

**BLACKFOOT RIVER WATER MANAGEMENT
PLAN PURSUANT TO
THE 1990 FORT HALL INDIAN WATER RIGHTS
AGREEMENT**

Table of Contents

NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS:	1
1. Purposes	1
2. Definitions	2
3. Measurement Program	4
a) Improvement Program.	4
b) Regulation of Basin 27 Points of Diversion.	4
c) Regulation of Tribal Points of Diversion.	5
d) Blackfoot River Basin Stream Gaging.	6
e) Changes to Stream Gage System.	10
f) Data Sharing.	10
g) Gage Site Funding.	10
4. Accounting Program	10
a) Accounting program development and maintenance	10
b) Available flow calculations	10
c) Accounting updates	15
d) Flow allocation	15
e) Basin 27 Water User requested flow rate from Blackfoot Reservoir	17
f) Basin 27 Water User requested flow rate below Fort Hall North gage	17
g) Basin 27 Primary Volume calculations	18
h) Blackfoot River Equitable Adjustment Settlement Agreement implementation	20
i) Credit accrual	20
j) Accounting for credit	21
k) Accounting for Equitable Adjustment Water	21
l) Water Rights	21
5. Sand Creek Exchange	22
a) Implementation.	22
b) Calculation method.	22
c) Exchange reset	22
d) Calculations.	22
6. Equalizing Reservoir and Little Butte Canal	23
7. Snake River deliveries to Blackfoot River diversions	23
8. Review of Plan / Resolution of Disputes	24
9. Points of Contact	24
10. Applicable Law	24
11. Binding Effect.	25
12. Effect of Headings	25
13. Multiple Originals	25
14. Effective Date	25
15. Signatures	25
Figure 1	30
Figure 2	31
APPENDIX I	32

**BLACKFOOT RIVER WATER MANAGEMENT PLAN PURSUANT TO
THE 1990 FORT HALL INDIAN WATER RIGHTS AGREEMENT**

This Blackfoot River Water Management Plan is developed pursuant to the *1990 Fort Hall Indian Water Rights Agreement* and constitutes an agreed upon plan and program by and between the Shoshone-Bannock Tribes of the Fort Hall Reservation, the State of Idaho, the United States, the Committee of Nine and Water District 27, as represented by the Advisory Committee described in Idaho Code § 42-605(6), for implementation of effective water management in the Blackfoot River Basin. It is made in reference to the following facts.

RECITALS

WHEREAS,

A. On July 5, 1990, the Shoshone-Bannock Tribes, the State of Idaho, the United States, and certain Idaho Water Users entered into an agreement to settle the water rights claimed by the United States for the benefit of the Shoshone-Bannock Tribes. This Agreement, known as the 1990 Fort Hall Indian Water Rights Agreement, was approved by the legislative branches of these three governments, and on November 16, 1990, the United States Congress enacted Pub. L. 101-602, the Fort Hall Indian Water Rights Settlement Act of 1990.

B. On August 2, 1995, the Presiding Judge of the Snake River Basin Adjudication entered an Order approving the Fort Hall Agreement and decreeing water rights to the United States for the benefit of the Tribes. On August 13, 2014 the Presiding Judge of the Snake River Basin Adjudication entered an order approving the Revised Partial Final Consent Decree Determining the Rights of the Shoshone-Bannock Tribes to the use of water in the Upper Snake River Basin. See Revised Partial Final Consent Decree Determining the Rights of the Shoshone-Bannock Tribes to the Use of Water in the Upper Snake River Basin.

C. Article 7 of the Fort Hall Agreement and Section II.A. of the Court's Order recognized the Shoshone-Bannock Tribes' right to use water from the Blackfoot River system and Grays Lake.

D. Subsection 8.3 and the Attachment to the Fort Hall Agreement titled "Blackfoot River Water Management Plan, Statement of Purposes, April 20, 1990" provided for the development of a Blackfoot River Water Management Plan.

NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS:

1. Purposes

This Blackfoot River Water Management Plan establishes a comprehensive program to facilitate efficient and accurate measurement and regulation of Basin 27 diversions, to promote transmission of data amongst the Parties, and to develop a computer accounting program that determines the amount of natural flow available to water users on the Blackfoot River. ¹

¹ This Plan does not address purposes 3-8 of the Blackfoot River Water Management Plan Statement of Purposes dated April 20, 1990 attached to the 1990 Fort Hall Indian Water Rights Agreement. Purposes 4, 5 and 8 of the

Figures 1 and 2 are included at the end of this document to aid the reader with understanding and implementing this Plan. The Figures are included for illustrative purposes and the text of the Plan takes precedence over any discrepancy between the text and the Figures.

2. Definitions

The following definitions apply for purposes of this Plan:

- a) "Agreement" means the "Blackfoot River Equitable Adjustment Settlement Agreement" entered into by the Tribes, the United States, the State, the Basin 27 Water Users and the Committee of Nine and approved by the Snake River Basin Adjudication Court on August 9, 2013.
- b) "Basin 27 Water Users" means persons diverting natural flow from the Blackfoot River Basin under partial decrees listed on Attachment E to the Revised Consent Decree and under *de minimis* domestic and stock water rights with a priority date earlier than January 1, 1990. "Basin 27 Water Users" includes the Miners Ditch water bypassed as mitigation for water right no. 27-7577 in the name of the City of Blackfoot.²
- c) "Basin 27 Primary Volume" is the cumulative annual volume of Blackfoot River Basin natural flow diverted by the Basin 27 Water Users during the irrigation season as a direct result of being allowed to divert Blackfoot River Basin natural flow ahead of the Tribes as provided by the Fort Hall Agreement and described in water right 27-11375³. The calculation of the Basin 27 Primary Volume is described in Section 4.g) of this Plan.
- d) "Committee of Nine" means the advisory committee of Water District 01 and any successor thereto.
- e) "*De minimis* domestic water right" for purposes of this Plan means (a) the use of water for homes, organization camps, public campgrounds, livestock and for any purpose in connection therewith, including irrigation of up to one-half (1/2) acre of land, if the total use is not in excess of thirteen (13,000) gallons per day, or 14.5 acre-feet per year or less for storage, or (b) and other uses, if the total use does not exceed a diversion rate of four one-hundredths (0.04) cubic feet per second and a diversion volume of twenty-five hundred (2,500) gallons per day. Domestic rights shall not include water for multiple ownership subdivisions, mobile home parks, or commercial or business establishments, unless the use meets the diversion rate and volume limitation set forth in (b) above.

Attachment pertain to Grays Lake and cannot be addressed at this time. Purposes 3 and 7 pertain to the internal operations of the Fort Hall Irrigation Project. Purpose 6 is calculated by Water District 1.

² All or part of 16 water rights may be diverted into the Miners Ditch, none of which are in the name of Miners Ditch nor do they include any designation they are to be bypassed for mitigation purposes. Those 16 water rights are: 27-3G, 27-17, 27-20A, 27-20B, 27-22A, 27-23E, 27-35A, 27-10296, 27-10341, 27-10344, 27-10505, 27-10756, 27-10790, 27-10999, 27-11117, 27-11940.

³ Basin 27 Primary Volume does not include water used by *de minimis* domestic or stock water rights as ordered by the SRBA Court on February 2, 2012 based on agreement of the parties involved that the total annual amount of such use was found to be insignificant in relation to the 45,000 acre-foot provided in the 1990 Fort Hall Agreement.

- f) “*De minimis* stock water right” for purposes of this Plan means the use of water solely for livestock or wildlife where the total diversion is not in excess of thirteen thousand (13,000) gallons per day or 14.5 acre-feet per year or less for storage.
- g) “Director” means the Director of the Idaho Department of Water Resources, or any successor.
- h) “Equitable Adjustment Water” is a supplemental water supply provided to the Tribes for the purpose of protecting water right no. 27-11375 if the Basin 27 Primary Volume exceeds 45,000 ac-ft per year and all available credits, consistent with the terms of the Agreement.
- i) “Fort Hall Agreement” means the 1990 Fort Hall Indian Water Rights Agreement executed by the Shoshone-Bannock Tribes of the Fort Hall Reservation, the State, the United States, and the Committee of Nine.
- j) “Intergovernmental Board” means the three-member Intergovernmental Board established in Article 9 of the Fort Hall Agreement.
- k) “IDWR” or the “Idaho Department of Water Resources” means the executive agency of the State of Idaho created by Idaho Code § 42-1701, or any successor agency.
- l) “Measuring Device Order” means the *Order Requiring Measuring Devices and Controlling Works on the Blackfoot River, Water District 27* entered on April 18, 2008 by IDWR, and subsequent amendments thereto.
- m) “Measuring Device Standards” means the IDWR document entitled “*Minimum Acceptable Standards for Open Channel and Closed Conduit Measuring Devices*” and subsequent amendments thereto.
- n) “Parties” means the Tribes, the United States, the State, the Basin 27 Water Users, and the Committee of Nine of Water District 01.
- o) “Plan” means this Blackfoot River Water Management Plan.
- p) “SRBA District Court” means the District Court of the Fifth Judicial District, State of Idaho, in and for the County of Twin Falls that is assigned Civil Case No. 39576.
- q) “State” means the State of Idaho, admitted to the Union on July 3, 1890.
- r) “Supplemental Equitable Adjustment Water” is an additional supplemental water supply provided to the Tribes for the purpose of protecting and satisfying water right No. 27-11375 if the Basin 27 Primary Volume exceeds 45,000 acre-feet per year, all available credits provided for under paragraph 1 of the Agreement and all Equitable Adjustment Water provided for under paragraph 2 of the Agreement.

- s) "Tribes" or "Tribal" means the Shoshone-Bannock Tribes of the Fort Hall Reservation in Idaho as the collective successors-in-interest of Indian signatories to the Second Treaty of Fort Bridger of July 3, 1868, 15 Stat. 673, and subsequent Tribal/federal agreements.
- t) "United States" means the United States of America acting through the United States Department of the Interior, Bureau of Indian Affairs.
- u) "Water District 01" means the instrumentality created by the Director of the IDWR pursuant to Idaho Code § 42-604 (1992) and any successor thereto.
- v) "Water District 27" means the water district designated by the Director of IDWR pursuant to Idaho Code § 42-604 (1992) for the distribution of water in the Blackfoot River Basin and any successor thereto.
- w) "Watermaster" means the person elected by Water District 27 and appointed by the Director of IDWR to distribute water within Water District 27.

3. Measurement Program

- a) Improvement Program.
The Parties shall undertake an on-going program to improve water measurement and delivery throughout the Blackfoot River Basin. IDWR issued the Measuring Device Order in 2008, which required natural flow water users on the Blackfoot River to install and maintain lockable headgates and adequate measuring devices in accordance with the Measuring Device Standards prior to any delivery of water to the water user beginning in 2010. The Watermaster will determine, on a case-by-case basis, the specific improvements needed to facilitate efficient and accurate measurements at each point of diversion within Basin 27 in accordance with the Measuring Device Order. The owner of a point of diversion is responsible for any costs associated with installation and maintenance of lockable headgates and measuring devices and is also responsible for ensuring that the point of diversion remains in compliance with the Measuring Device Order in the future.
- b) Regulation of Basin 27 Points of Diversion.
The Watermaster will regulate Basin 27 points of diversion according to the following guidelines. The frequency and method of regulation for each point of diversion is determined by its flow rate and location. All diversion measurement sites shall be located as close as possible to the point of diversion consistent with the Measuring Device Standards.
 - i) Continuous Monitoring.
The Watermaster shall monitor the following points of diversion through the use of sensors and continuous data-logging equipment:
 - A) Smith-Maxwell diversion,
 - B) Riverton diversion,
 - C) Stevens diversion,
 - D) Central diversion,
 - E) Miners / Younie Blackfoot River pump diversion,

- F) Miners ground water well diversion(s),
 - G) Little Butte diversion,
 - H) Eastern Idaho / Blackfoot Slough diversion,
 - I) Just Ditch diversion,
 - J) Sand Creek Ditch diversion - not included in Basin 27 calculations.
- ii) Installation and maintenance responsibility.
The owners of the diversions described in subdivision 3.b)i) are responsible for maintaining the headgates and measurement sections of their respective ditches. Water District 27 shall install and maintain sensors and continuous data-logging equipment at each site identified.
- iii) Pumps.
Some natural flow water users divert water from the Blackfoot River or its tributaries through the use of pumps. Water users who use pumps are required to install an adequate measuring device on each pump in accordance with the Measuring Device Order. The Watermaster shall record and report pump diversions at a minimum frequency of once per two weeks.
- iv) Non-Continuous Monitoring.
The Watermaster shall monitor and measure manually all other Basin 27 points of diversion. Measurements shall be performed using consistent and accurate methods. All active points of diversion shall be measured at a minimum of once every two weeks. Small variances from this minimum measurement frequency are acceptable if unusual or unique circumstances arise in spite of the Watermaster's best efforts. Non-functional, inactive points of diversion shall be periodically monitored to verify the inactive status. Daily diversion flow rates shall be determined based on a linear interpolation between manual measurements, unless reliable information sources indicate that another methodology is more appropriate. Diversion data shall be reported on a weekly basis.
- v) Rating curves.
Rating curves shall be established and maintained for all sites that utilize water stage data for the estimation of flow rates. Once the rating curve for a site has been established, flow rate and stage measurements will continue to be collected by the Watermaster at least once per month from April to October. Adjustments to the rating curves and shifts in the rating curve relationships will be applied by the Watermaster as appropriate.
- c) Regulation of Tribal Points of Diversion.
The Tribes and United States shall monitor the Fort Hall Main Canal, the Fort Hall North Canal, and the Fort Hall Little Indian Canal through the use of sensors and continuous data-logging equipment, although it is understood that the United States currently has no funding source to upgrade its gages on these canals to be continuous gages and to report the data. The United States and Tribes shall be responsible for maintenance of their respective sensors, data-logging equipment, and gage houses, and shall comply with all measurement and reporting standards provided under Section 3. Copies of the

continuous measured flow rate data shall be sent to Water District 27 on a weekly basis by the Tribes.

d) Blackfoot River Basin Stream Gaging.

This subdivision identifies those gaging sites and the minimum operation standards that shall constitute the Blackfoot River stream gage system, which will be used to determine the amount of natural flow in the Blackfoot River. The description for each gaging site includes six parts. The first part identifies the name of the site. The second part provides the general location of the site in latitude and longitude (NAD 83). The third part describes the period of the year when monitoring data is collected and reported. Small variances from the specified period of the year are acceptable if unusual or unique circumstances arise in spite of the responsible entity's best efforts. The fourth part identifies the operator of the site. The fifth part identifies the entity or entities responsible for the site. Site responsibilities shall include purchase and replacement of measurement equipment, equipment installation, maintenance of equipment and gage houses, and annual operating costs, including rating curve data collection, data processing, and data transmission. The sixth part describes the stream gage type at each site where continuous indicates the use of electronic sensor equipment that has the ability to transmit real-time data to a common data repository, or a gage type as described below. The stream gages are as follows:

- i) Name: Clarks Cut
Location: Lat 43° 00' 20" Long 111° 29' 37"
Monitoring Season: April through October when Grays Lake water is being transported to Blackfoot Reservoir.
Operator: USGS (Station #13057300)
Responsible Entity: United States
Gage type: Continuous

- ii) Name: Blackfoot River near Henry
Location: Lat 42° 48' 55" Long 111° 30' 24"
Monitoring Season: April through October when irrigation diversions are occurring in Basin 27.
Operator: USGS (Station #13063000)
Responsible Entity: U.S. Department of the Interior, Bureau of Land Management
Gage type: Continuous

- iii) Name: Blackfoot Reservoir Gage
Location: Lat 43° 00' 20" Long 111° 43' 00"
Monitoring Season: Year round
Operator: Idaho Power Company
Responsible Entity: Tribes
Gage type: Continuous

- iv) Name: Blackfoot River at Rocky Ford
Location: Lat 43° 00' 05" Long 111° 43' 45"
Monitoring Season: April through October
Operator: USGS

- Responsible Entity: Tribes
Gage type: Continuous
- v) Name: Blackfoot River near Shelley
Location: Lat 43° 15' 46" Long 112° 02' 52"
Monitoring Season: Year round
Operator: USGS (Station #13066000)
Responsible Entity: IDWR
Gage type: Continuous
- vi) Name: Blackfoot River at Rich Lane
Location: Lat 43° 11' 27" Long 112° 13' 39"
Monitoring Season: April through October when irrigation diversions are occurring in Basin 27.
Operator: Tribes
Responsible Entity: Tribes
Gage type: Sensor and datalogger only; no real-time data transmittal; site should be operated under the policies provided in 3.c)
- vii) Name: Blackfoot River below Fort Hall North
Location: Lat 43° 10' 06" Long 112° 20' 05"
Upstream of Corbett Slough Inflow
Monitoring Season: April through October when irrigation diversions are occurring in Basin 27.
Operator: USGS (Station #13068300)
Responsible Entity: United States
Gage type: Continuous
- viii) Name: Blackfoot River Bypass
Location: Lat 43° 10' 15" Long 112° 23' 16"
Monitoring Season: Year round
Operator: USGS (Station #13068495)
Responsible Entity: IDWR
Gage type: Continuous
- ix) Name: Blackfoot River near Blackfoot
Location: Lat 43° 07' 50" Long 112° 28' 36"
Monitoring Season: Year round
Operator: USGS (Station #13068500)
Responsible Entity: IDWR
Gage type; Continuous
- x) Name: Meadow Creek near Reservoir
Location: Lat 42° 55' 29" Long 111° 30' 53"
Monitoring Season: April through October when irrigation diversions

- are occurring in Basin 27.
- Operator: Water District 27
 Responsible Entity: Water District 27
 Gage type: Sensor and datalogger only; no real-time data transmittal; site should be operated under the policies provided in 3.b)
- xi) Name: Little Blackfoot River near Reservoir
 Location: Lat 42° 54' 34" Long 111° 31' 53"
 Monitoring Season: April through October when irrigation diversions are occurring in Basin 27.
 Operator: Water District 27
 Responsible Entity: Water District 27
 Gage type: Sensor and datalogger only; no real-time data transmittal; site should be operated under the policies provided in 3.b)
- xii) Name: Corbett Slough near Blackfoot River
 Location: Lat 43° 10' 11" Long 112° 20' 16"
 Monitoring Season: April through October when irrigation diversions are occurring in Basin 27.
 Operator: Water District 27
 Responsible Entity: Water District 27
 Gage type: Continuous
- xiii) Name: Sand Creek at Wolverine Road
 Location: Lat 43° 16' 58" Long 112° 09' 36"
 Monitoring Season: April through October when irrigation diversions are occurring in Basin 27.
 Operator: Water District 01 (Station #13064500)
 Responsible Entity: Water District 01
 Gage type: Continuous
- xiv) Name: Reservation Canal at Head
 Location: Lat 43° 22' 24" Long 112° 09' 14"
 Monitoring Season: April through October when irrigation diversions from the Snake River are occurring.
 Operator: Water District 01 (Station #13060500)
 Responsible Entity: Water District 01
 Gage type: Continuous
- xv) Name: Reservation Canal at Drop
 Location: Lat 43° 14' 37" Long 112° 11' 04"
 Monitoring Season: April through October when irrigation diversions

- are occurring in Basin 27 or from the Snake River.
- Operator: Water District 01 (Station #13065500)
 Responsible Entity: Water District 01
 Gage type: Continuous
- xvi) Name: Fort Hall Main Canal
 Location: Lat 43° 09' 55" Long 112° 17' 53"
 Monitoring Season: April through October when irrigation diversions are occurring in Basin 27 or from the Snake River.
 Operator: Tribes
 Responsible Entity: Tribes and United States
 Gage type: Sensor and datalogger only; no real-time data transmittal; site should be operated under the policies provided in 3.c)
- xvii) Name: Fort Hall North Canal
 Location: Lat 43° 10' 00" Long 112° 20' 16"
 Monitoring Season: April through October when irrigation diversions are occurring in Basin 27 or from the Snake River.
 Operator: Tribes
 Responsible Entity: Tribes and United States
 Gage type: Sensor and datalogger only; no real-time data transmittal; site should be operated under the policies provided in 3.c)
- xviii) Name: Fort Hall Little Indian Canal
 Location: Lat 43° 15' 58" Long 112° 03' 32"
 Monitoring Season: April through October when irrigation diversions are occurring in Basin 27 or from the Snake River.
 Operator: Tribes
 Responsible Entity: Tribes and United States
 Gage type: Sensor and datalogger only; no real-time data transmittal; site should be operated under the policies provided in 3.c)
- xix) Name: Equalizing Reservoir
 Location: Lat 43° 09' 58" Long 112° 17' 49"
 Monitoring Season: April through October when irrigation diversions are occurring in Basin 27 or from the Snake River.
 Operator: Fort Hall Irrigation Project
 Responsible Entity: Fort Hall Irrigation Project
 Gage type: Non-Continuous
 *Note The Equalizing Reservoir gage was added to the Blackfoot Management Plan to provide measurements of Equalizing Reservoir daily water levels from which daily change of storage can be determined, which will increase the accuracy of calculations of reach gains and natural flow. The Fort Hall Irrigation Project (FHIP) currently takes two readings per day, and from that data daily change in storage can be calculated. The data shall be reported weekly to Water

District 27. In the future, should funding from some entity become available to upgrade this gage to become a continuous recording gage to improve accuracy of determining water levels, then the operator and responsible entity may be revised.

- e) **Changes to Stream Gage System.**
Changes to any of the elements set forth in Section 3.d) shall be subject to review by the Parties. If any of the Parties have concerns that the quality of the gaging program will be affected by the changes, the concerns will be brought to the Intergovernmental Board and subject to the dispute resolution provisions in Section 8 of this Plan. If any of the stream gages listed in Section 3.d) are not providing data of sufficient quality or at a sufficient frequency to be useful for the purposes set forth in this Plan, any Party may request that the operation standards for the gage be upgraded, with any changes to be approved by the Intergovernmental Board.
- f) **Data Sharing.**
All data collected under Section 3 shall be communicated by the Responsible Entities to a mutually agreed upon website. The data will be made available to the Responsible Entities and will be publicly available. The data shall be communicated at the same frequency at which the data are collected. The website shall contain all real-time stream gage data, Basin 27 and Tribal diversion data (both continuous and non-continuous sites), and elements of the accounting program specified in Section 4. The Director will instruct the Watermaster to, host, develop, and maintain the data sharing website as required in this Plan. See Appendix I for a list of all data contained on the data sharing website.
- g) **Gage Site Funding.**
Each Responsible Entity listed in Section 3.d) shall have the responsibility of funding the installation, if a new site, and the operation of the gage site(s) to which it is assigned. Some of the funding required under this subdivision is contingent upon the appropriation of funds by the appropriate legislative entity. If funds are not available to establish, operate, and maintain a gage site, the Responsible Entity shall inform the other Responsible Entities as soon as possible, and the Responsible Entity shall make efforts to acquire or allocate funding for the site in the future.

4. Accounting Program

- a) **Accounting program development and maintenance**

The Watermaster, with approval of the Intergovernmental Board, shall develop and maintain a computer accounting program, as required in this plan, that quantifies the amount of natural flow available to water users on the Blackfoot River, the amount of natural flow diverted from the Blackfoot River and its tributaries, and the Sand Creek Exchange. The term “Basin 27 Water Users” is defined in section 2.b) of the Management Plan. Any changes to calculations and methods employed in the accounting program will require approval of the Intergovernmental Board.
- b) **Available flow calculations**

The accounting program shall calculate the amount of Blackfoot River natural flow available for diversion within the Blackfoot River basin.

The following terms are used in this Plan:

RG	=	Reach Gain
NF	=	Natural flow
NFD	=	Natural flow delivery
Q	=	Measured or estimated flow rate data
D	=	Flow rate of a diversion
$Q_{\text{BigBlackfoot}}$	=	Blackfoot River near Henry
Q_{MeadowCk}	=	Meadow Creek near Reservoir
$Q_{\text{ClarksCut}}$	=	Clarks Cut (Grays Lake Diversion)
Q_{LBR}	=	Little Blackfoot River above Blackfoot Reservoir
$Q_{\text{RockyFord}}$	=	Blackfoot River at Rocky Ford
Q_{Shelley}	=	Blackfoot River near Shelley
$Q_{\text{Additional}}$	=	Estimated non-measured inflows to Blackfoot Reservoir
Q_{Drop}	=	Reservation Canal at Drop
Q_{RichLane}	=	Blackfoot River at Rich Lane
$Q_{\text{BelowNorth}}$	=	Blackfoot River below Fort Hall North Canal
$Q_{\text{SandCreek}}$	=	Sand Creek at Wolverine Road
$Q_{\text{CorbettTotal}}$	=	Total flow at Corbett Slough measurement section
$Q_{\text{CorbettSnake}}$	=	Snake River water injected into the Blackfoot River through the Corbett Slough, pursuant to water rights 1-1J, 1-298, 1-47E, 1-48, 1-304, and 27-7577. $Q_{\text{CorbettSnake}}$ is always less than or equal to $Q_{\text{CorbettTotal}}$.
Q_{End}	=	Blackfoot River near Blackfoot
Q_{Bypass}	=	Blackfoot River Bypass
$D_{\text{AboveReservoir}}$	=	Sum of Basin 27 Water User diversions located above Blackfoot Reservoir
$D_{\text{RockyToShelleyMain}}$	=	Sum of Basin 27 Water User diversions located on the main stem of the Blackfoot River between $Q_{\text{RockyFord}}$ and Q_{Shelley}

$D_{\text{RockyToShelleyTrib}}$	=	Sum of Basin 27 Water User diversions located on tributaries that connect to the Blackfoot River between $Q_{\text{RockyFord}}$ and Q_{Shelley}
$D_{\text{ShelleyToRichLane}}$	=	Sum of Basin 27 Water User diversions located between Q_{Shelley} and Q_{RichLane}
$D_{\text{RichLaneToBelowN}}$	=	Sum of Basin 27 Water User diversions located between Q_{RichLane} and $Q_{\text{BelowNorth}}$
$D_{\text{BelowNorth}}$	=	Sum of Basin 27 Water User diversions located below $Q_{\text{BelowNorth}}$
$D_{\text{MainCanal}}$	=	Fort Hall Main Canal diversion
$D_{\text{NorthCanal}}$	=	Fort Hall North Canal diversion
$D_{\text{LittleIndian}}$	=	Fort Hall Little Indian Canal diversion
$D_{\text{SandCreek}}$	=	Sand Creek Ditch diversion
$D_{\text{NewRequest}}$	=	An anticipated change in diversion rate by a Basin 27 Water User
$\Delta S_{\text{EqualizingRes}}$	=	Change in storage of the Equalizing Reservoir where an increase is positive and a decrease is negative
$D_{\text{MinersWell}}$	=	Miners ground water diversion(s), to be mitigated for by bypassing Blackfoot River and injected Snake River flows past Miner's Ditch that would formerly be diverted into Miner's Ditch but is now to flow down the Blackfoot River into the Snake River
NFD_{Basin27}	=	Natural flow delivered to Basin 27 Water Users as made available pursuant to paragraph 11.d of water right 27-11375
$RF_{\text{BelowNorth}}$	=	Requested natural flow at Blackfoot River below Fort Hall North gage for Basin 27 water users
$RF_{\text{BelowNorthMax}}$	=	The maximum possible value of $RF_{\text{BelowNorthAllowed}}$ which is determined by calculating $RF_{\text{BelowNorthAllowed}}$ while assuming all water rights included in $WR_{\text{BelowNorth}}$ are in priority
Exchange	=	Sand Creek Exchange as described in section 5
$RF_{\text{Reservoir}}$	=	Requested natural flow to be released from Blackfoot Reservoir for Basin 27 Water users diverting from the main stem Blackfoot River between Rocky Ford and Blackfoot River Below Fort Hall North gages. Does not include $RF_{\text{BelowNorth}}$.
$WR_{\text{RockyToBelowN}}$	=	Summed flow rate of in priority water rights diverting or available to divert located between Rocky Ford and Blackfoot River Below Fort Hall North gages. This does not include water

rights for diversions located on tributaries that connect to the Blackfoot River for Basin 27 water users

$WR_{\text{BelowNorth}}$	=	Summed flow rate of in priority water rights diverting or available to divert from the Blackfoot River below North gage for Basin 27 water users
C_{Loss}	=	Conveyance loss coefficient to account for natural losses and gains occurring between USGS Below North gage and the most downstream Basin 27 Water User diversion
$V_{\text{Available}}$	=	Cumulative annual volume (4-1 to 10-31) of natural flow available to Basin 27 Water Users pursuant to paragraph 11.d of water right 27-11375
ST_{Stream}	=	Storage flow released to provide in-stream flows as requested by the Tribes
TBN	=	Total flow requested for release past below Fort Hall North gage consisting of $RF_{\text{BelowNorth}}$ and ST_{Stream}

i) Natural flow calculations derived from reach gains

$Q_{\text{IntoReservoir}}$	=	$Q_{\text{BigBlackfoot}} + Q_{\text{LBR}} + ((Q_{\text{MeadowCk}} - Q_{\text{ClarksCut}}) \geq 0) + Q_{\text{Additional}}$
$RG_{\text{RockyFordToShelley}}$	=	$Q_{\text{Shelley}} - Q_{\text{RockyFord}} + D_{\text{RockyToShelleyMain}} + D_{\text{RockyToShelleyTrib}}$
$RG_{\text{ShelleyToRichLane}}$	=	$Q_{\text{RichLane}} - Q_{\text{Shelley}} - Q_{\text{Drop}} + D_{\text{ShelleyToRichLane}} + D_{\text{LittleIndian}}$
$RG_{\text{RichLaneToBelowN}}$	=	$Q_{\text{BelowNorth}} - Q_{\text{RichLane}} + D_{\text{RichLaneToBelowN}} + \Delta S_{\text{EqualizingRes}} + D_{\text{MainCanal}} + D_{\text{NorthCanal}}$
$NF_{\text{RockyFord}}$	=	$Q_{\text{IntoReservoir}} + D_{\text{AboveReservoir}}$
NF_{Shelley}	=	$NF_{\text{RockyFord}} + RG_{\text{RockyFordToShelley}}$
NF_{RichLane}	=	$NF_{\text{Shelley}} + RG_{\text{ShelleyToRichLane}}$
$NF_{\text{BelowNorth}}$	=	$NF_{\text{RichLane}} + RG_{\text{RichLaneToBelowN}}$

ii) Unmeasured Blackfoot Reservoir gain

$$Q_{\text{Additional}} = 35 \text{ cfs}$$

iii) Projected Priority Determination

A water right priority date projection, for the upcoming week, must be performed by the Watermaster on a weekly basis. This will help the

Watermaster determine if there are diversions that need to be curtailed due to the available natural flow supply or if new diversion requests can be filled. Basin 27 Water User diversions are limited by the natural flow supply and are not authorized to exceed it. If Basin 27 Water User diversions exceed the natural flow supply, Basin 27 Water User diversions shall be curtailed according to water right priority until their diversions are less than or equal to the natural flow supply. The water right priority is determined by comparing Basin 27 Water User diversions plus new diversion requests to the natural flow supply, taking into account the requested flow rate below Fort Hall North gage. The following equation shall be used:

$$D_{AboveReservoir} + D_{RockyToShelleyTrib} + D_{RockyToShelleyMain} + D_{ShelleyToRichLane} + D_{RichLaneToBelowN} + R_{BelowNorth} + D_{NewRequest} - NF_{BelowNorth} = \text{Rate of diversion of water that needs to be cut} \geq 0$$

The most junior water rights will be cut until the total rate of diversion of water cut is equal to the rate of diversion of cut produced by this equation. The priority date of the most junior water right that is not cut will be the determined priority.

iv) Water travel (lag) times

Reach gain calculations are more accurate when water travel times are included. The terms in sections 4.b)i) and 4.b)iii) will be calculated using time lags as follows:

24 hour lag: $Q_{BigBlackfoot}, Q_{LBR}, Q_{MeadowCk}, Q_{ClarksCut}, Q_{RockyFord}, D_{AboveReservoir}$

12 hour lag: $Q_{Shelley}, D_{RockyToShelleyMain}, D_{RockyToShelleyTrib}$

The terms in sections 4.b)i) and 4.b)iii) are the only terms in the plan that will be calculated using the above lagged values. No other sections of this plan will use time lags. These lags will be incorporated into the equations starting on April 2nd, with the first day of April calculated without a lag.

v) Reach gain averaging

Raw reach gain calculations can fluctuate significantly due to imprecise water travel times and gage measurements. Averaging can help smooth out these unnatural fluctuations and allow for the delivery of a more realistic and consistent water right priority. $Q_{IntoReservoir}, RG_{RockyFordToShelley}, RG_{ShelleyToRichLane},$ and $RG_{RichLaneToBelowN}$ will be calculated with a running average of four days in sections 4.b)i) and 4.b)iii). These are the only terms in the plan that will be calculated using a four day average and they will only be calculated using a four day average in sections 4.b)i) and 4.b)iii). The four days will consist of the current

day of accounting and the previous three days. The values derived from the reach gain equations (RG) are the only terms to be averaged. Daily flow rate values at the individual gages that are used to calculate the reach gains should not be averaged. Averaging will begin on April 4th, with the first three days of April calculated without averaging.

vi) Natural flow accuracy

The accuracy and reliability of the above natural flow calculations shall be checked once per year by the Watermaster, who shall recommend adjustments as appropriate. These adjustments to the above natural flow calculations can be made following approval by the Intergovernmental Board.

c) Accounting updates

The accounting will be updated throughout the irrigation season as data are collected. Revised estimates of natural flow should be updated once per week following the collection of diversion data. Weekly accounting data posted by the Watermaster to the data-sharing website shall indicate the forecasted natural flow for the week following, to be used by water users for scheduling deliveries until new accounting data is posted. Accounting data that is obtained from outside sources such as the USGS will be considered final for purposes of the accounting program as of October 31 of each irrigation season, even if the data is considered “preliminary” by the data collection entity. The calculated natural flow for each of the specified locations will be posted to the data sharing website.

d) Flow allocation

Based on water rights, priority dates, provision 11.d of water right 27-11375 and available water supply, the Watermaster shall assign the amount of allowable diversion for each Basin 27 Water User’s point of diversion. The allowable diversion shall be updated weekly and posted to the data sharing website. In addition to storage releases and Snake River/Sand Creek water, the allowable diversion by the Tribes and United States on behalf of the Tribes shall include all natural flow not identified by the Watermaster for the Basin 27 Water Users’ allowable diversions.

Section 8.3 of the 1990 Fort Hall Indian Water Rights Agreement indicates that water rights decreed in the SRBA from Blackfoot River shall continue to be administered as they have in the past (prior to 1990). The protections given to existing non-tribal water rights in Provision 11.d of Tribal water right 27-11375 offers protection to pre-1990 Basin 27 user rights, but the 1990 Agreement is silent regarding how this would work for Basin 27 users with rights junior to the Tribal and United States September 3, 1907 rights to store water in Blackfoot Reservoir. Based on priority enforcement (which was not enforced prior to 1990 and hence allowed these junior users to divert), these Basin 27 users junior to the 1907 storage rights would not be allowed to divert except on rare

occasions when they are in priority due to excess natural flow like during flood control releases. As a compromise to protect the Tribes and United States ability to store water during the prime spring runoff storage season but also allow the Basin 27 rights junior to September 3, 1907 to realize a benefit of Provision 11.d of Tribal water right no. 27-11375, the following sections regarding “storage season” are hereby placed in this Management Plan:

i) Storage season

A storage season for Blackfoot Reservoir is herein defined to begin the day all Fort Hall Irrigation Project canals diverting from the Blackfoot River are shut off for the remainder of the irrigation season and to end based on the day of maximum physical fill (defined below) or flood control reservoir releases. The term “storage season” as used in this document is solely for the purpose of administering junior water rights and does not change the authorized storage season of 1/1 through 12/31 of Tribal Blackfoot Reservoir water right 27-2007 and United States Blackfoot Reservoir right 27-11561. If there is natural flow in excess of that requested by Basin 27 users as described below, then that natural flow can be stored by the Tribes and United States in Blackfoot Reservoir anytime during the year.

ii) Administration for storage.

Priority administration of water rights in Basin 27 includes administration with regard to the September 3, 1907 priority date of Blackfoot Reservoir during the storage season. During the storage season, Basin 27 user water rights senior to September 3, 1907 are allowed to divert natural flow while water rights junior to the 1907 storage rights shall be curtailed to protect the September 3, 1907 water rights except during flood control when section 4.g)iv) is satisfied. Outside the storage season, all Basin 27 users protected by Provision 11.d of Tribal water right 27-11375, who have rights either junior or senior to the 1907 Tribes and United States storage rights, will have those storage rights subordinated to them such that these Basin 27 user rights (junior and/or senior) are allowed to divert natural flow ahead of the Tribes and United States rights to store water.

iii) Maximum physical fill

Blackfoot Reservoir maximum physical fill, and storage season end, shall be determined by three (3) consecutive days of storage decline after April 1 of each year. As gaging of reservoir storage and stream flows improves in Basin 27, this method of determining maximum physical storage may need to be modified. Modifications of the Plan are described in Section 8.

iv) Water rights that are not protected under provision 11.d of water right 27-11375 and are junior to September 3rd, 1907 shall only come into priority when equation 4.g)iv) is satisfied.

e) Basin 27 Water User requested flow rate from Blackfoot Reservoir

The Watermaster shall inform the Tribes and United States of necessary natural flow to be discharged below Blackfoot Dam to satisfy in priority water rights of Basin 27 Water Users. The Tribes and United States on behalf of the Tribes will have the right to store or otherwise use any available natural flow upstream of Blackfoot Dam, which is not requested by the Watermaster or used by the Basin 27 Water Users above the Blackfoot Reservoir, according to the terms of their water rights. The Tribes and United States shall not be required to discharge any water from the Blackfoot Reservoir for Basin 27 Water Users during the non-irrigation season, November 1 – March 31. The Watermaster, in coordination with Basin 27 Water Users, may request an amount of natural flow equal to or less than the allowable request. This allowable request is based on the equations in section 4.b)iii) that use the total natural flow supply, $NF_{\text{BelowNorth}}$. The Watermaster will be allowed to use some discretion when predicting the upcoming natural flow supply and diversion demand.

i) The allowable requested flow rate ($RF_{\text{Reservoir}}$) shall be calculated as follows:

$$RF_{\text{ReservoirAllowed}} = \min (WR_{\text{RockyToBelowN}}, Q_{\text{IntoReservoir}})$$

$$RF_{\text{Reservoir}} \leq RF_{\text{ReservoirAllowed}}$$

$WR_{\text{RockyToBelowN}}$ is limited to the conditions set forth in 4.d) where $WR_{\text{RockyToBelowN}}$ is established using priority determination from section 4.b)iii) using a predicted $NF_{\text{BelowNorth}}$ for the upcoming week. The $Q_{\text{IntoReservoir}}$ value in this section will not be lagged or averaged.

ii) The Watermaster will verify that 90% of $RF_{\text{Reservoir}}$ requested below Blackfoot Dam is diverted by the Basin 27 Water User(s) when the water is available at the water user(s) point(s) of diversion. For purposes of computing Basin 27 Primary Volume as described in section 4.g) of this plan, the water user(s) requesting water below Blackfoot Dam will be charged for no less than 90% the water requested when available, whether the water is diverted or not, and these charges will be considered daily diversion volumes. The Watermaster will ensure that water charged to the primary volume pursuant to this provision 4.e)ii) will not be double counted if it is diverted by another Basin 27 water user.

f) Basin 27 Water User requested flow rate below Fort Hall North gage

The Watermaster shall direct the Tribes and United States in advance to maintain a flow rate at the Blackfoot River below Fort Hall North gage site that is greater than or equal to the Basin 27 Water User diversion request located downstream of the gage site. The equations set forth are based upon the Blackfoot River below Fort Hall North gage site's location upstream of the Corbett Slough inflow into the Blackfoot River and are meant to be an allowable request. The Watermaster, in coordination with Basin 27 Water Users, may request ($RF_{\text{BelowNorth}}$) an amount equal to or less than the allowable request. The

Watermaster will be allowed to use some discretion when predicting the upcoming natural flow supply and diversion demand.

i) The allowable requested flow rate ($RF_{\text{BelowNorthAllowed}}$) shall be calculated as follows:

$$Q_{\text{CorbettSnake}} \leq Q_{\text{CorbettTotal}}$$

$$RF_{\text{BelowNorthAllowed}} = \frac{C_{\text{Loss}} (WR_{\text{BelowNorth}}) - (Q_{\text{CorbettTotal}} - Q_{\text{CorbettSnake}})}{C_{\text{Loss}}} \geq 0$$

$$RF_{\text{BelowNorth}} \leq RF_{\text{BelowNorthAllowed}}$$

$WR_{\text{BelowNorth}}$ is limited to the conditions set forth in 4.d) where $WR_{\text{BelowNorth}}$ is established using priority determination from section 4.b)iii) using a predicted $NF_{\text{BelowNorth}}$ for the upcoming week.

ii) $C_{\text{Loss}} = 1.1$

iii) Make-up flow

At times factors such as the lack of real-time water management, imprecise travel times, and/or gaging error will result in downstream diversions receiving less water than they are entitled to divert. The shortage to downstream Basin 27 water rights occurs when the flow rate at the Blackfoot River below Fort Hall North gage is less than $RF_{\text{BelowNorth}}$. The downstream Basin 27 water rights affected by the shortage shall be entitled to divert, in addition to their water rights, a volume of water equivalent to the volume of the shortage. Any make-up water requested by the Watermaster as part of $RF_{\text{BelowNorth}}$ must be requested and diverted within two weeks of the return of the total requested flows and will count against the Basin 27 Primary Volume described in Section 4.g). The combination of the make-up water request and $RF_{\text{BelowNorthAllowed}}$ shall not exceed $RF_{\text{BelowNorthMax}}$. The make-up water request portion of $RF_{\text{BelowNorth}}$ shall not be limited by natural flow supply, as the shortage occurred during a time period when natural flow was available. The flow rate of the Corbett Slough will be considered when determining the amount of make-up flow available. If the flow rate of the Corbett Slough increases during times of shortage to Basin 27 water rights, the amount of increase in Corbett Slough will be deducted from the amount of make-up flow available. If the flow rate of the Corbett Slough decreases such that it creates a shortage to downstream Basin 27 water rights, the Watermaster may revise the requested release below Fort Hall North gage as long as it stays within the bounds of the allowable requested rate.

iv) Total flow requested to be released past below Fort Hall North gage

$$TBN = ST_{\text{Stream}} + RF_{\text{BelowNorth}}$$

g) Basin 27 Primary Volume calculations

The accounting program shall include equations to calculate the Basin 27 Primary Volume and the calculated value shall be updated weekly and posted to the data sharing website. The Basin 27 Primary Volume represents the cumulative volume of water diverted by Basin 27 Water Users, located both upstream and downstream of Blackfoot Reservoir, during the irrigation season as a benefit and direct result of being allowed to divert water ahead of the Tribes, as described in the Tribes’ Blackfoot River water right 27-11375. The Basin 27 Primary Volume shall be calculated as the sum of daily diversion volumes as per the following equation for NFD_{Basin27} , from the start of the irrigation season to the present day. The primary volume will exclude Basin 27 Water User diversions during times when the Fort Hall Canals are off, all Blackfoot River natural flow rights are in priority, or when surplus water is being released from the Blackfoot Reservoir:

i) Natural flow distribution

$$NFD_{\text{Basin27}} = D_{\text{AboveReservoir}} + D_{\text{RockyToShelleyTrib}} + \max(D_{\text{RockyToShelleyMain}} + D_{\text{ShelleyToRichLane}} + D_{\text{RichLaneToBelowN}}, 0.9 * RF_{\text{Reservoir}}) + \min(RF_{\text{BelowNorth}}, Q_{\text{BelowNorth}} - ST_{\text{Stream}})$$

NFD_{Basin27} will equal zero on days when at least one of the following exclusions apply: Exclusion 4.g)ii), 4.g)iii), or 4.g)iv)

ii) Exclude diversion when Fort Hall Canals are off.

Exclude Basin 27 Water User diversions on days when all of the Fort Hall Canals are off.

iii) Exclude in priority diversions

Exclude Basin 27 Water User diversions on days when the Tribes’ Blackfoot River water right 27-11375 is fully delivered and satisfied to the extent of Tribal demand as the senior-most priority water right on the Blackfoot River. Basin 27 Water Users are delivered natural flow that is in excess of the natural flow delivered to fully satisfy the demand for the Tribes’ Blackfoot River water right 27-11375. Although the Reservation Canal delivers Snake River and Sand Creek natural flow to the Fort Hall Canals with water rights 1-10223 and 1-10248, it is not considered a source of supply to the Fort Hall Canals when determining whether the Basin 27 water users are in priority under this exclusion. This exclusion takes a theoretical approach that omits the natural flow injected into the Blackfoot River from these water rights 1-10223 and 1-10248, and assumes that 70% of the current diversion by the Fort Hall Canals must be fully satisfied with Blackfoot River natural flow only. The 70% split is derived from the ratio of Tribal lands to Non-Tribal lands indicated as place of use on water rights 27-11561 and 27-02007. This exclusion occurs when the following equation is satisfied:

$$D_{\text{AboveReservoir}} + D_{\text{RockyToShelleyTrib}} + D_{\text{RockyToShelleyMain}} + D_{\text{ShelleyToRichLane}} + D_{\text{RichLaneToBelowN}} + RF_{\text{BelowNorth}} + 0.7 * (D_{\text{MainCanal}} + D_{\text{NorthCanal}} + D_{\text{LittleIndian}}) \leq NF_{\text{BelowNorth}}$$

The $NF_{\text{BelowNorth}}$ term used here is calculated in section 4.b)i) which uses time lags and averaging, as defined in 4.b).

- iv) Exclude diversion when flood control water is released
Exclude Basin 27 Water User diversions occurring in the Blackfoot basin on days when flood control or surplus water releases occur. These surplus water releases occur when the flows available below the Blackfoot Reservoir exceed the demand below the Blackfoot Reservoir, both Tribal and non-Tribal. The United States will communicate with the Watermaster on a weekly basis and will indicate whether or not they are intentionally releasing surplus Blackfoot Reservoir water.

h) Blackfoot River Equitable Adjustment Settlement Agreement implementation

The Agreement sets forth a procedure for use of credits, Equitable Adjustment Water and Supplemental Equitable Adjustment Water. When the Water District 27 accounting indicates the Basin 27 Primary Volume is approaching 45,000 ac-ft for the year, the Watermaster will post on the data sharing website notice of the use of credits and that the use of Equitable Adjustment Water and Supplemental Equitable Adjustment Water is about to begin. The Watermaster will allow use of the maximum credits, Equitable Adjustment Water, and Supplemental Equitable Adjustment Water provided by the Agreement. The amount of credit, Equitable Adjustment Water, and Supplemental Equitable Adjustment Water available to the Tribes for the current year will be determined in advance as provided by the Agreement. If the Primary Volume at any point during the irrigation season exceeds 45,000 ac-ft plus credit used, Equitable Adjustment Water used, and Supplemental Equitable Adjustment Water used then the provisions of paragraph 11.d of water right 27-11375 shall be deemed satisfied for the year and all water rights shall be administered in priority.

i) Credit accrual

At the end of each year in which the Basin 27 Primary Volume diversion is less than 45,000 ac-ft credit may be accrued as provided by the Agreement. The accrual of credits is computed as the lesser of $V_{\text{Available}}$ (natural flow in ac-ft) or 45,000 ac-ft minus the Basin 27 Primary Volume diverted for the year where $V_{\text{Available}}$ is accumulated on a daily basis for the irrigation season from 4-1 to 10-31 as:

$$V_{\text{Available}} = \sum_{4-1}^{10-31} ((NF_{\text{BelowNorth}}) \times 1.9835) \text{ ac-ft}$$

From section 1.c) of the Blackfoot River Equitable Adjustment Agreement, the credit account shall have the following limitations:

1. Maximum Credit Balance: 40,000 ac-ft
2. Annual Maximum Credit Accrual: 20,000 ac-ft per year
3. Annual Maximum Credit Use: 12,000 ac-ft per year

For details of credits and equitable adjustment, see the Blackfoot River Equitable Adjustment Agreement.

j) Accounting for credit

The accounting program will keep track of the accrual of credits calculated as described in paragraph i) above as well as the use and remaining balance of credits at all times as required by the Agreement. During periods of credit use the Watermaster will account for credit use on a daily basis and report credit use and the balance remaining on a weekly basis to the data sharing web site. The Watermaster will report the remaining credit balance as specified in the Agreement.

k) Accounting for Equitable Adjustment Water

The accounting program will keep track of the accrual and use of Equitable Adjustment Water and Supplemental Equitable Adjustment Water at all times as specified in the Agreement. During periods of Equitable Adjustment Water and Supplemental Equitable Adjustment Water use the Watermaster will account for the Equitable Adjustment Water and Supplemental Equitable Adjustment Water use on a daily basis and report Equitable Adjustment Water and Supplemental Equitable Adjustment Water use and balance remaining on a weekly basis to the data sharing web site. The Watermaster will report the remaining Equitable Adjustment Water balance plus the annual accrual as specified in the Agreement.

l) Water Rights

IDWR and the Watermaster shall enforce all Basin 27 water rights in accordance with the elements of their rights, i.e., priority, period of use, and quantity, as listed in their partial and final decrees, and in accordance with the terms of the Agreement. On days when flood control flows are passing the Snake River near Milner gage and natural flow water is available in the Blackfoot River downstream of the Fort Hall North Canal and the requested flow described in Section 4.e) for the previous day is zero and the requested flow described in Section 4.f) is zero for the current day, water rights will not be enforced for the diversions located downstream of the Fort Hall North Canal.

5. Sand Creek Exchange

a) Implementation.

The Parties agree to implement the Sand Creek Exchange as provided for in the 1990 Fort Hall Indian Water Rights Agreement and described in paragraph 11.d of water right 01-10223. Sand Creek flows delivered to Tribal water right 01-10223 and United States right 27-11560 are eligible for Sand Creek Exchange. The measurements and equations necessary to implement the Sand Creek Exchange are available under the terms of this Management Plan.

b) Calculation method.

The volume of water credited to the Tribes under the Sand Creek Exchange will be calculated as an after-the-fact accounting procedure, and credited water may be diverted from the Snake River through the Reservation Canal at any time during the irrigation season. The exchange calculations and provision of credited water will be completed on a weekly basis and posted to the data sharing website referenced in Section 4.c). Exchange credits will not be carried over from year to year.

c) Exchange reset.

The volume of water delivered to Tribal water right 01-10223 and United States right 27-11560 and the volume of water calculated for the Sand Creek Exchange will be reset to zero on the first day that both of the following have occurred:

- 1) the head of the Reservation Canal, the North Canal, or the Main Canal begin diverting water
- 2) the Snake River is under regulation by the Watermaster, i.e., when water ceases spilling past Milner Dam

Water will not be delivered to Tribal water right 01-10223 or United States right 27-11560 on days when the Reservation Canal, the North Canal, and the Main Canal are off.

d) Calculations.

The daily volume of Sand Creek Exchange water shall be calculated based upon a comparison of the measured Sand Creek flows, the excess Blackfoot River flows below the Tribes' diversions, the Blackfoot River flows near the mouth, and the delivery of water to water rights 01-10223 and 27-11560. The total annual volume of Sand Creek Exchange is limited to 50,000 acre-feet per year. The Sand Creek Exchange will be finished accumulating volume for the season after the delivery to 1-10223 and 27-11560, per WD01 accounting, has reached the annual volume limits of both 1-10223 and 27-11560. The Sand Creek Exchange shall be calculated for days when the head of the Reservation

Canal, the North Canal, or the Main Canal are on. At least one of these canals must be on and the calculation will be based on the following equations.

- i) Flow in excess of the Tribes' demand for Sand Creek:

$$\begin{aligned} \text{Excess} &= (Q_{\text{BelowNorth}} - \text{TBN} - (Q_{\text{SandCreek}} - D_{\text{SandCreek}}) \times 15\%) \\ &\geq 0 \end{aligned}$$

- ii) Sand Creek flows available for exchange:

$$\text{Sand Creek} = (Q_{\text{SandCreek}} - D_{\text{SandCreek}}) \times 85\%$$

- iii) Sand Creek flows returning to the Snake River:

$$\begin{aligned} \text{Return} &= Q_{\text{End}} + Q_{\text{Bypass}} - ST_{\text{Stream}} - D_{\text{MinersWell}} \\ &\geq 0 \end{aligned}$$

The Watermaster will regulate Basin 27 Water User diversions located below $Q_{\text{BelowNorth}}$ consistent with their natural flow water rights. Diversion of Sand Creek flows or ST_{Stream} water is not permitted.

- iv) Sand Creek Exchange calculation:

$$\text{Exchange} = \text{lesser of (1) Excess, (2) Sand Creek, (3) Return}$$

6. Equalizing Reservoir and Little Butte Canal

Due to the construction of the Equalizing Reservoir, the Little Butte Canal was asked to abandon its headgate on the Blackfoot River and begin to divert water out of the Equalizing Reservoir pool. Sedimentation in the Equalizing Reservoir can make it so that the Little Butte Canal is unable to divert water through its headgate. The United States and Tribes agree to work with Water District 27 to improve the Little Butte Canal diversion structure(s) and to operate the Equalizing Reservoir in such a way that the Little Butte Canal is provided an adequate supply of water at its headgate throughout the irrigation season.

7. Snake River deliveries to Blackfoot River diversions

- a) Diversion of Snake River water rights in Basin 27 shall not be included in the Primary Volume. For Snake River rights downstream of the Below North gage, the diversion of these rights is excluded in the Primary Volume calculation by including only the portion

of diversions from Blackfoot River natural flow downstream of the Below North gage by using the minimum of $R_{\text{BelowNorth}}$ or $Q_{\text{BelowNorth}} - S_{\text{Stream}}$. For Snake River rights 1-28D and 1-28F (which use Snake River water to replace upstream Blackfoot River Basin natural flow diversions), they shall be accounted for separately outside the Management Plan due to the complexity of accounting.

- b) A portion of Blackfoot Irrigation Company's and Corbett Slough Ditch Company's Snake River water rights 1-1J, 1-298, 1-47E, 1-48, and 1-304 are injected into the Blackfoot River through the Corbett Slough. This injected Snake River water is then re-diverted out of the Blackfoot River by shareholders of these companies. Blackfoot Irrigation Company and Corbett Slough Ditch Company have indicated that 7.87 cfs of these water rights are held by users on the Blackfoot River who divert according the above method. Therefore, the maximum allowable value for $Q_{\text{CorbettSnake}}$ is 7.87 cfs. This 7.87 cfs does not include the allowable flow via Corbett Slough for individually owned Smith-Maxwell Snake River water right 1-10058 because Smith-Maxwell also has Blackfoot River right 27-12108 for 13.9 cfs. The combined diversion rate for water rights 1-10058 and 27-12108 is limited to 13.9 cfs. To avoid double accounting of the water rights and a complex equation for calculating $Q_{\text{CorbettSnake}}$, Snake River water right 1-10058 is not included in $Q_{\text{CorbettSnake}}$ because it is assumed that the 1-10058 diversion limit is included as part of the 27-12108 limit. If the applicable Snake River water rights or the shares held by Basin 27 users change in the future, the value of $Q_{\text{CorbettSnake}}$ shall be re-evaluated.

8. Review of Plan / Resolution of Disputes

The Parties shall periodically review at a meeting of the Fort Hall Intergovernmental Board the status of the programs described in this Plan and shall provide recommendations, based upon the best available data and good science, for any changes in the programs to the Watermaster, the Director, the United States and the Tribes, taking into account the recommendations of the Parties' technical experts. The Parties agree that all disputes and objections regarding the implementation of this Plan will be taken up at the annual Intergovernmental Board meeting. Modifications to this Plan will be based on mutual agreement of the Parties.

9. Points of Contact

To effectively carry out the provisions of this Blackfoot River Management Plan, each Party will designate a representative who will serve as the point of contact to communicate and coordinate the implementation of this Plan.

10. Applicable Law

- a) This Blackfoot River Management Plan shall be construed and enforced pursuant to the Fort Hall Agreement and relevant decrees entered by the SRBA District Court. Nothing in

this plan shall be interpreted or implemented to change any portion of any decree entered in the SRBA.

- b) The United States' and the State of Idaho's agreement is subject to the terms of applicable federal and state law, including the Anti Deficiency Act - 31 U.S.C. § 1341 and similar requirements of state law. Nothing contained in this Agreement shall be construed to require the obligation, appropriation or expenditure of any money from the U.S. Treasury or the State General Fund. The Parties acknowledge that the federal or state agencies shall not be required under this Plan to expend any appropriated funds unless and until an authorized official of the relevant agency affirmatively acts to commit to such expenditures in writing.

11. Binding Effect.

This Plan shall bind and inure to the benefit of the respective successors of the Parties.

12. Effect of Headings

Headings appearing in this Agreement are inserted for convenience and reference and shall not be construed as interpretations of the text.

13. Multiple Originals

This agreement is executed in quintuplicate. Each of the five (5) Agreements with an original signature of each Party shall be an original.

14. Effective Date

This Plan shall be effective upon signature by the Parties and approval by the Director.

15. Signatures

The Parties have executed this Blackfoot River Water Management Plan on the date following their respective signatures.

SHOSHONE-BANNOCK TRIBES

_____ Dated: _____
Devon Boyer
Chairman, Shoshone-Bannock
Fort Hall Business Council

STATE OF IDAHO

ROGER CHASE
Chairman, Idaho Water Resource Board

Dated: _____

UNITED STATES

BRYAN MERCIER
Regional Director
Northwest Region
Bureau of Indian Affairs
U.S. Department of Interior

Dated: _____

COMMITTEE OF NINE OF WATER DISTRICT 01

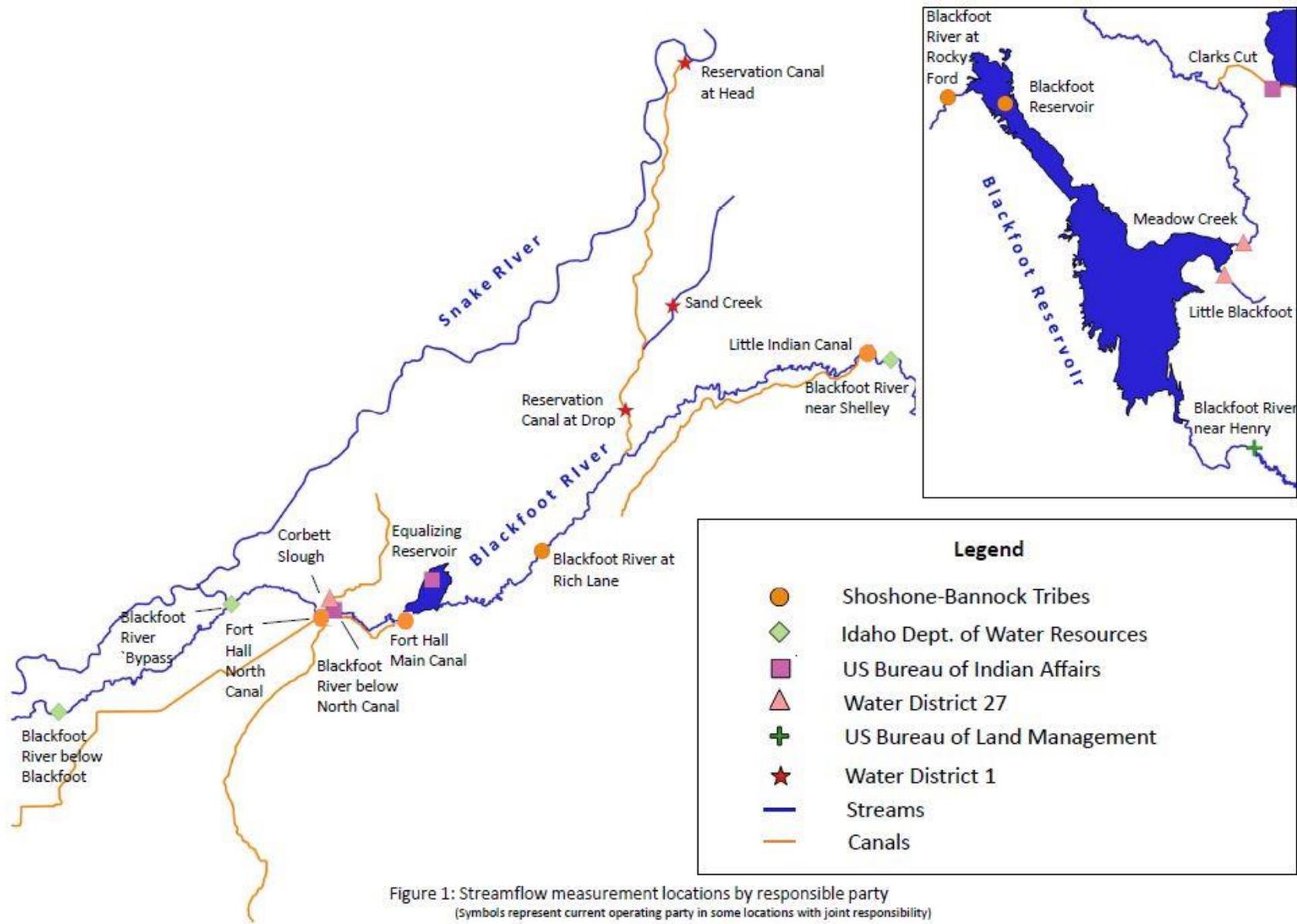
DARREL KER
Chairman, Committee of Nine

Dated: _____

BASIN 27 ADVISORY COMMITTEE
FOR WATER DISTRICT 27

BOB REID
Chairman, Basin 27 Advisory Committee

Dated: _____



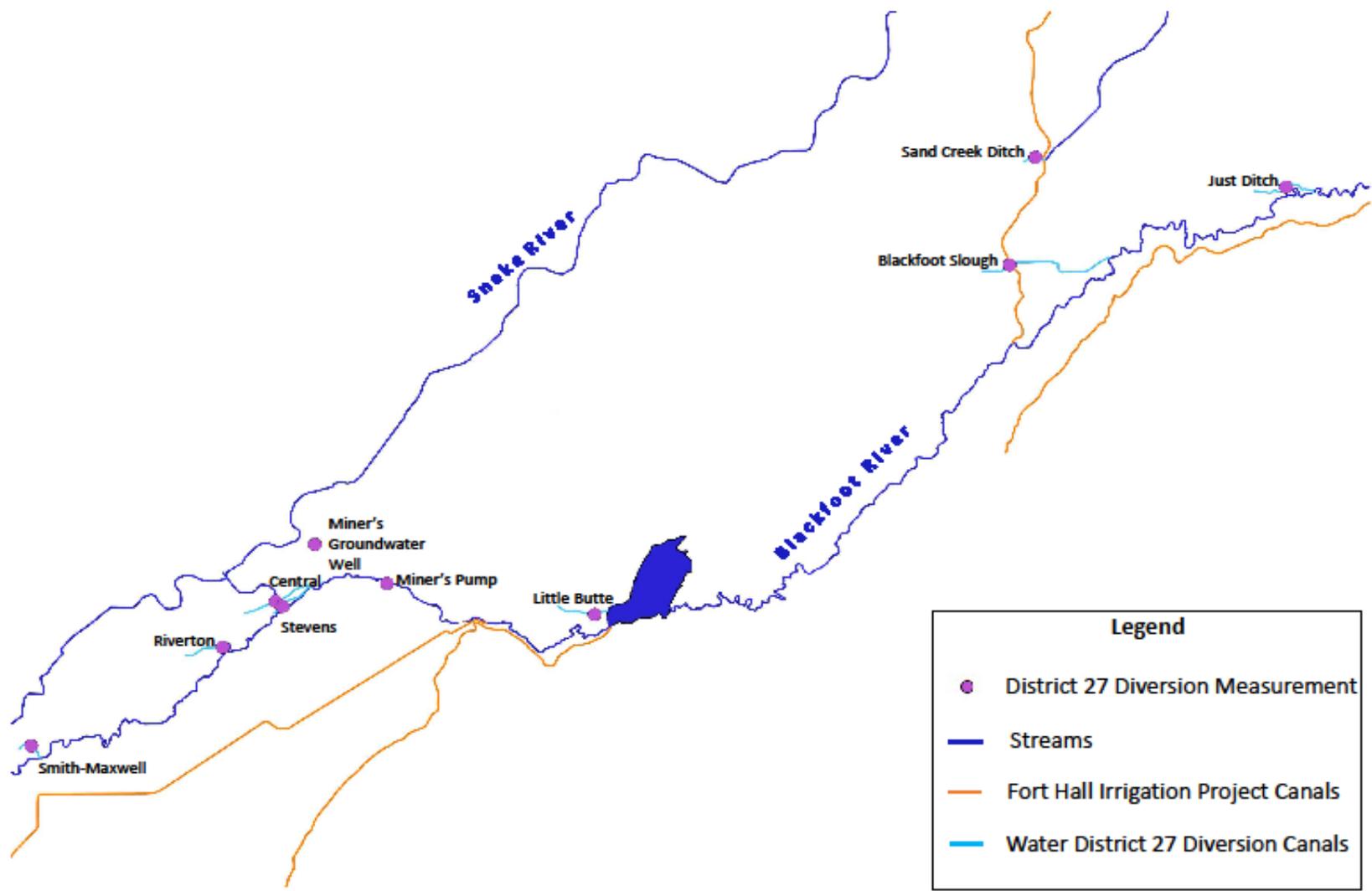


Figure 2: Water District 27 continuous diversion measurement sites

APPENDIX I

Contents of Data Sharing Website

All data from the stream gages identified in Section 3.d) of the Plan. Those gages include the following:

- Clarks Cut
- Blackfoot River near Henry
- Blackfoot Reservoir Gage
- Blackfoot River at Rocky Ford
- Blackfoot River near Shelley
- Blackfoot River at Rich Lane
- Blackfoot River below Fort Hall North
- Blackfoot River Bypass
- Blackfoot River near Blackfoot
- Equalizing Reservoir Gage
- Meadow Creek near Reservoir
- Little Blackfoot River near Reservoir
- Corbett Slough near Blackfoot River
- Sand Creek at Wolverine Road
- Reservation Canal at Head
- Reservation Canal at Drop

All diversion data identified in Sections 3.b) and 3.c) including the following:

- Smith-Maxwell diversion
- Riverton diversion
- Stevens diversion
- Central diversion
- Miners / Younie Blackfoot River pump diversion
- Miners ground water well diversion(s)
- Little Butte diversion
- Eastern Idaho / Blackfoot Slough diversion
- Just Ditch diversion
- Sand Creek Ditch diversion
- Fort Hall Little Indian Canal
- Fort Hall Main Canal
- Fort Hall North Canal
- Non-continuous measurements of diversion data provided for in Section 3.b)iv)

Quantities calculated within the accounting program identified in Section 4 and 5.

- $Q_{\text{IntoReservoir}}$
- Total Grays Lake imported water in acre-feet
- $NF_{\text{RockyFord}}$
- NF_{Shelley}
- NF_{RichLane}
- $NF_{\text{BelowNorth}}$

D_{RockyToShelleyMain}
D_{RockyToShelleyTrib}
D_{ShelleytoRichLane}
D_{RichLaneToBelowN}
D_{BelowNorth}
D_{AboveReservoir}
D_{NewRequest}
Storage season begin and end date
R_F_{ReservoirAllowed}
R_F_{BelowNorthAllowed}
R_F_{Reservoir}
R_F_{BelowNorth}
W_R_{RockyToBelowN}
W_R_{BelowNorth}
Q_{CorbettSnake}
S_T_{Stream}
C_{Loss}
Makeup flow
T_{BN}
N_F_D_{Basin27}
V_{Available}

Credit accrual at the end of the irrigation season
Available Equitable Adjustment Water at the beginning of the irrigation season
Equitable Adjustment Water use
Remaining Equitable Adjustment Water balance
Equitable Adjustment Water accrual at the end of the irrigation season
Cumulative Basin 27 Primary Volume as provided for in Section 4.g)

Calculation of the Sand Creek Exchange as provide for in Section 5.
Excess flows bypassing the Tribes' diversions
Sand Creek flows available for exchange
Blackfoot River flows near the confluence with Snake River
Sand Creek Exchange Cumulative Volume
Sand Creek Exchange reset date