 GPM | 55.43 AF |

7. What are the geocodes of the place of use?

04219914402010000
04219923101020000

8. Describe the legal land description for the proposed place of sue and, if an irrigation or lawn and garden purpose, list the number of irrigated acres.

| ACRES | ¼ | ¼ | ¼ | SECTION | TOWNSHIP | RANGE | COUNTY |
|-------|-------|----|----|---------|----------|-------|----------|
| 0.5 | SW | NW | SE | 14 | 13N | 20W | MISSOULA |
| 17.5 | | SW | SE | 14 | 13N | 20W | MISSOULA |
| 5 | NW | NW | NE | 23 | 13N | 20W | MISSOULA |
| 23.0 | Total | | | | | | |

42. What is the flow rate, volume, and period of diversion required at each groundwater point of diversion? If the POD is a well, provide the well depth, if available, or estimated well depth. Please use the same POD# as the project map to match this information with the location information.

| POD# | Flow Rate | Volume | Period of Diversion | Well Depth | Measured or Estimated |
|------|-----------|----------|---------------------|------------|-----------------------|
| 1 | 220 GPM | 55.43 AF | 04/15 to 10/15 | 100 FT | Measured |

2. AQUIFER TEST (QUESTIONS 30 & 31)

30. Provide the Aquifer Testing Addendum. This form will be required before the Preapplication Meeting Form is deemed complete.

The Aquifer Testing Addendum (Form 600-ATA) was submitted on November 22, 2024, and included a variance Request (Form 653). The variance was granted on January 8, 2025.

31. Have you submitted a completed Form 633 to DNRC for review?

Yes, Form 633 was submitted on November 22, 2024.

3. UPDATED MAPS (QUESTIONS 2, 32, & 78)

Updated maps showing the additional parcel and place of use have been attached to this memo.

2. Provide a map created on an aerial photograph or topographic map that shows the following: section corners, township and range, a north arrow, all proposed points of diversion labeled with a unique POD ID number, all proposed places of use, all proposed conveyance structures, all proposed places of storage, and places of use for all overlapping water rights.

See attached for an updated map.

32. Do you have a map with the location of each well/pit labeled and, if available, with the GWIC ID?

Yes, See attached for an updated map.

78. Provide a diagram of how you will operate your system from the point of diversion to the place of use.

See attached for an updated map.

Attachments:

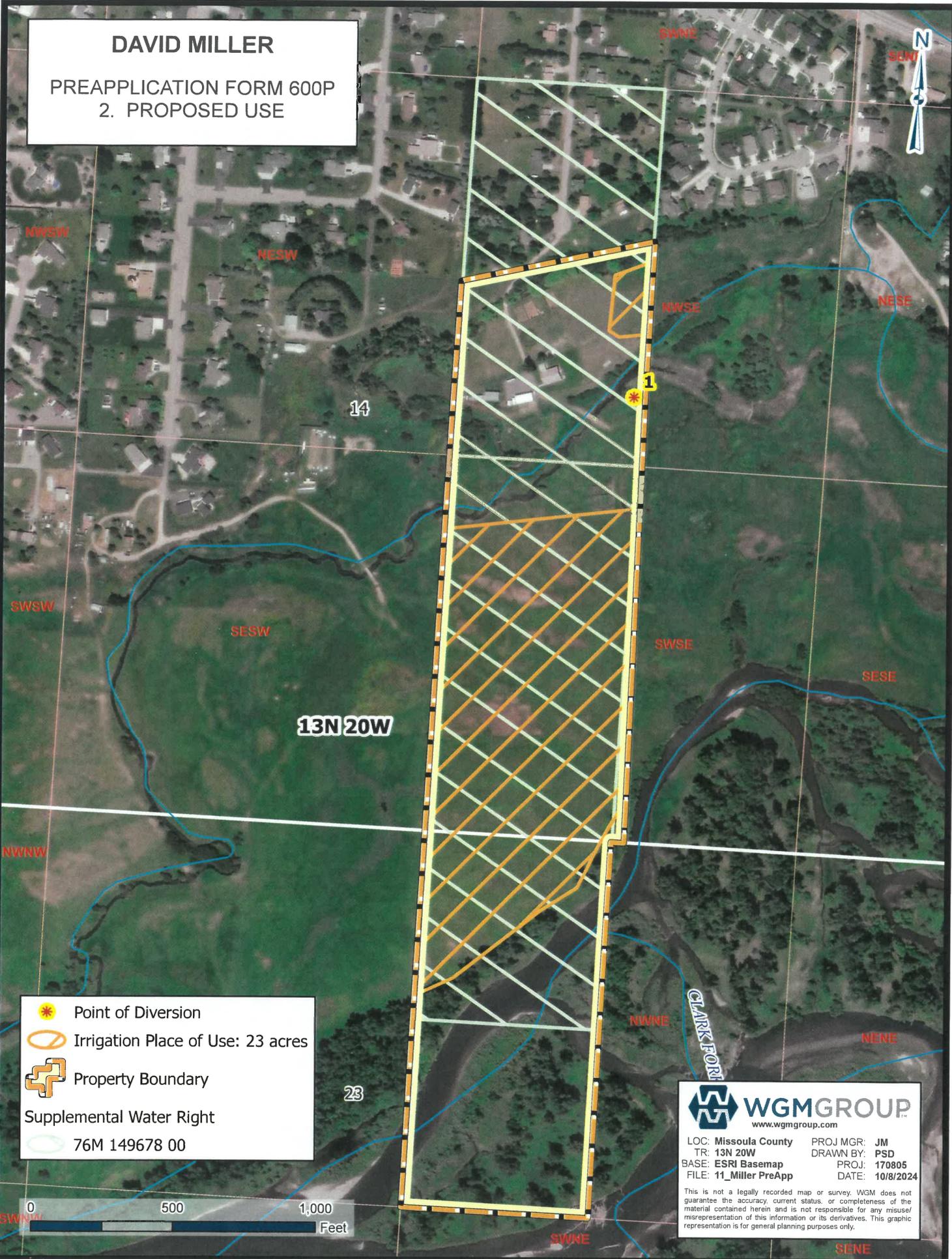
Map of Proposed Use including overlapping water right

Map of well location with GWIC ID

Map of Diagram showing irrigation system

DAVID MILLER

PREAPPLICATION FORM 600P
2. PROPOSED USE



- Point of Diversion
- Irrigation Place of Use: 23 acres
- Property Boundary
- Supplemental Water Right
- 76M 149678 00



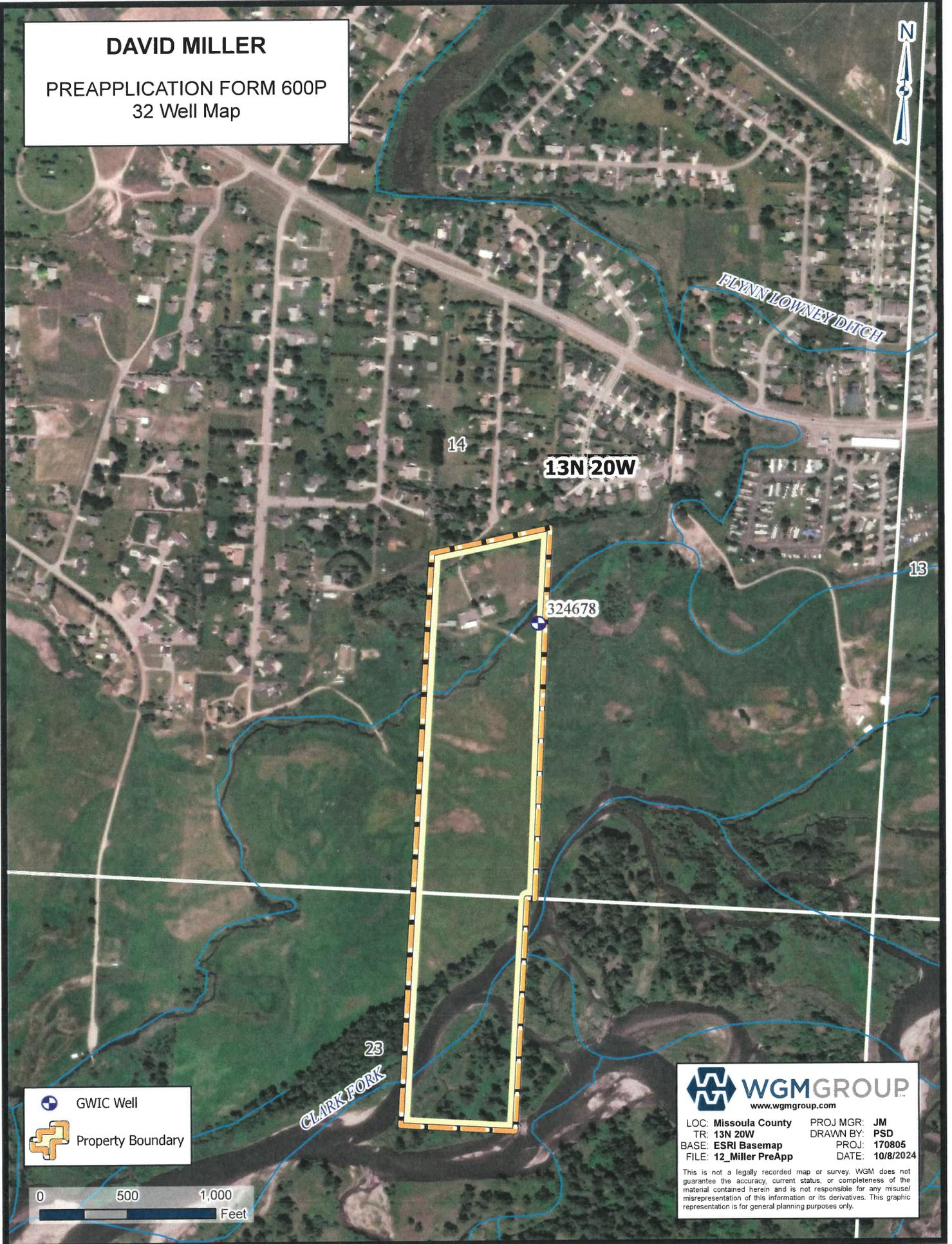
WGMGROUP
www.wgmgroup.com

| | |
|------------------------|-----------------|
| LOC: Missoula County | PROJ MGR: JM |
| TR: 13N 20W | DRAWN BY: PSD |
| BASE: ESRI Basemap | PROJ: 170805 |
| FILE: 11_Miller PreApp | DATE: 10/8/2024 |

This is not a legally recorded map or survey. WGM does not guarantee the accuracy, current status, or completeness of the material contained herein and is not responsible for any misuse/misrepresentation of this information or its derivatives. This graphic representation is for general planning purposes only.

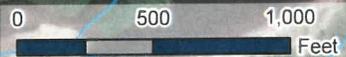
DAVID MILLER

PREAPPLICATION FORM 600P
32 Well Map



 GWIC Well

 Property Boundary



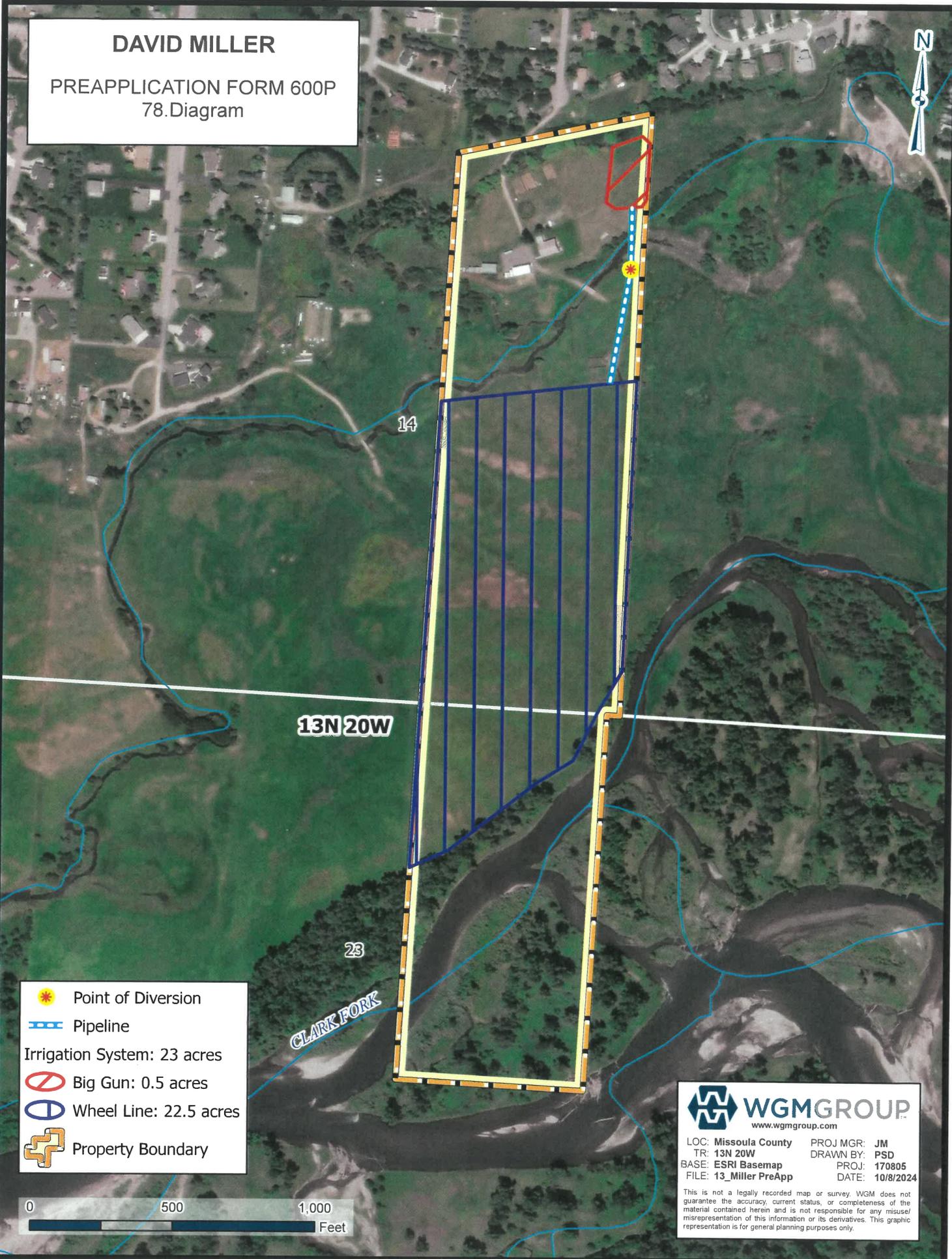
 **WGMGROUP**
www.wgmgroup.com

| | |
|------------------------|-----------------|
| LOC: Missoula County | PROJ MGR: JM |
| TR: 13N 20W | DRAWN BY: PSD |
| BASE: ESRI Basemap | PROJ: 170805 |
| FILE: 12_Miller PreApp | DATE: 10/8/2024 |

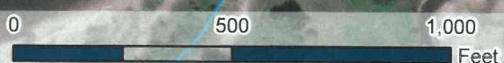
This is not a legally recorded map or survey. WGM does not guarantee the accuracy, current status, or completeness of the material contained herein and is not responsible for any misuse/misrepresentation of this information or its derivatives. This graphic representation is for general planning purposes only.

DAVID MILLER

PREAPPLICATION FORM 600P
78.Diagram



-  Point of Diversion
-  Pipeline
- Irrigation System: 23 acres
-  Big Gun: 0.5 acres
-  Wheel Line: 22.5 acres
-  Property Boundary



WGMGROUP
www.wgmgroup.com

| | |
|------------------------|-----------------|
| LOC: Missoula County | PROJ MGR: JM |
| TR: 13N 20W | DRAWN BY: PSD |
| BASE: ESRI Basemap | PROJ: 170805 |
| FILE: 13_Miller PreApp | DATE: 10/8/2024 |

This is not a legally recorded map or survey. WGM does not guarantee the accuracy, current status, or completeness of the material contained herein and is not responsible for any misuse/misrepresentation of this information or its derivatives. This graphic representation is for general planning purposes only.



PREAPPLICATION MEETING FORM
PERMIT
 § 85-2-302
 Form No. 600P (Revised 4/2024)

For Department Use Only

Application # 30164554 Basin 76M
 Meeting Date 10/2/2024 Time 9:00 AM/PM
 Completed Form Deadline 3/31/2025

PREAPPLICATION MEETING FEE
 \$ 500

FILING FEE REDUCTION & EXPEDITED TIMELINE

An application will be eligible for a filing fee reduction and expedited timelines if the applicant completes a preapplication meeting with the Department (ARM 36.12.1302(1)), which includes submitting any follow-up information identified by the Department (ARM 36.12.1302(3)(c)) and receiving either Department-completed technical analyses or Department review of applicant-submitted technical analyses (ARM 36.12.1302(4) and (5)). An application for the proposed project also must be submitted within 180 days of delivery of Department technical analyses or scientific credibility review and no element on the submitted application can be changed from the completed preapplication meeting form (ARM 36.12.1302(6)).

RECEIVED

MAR 12 2025

MONTANA D.N.R.C
 MISSOULA REGIONAL OFFICE

Completed Form Received 3/12/2025
 Fee Rec'd \$ 500 Check # _____
 Deposit Receipt # MSS2519084
 Payor _____
 Refund \$ _____ Date _____

The Department will fill out Form No. 600P and will identify follow-up during the preapplication meeting. The Department and Applicant will sign the Preapplication Meeting Affidavit and Certification within five business days. Within 180 days of the preapplication meeting, the Applicant will complete identified follow-up on a separate document with the question numbers clearly labeled.

Applicant Information: Add more as necessary.

Applicant Name DAVID & SUSAN MILLER
 Mailing Address 6610 MULLAN RD City MT State MT Zip 59808
 Phone Numbers: Home _____ Work _____ Cell _____
 Email Address _____

Applicant Name _____
 Mailing Address _____ City _____ State _____ Zip _____
 Phone Numbers: Home _____ Work _____ Cell _____
 Email Address _____

Contact/Representative Information: Add more as necessary.

Contact/Representative is: Applicant Consultant Attorney Other (describe) _____
 Contact/Representative Name JULIE MERRITT
 Mailing Address 1111 E BROADWAY City MISSOULA State MT Zip 59802
 Phone Numbers: Home 406-728-4611 Work _____ Cell _____
 Email Address jmerritt@wgmgroup.com

NOTE: If a contact person is identified as an attorney, all communication will be sent only to the attorney unless the attorney provides written instruction to the contrary. If a contact person is identified as a consultant, employee, or lessee, the individual filing the water right form or objection form will receive all correspondence and a copy may be sent to the contact person.

Meeting Attendees: Add more as necessary.

| Name | Organization | Position |
|-----------------|--------------|-------------------------------|
| Jim Nave | DNRC | Regional Manager |
| Melissa Brickl | DNRC- WSB | Groundwater Hydrologist |
| Benjamin Thomas | DNRC | Water Conservation Specialist |
| Patrick Doyle | WGM Group | Water Rights Technician |
| | | |
| | | |
| | | |

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Application Details

The following questions are mandatory and must be filled out before the Preapplication Meeting Form is determined to be complete. 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. Constrain narrative responses to the specific question as is asked on the form; do not respond to multiple questions in one narrative. Label units in narrative responses. Responses in the form of a table may be entered into the table provided on this form or in an attachment. Responses in the form of a table that are larger than the table provided on this form should be placed 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 must be marked. For tables in this form, circle correct unit at header of column when faced with a choice of units. For tables in attachments, label all units. Questions that require Applicant to submit items to the Department have a submitted (“S”) checkbox, which is marked when the required item is attached to the Preapplication Meeting Form. Label all submitted items with the question number for which they were submitted. For all questions where follow-up is necessary, mark the “F” checkbox in the “Follow-Up” column and write the question number on the “Follow-Up Page”.

| Questions, Narrative Responses, and Tables | | | | | Check-boxes | Follow-Up |
|---|---------------------|----------------|-----------|-------------------------------------|--|---------------------------------------|
| 1. Do you elect to have DNRC conduct Technical Analyses? | | | | | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 2. Provide a map created on an aerial photograph or topographic map that shows the following: section corners, township and range, a north arrow, all proposed points of diversion labeled with a unique POD ID number, all proposed places of use, all proposed conveyance structures, all proposed places of storage, and places of use for all overlapping water rights. | | | | | <input checked="" type="checkbox"/> S | <input type="checkbox"/> F |
| 3. Is the project located in a Controlled Groundwater Area or Basin Closure Area? If yes, immediately go to Project-Specific Questions 47 to 52 because Form 600 may be the incorrect form, or this project may not meet the requirements for the Department to accept a Form 600. | | | | | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 4. Is the proposed use temporary? | | | | | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, when will the appropriation cease? _____ | | | | | <input type="checkbox"/> A | <input type="checkbox"/> F |
| 5. Describe the proposed purpose information, including period of diversion (MM/DD-MM/DD), period of use (MM/DD-MM/DD), flow rate (GPM or CFS) and volume (AF). | | | | | <input type="checkbox"/> A | <input checked="" type="checkbox"/> F |
| Purpose | Period of Diversion | Period of Use | Flow Rate | | | Volume |
| | (MM/DD-MM/DD) | (MM/DD-MM/DD) | Flow Rate | GPM | CFS | (AF) |
| IRRIGATION | 04/15 TO 10/15 | 04/15 TO 10/15 | 220 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 43.38 |
| | | | | <input type="checkbox"/> | <input type="checkbox"/> | |
| | | | | <input type="checkbox"/> | <input type="checkbox"/> | |
| | | | | <input type="checkbox"/> | <input type="checkbox"/> | |
| Total | | | 220 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 43.38 |



6. Describe the proposed location of the point(s) diversion to the nearest 10 acres, if source is groundwater (GW) or surface water (SW), source name, and means of diversion (e.g., pump, headgate, well). Label each POD with the POD ID number used for the project map (question 2). A F

| POD # | ¼ | ¼ | ¼ | Sec | Twp | Rge | County | Lot | Block | Tract | Subdivision | Gov Lot | SW or GW | Source Name | Means |
|-------|----|----|----|-----|-----|-----|----------|-----|-------|-------|-------------|---------|----------|-------------|-------|
| 1 | SW | NW | SE | 14 | 13N | 20W | MISSOULA | | | | | | GW | GROUNDWATER | WELL |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

7. What are the geocodes of the place of use? A F

| | |
|-------------------------------|--|
| 04219914402010000 | |
| 04219923101020000 (follow up) | |
| | |
| | |

8. Describe the legal land description for the proposed place of use and, if an irrigation or lawn and garden purpose, list the number of irrigated acres. A F

| Acres | Gov't Lot | Block | ¼ | ¼ | ¼ | Sec | Twp | Rge | County |
|-------|--------------|-------|----|----|----|-----|-----|-----|----------|
| 0.5 | | | SW | NW | SE | 14 | 13N | 20W | MISSOULA |
| 17.5 | | | W2 | SW | SE | 14 | 13N | 20W | MISSOULA |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| 18.0 | <i>Total</i> | | | | | | | | |

9. Will other water right(s) supplement or overlap the place of use to contribute to the purpose(s)? Y N F

a. If yes, summarize how the water rights will be operated as a whole to serve the purpose(s).

There is generally no water available to use for irrigation from the source after May and so will likely not be used together with the proposed use.

A F



| 10. For each supplemental or overlapping water right, please list the water right number, purpose, typical period of diversion and use (MM/DD-MM/DD), flow rate (GPM or CFS), and the volume of water (AF) contributed. | | | | | <input checked="" type="checkbox"/> A | <input type="checkbox"/> F |
|---|--|----------------------------------|------------------------|-------------------------|---------------------------------------|----------------------------|
| Water Right No. | Avg. Period of Diversion (MM/DD-MM/DD) | Avg. Period of Use (MM/DD-MM/DD) | Flow Rate (GPM or CFS) | Volume Contributed (AF) | | |
| 76M 149678 00 | 4/15 TO 10/19 | 4/15 TO 10/19 | 160GPM | 85 | | |
| | | | | | | |
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| | | | |
|--|--|--|----------------------------|
| 11. Will this application supplement contract water from a Federal Project, ditch company, or other source? | | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, explain. _____ _____ | | <input type="checkbox"/> A | <input type="checkbox"/> F |
| 12. Does the project involve one or more place(s) of storage with a capacity of greater than 0.1 acre-feet? This does not include storage tanks and cisterns. If yes, answer questions 53 to 61 for place of storage. | | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> F |
| 13. Does the project involve one or more conveyance ditches? If yes, answer questions 62 to 64 for ditch-specific questions. | | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> F |
| 14. Does the project involve an appropriation that is greater than 5.5 CFS and 4,000 AF? If yes, you must submit a Criteria Addendum Application for Beneficial Water Use Permit for Appropriations Greater than 5.5 CFS and 4,000 AC-FT (Form 600-B) with application submittal. The criteria are found in §85-2-311(3), MCA. | | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> F |
| 15. Will you be transporting water for use outside of Montana? If yes, you will need submit an Out-of-State Use Addendum (Form 600/606-OSA) with the application. The out-of-state use criteria are outlined in §85-2-402(6), MCA. | | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> F |
| 16. Does the project include the water marketing purpose? If yes, answer questions 65 to 71 for water marketing. A Water Marketing Purpose Addendum (Form 600/606-WMA) will be required with application submittal. | | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> F |
| 17. Is the project located in designated sage grouse habitat? If yes, you must have a consultation with and review of your project by the Montana Sage Grouse Habitat Conservation Program. The review letter will be required at application submittal. | | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> F |



Surface Water

Applicable, move on to question 18. **Not Applicable**, skip to question 29.

The following questions are mandatory for surface water permit applications and must be filled out before the Preapplication Meeting Form is determined to be complete.

Surface Water: Physical Availability

| Questions, Narrative Responses, and Tables | | | | | | Check-boxes | Follow-Up |
|---|------------------------|-------------|----------------------|--------------------|-------------|----------------------------|----------------------------|
| 18. What is the flow rate (GPM or CFS), volume (AF), period of diversion start date and end date (MM/DD-MM/DD), and source type (e.g., perennial, ephemeral) at each point of diversion? Use the same POD # as the project map (question 2) to label each point of diversion. | | | | | | <input type="checkbox"/> A | <input type="checkbox"/> F |
| POD # | Flow Rate (GPM or CFS) | Volume (AF) | Period Start (MM/DD) | Period End (MM/DD) | Source Type | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
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| 19. What is the source type of the surface water diversion? _____ | | | | | | <input type="checkbox"/> A | <input type="checkbox"/> F |
|---|--------------------|-----------|---------------------------|-------|--------------------|----------------------------|----------------------------|
| Perennial or intermittent | Answer question 20 | Ephemeral | Answer questions 22 to 24 | Lakes | Answer question 25 | Other | Answer question 26 |

Surface Water: Physical Availability: Perennial or Intermittent

Applicable Not Applicable

| | | | |
|---|--|---|----------------------------|
| 20. Is stream gage data available? | | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, answer the following questions related to the number of stream gages that are available. | | | |
| i. One stream gage is available | | | |
| 1. What is the gage name? _____ | | | <input type="checkbox"/> F |



| | | |
|--|---|----------------------------|
| 2. Who operates and maintains the gage? _____ | | <input type="checkbox"/> F |
| 3. Is the stream gage upstream or downstream of point(s) of diversion? _____ | | <input type="checkbox"/> F |
| 4. Is there a limiting or controlling factor that would make the Drainage Area Method not practical? This includes dams that control the flow and streams with large gaining and/or losing reaches. If you have questions about this, please contact the Regional Hydro-Specialist or the Water Sciences Bureau. | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 5. Is the period of record greater than or equal to 10 years? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 6. How frequently is stage data recorded? _____ | | <input type="checkbox"/> F |
| 7. If data gaps were to occur, are they identified and left unfilled or estimated using interpolation, ice correction, or indirect discharge measurements methods? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 8. 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? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 9. Were there requirements for maintaining a permanent gage datum and meeting specified accuracy limits? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 10. Does the gage data meet the Department's standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the proposed months of diversion? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, this section is complete. Skip to question 27. | | |
| b. If no, answer question 20.b. | | |
| ii. More than one stream gage is available | | |
| 1. List the gage names. _____ | | <input type="checkbox"/> F |
| 2. Who operates and maintains the gages? _____ | | <input type="checkbox"/> F |
| 3. Is one stream gage upstream and one downstream of point(s) of diversion? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 4. Do the stream gages have similar periods of record? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 5. Are the periods of record each greater than or equal to 10 years? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |



| | | |
|--|---|----------------------------|
| 6. How frequently is stage data recorded at each gage? _____ | | <input type="checkbox"/> F |
| 7. For each gage, if data gaps were to occur, are they identified and left unfilled or estimated using interpolation, ice correction, or indirect discharge measurements methods? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 8. Were the rating curves established and maintained throughout the duration of the period of record using measurements taken near the reference gages and stage recorders according to USGS protocols? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 9. For each gage, were there requirements for maintaining a permanent gage datum and meeting specified accuracy limits? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 10. Does the gage data meet the Department's standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the proposed months of diversion? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, this section is complete. Skip to question 27. | | |
| b. If no, answer question 20.b. | | |
| b. If no gage data is available or if available gage data does not meet the Department's standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the proposed months of diversion, is the source otherwise measured? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| i. If yes, | | |
| 1. Submit available measurements to the Department. | <input type="checkbox"/> S | <input type="checkbox"/> F |
| 2. Who collected the measurements? _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
| 3. With what method was the data collected? _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
| 4. What is the period of record? _____ | | <input type="checkbox"/> F |
| 5. What is the frequency of measurement? _____ | | <input type="checkbox"/> F |
| 6. Are there gaps in the data? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |



| | | |
|--|---|----------------------------|
| <p>a. If yes, what is the nature of the gaps and how are gaps handled to ensure data quality?</p> <p>_____</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A | <input type="checkbox"/> F |
| <p>7. Is there a process for maintaining the data and meeting specified accuracy limits?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| <p>a. If yes, explain.</p> <p>_____</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A | <input type="checkbox"/> F |
| <p>8. Does 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 proposed months of diversion?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| <p>a. If yes, this section is complete. Skip to question 27.</p> | | |
| <p>b. If no, answer question 21.</p> | | |
| <p>21. Does 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?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| <p>a. If yes, describe the estimation technique.</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A | <input type="checkbox"/> F |
| <p>b. If no,</p> | | |
| <p>i. Will measurements be collected prior to submission of a completed Form No. 600P that 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?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| <p>1. If yes,</p> | | |
| <p>a. With what method will the data be collected?</p> <p>_____</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A | <input type="checkbox"/> F |



| | | |
|---|---|----------------------------|
| b. What will be the interval of measurement? _____ | | <input type="checkbox"/> F |
| c. Describe the proposed estimation technique. _____ _____ _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
| 2. If no, | | |
| a. Describe your plan to comply with the requirements of ARM 36.12.1702(1). _____ _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
| b. Do you plan on requesting a variance from measurement requirements pursuant to ARM 36.12.1702(1)(b)? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |

Surface Water: Physical Availability: Ephemeral

Applicable Not Applicable

| | | |
|--|----------------------------|----------------------------|
| 22. If you will conduct Technical Analyses, what is your plan to calculate mean annual runoff? If DNRC will conduct Technical Analyses, write N/A. _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
| 23. Where do you plan to obtain climate and drainage area data? _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
| 24. Where is the downstream point of diversion, which will be used to delineate the drainage basin? _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |



Surface Water: Physical Availability: Lakes

Applicable Not Applicable

| | | |
|--|---|----------------------------|
| 25. Do you have a design plan? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, provide the design plans to DNRC | <input type="checkbox"/> S | <input type="checkbox"/> F |
| b. If no, has the lake volume been quantified by a qualified entity based on bathymetric data? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| i. If yes, provide this information to DNRC. | <input type="checkbox"/> S | <input type="checkbox"/> F |
| ii. If no, answer the following questions, | | |
| 1. When do you plan to collect this information? _____ | | <input type="checkbox"/> F |
| 2. With what method will it be collected? _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |

Surface Water: Physical Availability: Other

Applicable Not Applicable

| | | |
|---|---|----------------------------|
| 26. Have you measured the source? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, answer the following questions, | | |
| i. With what method was the data collected? _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
| ii. What is the measurement interval? _____ | | <input type="checkbox"/> F |
| 1. Does the interval meet the requirements of 36.12.1702(4)? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| b. If no or if the measurement interval does not meet the requirements of 36.12.1702(4) | | |
| i. When do you plan to measure? _____ | | <input type="checkbox"/> F |
| ii. With what method will the measurements be collected? _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |



Surface Water: Identification of Legal Demands in Area of Potential Impact

| | | |
|--|----------------------------|----------------------------|
| 27. If you are conducting Technical Analysis, how will the Area of Potential Impact be defined? If Department is conducting Technical Analyses, write N/A. _____ _____ _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
|--|----------------------------|----------------------------|

Surface Water: Basin Closure Area

| | | |
|---|---|----------------------------|
| 28. Is the project located in a Basin Closure Area? If yes, explain how the project meets a closure exception. More information about basin closures online at: https://dnrc.mt.gov/Water-Resources/Water-Rights/Basin-Closures-Stream-Depletion-Controlled-Ground-Water-Areas . Answer the follow-up questions for specific Basin Closure Areas in the “Project-Specific Questions: Controlled Groundwater Areas and Basin Closures” section (questions 51 to 52). _____ _____ _____ _____ _____ | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
|---|---|----------------------------|



Groundwater

Applicable, move on to question 29. **Not Applicable**, skip to question 47.

The following questions are mandatory for groundwater permit applications and must be filled out before the Preapplication Meeting Form is determined to be complete.

| | | |
|--|---------------------------|-------------------------|
| <u>Questions, Narrative Responses, and Tables</u> | <u>Check-boxes</u> | <u>Follow-Up</u> |
|--|---------------------------|-------------------------|

Groundwater: Physical Availability

| | | | | | | |
|--|---------------------------|-------------------------|--------------------|-------------|---------------------------------------|----------------------------|
| 29. What is the type of groundwater diversion? <u>WELL</u> | | | | | <input checked="" type="checkbox"/> A | <input type="checkbox"/> F |
| Well/Pit | Answer questions 30 to 32 | Developed Spring | Answer question 33 | Pond | Answer questions 34 to 38 | |

Groundwater: Physical Availability: Well/Pit

Applicable Not Applicable

| | | |
|--|--|---------------------------------------|
| 30. Provide the Aquifer Testing Addendum (Form 600-ATA). This form will be required before the Preapplication Meeting Form is deemed complete. | <input type="checkbox"/> S | <input checked="" type="checkbox"/> F |
| 31. Have you submitted a completed Form 633 to DNRC for review? | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. If no, submit Form 633 to DNRC for review. Form 633 is required by the time the Preapplication Meeting Form is deemed complete. | <input type="checkbox"/> S | <input type="checkbox"/> F |
| b. If yes, did the Department identify deficiencies? | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input checked="" type="checkbox"/> F |
| i. If yes, are variances from ARM 36.12.121 needed? | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input checked="" type="checkbox"/> F |
| 1. If yes, | | |
| a. Do you have data for aquifer characteristics? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input checked="" type="checkbox"/> F |
| i. If yes, provide the data to the Department. | <input type="checkbox"/> S | <input checked="" type="checkbox"/> F |
| b. Have you submitted Form 653 to the Department? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input checked="" type="checkbox"/> F |
| i. If yes, was the variance granted? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input checked="" type="checkbox"/> F |
| 32. Do you have a map with the location of each well/pit labeled and, if available, with the GWIC ID? | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input checked="" type="checkbox"/> F |
| a. If no, have all the wells/pits been constructed? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |



| | | |
|---|---|----------------------------|
| i. If yes, provide a map with the wells/pits labeled and, if available, with the GWIC ID. Create map on an aerial photograph or topographic map that also includes the following: section corners, township and range, and a north arrow. | <input type="checkbox"/> S | <input type="checkbox"/> F |
| ii. If no, answer the following questions, | | |
| 1. When will the wells/pits be constructed? _____ | | <input type="checkbox"/> F |
| 2. Do you have an initial map with the proposed location of wells/pits? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, provide an initial map to the Department. Create map on an aerial photograph or topographic map that also includes the following: section corners, township and range, and a north arrow. | <input type="checkbox"/> S | <input type="checkbox"/> F |
| 3. Is the requested volume for each new well/pit known? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. If no, what is the total requested volume (AF) and the number of new PODs? _____ | | <input type="checkbox"/> F |

Groundwater: Physical Availability: Developed Spring

Applicable Not Applicable

| | | |
|--|---|----------------------------|
| 33. Have you measured the source? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, answer the following questions, | | |
| i. Do you have flow rate (GPM or CFS) and volume measurements? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| ii. With what method were measurements collected? _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
| iii. What is the interval of measurements? _____ | | <input type="checkbox"/> F |
| iv. Is the interval of measurements sufficient to comply with ARM 36.12.1703(1)? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| b. If no, or if measurements do not comply with ARM 36.12.1703(1), | | |
| i. When do you plan to measure? _____ | | <input type="checkbox"/> F |



| | | |
|---|----------------------------|----------------------------|
| ii. With what method and at what interval will measurements be collected? _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
|---|----------------------------|----------------------------|

Groundwater: Physical Availability: Ponds

Applicable Not Applicable

| | | |
|--|---|----------------------------|
| 34. Have you submitted Form 653 to apply for a variance from ARM 36.12.121 for the Aquifer Test? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, did the Department approve the variance request? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 35. Have you submitted measurements to the Department? If yes, describe. _____ | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 36. Submit pond bathymetry data, survey, or engineering plans to the Department. | <input type="checkbox"/> S | <input type="checkbox"/> F |
| 37. Please submit a map identifying the location of the proposed pond to the Department. Create map on an aerial photograph or topographic map that also includes the following: section corners, township and range, and a north arrow. | <input type="checkbox"/> S | <input type="checkbox"/> F |
| 38. If you are conducting Technical Analyses, what is your plan to determine depth, surface area, and net evaporation of the pond? If DNRC is conducting Technical Analyses, write N/A. _____ _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |

Groundwater: Identification of Groundwater Legal Demands

All information to calculated Zone of Influence was collected in previous questions.

Groundwater: Adverse Effect to Existing Groundwater Rights

All information to calculate One-Foot Drawdown Contour was collected in previous questions.

Groundwater: Physical Availability of Depleted Surface Water Source(s)

| | | |
|--|--|----------------------------|
| 39. What are the hydraulically connected surface water source(s)? <u>CLARK FORK RIVER</u> | | <input type="checkbox"/> F |
| 40. For each hydraulically connected surface water source, is gage data available? | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, answer the following questions for the number of stream gages that are available. | | |



| | | | |
|--|---|--|----------------------------|
| i. One stream gage is available | | | |
| 1. What is the gage name? | _____ | | <input type="checkbox"/> F |
| 2. Who operates and maintains the gage? | _____ | | <input type="checkbox"/> F |
| 3. Is the stream gage upstream or downstream of point(s) of diversion? | _____ | | <input type="checkbox"/> F |
| 4. Is there a limiting or controlling factor that would make the Drainage Area Method not practical? This includes dams that control the flow and streams with large gaining and/or losing reaches. If you have questions about this, please contact the Regional Hydro-Specialist or the Water Sciences Bureau. | | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 5. Is the period of record greater than or equal to 10 years? | | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 6. How frequently is stage data recorded? | _____ | | <input type="checkbox"/> F |
| 7. If data gaps were to occur, are they identified and left unfilled or estimated using interpolation, ice correction, or indirect discharge measurements methods? | | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 8. 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? | | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 9. Were there requirements for maintaining a permanent gage datum and meeting specified accuracy limits? | | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 10. Does the gage data meet the Department's standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the proposed months of diversion? | | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, this section is complete. Skip to question 42. | | | |
| b. If no, answer question 40.b. | | | |
| ii. More than one stream gage is available | | | |
| 1. List the gage names. | <u>USGS Gage #12340500, USGS Gage #12353000</u> | | <input type="checkbox"/> F |
| 2. Who operates and maintains the gages? | <u>USGS</u> | | <input type="checkbox"/> F |
| 3. Is one stream gage upstream and one downstream of point(s) of diversion? | | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |



| | | |
|--|--|----------------------------|
| 4. Do the stream gages have similar periods of record? | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 5. Are the periods of record each greater than or equal to 10 years? | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 6. How frequently is stage data recorded at each gage? <u>EVERY 15 MINUTES</u> | | <input type="checkbox"/> F |
| 7. For each gage, if data gaps were to occur, are they identified and left unfilled or estimated using interpolation, ice correction, or indirect discharge measurements methods? | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 8. Were the rating curves established and maintained throughout the duration of the period of record using measurements taken near the reference gages and stage recorders according to USGS protocols? | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 9. For each gage, were there requirements for maintaining a permanent gage datum and meeting specified accuracy limits? | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 10. Does the gage data meet the Department's standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the proposed months of diversion? | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, this section is complete. Skip to question 42. | | |
| b. If no, answer question 40.b. | | |
| b. If no gage data is available or if available gage data does not meet the Department's standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the proposed months of diversion, is the source otherwise measured? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| i. If yes, | | |
| 1. Submit measurements to the Department. | <input type="checkbox"/> S | <input type="checkbox"/> F |
| 2. Who collected the measurements? _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
| 3. With what method was the data collected? _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
| 4. What is the period of record? _____ | | <input type="checkbox"/> F |
| 5. What is the frequency of measurement? _____ | | <input type="checkbox"/> F |
| 6. Are there gaps in the data? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |



| | | |
|--|---|----------------------------|
| <p>a. If yes, what is the nature of the gaps and how are gaps handled to ensure data quality</p> <p>_____</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A | <input type="checkbox"/> F |
| <p>7. Is there a process for maintaining the data and meeting specified accuracy limits?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| <p>a. If yes, explain.</p> <p>_____</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A | <input type="checkbox"/> F |
| <p>8. Does 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 proposed months of diversion?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| <p>a. If yes, this section is complete. Skip to question 42.</p> | | |
| <p>b. If no, answer question 41.</p> | | |
| <p>41. For each hydraulically connected surface water source, does 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?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| <p>a. If yes, describe the estimation technique.</p> <p>_____</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A | <input type="checkbox"/> F |
| <p>b. If no,</p> | | |
| <p>i. Will measurements be collected prior to submission of a completed Form No. 600P that 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?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| <p>1. If yes,</p> | | |
| <p>a. With what method will the data be collected?</p> <p>_____</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A | <input type="checkbox"/> F |



| | | |
|--|----------------------------|----------------------------|
| b. What will be the interval of measurement? _____ | | <input type="checkbox"/> F |
| c. Describe the proposed estimation technique. _____ _____ _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
| 2. If no, describe your plan to comply with the measurement requirements for hydraulically connected surface water sources. _____ _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |

Groundwater: Legal Availability of Depleted Surface Water Source(s)

All information to determine legal demands for depleted surface water source(s) was collected in previous questions.

Groundwater: Adequacy of Diversion

| <u>Questions, Narrative Responses, and Tables</u> | | | | | | <u>Check-boxes</u> | <u>Follow-Up</u> |
|---|------------------------|-------------|-----------------------------------|-----------------|-----------------------|--|---------------------------------------|
| 42. What is the flow rate (GPM or CFS), volume (AF), and period of diversion required (MM/DD-MM/DD) at each groundwater point of diversion? If the POD is a well, provide the well depth (FT), if available, or estimated well depth (FT). Please use the same POD # as the project map (question 2) to match this information with the location information. | | | | | | <input checked="" type="checkbox"/> A | <input checked="" type="checkbox"/> F |
| POD # | Flow Rate (GPM or CFS) | Volume (AF) | Period of Diversion (MM/DD-MM/DD) | Well Depth (FT) | Measured or Estimated | | |
| 1 | 220gpm | 43.38 | 04/15 TO 10/15 | 100 | MEASURED | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| 43. Will the monthly pumping schedule differ from an allocation of diverted volume by the number of days in the month for year-round uses or the IWR 80% net irrigation requirements for irrigation/lawn & garden uses (IWR, NRCS 2003)? | | | | | | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> F |



| | | | | | | | |
|---|--------------|--------------------|--------------|--------------|--------------------|----------------------------|----------------------------|
| a. If yes, provide the alternative pumping schedule in the table below. Use the same POD # as the project map (question 2). | | | | | | <input type="checkbox"/> A | <input type="checkbox"/> F |
| Month | POD # | Volume (AF) | Month | POD # | Volume (AF) | | |
| January | | | July | | | | |
| February | | | August | | | | |
| March | | | September | | | | |
| April | | | October | | | | |
| May | | | November | | | | |
| June | | | December | | | | |

Groundwater: Basin Closure Area

| | | |
|--|--|----------------------------|
| 44. Are the point(s) of diversion located in a basin closure area? If yes, fill out questions 45 to 46. | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 45. Did you elect in question 1 for the Department to conduct Technical Analysis? | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, the Basin Closure Area Addendum (Form 600-BCA), Hydrogeologic Report Addendum (Form 600-HRA), and Hydrogeologic Report are not required at this time. The Department's Technical Analyses will meet requirements of §85-2-360 for Form 600-HRA. Form 600-BCA will be required with application submittal. | | |
| b. If no, submit the Basin Closure Area Addendum (Form 600-BCA), Hydrogeologic Report Addendum (600-HRA), and Hydrogeologic Report with your Technical Analysis. | <input type="checkbox"/> S | <input type="checkbox"/> F |
| 46. If the Hydrogeologic Report indicates that the proposed groundwater use will impact a surface water source, which of the following three options best describe your plan to mitigate depletions of hydraulically connected surface water? A separate Preapplication Meeting will be required for each application to change a water right to a mitigation or aquifer recharge purpose to maintain expedited timelines and reduced filing fees for the project. | | |
| a. Application to Change a Water Right to mitigate the adverse effects created. | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| b. Alternative mitigation plan. | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> F |
| c. Documentation to show a mitigation plan is not required. | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |



Project-Specific Questions

The following questions are mandatory when applicable and must be filled out before the Preapplication Meeting Form is determined to be complete.

| <u>Questions, Narrative Responses, and Tables</u> | <u>Check- boxes</u> | <u>Follow -Up</u> |
|---|-------------------------|-----------------------|
|---|-------------------------|-----------------------|

Project-Specific Questions: Controlled Groundwater Areas and Basin Closures

| | | |
|--|--|----------------------------|
| 47. Is the project located in the East Valley Controlled Groundwater Area? | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, | | |
| i. Do you have written approval from (1) Lewis and Clark County Board of Health, (2) Lewis and Clark County Water Quality Protection Bureau, (3) the U.S. Environmental Protection Agency, (4) the Montana State Dept. of Environmental Quality and (5) the Montana State Dept. of Natural Resources and Conservation? If the agencies have established a Technical Advisory Group, prior approval by the Technical Advisory Group satisfies this requirement. | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| ii. Is the project in Zone 2? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| i. If yes, provide in the written approval the following recommendations which will also be included as conditions on the appropriation. <ul style="list-style-type: none"> a. Well design and construction requirements necessary to measure the water level and water quality for any well; b. Water level measurement and water quality sample reporting requirements for any new well; c. Any other requirements necessary to ensure new wells can be operated in a manner consistent with purpose of the EVCGWA. | <input type="checkbox"/> S | <input type="checkbox"/> F |
| iii. Is the project in Zone 1? If yes, a Form 600 cannot be accepted by the Department. | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 48. Is the project located in the South Pine Controlled Groundwater Area? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, have you completed an Application for Beneficial Water Use Permit South Pine Controlled Groundwater Area Addendum? The addendum needs to be completed by application submittal. | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 49. Is the project located in the Yellowstone Controlled Groundwater Area? | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, is the use over 35 GPM or 10 AF per year? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| i. If no, this is the incorrect form. Use instead the Yellowstone Controlled Groundwater Area Permit Application (600-YCGA). | | |
| ii. If yes, answer the remaining parts of question 49. A Yellowstone Controlled Groundwater Area Addendum (600 Y over35) will be required with application submittal. | | |
| 1. Does the proposed use require a point of diversion with water temperature of 60 degrees Fahrenheit or more? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 2. What is the ground elevation at the point of diversion? _____ | | <input type="checkbox"/> F |



| | | |
|---|--|----------------------------|
| 3. What is the specific conductance at the point of diversion? _____ | | <input type="checkbox"/> F |
| 4. If an application is in a basin tributary to a category 3 or 4 stream (generally in or upstream of YNP), provide a report prepared by a professional qualified in the science of groundwater hydrology, verifying that the appropriation is not hydrologically connected to surface flow that is tributary to the reserved portion of category 3 or 4 streams. | <input type="checkbox"/> S | <input type="checkbox"/> F |
| 50. Is the project located in one of the Controlled Groundwater Areas listed on the Department's website (https://dnrc.mt.gov/Water-Resources/Water-Rights/Basin-Closures-Stream-Depletion-Controlled-Ground-Water-Areas)? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| <p>a. If yes, list which one and describe how the proposed project meets the requirements of the Controlled Groundwater Area. An application must meet the specific requirements of the Controlled Groundwater Area to be accepted by the Department.</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A | <input type="checkbox"/> F |
| 51. Is the project located in one of the administrative, Department ordered, or legislative closures listed on the Department's website (https://dnrc.mt.gov/Water-Resources/Water-Rights/Basin-Closures-Stream-Depletion-Controlled-Ground-Water-Areas)? | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| <p>a. If yes, list which one and describe how the proposed project meet the requirements of the closure. An application must meet the specific requirements of the closure to be accepted by the Department.</p> <p><u>The project is located in the Grant Creek Basin Closure, a surface water administrative closure. This closure does not preclude applying for groundwater wells. Grant Creek is not connected to the source aquifer, and thus will not be depleted.</u></p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A | <input type="checkbox"/> F |
| 52. Is the project located in one of the compact closures listed on the Department's website (https://dnrc.mt.gov/Water-Resources/Water-Rights/Basin-Closures-Stream-Depletion-Controlled-Ground-Water-Areas)? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| <p>a. If yes, list which one and describe how the proposed project meet the requirements of the compact closure. An application must meet the specific requirements of the compact closure to be accepted by the Department.</p> <p>_____</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A | <input type="checkbox"/> F |



Project-Specific Questions: Place of Storage

| | | |
|--|--|----------------------------|
| 53. Does the proposal include at least one place of storage? If yes, answer questions 54 to 61 for each individual place of storage (use Additional Place of Storage Sheet for additional places of storage). If no, this section is complete, and you can skip to question 62. | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> F |
| 54. Provide a map showing the location of the place of storage. Create map on an aerial photograph or topographic map that also includes the following: section corners, township and range, and a north arrow. | <input type="checkbox"/> S | <input type="checkbox"/> F |
| 55. Is this application to enlarge an existing reservoir? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, what is the water right number for the existing reservoir? _____ | | <input type="checkbox"/> F |
| 56. Is the place of storage located on-stream? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. If no, explain the conveyance means to and from the off-stream place of storage and any losses that may occur with that conveyance. _____ _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
| 57. What is the capacity of the proposed place of storage or the existing place of storage after it is enlarged? 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: <i>Surface Acres x Maximum Depth (FT) x 0.5 (0.4-0.6 depending on side slope) = Capacity (AF)</i> _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
| 58. Will the place of storage include primary and/or emergency spillways? Preliminary design specifications for primary and emergency spillways must be included with application submittal (ARM 36.12.113). | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 59. Will the place of storage be lined? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| 60. What is the annual net evaporation of water from the place of storage using the standards in ARM 36.12.116(1)? Gridded net evaporation layer is available from DNRC upon request. _____ | | <input type="checkbox"/> F |
| 61. Is the place of storage capacity calculated to be greater than 50 acre-feet? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| a. If yes, have you made an application to the DNRC Water Operations Bureau for a determination of whether the dam or reservoir is a high-hazard dam? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |

Project-Specific Questions: Ditch-Specific Questions

| | | |
|--|--|----------------------------|
| 62. Does the proposal include at least one conveyance ditch? If yes, answer question 63 and, for each ditch, answer question 64. If no, this section is complete, and you can skip to question 65. | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> F |
|--|--|----------------------------|



| | | |
|---|----------------------------|----------------------------|
| 63. Submit a Ditch Map that shows every ditch conveying water for the proposed project. Label the ditch name(s), POD(s), the POU(s), and the ditch measurement locations (requested in question 64.c). The map should be created on an aerial photograph or topographic map with the following: section corners, township and range, and a north arrow. | <input type="checkbox"/> S | <input type="checkbox"/> F |
| 64. For each conveyance ditch, answer the following. If there is more than one conveyance ditch, use an Additional Ditch Sheet for each additional conveyance ditch. | | |
| a. What is the ditch name? _____ | | <input type="checkbox"/> F |
| b. 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. _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
| c. Provide at least one set of ditch measurements, which include width (FT), depth (FT), and slope (%). Discuss ditch characteristics with DNRC to determine the minimum number of ditch measurements. Include the location of each measurement, labeled with the 2-digit measurement ID number, used on the map submitted for question 63. | <input type="checkbox"/> S | <input type="checkbox"/> F |

| ID # | Width (FT) | Depth (FT) | Slope (%) | Date of Measurement |
|------|------------|------------|-----------|---------------------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
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|---|---|----------------------------|
| d. What is a reasonable Manning's n value? List the factors used for estimation. If you do not know this value, please work through estimation with the Department. _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
| e. What type of soils compose the proposed conveyance ditch? For lined ditches, write "lined" instead. _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |
| f. Are other water rights conveyed by the conveyance ditch? | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| i. If yes, | | |
| 1. What are the water right numbers? _____ _____ | <input type="checkbox"/> A | <input type="checkbox"/> F |



| | | |
|---|----------------------------|----------------------------|
| <p>2. What is the sum of the flow rates (GPM or CFS) for water rights conveyed?</p> <p>_____</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A | <input type="checkbox"/> F |
| <p>3. Provide a map with your best estimate of where the existing POU's begin for the other water rights conveyed by the conveyance ditch for all POU's between the proposed POD and your proposed POU. Create map on an aerial photograph or topographic map that also includes the following: section corners, township and range, and a north arrow.</p> | <input type="checkbox"/> S | <input type="checkbox"/> F |

Project-Specific Questions: Water Marketing

| | | |
|--|--|----------------------------|
| <p>65. Does the proposal include water marketing? If yes, please answer the questions in this section (questions 66 to 71). If no, this section is complete, and you can skip to question 72.</p> | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N | <input type="checkbox"/> F |
| <p>66. Identify the flow rate (GPM or CFS) and volume (AF) of water that will be marketed.</p> <p>_____</p> | | <input type="checkbox"/> F |
| <p>67. Will the marketed water return to the source?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| <p>a. Explain how this determination was made.</p> <p>_____</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A | <input type="checkbox"/> F |
| <p>68. For what purpose(s) will the marketed water be used?</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A | <input type="checkbox"/> F |
| <p>69. How will you control or limit access to the water?</p> <p>_____</p> <p>_____</p> | <input type="checkbox"/> A | <input type="checkbox"/> F |
| <p>70. Do you have contracts for the entire volume and flow rate sought?</p> | <input type="checkbox"/> Y <input type="checkbox"/> N | <input type="checkbox"/> F |
| <p>71. Provide a service area map. Create map on an aerial photograph or topographic map and shows the following: general service area boundary, section corners, township and range, and a north arrow.</p> | <input type="checkbox"/> S | <input type="checkbox"/> F |



Non-Mandatory Questions for Criteria Analysis

The following questions are not mandatory. They should be discussed in the Preapplication Meeting, but do not need to be filled out before the Preapplication Meeting Form is determined to be complete.

Adverse Effect

| <u>Questions, Narrative Responses, and Tables</u> | <u>Check-boxes</u> |
|--|--|
| 72. Do you have evidence that water is legally available in the proper flow rate, volume, and timing? | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N |
| 73. If water is not found to be legally available for part or all the proposed period of diversion, what is the plan to address this with the permitting process? <u>Mitigation on a change application to meet depletions to Clark Fork River - Flynn Lowney.</u> _____ | <input type="checkbox"/> A |
| 74. Describe your plan to ensure that existing water rights will be satisfied during times of water shortage. <u>Shut off pump - provide plan in application</u> _____ | <input type="checkbox"/> A |
| 75. Explain how you can control your diversion in response to call being made. <u>See above</u> _____ | <input type="checkbox"/> A |
| 76. Are you aware of any calls that have been made on the source of supply or depleted surface water source? a. If yes, explain. _____ _____ | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> A |
| 77. Does a water commissioner distribute water or oversee water distribution on your proposed source or depleted surface water source? | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N |

Adequate Diversion Means and Operation

| | |
|--|----------------------------|
| 78. Provide a diagram of how you will operate your system from the point of diversion to the place of use. | <input type="checkbox"/> S |
| 79. Describe specific information about the capacity of the diversionary structure(s). This may include, where applicable: pump curves and total dynamic head calculations, headgate design specifications, and dike or dam height and length. _____ _____ | <input type="checkbox"/> A |



| | |
|--|---|
| 80. Is the diversion capable of providing the full amount requested through the period of diversion? | <input type="checkbox"/> Y <input type="checkbox"/> N |
| 81. Describe the size and configuration of infrastructure to convey water from point of diversion to place of use. This may include, where applicable: ditch capacity and/or pipeline size and configuration. _____ _____ _____ | <input type="checkbox"/> A |
| 82. Describe any losses related to conveyance. _____ _____ | <input type="checkbox"/> A |
| 83. Is the conveyance infrastructure capable of providing the required flow and volume and any losses? | <input type="checkbox"/> Y <input type="checkbox"/> N |
| 84. Does the proposed conveyance require easements? | <input type="checkbox"/> Y <input type="checkbox"/> N |
| a. If yes, explain. _____ | <input type="checkbox"/> A |
| 85. Describe any places of storage, including whether drainage devices will be installed, and provide preliminary designs, if available. Preliminary designs will be required at application submittal. _____ _____ _____ | <input type="checkbox"/> A |
| 86. Describe specific information about how water is delivered within the place of use. This may include, where applicable, the range of flow rates needed for a pivot and output and configuration of sprinkler heads. _____ _____ _____ | <input type="checkbox"/> A |
| 87. Is the water delivery system capable of providing the requested beneficial use? | <input type="checkbox"/> Y <input type="checkbox"/> N |
| 88. Will your system be designed to discharge water from the project? | <input type="checkbox"/> Y <input type="checkbox"/> N |
| a. If yes, explain the way water will be discharged and the wastewater disposal method. _____ _____ | <input type="checkbox"/> A |



| | |
|---|---|
| 89. Provide a plan of operations. _____ _____ _____ | <input type="checkbox"/> A |
| 90. Can the plan of operations deliver the flow rate and volume for the beneficial use being requested? | <input type="checkbox"/> Y <input type="checkbox"/> N |
| 91. Do you have any plans to measure your diversion and use? | <input type="checkbox"/> Y <input type="checkbox"/> N |
| a. If yes, describe the plan and the type of measurements you will take. _____ _____ | <input type="checkbox"/> A |

Beneficial Use

| | |
|--|---|
| 92. Why is the requested flow rate and volume the amount needed for the purpose? _____ _____ | <input type="checkbox"/> A |
| 93. Does the Department have a standard for the purposes for which water is used? Department standards can be found in ARM 36.12.112. | <input type="checkbox"/> Y <input type="checkbox"/> N |
| a. If yes, does the proposed beneficial use fall within Department standards? | <input type="checkbox"/> Y <input type="checkbox"/> N |
| 94. If no standard, or if proposed beneficial use falls outside of Department standards, explain how the use is reasonable for the purpose. _____ _____ _____ | <input type="checkbox"/> A |
| 95. Will your proposed project be subject to DEQ requirements for a public water supply (PWS) system or Certificate of Subdivision Approval (COSA)? | <input type="checkbox"/> Y <input type="checkbox"/> N |
| a. If yes, | |
| i. Have you researched or consulted with DEQ regarding those requirements? | <input type="checkbox"/> Y <input type="checkbox"/> N |
| 96. Are you proposing to use surface water for in-house domestic use? | <input type="checkbox"/> Y <input type="checkbox"/> N |
| a. If yes, does a COSA exist for the proposed place of use? | <input type="checkbox"/> Y <input type="checkbox"/> N |
| i. If yes, please submit the COSA. | <input type="checkbox"/> S |
| ii. If no, have you researched or consulted with DEQ regarding their requirements? | <input type="checkbox"/> Y <input type="checkbox"/> N |



Possessory Interest

| | |
|--|---|
| 97. Do you have possessory interest, or the permission of the party with possessory interest, of the proposed place of use? Proof of possessory interest or permission of the party with possessory interest is required at application submittal. | <input type="checkbox"/> Y <input type="checkbox"/> N |
| a. If no, explain. _____ _____ _____ | <input type="checkbox"/> A |



PREAPPLICATION MEETING AFFIDAVIT & CERTIFICATION

“We attest that the information on this form accurately describes the proposed project discussed during the preapplication meeting and that the items marked for follow-up will require the applicant to provide additional information before the form is deemed complete.”

“Applicant acknowledges that any information provided by the Department during the preapplication is preliminary and subject to change.”

“Applicant acknowledges that if the follow-up information provided to the Department substantially changes the proposed project, for example in a way that alters which sections of the form are applicable or which technical analyses are required, or who is to complete the technical analyses, the applicant will need to schedule a new preapplication meeting so that the department can identify any additional information necessary for completion of the technical analyses (ARM 36.12.1302(3)(c)).”

Upon Department receipt of the completed form (within 180 days following the meeting), the Department reserves the first five days of the 45-day period in ARM 36.12.1302(4) or (5) to return the form to the applicant if:

- 1 – the completed form does not include all necessary follow-up information identified in the meeting, OR
- 2 – the completed form is not adequate for the Department to proceed with technical analyses, OR
- 3 – the applicant has elected to complete technical analyses and has not submitted each piece of technical analysis required, OR
- 4 – the applicant has substantially changed the details of the proposed project, such as in a way that alters which sections of the form are applicable, which technical analyses are required, or who is to complete the technical analyses.

If the Department returns the form to the Applicant within these five days due to reasons 1-3 above, the Applicant can use the balance of their 180-day period in ARM 36.12.1302(4) or (5) to gather the remaining follow-up information needed. If there is no time remaining in the 180-day period, the Applicant can submit a written request for a new preapplication meeting, pursuant to ARM 36.12.1302(2). Even if there is still time remaining, the Applicant can choose to schedule a new preapplication meeting. The Department shall transfer the \$500 payment received to the new preapplication meeting, or refund the payment to the Applicant if the Applicant desires. If the Department returns the form to the Applicant within these five days due to reason (4) above, the Applicant must submit a written request for a new preapplication meeting, pursuant to ARM 36.12.1302(2). The Department shall transfer the \$500 payment received to the new preapplication meeting, or refund the payment to the Applicant if the Applicant desires.

| | |
|-----------------------------|----------------|
| <i>David Miller</i> | <i>10/3/24</i> |
| Applicant Signature | Date |
| <i>Susan Edwards-Mullew</i> | <i>10/3/24</i> |
| Applicant Signature | Date |
| <i>[Signature]</i> | <i>10/5/24</i> |
| Department Signature | Date |



FOLLOW-UP PAGE AFFIDAVIT & CERTIFICATION

“I/we attest that this preapplication meeting form, follow-up page, and amended responses page accurately portray my proposed project. I am aware that my application for this project will not qualify for a discounted filing fee and expedited timelines if upon submittal of the application to the department, I change any element of the proposed application from the preapplication meeting form and follow-up materials (ARM 36.12.1302(6)(a)).”

Applicant Signature

Date

Applicant Signature

Date

“We confirm that the preapplication form and follow-up information are adequate for the Department to proceed with technical analyses in ARM 36.12.1303. Or, if the applicant has elected to complete technical analyses, we confirm they have submitted each piece of technical analysis required based on the proposed project and the Department is able to proceed with the scientific credibility review (ARM 36.12.1303(8)).”

Department Signature

Date

Department Signature

Date

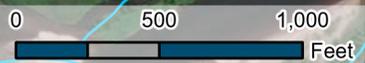


DAVID MILLER

PREAPPLICATION FORM 600P
2. PROPOSED USE



-  Point of Diversion
-  Irrigation Place of Use: 18 acres
-  Property Boundary
-  Supplemental Water Right
76M 149678 00



 **WGMGROUP**
www.wgmgroup.com

| | |
|------------------------|-----------------|
| LOC: Missoula County | PROJ MGR: JM |
| TR: 13N 20W | DRAWN BY: PSD |
| BASE: ESRI Basemap | PROJ: 170805 |
| FILE: 11_Miller PreApp | DATE: 9/19/2024 |

This is not a legally recorded map or survey. WGM does not guarantee the accuracy, current status, or completeness of the material contained herein and is not responsible for any misuse/misrepresentation of this information or its derivatives. This graphic representation is for general planning purposes only.

DAVID MILLER

PREAPPLICATION FORM 600P
32 Well Map



FLYNN LOWNEY DITCH

14

13N 20W

13

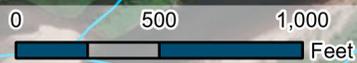
324678



GWIC Well



Property Boundary



CLARK FORK 23



WGM GROUP

www.wmggroup.com

LOC: Missoula County PROJ MGR: JM
TR: 13N 20W DRAWN BY: PSD
BASE: ESRI Basemap PROJ: 170805
FILE: 12_Miller PreApp DATE: 9/19/2024

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DAVID MILLER

PREAPPLICATION FORM 600P
78.Diagram



13N 20W

14

23

CLARK FORK

-  Point of Diversion
-  Pipeline
- Irrigation System: 18 acres
-  Big Gun: 0.5 acres
-  Wheel Line: 17.5 acres
-  Property Boundary



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| | |
|------------------------|-----------------|
| LOC: Missoula County | PROJ MGR: JM |
| TR: 13N 20W | DRAWN BY: PSD |
| BASE: ESRI Basemap | PROJ: 170805 |
| FILE: 13_Miller PreApp | DATE: 9/19/2024 |

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