

Lafortune, Thomas

From: Kristin Moore <kristin.rmea@gmail.com>
Sent: Thursday, February 8, 2024 4:42 PM
To: Lafortune, Thomas
Cc: quinn.stufflebeam@titlefc.com
Subject: RE: Little Butte Transfer 88649

CAUTION: This email originated outside the State of Idaho network. Verify links and attachments **BEFORE** you click or open, even if you recognize and/or trust the sender. Contact your agency service desk with any concerns.

Thomas,

We are assuming the pond will end up being 5.5 feet deep. Since the purpose of this pond will require consistent depth, we also assumed a rather rectangular shape. So the volume is anticipated to be about 50 af. There will be a little less volume based on slopes required at the edges, but it shouldn't be significantly less.

For the rental water, we have discussed with Robert Seller, who is also on the board of the Blackfoot Irrigation Co. to determine the ability to deliver rental water to the pond. Our initial discussions were favorable. As soon as we have their authorization, we will be submitting to rent from the Small Rental Pool. As far as Mr. Seller knows, there's no patron that normally rents from the Small Rental Pool, so we don't anticipate any competition for it. Our other option is to have the water delivered through the Corbett Slough. These canal systems are all intertwined and connected, so we have a few options to get the rental water there.

Kristin Moore

Senior Water Rights Analyst

482 Constitution Way, Ste 303, Idaho Falls, ID 83402

E-Mail: kristin.rmea@gmail.com

VOICE: 208-524-2353, Ext #104 ||| FAX: 208-524-1795



CONFIDENTIALITY NOTICE: This message is intended only for the use of the individual or entity to which it is addressed and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination or distribution of this communication to other than the intended recipient is strictly prohibited. If you have received this communication in error, please notify us immediately by reply email to the sender or collect telephone call to (208) 524-2353. *Thank you.*

From: Lafortune, Thomas [mailto:Thomas.Lafortune@idwr.idaho.gov]
Sent: Thursday, February 08, 2024 4:26 PM
To: Kristin Moore <kristin.rmea@gmail.com>
Cc: quinn.stufflebeam@titlefc.com
Subject: RE: Little Butte Transfer 88649

Thanks Kristin,

The NRCS soil classification seemed like it might be incorrect based on other soil types in the area, but if they are finding clay at the site maybe it is accurate.

Is there a proposed volume for the pond that you could provide me? Also, the application stated that the pond will initially be filled with Water Supply Bank or Rental Pool water. Are there more details on exactly how that will be accomplished yet?

Tom

From: Kristin Moore <kristin.rmea@gmail.com>
Sent: Thursday, February 8, 2024 1:28 PM
To: Lafortune, Thomas <Thomas.Lafortune@idwr.idaho.gov>
Cc: quinn.stufflebeam@titlefc.com
Subject: RE: Little Butte Transfer 88649

CAUTION: This email originated outside the State of Idaho network. Verify links and attachments BEFORE you click or open, even if you recognize and/or trust the sender. Contact your agency service desk with any concerns.

Thomas,

I've attached a copy of the NRCS soil report for this location along with the map to illustrate the soil unit we will be excavating in. The pond is proposed to be 5-6 ft deep. I've also attached a copy of IDWR's Pond Loss Calculation Spreadsheet that we used to perform the calculations for seepage losses. With the best information we have available, and using IDWR's tools, we estimated seepage losses to be 9.9 afa. We also discussed the possibility of that being a little too conservative, even though we used standard methods to calculate it. In excavating at the pond location, it was discovered that the topsoil had large amounts of clay present. This clay will be used to line the pond to further reduce the possibility of unanticipated seepage losses.

In regards to administration, we have already attempted to answer some of those questions. I met with Robert Seller, president of Blackfoot Slough, Spencer Larsen, the local ditch watermaster for several of the ditches and canals in that area, and Quinn Stufflebeam, president of Little Butte. We discussed the very question about administration of the water right. We talked about delivery of the water, timing, impacts on other users on the ditch, location of the diversion on the canal, and generally, how the water would be accounted and delivered for the pond. This project has been very open to the entities that may be involved going forward and we wanted to be sure that it wouldn't cause any conflicts. I believe that they are working out the internal administrative questions, if they haven't already. If needed, a measurement device could be installed on the new diversion (which is just for the pond) from the canal to monitor the quantity used in the pond and those numbers can be reported to the canal company, who ensures their patrons get the appropriate amount of water.

Kristin Moore

Senior Water Rights Analyst
482 Constitution Way, Ste 303, Idaho Falls, ID 83402
E-Mail: kristin.rmea@gmail.com
VOICE: 208-524-2353, Ext #104 ||| FAX: 208-524-1795



CONFIDENTIALITY NOTICE: This message is intended only for the use of the individual or entity to which it is addressed and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination or distribution of this communication to other than the intended recipient is strictly prohibited. If you have received this communication in error, please notify us immediately by reply email to the sender or collect telephone call to (208) 524-2353. *Thank you.*

From: Lafortune, Thomas [<mailto:Thomas.Lafortune@idwr.idaho.gov>]
Sent: Thursday, February 08, 2024 12:43 PM
To: Kristin Moore <kristin.rmea@gmail.com>
Subject: Little Butte Transfer 88649

Kristin,

I wanted to share the watermaster comment for the Little Butte transfer 88649 with you. I agree with these concerns.

Thomas Lafortune
Water Resource Agent, Sr.
(208) 497-3779
900 N Skyline Dr, Ste A
Idaho Falls, ID 83402



Engineering Properties

This table gives the engineering classifications and the range of engineering properties for the layers of each soil in the survey area.

Hydrologic soil group is a group of soils having similar runoff potential under similar storm and cover conditions. The criteria for determining Hydrologic soil group is found in the National Engineering Handbook, Chapter 7 issued May 2007(<http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba>). Listing HSGs by soil map unit component and not by soil series is a new concept for the engineers. Past engineering references contained lists of HSGs by soil series. Soil series are continually being defined and redefined, and the list of soil series names changes so frequently as to make the task of maintaining a single national list virtually impossible. Therefore, the criteria is now used to calculate the HSG using the component soil properties and no such national series lists will be maintained. All such references are obsolete and their use should be discontinued. Soil properties that influence runoff potential are those that influence the minimum rate of infiltration for a bare soil after prolonged wetting and when not frozen. These properties are depth to a seasonal high water table, saturated hydraulic conductivity after prolonged wetting, and depth to a layer with a very slow water transmission rate. Changes in soil properties caused by land management or climate changes also cause the hydrologic soil group to change. The influence of ground cover is treated independently. There are four hydrologic soil groups, A, B, C, and D, and three dual groups, A/D, B/D, and C/D. In the dual groups, the first letter is for drained areas and the second letter is for undrained areas.

The four hydrologic soil groups are described in the following paragraphs:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

Depth to the upper and lower boundaries of each layer is indicated.

Texture is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, "gravelly."

Classification of the soils is determined according to the Unified soil classification system (ASTM, 2005) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2004).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as subgrade material can be indicated by a group index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

Percentage of rock fragments larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3 inches in diameter based on an oven-dry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Liquid limit and *plasticity index* (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

References:

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard
classification of soils for engineering purposes. ASTM Standard D2487-00.

Report—Engineering Properties

Absence of an entry indicates that the data were not estimated. The asterisk "*" denotes the representative texture; other possible textures follow the dash. The criteria for determining the hydrologic soil group for individual soil components is found in the National Engineering Handbook, Chapter 7 issued May 2007(<http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba>). Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).



Engineering Properties—Bingham Area, Idaho														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				L-R-H	L-R-H	L-R-H	L-R-H	L-R-H	L-R-H	L-R-H	L-R-H
Bc—Blackfoot loam														
Blackfoot	85	C	0-8	Loam	CL	A-4, A-6	0- 0- 0	0- 0- 0	95-98-100	95-98-100	65-70-75	55-63-70	27-33-39	10-12-15
			8-18	Loam, silty clay loam, fine sandy loam, very fine sandy loam	CL	A-6	0- 0- 0	0- 0- 0	91-100-100	91-100-100	77-89-93	56-66-70	28-33-38	12-15-18
			18-25	Loam, silty clay loam, fine sandy loam, very fine sandy loam	CL	A-4, A-6, A-7	0- 0- 0	0- 0- 0	92-100-100	91-100-100	79-99-100	68-87-92	27-39-45	10-19-23
			25-29	Loam, silty clay loam, fine sandy loam, very fine sandy loam	CL	A-6	0- 0- 0	0- 0- 0	91-100-100	91-100-100	77-89-93	56-66-70	28-33-38	12-15-18
			29-40	Loam, silty clay loam, fine sandy loam, very fine sandy loam	SC-SM, SC	A-4	0- 0- 0	0- 0- 0	92-100-100	92-100-100	83-93-95	36-42-45	21-25-28	6-8 -10
			40-51	Loam, silty clay loam, fine sandy loam, very fine sandy loam	CL-ML, CL, SM	A-4	0- 0- 0	0- 0- 0	91-100-100	90-100-100	84-98-100	47-57-62	17-23-28	2-6 -10
			51-70	Loam, silty clay loam, fine sandy loam, very fine sandy loam	CL	A-4, A-6	0- 0- 0	0- 0- 0	93-100-100	92-100-100	80-99-100	70-88-90	25-37-40	10-19-21

Engineering Properties--Bingham Area, Idaho														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number--				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			<i>In</i>				<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>
Bd--Blackfoot loam, drained														
Blackfoot, moderately well drained	85	C	0-8	Loam	CL	A-4, A-6	0- 0- 0	0- 0- 0	100-100-100	100-100-100	86-89-92	61-64-67	27-33-39	10-12-15
			8-18	Loam, silty clay loam, fine sandy loam, very fine sandy loam	CL	A-6	0- 0- 0	0- 0- 0	91-100-100	91-100-100	77-89-93	56-66-70	28-33-38	12-15-18
			18-25	Very fine sandy loam, fine sandy loam, silty clay loam, loam	CL	A-4, A-6, A-7	0- 0- 0	0- 0- 0	92-100-100	91-100-100	79-99-100	68-87-92	27-39-45	10-19-23
			25-29	Loam, silty clay loam, fine sandy loam, very fine sandy loam	CL	A-6	0- 0- 0	0- 0- 0	91-100-100	91-100-100	77-89-93	56-66-70	28-33-38	12-15-18
			29-40	Loam, silty clay loam, fine sandy loam, very fine sandy loam	SC-SM, SC	A-4	0- 0- 0	0- 0- 0	92-100-100	92-100-100	83-93-95	36-42-45	21-25-28	6-8-10
			40-51	Loam, silty clay loam, fine sandy loam, very fine sandy loam	CL-ML, CL, SM	A-4	0- 0- 0	0- 0- 0	91-100-100	90-100-100	84-98-100	47-57-62	17-23-28	2-6-10
			51-70	Loam, silty clay loam, fine sandy loam, very fine sandy loam	CL	A-4, A-6	0- 0- 0	0- 0- 0	93-100-100	92-100-100	80-99-100	70-88-90	25-37-40	10-19-21

Engineering Properties--Bingham Area, Idaho														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number--				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			<i>In</i>				<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>
Fs--Firth sandy loam, drained														
Firth, moderately well drained	85	A	0-12	Sandy loam	SC-SM, SC	A-4, A-6	0- 0- 0	0- 0- 0	95-98-100	90-95-100	70-75-80	40-45-50	22-29-35	6-9 -12
			12-40	Sandy loam, fine sandy loam	SC-SM, SC	A-4, A-6	0- 0- 0	0- 0- 0	95-98-100	90-95-100	70-75-80	40-45-50	20-26-31	6-9 -12
			40-60	Silt loam, silty clay loam	CL	A-6, A-7	0- 0- 0	0- 0- 0	100-100-100	100-100-100	95-98-100	80-90-100	31-36-42	13-17-21
Pw--Presto loamy sand														
Presto	85	B	0-8	Loamy sand	SC-SM, SM	A-2	0- 0- 0	0- 3- 5	95-98-100	90-95-100	70-78-85	25-30-35	17-21-24	2-4 -6
			8-28	Loamy sand	SC-SM, SM	A-1, A-2	0- 0- 0	0- 0- 0	80-85-90	75-80-85	50-60-70	20-28-35	16-20-24	2-4 -6
			28-60	Silt loam	CL-ML, CL	A-4, A-6	0- 0- 0	0- 0- 0	95-98-100	90-95-100	85-90-95	70-78-85	20-26-32	6-10-13
WOF--Wolverine sand, rolling														
Wolverine	80	A	0-6	Sand	SC-SM, SP-SC, SP-SM	A-1, A-2	0- 0- 0	0- 0- 0	100-100-100	100-100-100	50-60-70	5-10- 15	17-21-24	2-4 -6
			6-60	Sand, coarse sand, loamy coarse sand	SC-SM, SP-SM, SM	A-1, A-2	0- 0- 0	0- 0- 0	100-100-100	100-100-100	40-55-70	5-13- 20	0-17 -23	NP-2 -6

Engineering Properties—Fort Hall Area, Idaho, Parts of Bannock, Bingham, Caribou, and Power Counties														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			<i>In</i>				<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>
EnA—Escalante sandy loam 0 to 2 percent slopes														
Escalante	85	A	0-9	Sandy loam	SC-SM, SC	A-2, A-4, A-6	0- 0- 0	0- 0- 0	100-100-100	100-100-100	70-78-85	35-43-50	22-28-33	6-9 -12
			9-60	Fine sandy loam, very fine sandy loam, sandy loam	SC-SM, CL, SC	A-2, A-4, A-6	0- 0- 0	0- 0- 0	100-100-100	100-100-100	60-73-85	35-45-55	20-25-30	6-9 -12
FeB—Feltham loamy sand, 4 to 8 percent slopes														
Feltham	85	B	0-4	Loamy sand	SC-SM, SM	A-2	0- 0- 0	0- 0- 0	100-100-100	100-100-100	60-68-75	15-25-35	0-18 -22	NP-2 -4
			4-22	Loamy sand, loamy fine sand	SC-SM, SM	A-1, A-2	0- 0- 0	0- 0- 0	100-100-100	100-100-100	50-63-75	15-25-35	16-19-23	2-4 -6
			22-60	Loam	CL, SC	A-4, A-6	0- 0- 0	0- 0- 0	90-95-100	76-86-100	65-76-90	46-54-66	24-27-31	8-10-12
FLF—Feltham loamy sand, undulating														
Feltham	85	B	0-4	Loamy sand	SC-SM, SM	A-2	0- 0- 0	0- 0- 0	100-100-100	100-100-100	60-68-75	15-25-35	0-18 -22	NP-2 -4
			4-22	Loamy sand, loamy fine sand	SC-SM, SM	A-1, A-2	0- 0- 0	0- 0- 0	100-100-100	100-100-100	50-63-75	15-25-35	16-19-23	2-4 -6
			22-60	Loam	CL, SC	A-4, A-6	0- 0- 0	0- 0- 0	90-95-100	76-86-100	65-76-90	46-54-66	24-27-31	8-10-12

Engineering Properties--Fort Hall Area, Idaho, Parts of Bannock, Bingham, Caribou, and Power Counties														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number---				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			<i>In</i>				<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>
PeC--Paniogue loam, 4 to 8 percent slopes														
Paniogue	80	B	0-7	Loam	CL-ML, CL	A-4, A-6	0- 0- 0	0- 0- 0	95-98-100	90-95-100	70-83-95	55-68-80	21-27-33	4-8 -12
			7-18	Very fine sandy loam, silt loam, loam	CL-ML, CL, ML	A-4	0- 0- 0	0- 3- 5	80-90-100	75-85-95	55-73-90	50-65-80	18-23-28	3-6 -9
			18-60	Stratified very gravelly coarse sand to silt loam	GP-GM, SP-SM, GP, SP	A-1	0- 0- 0	0- 5- 10	40-55-70	40-50-60	15-25-35	0- 5- 10	0-7 -14	NP
TdA--Tickason loam, 0 to 2 percent slopes														
Tickason	85	B	0-12	Loam	CL-ML, SC-SM, ML	A-4	0- 0- 0	0- 0- 0	95-98-100	85-93-100	65-78-90	45-58-70	21-25-30	4-6 -7
			12-20	Gravelly loam, silt loam, loam	GC-GM, CL, SC	A-2, A-4, A-6	0- 0- 0	0- 0- 0	60-100-100	50-95-100	40-60-80	30-50-70	21-27-33	6-9 -12
			20-54	Silt loam, gravelly silt loam	GC-GM, CL	A-2, A-4, A-6	0- 0- 0	0- 0- 0	60-100-100	50-95-100	45-63-80	35-53-70	20-26-31	6-9 -12
			54-61	Loamy sand, gravelly loamy sand	SC-SM, SW-SM, SM	A-1, A-2	0- 0- 0	0- 0- 0	60-100-100	50-95-100	25-43-60	10-18-25	16-19-21	2-3 -4

Data Source Information

Soil Survey Area: Bingham Area, Idaho

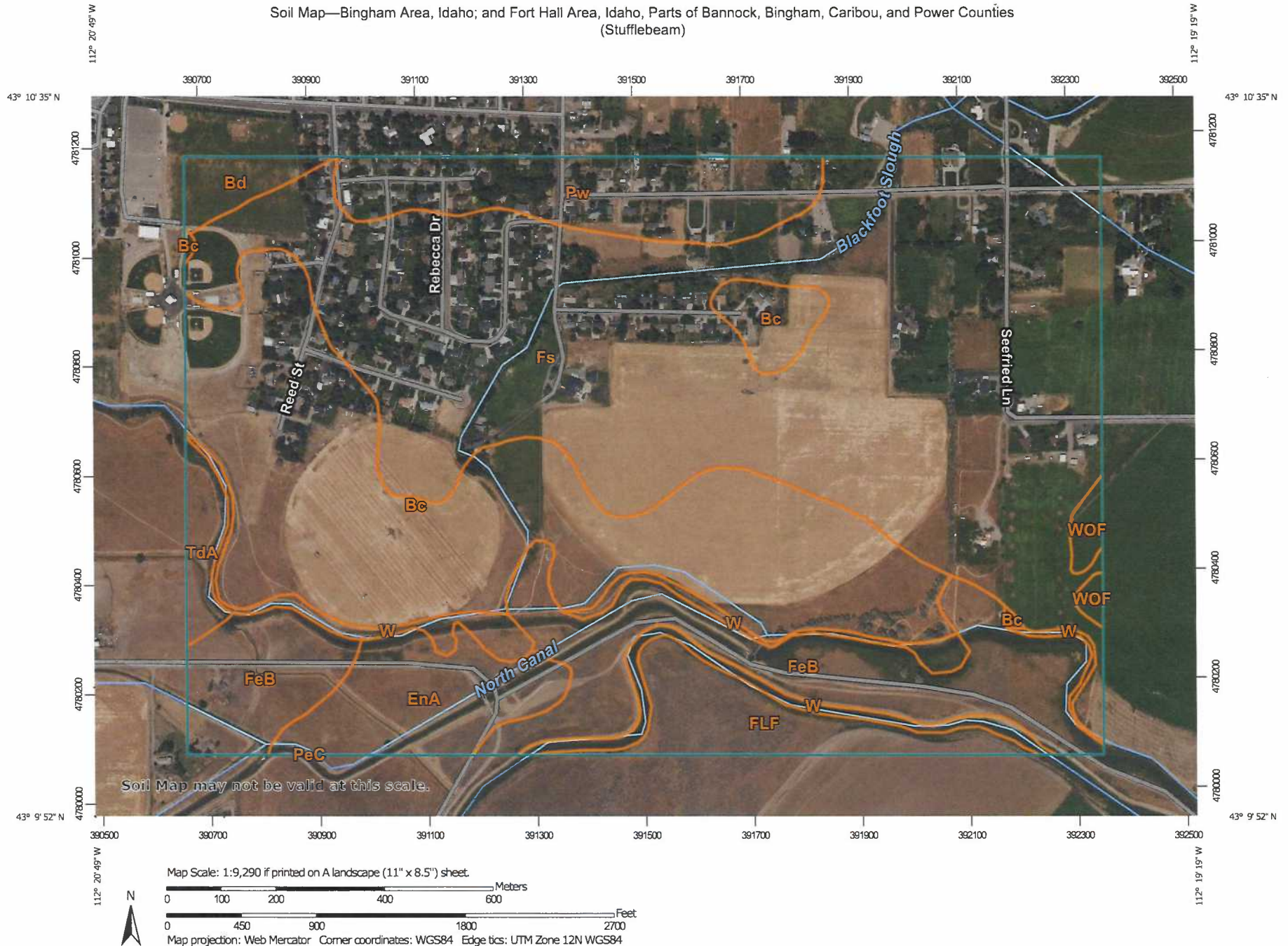
Survey Area Data: Version 19, Sep 2, 2022

Soil Survey Area: Fort Hall Area, Idaho, Parts of Bannock, Bingham, Caribou, and Power Counties

Survey Area Data: Version 16, Sep 6, 2022



Soil Map—Bingham Area, Idaho; and Fort Hall Area, Idaho, Parts of Bannock, Bingham, Caribou, and Power Counties
(Stufflebeam)



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

11/21/2022
Page 1 of 4

Soil Map—Bingham Area, Idaho; and Fort Hall Area, Idaho, Parts of Bannock, Bingham, Caribou, and Power Counties
(Stufflebeam)

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot

 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals

Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Bingham Area, Idaho

Survey Area Data: Version 19, Sep 2, 2022

Soil Survey Area: Fort Hall Area, Idaho, Parts of Bannock,

Bingham, Caribou, and Power Counties

Survey Area Data: Version 16, Sep 6, 2022

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 25, 2022—Aug 8, 2022



Soil Map—Bingham Area, Idaho; and Fort Hall Area, Idaho, Parts of Bannock, Bingham, Caribou, and Power Counties
(Stufflebeam)

MAP LEGEND

MAP INFORMATION

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.



Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Bc	Blackfoot loam	107.7	23.5%
Bd	Blackfoot loam, drained	5.0	1.1%
Fs	Firth sandy loam, drained	203.0	44.2%
Pw	Presto loamy sand	27.2	5.9%
W	Water	9.6	2.1%
WOF	Wolverine sand, rolling	2.7	0.6%
Subtotals for Soil Survey Area		355.2	77.4%
Totals for Area of Interest		459.1	100.0%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
EnA	Escalante sandy loam 0 to 2 percent slopes	20.1	4.4%
FeB	Feltham loamy sand, 4 to 8 percent slopes	55.6	12.1%
FLF	Feltham loamy sand, undulating	17.1	3.7%
PeC	Paniogue loam, 4 to 8 percent slopes	0.0	0.0%
TdA	Tickason loam, 0 to 2 percent slopes	5.2	1.1%
W	Water	5.9	1.3%
Subtotals for Soil Survey Area		103.9	22.6%
Totals for Area of Interest		459.1	100.0%