State of Idaho
DEPARTMENT OF WATER RESOURCES
Western Region • 2735 Airport Way • Boise, Idaho 83705-5082
Phone: (208) 334-2190 • Fax: (208) 334-2348 • Website: www.idwr.idaho.gov

C.L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

August 30, 2018

SEE ATTACHED DISTRIBUTION LIST

Re: Application for Permit No. 63-34403

Dear Interested Party:

The above referenced application may be of interest to you. I would like to inform you that the application has been submitted to the *Mountain Home News, Idaho Statesman, Post Register, Lewiston Morn Tribune,* and *Times News* for **Statewide** advertising. I have enclosed a copy of the application for your convenience. This information is also available on our website www.idwr.idaho.gov.

If you desire to file a formal protest against approval of the application, a written protest along with the $25.00 protest fee must be received in this office by **September 24, 2018**. A copy of the protest must also be sent to the applicant.

If you have any questions regarding the application, please contact this office at 208-334-2190.

Sincerely,

Rachel Neely
Administrative Assistant
Western Regional Office

Enclosures

DISTRIBUTION LIST

SCOTT L CAMPBELL
CAMPBELL LAW CHTD
PO BOX 170538
BOISE ID 83717
scott@slclexh20.com
For: ELMORE COUNTY BOARD OF COMMISSIONERS
ELMORE COUNTY COURTHOUSE
150 S 4TH E STE 3
MOUNTAIN HOME ID 83647

MATTHEW J MCGEE
SPINK BUTLER LLP
251 E FRONT ST STE 200
PO BOX 639
BOISE ID 83701
mmcgee@spinkbutler.com
For: Elmore Co. Board of Commissioners

SPF WATER ENGINEERING LLC
C/O TERRY SCANLAN
300 E MALLARD DR STE 350
BOISE ID 83706
tscanlan@spfwater.com
For: Elmore Co. Board of Commissioners

CITY OF BOISE
C/O ABIGAIL GERMAINE
PO BOX 500
BOISE ID 83701-0500
agermaine@cityofboise.org

IDAHO POWER CO
JOHN K SIMPSON
BARKER ROSHOLT & SIMPSON LLP
1010 JEFFERSON ST STE 102
PO BOX 2139
BOISE ID 83701-2139
jks@idahowaters.com
For: IDAHO POWER CO
PO BOX 70
BOISE ID 83707-0070

IDAHO CONSERVATION LEAGUE
MARIE CALLAWAY KELLNER
PO BOX 844
BOISE ID 83701
mkellner@idahoconservation.org

UNITED STATES DEPARTMENT OF INTERIOR
BUREAU OF LAND MANAGEMENT
IDAHO STATE OFFICE
FRED PRICE
1387 S VINNELL WAY
BOISE ID 83709-1657
fwprice@blm.gov

S BRYCE FARRIS
DANIEL V STEENSON
ANDREW J WALDERA
SAWTOOTH LAW OFFICES PLLC
1101 W RIVER ST STE 110
PO BOX 7985
BOISE ID 83707
bryce@sawtoothlaw.com
dan@sawtoothlaw.com
andy@sawtoothlaw.com

For: BALLANTYNE DITCH CO LTD
170 N SIERRA VIEW WAY
EAGLE ID 83616

BOISE VALLEY IRRIGATION DITCH CO
8750 N BOGART LN
BOISE ID 83714

FARMERS COOPERATIVE DITCH CO
PO BOX 69
PARMA ID 83660

MIDDLETON MILL DITCH CO
MIDDLETON IRRIGATION ASSN INC
PO BOX 848
MIDDLETON ID 83644-0214

NAMPA & MERIDIAN IRRIGATION DISTRICT
1503 FIRST ST S
NAMPA ID 83651

NEW DRY CREEK DITCH CO
C/O KARI ROSTI
1460 N POLLARD LN
STAR ID 83669

PIONEER DITCH CO LTD
PO BOX 70
STAR ID 83669
PIONEER IRRIGATION DISTRICT
3804 S LAKE AVE
CALDWELL ID 83605
SETTLERS IRRIGATION DISTRICT
1910 N GARDEN ST
BOISE ID 83706

SOUTH BOISE WATER CO
PO BOX 6005
BOISE ID 83707

THURMAN MILL DITCH CO LTD
10611 W TREELINE CT
BOISE ID 83713

ALBERT P BARKER
SHELLEY M DAVIS
BARKER ROSHOLT & SIMPSON LLP
1010 W JEFFERSON ST STE 102
PO BOX 2139
BOISE ID 83701-2139
apb@idahowaters.com
smd@idahowaters.com
For: BOISE PROJECT BOARD OF CONTROL
2465 OVERLAND RD
BOISE ID 83705

RIVERSIDE IRRIGATION DISTRICT LTD
120 N THIRD ST
PO BOX 1080
PARMA ID 83660

CHRISTOPHER H MEYER
MICHAEL P LAWERENCE
GIVENS PURSLEY LLP
601 W BANNOCK ST
PO BOX 2720
BOISE ID 83701-2720
chrismeyer@givenspursley.com
mpl@givenspursley.com
For: SUEZ WATER IDAHO INC
8248 W VICTORY RD
BOISE ID 83709

UNITED STATES OF AMERICA
BUREAU OF RECLAMATION
C/O GAIL MCGARRY
1150 N CURTIS RD STE 100
BOISE ID 83706-1234

WOOD CREEK RANCH LLC
C/O JOHN FAULKNER
1989 S 1875 E
PINE ID 83355

S BAR RANCH LLC
CHRIS STEPHENS
PO BOX 1065
SUN VALLEY ID 83353

MICHAEL ORR
Michael.orr@ag.idaho.gov

63-34403

FORM 202 11/13

RECEIVED
MAY 16 2017
DEPARTMENT OF WATER RESOURCES

Idaho No.

RECEIVED
MAY 17 2017
WATER RESOURCES WESTERN REGION

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR PERMIT

To appropriate the public waters of the State of Idaho

1. Name of applicant(s) Cat Creek Energy, LLC Phone 406-459-3013
   Name connector (check one): ☐ and ☐ or ☐ and/or
   Mailing address 398 S. 9th, Suite 240 City Boise
   State ID Zip 83702 Email jcarkulis@exergydevelopment.com
2. Source of water supply South Fork Boise River which is a tributary of Boise River
3. Location of point(s) of diversion:

TWP	RGE	SEC	Govt Lot	¼	¼	¼	County	Source	Local name or tag #
1N	9E	26			SW	NW	Elmore	South Fork Boise River	
					SE	NW	"	"	
					SW	NE	"	"	

4. Water will be used for the following purposes:
   Amount 9,996 cfs (cfs or acre-feet per year) for Diversion to Storage purposes from 1/1 to 12/31 (both dates inclusive)
   Amount 101,352 af (cfs or acre-feet per year) for Power Storage purposes from 1/1 to 12/31 (both dates inclusive)
   Amount 100,000 (cfs or acre-feet per year) for Power from Storage purposes from 1/1 to 12/31 (both dates inclusive)
   C. Burns as attorney for Cat Creek Energy, LLC
   Amount ~~9,996 cfs~~ (cfs or acre-feet per year) for ~~Flood Protection~~ purposes from ~~1/1~~ to ~~12/31~~ (both dates inclusive)
5. Total quantity to be appropriated is (a) 9,996 cubic feet per second (cfs) and/or (b) 101,352 acre feet per year (af).
6. Proposed diverting works:
   a. Describe type and size of devices used to divert water from the source. Pump in Anderson Ranch Reservoir, penstock to Upper Reservoir
   b. Height of storage dam 100 feet; active reservoir capacity 100,000 acre-feet; total reservoir capacity 100,000 acre-feet. If the reservoir will be filled more than once each year, describe the refill plan in item 11. For dams 10 feet or more in height OR reservoirs with a total storage capacity of 50 acre-feet or more, submit a separate Application for Construction or Enlargement of a New or Existing Dam. Application required? ☑ Yes ☐ No
   c. Proposed well diameter is _____ inches; proposed depth of well is _____ feet.
   d. Is ground water with a temperature of greater than 85°F being sought? ☐ Yes ☐ No
   e. If well is already drilled, when? _____; drilling firm _____;
   well was drilled for (well owner) _____; Drilling Permit No. _____.
7. Description of proposed uses (if irrigation only, go to item 8):
   a. Hydropower; show total feet of head and proposed capacity in kW. 600 MW
   b. Stockwatering; list number and kind of livestock. _____
   c. Municipal; complete and attach the Municipal Water Right Application Checklist.
   d. Domestic; show number of households _____
   e. Other; describe fully. ~~Flood protection coordinated with BoR and USACE.~~
   C. Burns as attorney for Cat Creek Energy, LLC

8. Description of place of use:

   a. If water is for irrigation, indicate acreage in each subdivision in the tabulation below.

   b. If water is used for other purposes, place a symbol of the use (example: D for Domestic) in the corresponding place of use below. See instructions for standard symbols.

TWP	RGE	SEC	NE				NW				SW				SE				TOTALS
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
1N	9E	26			P				P	P			PS						
1N	9E	35	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	
		36		PS	PS		PS	PS	PS	PS	PS	PS	PS	PS		PS			
1S	9E	02	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS		PS	PS		
		01					PS	PS	PS										
		11	PS				PS	PS											

Total number of acres to be irrigated: 0

9. Describe any other water rights used for the same purposes as described above. Include water delivered by a municipality, canal company, or irrigation district. If this application is for domestic purposes, do you intend to use this water, water from another source, or both, to irrigate your lawn, garden, and/or landscaping?

   None

10. a. Who owns the property at the point of diversion? U.S. Government

    b. Who owns the land to be irrigated or place of use? Applicant has a lease with property owner Wood Creek Ranch LLC

    c. If the property is owned by a person other than the applicant, describe the arrangement enabling the applicant to make this filing:

11. Describe your proposal in narrative form, and provide additional explanation for any of the items above. Attach additional pages if necessary. Submitted via email.

    ~~See attached~~. Note: This application is subordinate to first and second fill of existing reservoirs in the Boise River Basin.

Consultant Contact: Idaho Water Engineering LLC Dave Tuthill
2918 N El Rancho Pl. 208-870-0345
Boise ID 83704 dave@idahowaterengineering.com

12. Time required for completion of works and application of water to proposed beneficial use is 5 years (minimum 1 year).

13. **MAP OF PROPOSED PROJECT REQUIRED** - Attach an 8½" x 11" map clearly identifying the proposed point of diversion, place of use, section #, township & range. A photocopy of a USGS 7.5 minute topographic quadrangle map is preferred.

The information contained in this application is true to the best of my knowledge. I understand that any willful misrepresentations made in this application may result in rejection of the application or cancellation of an approval.

John Faulkner
Signature of Applicant

Cat Creek Energy LLC
John Faulkner Manager
Print Name (and title, if applicable)

Signature of Applicant

Print Name (and title, if applicable)

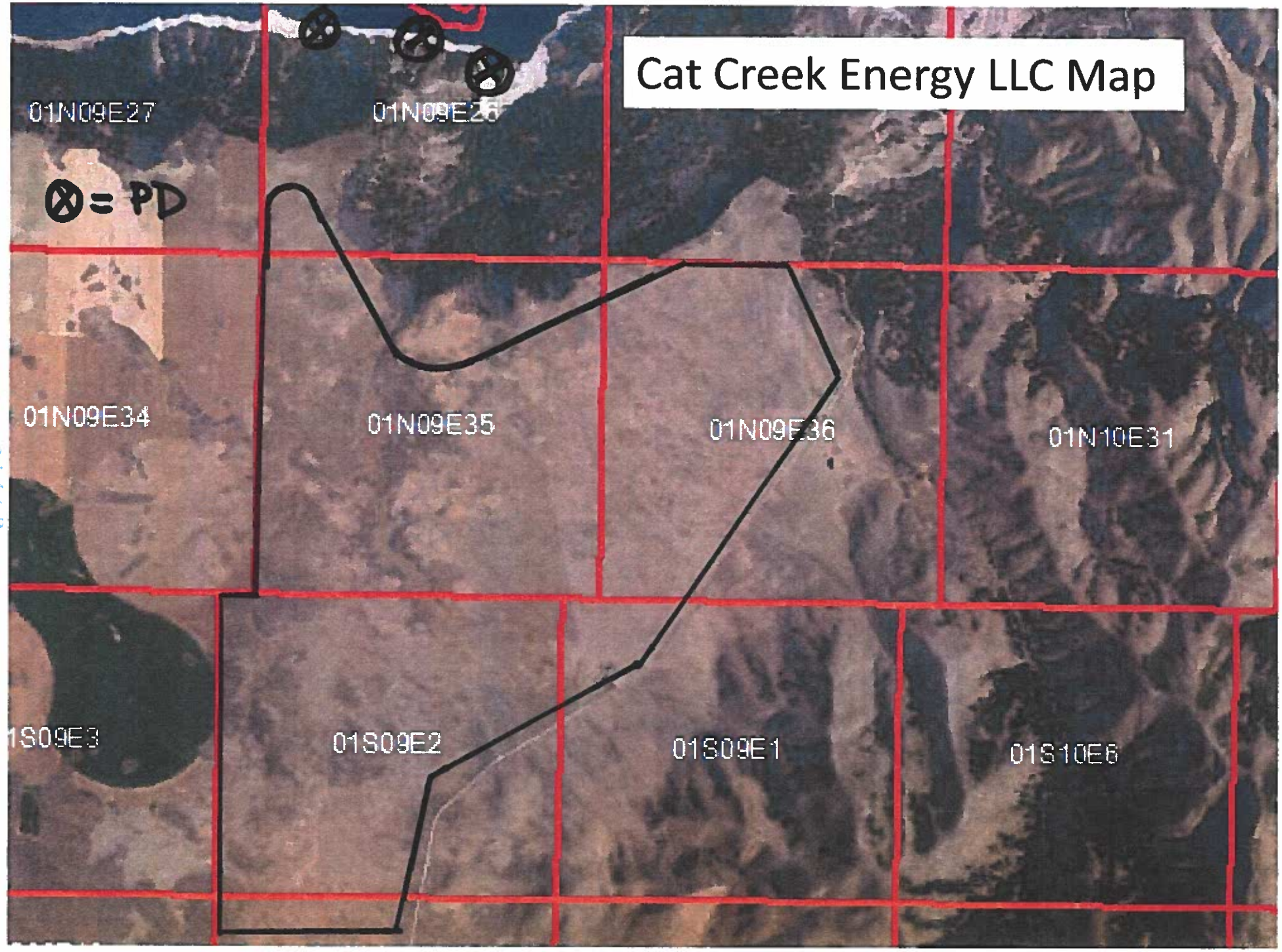
For Department Use:

Received by VC Date 5/16/17 Time 2:56 Preliminary check by AG

Fee $ 25/602.00 Receipted by VC Receipt No. C1035606 Date 5/16/17

$ 25602

63-34403


Cat Creek Energy LLC Map
01N09E27
01N09E26
⊗ = PD
01N09E34
01N09E35
01N09E36
01N10E31
01S09E3
01S09E2
01S09E1
01S10E6

FILED EFFECTIVE

CERTIFICATE OF ORGANIZATION
LIMITED LIABILITY COMPANY

2013 MAY 14 AM 8:51

(Instructions on back of application)

SECRETARY OF STATE
STATE OF IDAHO

1. The name of the limited liability company is:

   CAT CREEK ENERGY, LLC

2. The complete street and mailing addresses of the initial designated office:

   1989 South 1875 East, Gooding, Idaho, 83330
   (Street Address)

   (Mailing Address, if different than street address)

3. The name and complete street address of the registered agent:

   John Faulkner (Name) — 1989 South 1875 East, Gooding, ID 83330 (Street Address)

4. The name and address of at least one member or manager of the limited liability company:

Name	Address
John Faulkner	1989 South 1875 East, Gooding, ID 83330

5. Mailing address for future correspondence (annual report notices):

   1989 South 1875 East, Gooding, ID 83330

6. Future effective date of filing (optional): _____

Signature of a manager, member or authorized person.

Signature John Faulkner

Typed Name: JOHN FAULKNER

Signature _____

Typed Name: _____

IDAHO SECRETARY OF STATE
05/14/2013 05:00
CK: 134888 CT: 62575 BH: 1373708
1 @ 100.00 = 100.00 ORGAN LLC # 2

IDAHO SECRETARY OF STATE
05/14/2013 05:00
CK: 63175 CT: 89379 BH: 1373763
1 @ 20.00 = 20.00 EXPEDITE C # 2

W125202

SEEPAGE CALCULATIONS

This spreadsheet has been designed by Idaho Department of Water Resources to estimate the total annual seepage losses from a pond.

FILE NUMBER	**Cat Creek Energy**
REVIEWER	
DATE	

User Input
Calculated value
Formula Explanations

INPUTS

SQ. FT. Calculator Pond Surface area in acres
1573

POND SURFACE AREA (SQ. FT.)	68519880

SUGGESTED SEEPAGE RATE (FT/DAY)	**0.0000**

Use the table below to find the "SUGGESTED SEEPAGE RATES".

FORMULA:
(Surface Area X Seepage Rate) / 7.48 = Gallons Per Day loss

CONVERT TO GPD	0	GPD

TOTAL SEEPAGE LOSS (AFA)	0.0	AFA

SUGGESTED SEEPAGE RATES FOR DIFFERENT SOIL TYPES:
GW, GP, GM, GC, SW, SP and SM (silty sand, sand silt mixtures and gravel mixtures) **= 0.20 ft per day**
OL and ML (inorganic silts - very fine sands, silty, or clayey fine sands) **= 0.016 ft per day**
SC (clayey sands, sand clay mixtures) **= 0.007 ft per day**
CL (Low to medium plasticity clays) **= 0.003 ft per day**
MH, OH, PT and CH (high plasticity clays) **= 0.0003 ft per day**
LINED PONDS (liners can be chemical, fabric, or bentonite) **= 0 ft per day**
Ponds Intercepting Groundwater (excavated ponds filled with shallow Ground Water) **= 0 ft per day**

PLEASE NOTE: The initial basis for the Suggested Seepage Rates in the table above is found on Page 16 of Seepage from Fish Ponds, Bulletin 599, August 1989 Alabama Agricultural experiment Station, Auburn University, Auburn University Alabama. If you don't know the soil type, please refer to the map provided at X:\Spatial\Soils\USCS\PondSoils.lyr. Use "0" if the ponds intersect the water table.

Evaporation Loss Calculation

FILE NUMBER	Cat Creek Energy
REVIEWER	
DATE	

This spreadsheet has been designed by Idaho Department of Water Resources to estimate the annual evaporation losses from a pond.

The acronyms used on the Kimberly Research Center website are defined below:
P = Precipitation
ET= Evapotransporation
P_d = Precipitation deficit
P_d =ET-P

User Input
Calculated value
Formula Explanations

USING THIS SPREADSHEET

To ascertain the evaporation from a pond, you will need to go to the Kimberley Research Center website. The link is found below . This web site provides the Precipitation Deficit for the area where the pond is located. The Precipitation Deficit is the total amount of free pan evaporation minus the precipitation for a given area, which gives the total amount of evaporative losses incurred by the pond. There are several weather sites that are used, and the entire state is pretty much covered. IDWR staff can find the nearest site using Arc Map. The shape file containing the sites can be found at X:/Spatial/Climate/ETIdahostations.shp .

Found at: http://www.kimberly.uidaho.edu/ETIdaho/online.php

Precipitation Deficit

Station: Fairfield

Month	mm/day[1]	*Days per month*	mm/Month
Jan	0.00	31	0.00
Feb	0.00	28	0.00
March	0.00	31	0.00
April	0.46	30	13.80
May	0.96	31	29.76
June	1.21	30	36.30
July	1.78	31	55.18
August	1.69	31	52.39
September	1.23	30	36.90
October	1.22	31	37.82
November	0.00	30	0.00
December	0.00	31	0.00

[1]Negative monthly mean values should be entered in the above table as "0".

PLEASE NOTE: We cannot use the season average, because there are several areas in Northern Idaho with a negative Precipitation Deficit. Therefore, we must enter each monthly deficit, and enter in a zero (0) for each negative month. The reason for this is that precipitation can only offset evaporation to the extent of the evaporation.

Please enter the daily average Precipitation Deficit as shown in the example below.

Although it has sometimes been useful to consider wintertime evaporation to be zero, Allen and Robison (2007, p. 169) noted, "Evaporation during nongrowing (wintertime) periods varies widely . . . ."

Total mm/year =	262.15

[(mm/yr) ÷ (convert to feet)] X (Surface area of pond, in acres) = Evaporation Loss in Acre Feet

(262.15 ÷ 304.8) X 1573.00 = 1352.9 AFA

Surface Area of Pond is automatically Carried over from the Seepage Loss Sheet.

63-34403

TOTAL STORAGE

FILE NUMBER	Cat Creek Energy
REVIEWER	
DATE	

This spreadsheet has been designed by Idaho Department of Water Resources to estimate the total seepage, evaporation and fill capacity required for a pond

Surface Area (in Acres)	1573	"Surface Area" is automatically carried over from the "Seepage Loss Sheet"
Average Pond Depth (in feet)	63.5727908	"Average Pond Depth" depicts the actual depth of the pond either measured or estimated. Note: If you know the maximum depth and not the average depth, the field examiner's handbook suggest multiplying the maximum depth by 0.4 to get the average depth, or you can use any method that
Pond Capacity (in acre feet)	99999.9999	you know the capacity, divide the capacity by surface area and enter the average pond depth in the space above.

Volume Needed Above Initial Fill to Fulfill From Storage Needs- "Multiple Fills" (in acre feet)	0	The "Volume Needed Above Initial Fill" is the acre-feet of water required to meet *afrom storage* component if the *from storage* component exceeds a one time fill. This section should not include the amount of water needed to fill the pond initially or the amount of water needed to maintain the pond level due to evaporation or seepage. For example: if a pond has a capacity of 5 acre feet and 2.5 acre feet of seepage and evaporation, but the pond is used for irrigation that requires 10 acre feet of from storage for the irrigation use, then you would insert 5 acre feet into this location (10 acre feet needed - 5 acre feet from the initial fill = 5 acre feet of additional storage needed). **PLEASE NOTE: You must have a "From Storage" component exceeding the initial fill on the permit to include a volume in this space.**
Estimated Seepage Loss (in acre feet)	0.0	The "Estimated Seepage Loss" is automatically carried over from the Seepage Loss Sheet
Estimated Evaporation Loss (in acre feet)	1352.9	The "Estimated Evaporation Loss" is automatically carried over from the Evaporation Loss Sheet
Total Volume Required (in acre feet)	101352.9	"The Total Volume Required" is calculated by adding the Pond Capacity, Multiple Fills, Seepage Loss, and Evaporation Loss amounts to determine the total amount of storage required.

Flow Rate into Pond (in cfs)	10000.00	The "Flow Rate" Into the Pond depicts the actual flow either measured or estimated into the pond.
Highest Daily Evaporation Rate From Evaporation Tab. (in mm/day)	1.78	This number is automatically selected by picking the highest recorded number in the "Precipitation Deficit Table".
Maximum Required Daily Maintenance Volume (in acre feet per day)	9.19	"Maximum Required Daily Maintenance Volume" is the maximum volume of water needed on any given day during the year, and is calculated by adding the highest daily evaporation loss to the average daily seepage loss in acre feet. The average daily seepage loss is calculated by dividing the "Estimated Seepage Loss" by 365 days. This is acceptable, since the seepage rate shouldn't vary throughout the season unless the pond completely freezes over during the winter months. The highest daily evaporation loss is calculated by dividing the Highest Daily Evaporation Rate by the 304.8 conversion factor and multiplying this number by the pond surface area to attain a combined daily acre feet requirement.
Minimum Maintenance Flow (in cfs)	4.63	The "Minimum Maintenance Flow" is the minimum amount of flow required to maintain the level of the pond. This number is determine by dividing the "Maximum Required Daily Maintenance Volume" by 1.9835. This flow can be used to determine if the flow rate into the pond is adequate to maintain the pond level.
Days Required to Fill the Pond	5	The "Days Required to Fill the Pond" is calculated by dividing the "Pond Capacity" by the "Flow Rate" minus "Minimum Maintenance Flow" multiplied by 1.9835. This section will assist you in determining if the flow rate being diverted to the pond is adequate to fill the pond while maintaining the pond level. The length of time to fill the pond will help determine if the flow rate is adequate for the size of pond being proposed. This number should be between 1 and 365 days for a project to be sucessful.
Days Required to Fill the Pond at 13,000 gallons per day		The "Days Required to Fill the Pond at 13,000 gallons per day" is calculated converting the "Pond Capacity" and the "Maximum Daily Maintenance Volume" to gallons. The "Pond Capacity is then divided by 13,000 gallons minus the "Maximum Daily Maintenance Volume" in gallons to determine the number of days to fill pond. This number should be between 1 and 365 if this pond is to described as a domestic use.

User Input
Calculated Value
Formula Explanations

No. **W 125202**	**Due no later than May 31, 2017** **Annual Report Form**	2. Registered Agent and Address **(NO PO BOX)**
Return to: SECRETARY OF STATE 700 WEST JEFFERSON PO BOX 83720 BOISE, ID 83720-0080 **NO FILING FEE IF RECEIVED BY DUE DATE**	**1. Mailing Address: Correct in this box if needed.** CAT CREEK ENERGY, LLC JOHN L FAULKNER 1989 S 1875 E GOODING ID 83330	JOHN FAULKNER 1989 S 1875 E GOODING ID 83330 3. New Registered Agent Signature:*

4. Limited Liability Companies: Enter Names and Addresses of at least one Member or Manager.

Office Held	Name	Street or PO Address	City	State	Country	Postal Code
MANAGER	JOHN L FAULKNER	1851 US HWY 26	GOODING	ID	USA	83330

5. Organized Under the Laws of:	6. Annual Report must be signed.*	
ID **W 125202**	Signature: JOHN L. FAULKNER	Date: 03/23/2017
	Name (type or print): JOHN L. FAULKNER	Title: MANAGER

Processed 03/23/2017 * Electronically provided signatures are accepted as original signatures.

Cat Creek Energy: Evolution or Revolution

Cat Creek Energy & Water Storage Renewable Power Station

Generation Trybrid

750 MW Nameplate Capacity

600 MW Pump Storage Hydro

110 MW Wind Power

40 MW PV Solar

Ultimate Battery

54,400 MWhrs of Energy Storage

Grid Support

370 MW of Ancillary Services capability

Interconnection

230 kV Idaho Power grid

500 kV PacifiCorp grid

Beneficial Water Storage

100,000 acre-ft Reservoir

Land Ownership

Fee Simple **Private**

Scheduled COD

Calendar Year **2020**

The Cat Creek Energy & Water Storage Renewable Power Station represents the next revolution in transforming America's electrical energy resource base. High on the bluff 840 feet above the Anderson Ranch Reservoir in southern Idaho, the CCE facility integrates renewable energy components to create a more efficient, dependable, and robust form of firm, baseload electricity all the while providing the full range of the ancillary services to support increasingly arduous security and reliability transmission grid regulations. Moreover, the Cat Creek facility provides crucial water storage capacity for the Boise River Basin, whose current storage capacity for agricultural, municipal, environmental, and recreational demands is already stressed.

Cat Creek disrupts all the entrenched beliefs about renewables and hydro in the energy sphere. No longer are intermittent resources undependable. No longer do intermittent renewable resources need load following by fossil fuel generators. No longer does hydro rely on cycling water only once through its turbines. No longer does new hydropower conjure up the notion of an environmental calamity.

Cat Creek takes 38 balancing authorities in the West and synthesizes their operations through regulation and energy time shift management into one seamless grid operation.

Its as simple as flipping a switch.

Location of Upper Reservoir

Cat Creek Energy , LLC

398 S. 9th Street
Suite 240
Boise, Idaho 83702

Phone: 208.336.1370
Fax: 208.954.5099
E-mail: info@ccewsrps.net