

[illegible]

Method of Determination:

3. _____ Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.
_____ Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.
__X__ Aerial Photo Attached (required for irrigation of 10+ acres).
__X__ Photo of Diversion and System Attached

4.

<u>Well or Diversion ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No. or Discharge Size</u>
#1 Upper Pump	US Electric	50	A20907C-55	N/A	6"
#2 Lower Pump	Baldor	50	can't read	N/A	6"

*Code to correspond with No. on map and aerial photo

D. FLOW MEASUREMENTS

1.

<u>Measurement Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

2. Measurements:

E. FLOW CALCULATIONS

_____ Additional Computation Sheets Attached

Theoretical HP Equation (same for both pumps)

$$\frac{50 \times 8.8 \times 0.7}{25 + (2.31 \times 50)} = 2.19 \quad \text{discharge at each pump, total system capacity 4.38 cfs}$$

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 =$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} =$$

2. Volume Calculations for Other Uses:

Water Quality Improvement as land application on 138 acres, calculate as irrigation for summer diversions

$$138 \times 4 = 552 \text{ AF}$$

Water Quality Improvement, winter diversions (85 days, 4 hours per day)

$$(4 \text{ cfs} \times 0.2 \text{ day}) \times 1.9835 \times 85 = 134.9 \text{ AF}$$

$$\text{Total Volume} = 686.9 \text{ AF}$$

System Capacity

$$4 \text{ cfs} \times 1.9835 \times 365 = 2895.9 \text{ AF}$$

G. NARRATIVE/REMARKS/COMMENTS

Permit authorizes the processing of fish effluent for water quality improvement purposes, in the form of land application for irrigation. Water is pumped at two sludge separation stations located below the upper and lower sets of raceways. Sludge liquids are mixed with waste water directly from the raceways to provide adequate dilution and flow. Water is land applied to approximately 138 acres of pasture. In winter when irrigation is not occurring, pumps are used to move sludge liquids to a small settling pond at the lower end of the property.

Diversion system is comprised of two, 50 HP pumps of indiscriminate manufacture. The pumps have been changed a number of times but the HP has remained the same. From each pump, waste is distributed through mainlines to pivots and stationary large guns. During summer, the system operates 24-7 using one or both pumps. In winter, the lower pump operates up to 4 hours per day, 5 days per week, to move slurry to the settling pond.

According to DEQ, Pristine Springs is conducting land application under their NPDES permit because they are considered an agricultural CAFO facility. Reports have been submitted to EPA and DEQ with reference to land application of biosolids and wastewater on 500 acres of property. Actual land application area is 138 acres. See attached sample reports provided by DEQ.

Govt lot numbers in both POD and POU needed updating, resulting in the need for licensing amendments. The 10-acre tract designation was dropped from both POD descriptions due to the presence of the govt lots and the impossibility of determining QQQ location.

Have conditions of permit approval been met? ☒ Yes ☐ No

H. RECOMMENDATIONS

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
WATER QUALITY IMPROVEMENT	01/01 to 12/31	4.000 CFS	686.9 AF
	<u>Totals:</u>	4.000 CFS	686.90 AF

2. Recommended Amendments

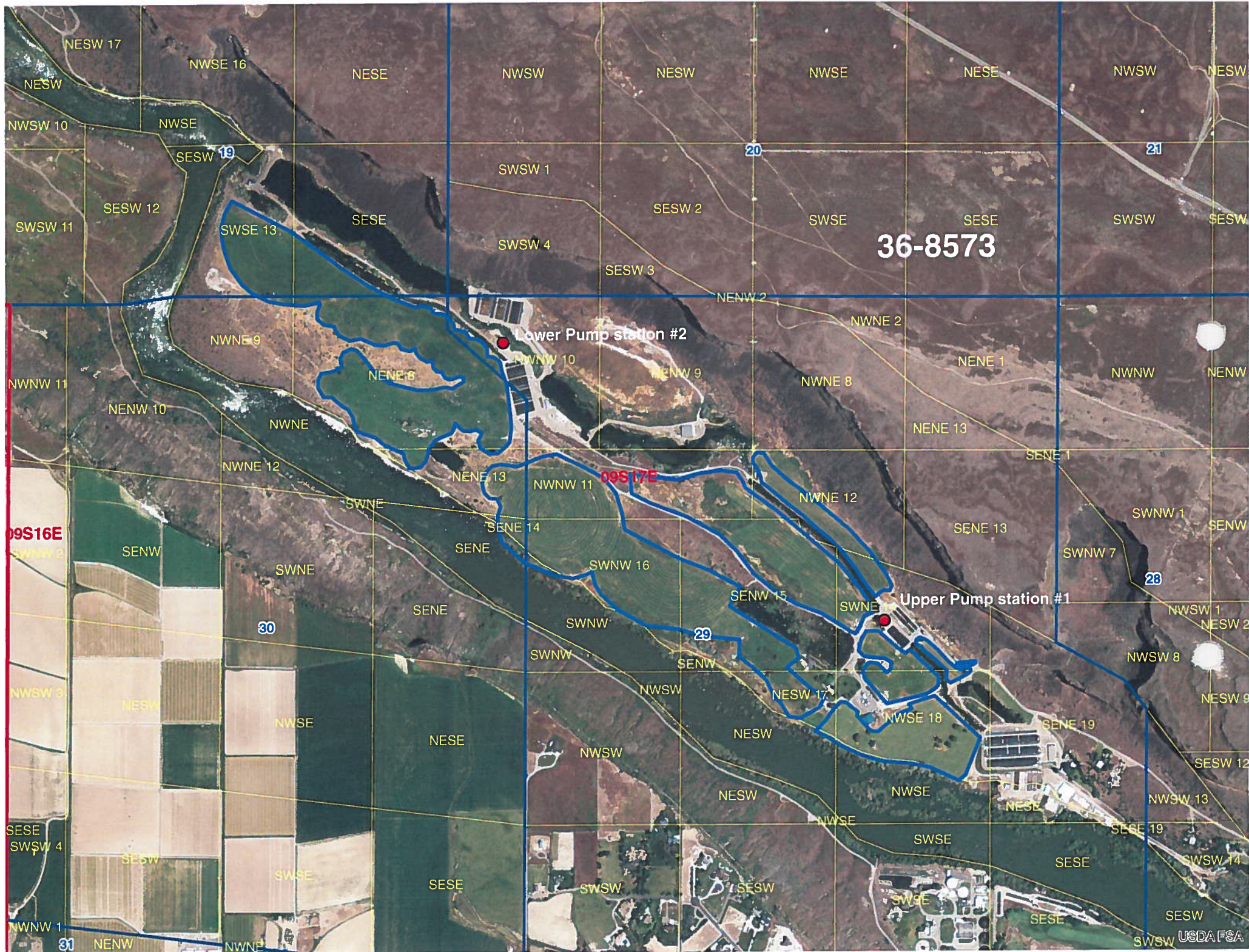
☒ _X_ Change P.D. as reflected above ☐ __Add P.D. as reflected above ☐ __None

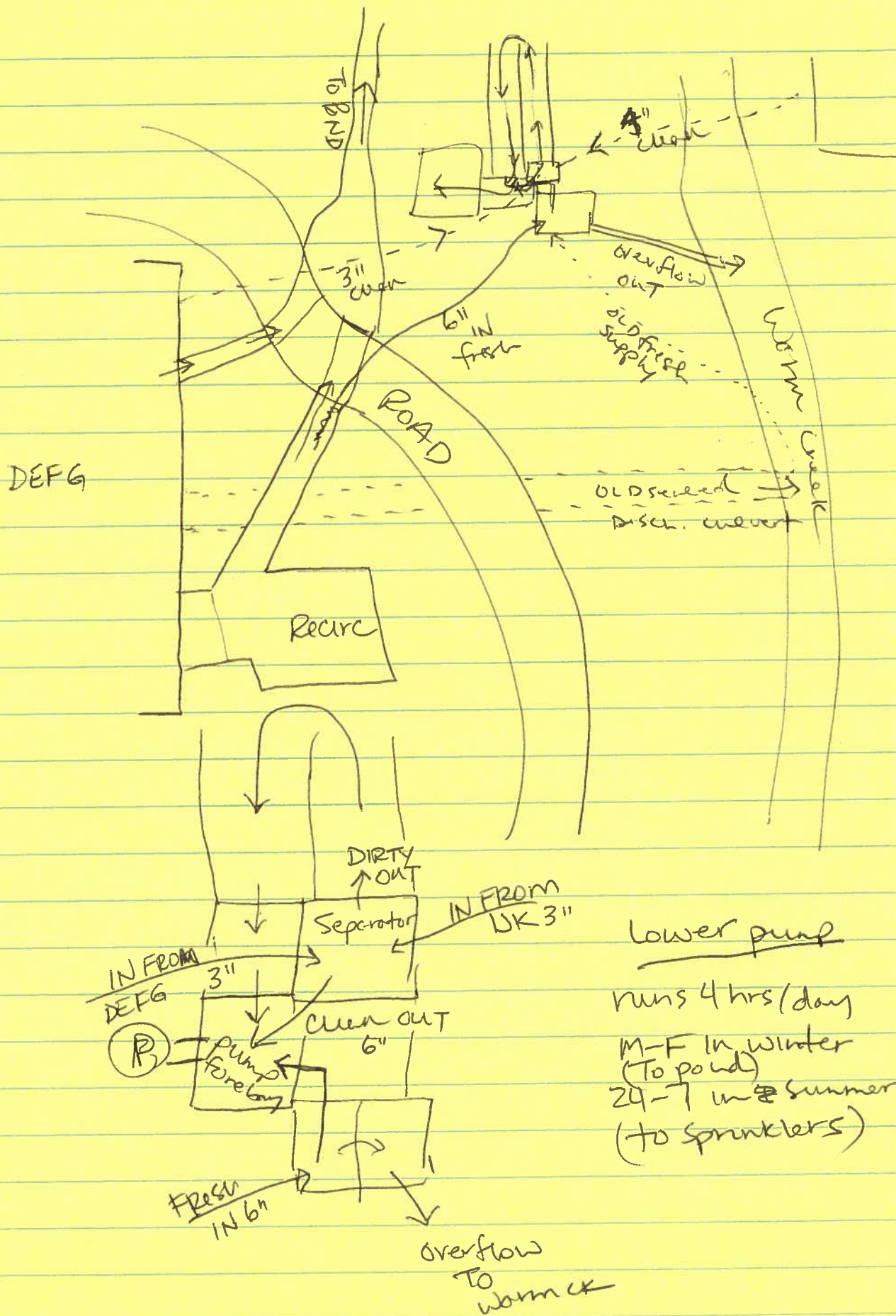
☒ _X_ Change P.U. as reflected above ☐ __Add P.U. as reflected above ☐ __Other

I. AUTHENTICATION

Field Examiner's Name Cyenter Date 2.24.2014

Reviewer _____ Date _____





Lower pump

runs 4 hrs/day
 M-F in winter
 (to pond)
 24-7 in summer
 (to sprinklers)



Power Plant

Lower raceways

Sunnybrook Springs
Hatchery

Upper raceways

Geothermal Well

Blue Lake

ALPHEUS CREEK
DIVERSION

UPPER SYSTEM

FRESH WATER BYPASS (25.3 4%)

OFFICE

BLUE
LAKES
TROUT

Settling
pond

WEIR (Submerged)
42" BYPASS
LINE

ABC
Raceways

Big C
Raceways

Sludge

WEIR

WEIR

W
HOT
WELL

IRRIGATION
PUMP

*
DEVICE
REQD.

ALPHEUS
BYPASS

LOWER
SYSTEM

SUNNYBROOK
HATCHERY

WEIR

* Sunnybrook
flows cannot be
diverted to
DEFG.

RECIRC

Hatch
Ass.

DEFG

MIXING
BOX

JK
CANAL

*
DEVICE
REQD.

JK
Raceways

Sludge

IRRIGATION
PUMP

Settling

Settling

TO SNAKE RIVER (VIA HYDRO PLANT)

PRISTINE
SPRINGS

DISTRIBUTION
SYSTEM
SCHEMATIC
(NOT TO SCALE)

C. Venter
5-11-04

1.7.2014 (cy) (with Stu Veng)

Prisfire Need -

Raceway dimensions

Pump Station HP + lift

1
97
64

161

ABC = (Not part of POW for 36.7757)

$$6 @ 12 \times 161 = 11592 \text{ ft}^2$$

$$12 @ 5.7 \times 86 = 5882 \text{ ft}^2$$

$$17,474 \text{ ft}^2$$

AVG Depth
3 ft.

BIG C

$$16 @ 12 \times 78 = 14,976 \text{ ft}^2$$

1st pump 50HP
lift 20-25 ft.

2nd pump 50HP
lift 20-25 ft.

$$\frac{50 \times 8.8 \times 7}{25 + (2.31 \times 50 \text{ psi})} = \frac{308}{140.5} = 2.19$$

Broad ponds

$$4 @ 12 \times 44 = 2112 \text{ ft}^2$$

DEFG

HJK

$$10 @ 15 \times 83 = 12,450 \text{ ft}^2$$

$$15 @ 12 \times 90 = 16,200 \text{ ft}^2$$

$$10 @ 15 \times 97 = 14,550 \text{ ft}^2$$

$$15 @ 12 \times 105 = 18,900 \text{ ft}^2$$

$$10 @ 15 \times 92 = 13,800 \text{ ft}^2$$

$$14 @ 12 \times 33 = 5,544 \text{ ft}^2$$

$$10 @ 15 \times 87 = 13,050 \text{ ft}^2$$

$$14 @ 12 \times 88 = 14,784 \text{ ft}^2$$

$$10 @ 15 \times 24 = 3,600 \text{ ft}^2$$

$$14 @ 12 \times 31 = 5,208 \text{ ft}^2$$

$$57,480 \text{ ft}^2$$

$$60,636 \text{ ft}^2$$

$$\text{ABC Volume } 17,474 \times 3 = 52,422 \text{ ft}^3 \text{ (Decree } = 60,480 \text{ ft}^3)$$

$$\text{All other raceways } 135,204 \times 3 = 405,612 \text{ ft}^3$$

$$\text{Total facility volume (raceways)} = 458,034 \text{ ft}^3 \quad 466,092 \text{ ft}^3$$

December 17, 2013

Pristine Springs Development Timeline
Cindy Yenter, Watermaster WD130

This narrative supplements an earlier Water Right Overlap Analysis dated 10.23.2002, and describes the sequential development of rights at Pristine Springs.

36-2603C. Priority 4.17.1964, 25.3 cfs, Decreed 1998. This is a split from 36-2603B also resulting in right no 36-2603D. This portion of the right is diverted from Alpheus Creek (aka Warm Creek) at a shared diversion with Blue Lakes Trout (BLT). A 1958 right no 36-2356 in the amount of 100 cfs had already been developed by BLT and was also being diverted and used at the time. Combined flows under the three rights originally travelled down an open ditch and later a closed pipeline to just above the BLT raceways where they were separated; 25.3 cfs fresh water was bypassed around BLT and delivered directly to Pristine where it was used in the first set of ponds, and later in developed raceways, named "ABC". The 25.3 cfs was discharged into the Warm Creek channel in Lot 14 Section 29. USGS topo maps show the original location of the Warm Creek channel to the north of the ABC raceways. It is unclear where the BLT effluent was being discharged during this period, but there is an abandoned ditch which runs along the south side of the Pristine property which may have been the BLT waste ditch. Based on comments found in 36-200, BLT effluent was not discharged to Warm Creek until after 1970 or so.

36-2603D. Priority 4.17.1964, 1.9 cfs, Decreed 1997. This split of 36-2603B is diverted from Sunnybrook Springs and used in a hatchery building. The Sunnybrook complex consists of a number of springs emanating from the canyon wall and collecting in Warm Creek beginning approximately ½ mile below the ABC raceways.

36-7130. Priority 5.6.1970, 4.5 cfs, Decreed 1998, geothermal ground water. Originally licensed for 6.0 cfs, the license was reduced to 4.5 cfs as a result of a settlement in the Twin Falls moratorium area. The right was obtained to raise catfish in ponds, although raceways were later constructed. These raceways are now known as "Big C". These flows were also discharged to Warm Creek.

36-200. Priority 9.30.1970, 40 cfs from Sunnybrook Springs and Warm Creek. File comments indicate that the source of water for this right is the 25.3 cfs waste water from 36-2603C, 4.5 cfs waste runoff from the hot well, and 1.9 cfs waste water from 36-2603D, plus other springs arising in the Sunnybrook complex. This seems to infer that there was not any other flow in Warm Creek at the time.

36-15378. Priority 10.27.1977, Decreed 1998. Storage for an on-stream impoundment on Warm Creek. Diversions under 36-200 and re-diversions under 36-7757 are taken at various points in the impound area.

36-7757. Priority 10.27.1977. Permit was protested and not approved until 1991. By this time the application had been amended twice to change both pod and pou. New raceways on the west end of the property had been included in the pou. Raceway blocks DEFG and IJK appear on aerial photography shortly after 1991, and both receive water under the permit. This permit authorized up to 215 cfs diversion of Alpheus Creek flow, diverted as effluent or waste water only at the discharge of Blue Lakes Trout Farm (BLT). Prior to 1977, BLT developed two additional rights from Alpheus Creek, thus increasing their discharges. The discharge channel from BLT was re-routed so flows could be

diverted at Pristine just past the property line. Waste flows were delivered first to the Big C raceways, then discharged into Warm Creek. BLT effluent in excess of that used in Big C raceways is bypassed around the Big C raceways in a 42" pipe and discharged to Warm Creek. The Warm Creek channel below ABC and Big C raceways was enlarged to form the Pristine Main Canal. Waste flows in the Pristine canal travel northwesterly through the property for approximately 0.3 mile. An old ditch appeared to delivered water to the DEFG raceways situated on the south side of Warm Creek; that ditch has since been replaced with a 42" pipe. The balance of the water in the canal is injected into the original Warm Creek channel and commingled with the spring flows in the Sunnybrook complex. Commingled water is rediverted at two additional locations from the Sunnybrook impound. All discharge from lower raceways enters a large settling pond at the lower (west end of the property)

36-8094. Priority 6.28.1982. Permit was not approved until 1992. Authorizes geothermal ground water for power production. Permitted for 7 cfs, but diversions are limited by beneficial use for heat value. The only right developed for that purpose from this source is 36-7130 so licensing under this right limits diversions to 4.56 cfs, which recognizes fish propagation use of 4.5 cfs under 36-7130 and 0.6 cfs domestic use added to 36-8094 under license amendment.

36-8414. Priority 3.7.1989. Permit seeks an additional 20 cfs from Sunnybrook Springs for fish propagation. The intent behind this permit may have been to appropriate some of the waste water injected into Warm Creek from 36-7757 to cover diversions to lower raceways. However, the Springs and not Warm Creek are listed as the source. This amount of water is simply not available from the springs proper and there is no evidence that additional beneficial use was made from this source above that authorized under 36-200.

36-8573. Priority 12.21.1990. Permit authorizes diversion of waste water for water quality improvement purposes, in the form of land application for irrigation. Water is pumped at two sludge separation stations located below the upper and lower sets of raceways, into pivots and large stationary water canons. Sludge liquids are mixed with waste water directly from the raceways to provide adequate dilution and flow. Water is land applied to approximately 150 acres of pasture. In winter when irrigation is not occurring, pumps are used to move sludge liquids to a small settling pond at the lower end of the property.

36-15959. Priority 10.18.2001. Authorizes power production from lower Warm Creek. This plant diverts all flows entering Pristine Springs, flows from the Sunnybrook Spring complex, and any springs which arise in the settling pond. The penstock exits the lower end of the final settling pond, and discharges directly into the Snake River. The design of this plant is low-head and unconventional; due to fluctuating river flows a single operational curve is not available. IDWR was able to develop a theoretical curve for maximum diversions.

In 2003, a transfer was filed on 36-7130, expanding the pou of the geothermal ground water right for fish propagation to include the DEFG raceways on the northwest end of the property. However, after transfer approval the owners used the warm water strictly in raceways DEFG and the brood ponds in Lot 10 Sec 29. This moved the discharge point of the warm water from just below the Big C raceways, to lower Warm Creek below the Sunnybrook area, and shifted the distribution of flows under 36-7757 so that nearly all of the reused flow was being injected into Warm Creek and only 5-7 cfs was being diverted to DEFG as cooling water.

Permit 36-7757 authorizes diversions of up to 215 cfs which are limited to the diversion of tailwater from Blue Lakes Trout. Diversions may be measured at the BLT weir (total flow minus first-priority bypass). It has been requested that the BLT weir be used as the primary measuring device for this right, and that should be acceptable provided that all of the diversions at Blue Lakes Trout are entirely from Alpheus Creek. POU under this right is shown at Big C raceways in Lot 14, and also in Lot 11. Secondary uses below Big C are actually at DEFG raceways, or in return flows to Warm Creek. There can be no specific use attributed to IJK raceways because the contribution to Warm Creek is not quantified. There is no use in Lot 11. The DEFG raceways are not included in the place of use of this permit and will be recommended to be added through licensing amendment. The highest recorded flow through the BLT raceways in 2000 was 209 cfs. Data from 2001 are incomplete because the measuring device was under reconstruction.

Sunnybrook Springs and Warm Creek

Warm Creek is a dry channel which only flows below Sunnybrook springs due to the influx from the springs, and return flows from the Pristine Canal.

Decreed right 36-2603D, 1.9 cfs, is diverted directly from Sunnybrook Springs and is used in the Sunnybrook hatchery building. The original location of this hatchery may have been in Lot 11. Its present location is in Lot 9 (NENW) Section 29.

Decreed right 36-200, 40 cfs, lists springs and Warm Creek as a source. Its POU is listed and shown as the Sunnybrook hatchery in Lot 9, raceways IJK in Lot 10 (NWNW) Sec 29 and Lot 4 (SWSW) Sec 20, and raceways DEFG in Lot 8 (NENE) Section 30, although flows from this source do not reach the DEFG block.

Permit 36-8414, 20 cfs, from Sunnybrook Springs, includes places of use for Sunnybrook Hatchery and IJK raceways. Flows from Sunnybrook Springs are not diverted directly to IJK. Rather, flows tributary to Warm Creek, including Sunnybrook Springs and the returned flows from Alpheus Ck, are diverted to IJK. Flows under this right are not really needed in the Sunnybrook hatchery, as the maximum reported flows over the Sunnybrook weir are around 8 or 9 cfs, and the earlier rights cover that amount. However, they may be needed to cover maximum diversions at IJK. Possible licensing amendments may include modifying the water source to Warm Creek.

Recommended right 36-15378, 748 acre-feet. This right is for the impounded flows in the settling pond on lower Warm Creek.

Flows from this complex are measured only over the Sunnybrook hatchery weir. Incoming return flows from the Alpheus canal are not measured. There is no device on the canal to IJK raceways. On the day of the exam, the Sunnybrook weir indicated a flow of 9.44 cfs.

Ground Water

Decreed right 36-7130, 4.5 cfs for fish propagation. POD and POU shown in Lot 14 (SWNE) Sec 29, also the location of the Big C raceways. Historical use of this right was in an earthen pond also in this location (see *Affidavit of Wendell Stark, attached*). However, present use is only in the DEFG raceways in Lot 10 (NENE) Sec 30. A transfer is pending to add Lot 10 as a place of use under this right.

Permit 36-8094, 7.0 cfs for power production. A condition of use on this permit limits diversions for power to the amount which may be beneficially used for the heat value of the water. POD and POU are incorrectly shown on permit as in NWNE Sec 29 and must be amended.

Claim 36-15218 for aesthetic storage was disallowed.

Waste Water

Permit 36-8573, 4.0 cfs for water quality improvement, through land application of fish waste. A license exam has not been conducted for this permit.
Claim 36-15336 was disallowed.

**PRISTINE SPRINGS DESCRIPTION OF DIVERSION WORKS
AND SUMMARY OF WATER RIGHT OVERLAPS
October 23, 2002**

Cindy Yenter, Sr. Water Resource Agent, Watermaster Water District 130

Partial licensing examinations have been conducted for permit nos. 36-8094, 36-8573, 36-7757 and 36-8414. This summary has been prepared to supplement the eventual license recommendations and also to aid in the processing of an application for transfer filed pursuant to water right no. 36-7130.

Facility Overview

Pristine Springs Inc operates an aquaculture facility and a hydropower generation plant in the Snake River Canyon in Jerome County. Both trout and warm-water tilapia are raised. Power generated is used at the Sunnybrook Hatchery and sold back to Idaho Power under terms of Pristine's FERC license. The sources of water are Alpheus Creek, Warm Creek, Sunnybrook Springs, geothermal ground water from an on-site well, and waste water from their facility and from Blue Lakes Trout, immediately upstream on Alpheus Creek. A land application system is used to spread solid waste from raceways.

Diversion Works and Measuring Devices (Current Configuration)

There are two primary diversions into the upper end of the facility. The first diversion is a pipeline which conveys first-priority Alpheus Creek water from the Blue Lakes Trout (BLT) pipeline directly into the Pristine ABC raceways. The Blue Lakes Trout facility is situated directly above Pristine Springs on the Alpheus drainage. Total flows in the pipeline are measured at the BLT diversion point over a 14-foot broad-crested weir. Flows to Pristine, amounting to 25.3 cfs under 36-3603C, are rediverted to a 6" pipeline just above the BLT raceways. Rediverted flows are measured through a submerged orifice installed in the 6" pipeline. Discharge from the ABC raceways is also measured over a 16' rectangular weir.

The second and largest upper diversion is a canal which captures tailwater from BLT. Flows in the canal are entirely derived from Alpheus Creek waters which have been diverted and used by BLT. A portion of the canal flow is taken into the Pristine Big C raceways, and the balance is diverted around the raceways in a 42" bypass pipeline. The Big C raceway discharge is measured over a 20' rectangular contracted weir. A weir at the head of the bypass pipeline is not functional due to submergence. Bypassed flows return to an exit canal below the Big C weir, joining discharges from the ABC raceways.

Note: Total flows measured over the BLT weir include both the Pristine first-priority and the BLT second-priority rights from Alpheus Creek. The Pristine first-priority amount is subtracted from the total to determine the BLT net diversion, which is also the amount delivered to the Pristine main canal. Total flows in the canal below the ABC discharge should equal the initial flow measured over the BLT weir.

The exit canal conveys all discharged and bypassed flows from the upper raceways to a point just above the Sunnybrook Hatchery, at the confluence with the old Warm Creek channel, where flows are again split. A portion of flows are diverted into a small impoundment on the Warm Creek drainage, below the Sunnybrook Hatchery. The remainder are placed in a 42"

pipeline and sent to lower raceways. There are no measuring devices at this divergence, although there is a control gate.

Cold water from the canal pipeline is mixed with hot water from the geothermal well and used at the DEFG raceways, situated south of the Warm Creek channel. Flows from the well are conveyed in a 21" pipeline to the main mixing box. The mixing box serves raceways DEFG, a hatch house and spawning ponds. It also receives recirculated warm water from below the raceways and is used to balance and maintain accurate temperature in the warm water raceways. The balance of the cold water goes to cold-water raceways in the same block. At present, 2 raceway runs are used for cold-water rearing, and 8 runs are used for warm-water rearing. Recycled flows are returned to the mixing box with 3, 20hp and 1, 10hp turbine pumps located at the end of the warm raceways and below the spawning ponds. All discharged flows from DEFG are sent to an upper settling pond (above and to the south of the Warm Creek channel), then into a lower settling pond on Warm Creek, and finally into the Snake River. There are no measuring devices at the DEFG raceways.

At the Sunnybrook Hatchery, the flows of Sunnybrook Spring are diverted via pipeline directly into the hatchery building. Discharge from the hatchery building is measured over an 8' rectangular weir and into the impoundment on Warm Creek, joining the waste flows from the upper hatchery. Also collected here are seeps and overflow from Sunnybrook springs which are not used in the hatchery. Flows below Sunnybrook are diverted into a canal leading to the IJK raceways situated north of the Warm Creek channel. Discharges from the IJK raceways occur at three locations into lower Warm Creek, where they flow into the lower settling pond and then into the Snake River. There are no measuring devices at the IJK raceways or in the diversion canal.

The geothermal flowing well at Pristine is equipped with an impeller-type Aquamaster in-line flowmeter, installed in the 12" discharge line from the well. The flowmeter was calibrated by IDWR on 11-14-2001 and found to be operating within $\pm 5\%$ of a standard polysonic meter. Geothermal flows are sent through a horizontal turbine generator prior to being used for fish propagation.

Solid waste from all raceways is pumped to one of two on-site sludge processing stations, situated below the Big C raceways, and below the DEFG raceways. A small amount of tailwater also flows through the sludge stations to help convey the waste to holding sites. During the irrigation season, solid waste is mixed with waste water and land-applied to pasture lands owned by Pristine. Land-applied flows are delivered using a 50hp turbine pump (at upper station) and 60hp turbine pump (at lower station) through pressurized mainline to solid-set or hand line sprinklers.

Water Right Overlap Analysis and Licensing Recommendations

Alpheus Creek

36-2603C is decreed for 25.3 cfs. This is the first-priority diversion on Alpheus Creek used directly in the ABC raceways in Lot 14 (SWNE) Sec 29. It may be measured in two locations: at the bypass orifice at BLT and at the ABC discharge weir. Historically, discharges appear to have been made directly to Warm Creek and were picked up below Sunnybrook under other rights (see below). This is still occurring, except discharges are now commingled with later in time flows, and first travel down a canal before reaching Warm Creek at the Sunnybrook facility. On the day of the exam, the discharge weir indicated a flow of 27.1 cfs.

Yenter, Cindy

From: Balthasar.Buhidar@deq.idaho.gov
Sent: Friday, December 20, 2013 1:59 PM
To: Yenter, Cindy
Cc: Balthasar.Buhidar@deq.idaho.gov
Subject: More Information on Pristine Spring (IDG-130018)
Attachments: 2006 - Annual Report - January Pond Cleaning Records.pdf; 2006 - Annual Report - Pages 1-7.pdf; 2007and 2008 - Annual Report of Operations.pdf

Cindy:

I found some information that may corroborate Pristine Springs' "land application" perspective, but on the biosolids management strategy.

I've attached 3 examples from their fish farm folder that you should look at.

- The 2007 and 2008 Annual Report of Operations, Section VI. (Land Application of solids and/or irrigation with wastewater) for both years shows that they have been "land applying" solids and wastewater. In 2007 the number of acres treated was 416; and in 2008 it was the same 416 acres. This report is in the NDPES permit as an Appendix for facilities to fill out annually.
- The 2006 Annual Report (pages 1-7) is only the first 7 pages. Page 6 indicates the cleaning record amounts for the settling ponds (February through December) and the number of cubic yards removed for land application.
- The 2006 Annual Report (January Pond Cleaning Records) indicates that in January 2006 the ponds that were cleaned and which were land applied (pages 1 and 2). For pages 3 and 4 the Hatchery Building was also cleaned and shows that it was land applied as well.

It appears that that agricultural biosolids can be land applied for purposes of fertilizing fields for raising crops or for just building up the organic matter in organic matter deficient soils; and these appear to be covered under the NPDES permitting process. However, the facility most likely needs to meet nutrient requirements for crop residue; and there most likely needs to be some consideration for groundwater where risks may exist.

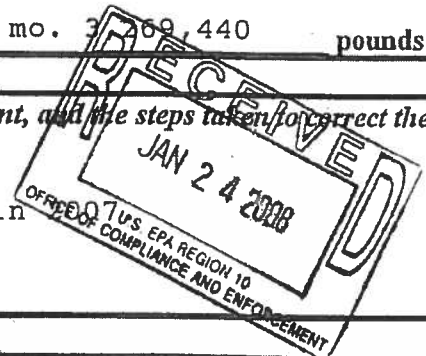
So in the case of Pristine Springs, my better judgment tells me that they are "land applying" under their NPDES permit because they are considered an agricultural permitted facility (a CAFO – Confined Animal Feeding Operation). They obviously are submitting reports to EPA and DEQ on their "land application" of biosolids and wastewater on the ~500 acres of property.

That's my best professional guess at this time. If you have any further questions on this, please don't hesitate to call.

Dr. Balthasar B. Buhidar, Ph.D., IDEQ-TFRO
Regional Manager – Water Quality Protection
Telephone: (208) 736-2190
Fax Line: (208) 736-2194
Email Address: Balthasar.buhidar@deq.idaho.gov

ANNUAL REPORT OF OPERATIONS FOR YEAR 2007**Idaho Aquaculture Permit**

I. Facility Name: Pristine Springs Inc. / PSA SunnyBrook		NPDES # ID-G 13-00-18	
Operator Name (Permittee): SeaPac of Idaho		Phone: 208-736-1684 208-326-3100	
Address: Farm: 201 Warm Creek Rd. Jerome, Id. 83338 Operator: P.O. Box 546 Buhl, Id. 83316		Fax: 208-326-5935	
		E-Mail: N/A	
Owner Name (if different from operator): Wendle Starke		Phone:	
II. Annual Production:	Harvestable weight produced in the year 2,316,245 pounds		
III. Food Used:	Number of pounds of food fed to the fish during the maximum month: Total/12 mo. 3,269,440 pounds		
IV. Noncompliance Summary: Include description & dates of noncompliance, the reasons for such incident, and the steps taken to correct the problem. Attach additional pages, if necessary. NO incidents of noncompliance to report in			
V. Best Management Practices (BMP) Plan BMP Plan has been reviewed this year. ☒ Yes ☐ No BMP Plan fulfills the requirements set forth in the permit: ☒ Yes ☐ No Summarize changes in the BMP Plan since last annual report: BMP will be ammended for 2008 to incorporate additional sampling for copper and Hardness testing required in the new permit.			
VI. Land application of solids and/or irrigation with wastewater Attach Maps of Application Sites. (Note: IDAPA 58.01.02.650 requires IDEQ approval for solids disposal on land.)			
Date	Location and Acreage of Application	Solids Applied in Cubic Yards or Pounds	Wastewater Applied in Gallons
1/2/07 Thru 12/30/07	Pristine Springs irrigated land 416 acres		Avg. 18,000 gal./day X 218 days pumped
5/07	"	87 cubic yds.	
8/07	"	53 cubic yds.	
Yearly Total		140 cubic yds.	3,924,000 gals.
VII. Offline Settling Basin Discharge Frequency (generally) #hours/day #days/wk #months/year or Other N/A			



Ac 70FS
4/3/08

ANNUAL REPORT OF OPERATIONS FOR YEAR 2008

Idaho Aquaculture Permit

I. Facility Name: PRISTINE SPRINGS INC. / PSA Sunny Brook		NPDES # IDG 130018
Operator Name (Permittee): SEAPAC OF IDAHO		Phone: 208-326-3100 FARM 208-736-1684
Address: OPERATOR: P.O. BOX 546 Buhl, ID. 83316 FARM: 201 Warm Creek Rd Jerome, ID 83338		Fax: 208-326-5935 208-736-1695
Owner Name (if different from operator): STATE OF IDAHO WATER RESOURCE BOARD		E-Mail: N/A
		Phone: 208-287-4800
II. Annual Production:	Harvestable weight produced in the year 2,118,467 pounds	
III. Food Used:	Number of pounds of food fed to the fish during the maximum month: 707 lbs 12 months 2,983,390 pounds	
IV. Noncompliance Summary: Include description & dates of noncompliance, the reasons for such incident, and the steps taken to correct the problem. Attach additional pages, if necessary. NO INCIDENTS OF NONCOMPLIANCE IN 2008		

V. Best Management Practices (BMP) Plan

BMP Plan has been reviewed this year. ☒ Yes ☐ No
 BMP Plan fulfills the requirements set forth in the permit: ☒ Yes ☐ No
 Summarize changes in the BMP Plan since last annual report:
 updated to DESCRIBE:
 chemical storage & spill cleanup
 structural inspections
 mortality DISPOSAL PCB's

VI. Land application of solids and/or irrigation with wastewater

Attach Maps of Application Sites. (Note: IDAPA 58.01.02.650 requires IDEQ approval for solids disposal on land.)

Date	Location and Acreage of Application	Solids Applied in Cubic Yards or Pounds	Wastewater Applied in Gallons
4/12/08 9/7/08	ALL IRRIGATED LAND 416 ACRES " "	60 cubic yds 75 cubic yds	
JAN 1/08 THRU DEC 31/08	ALL IRRIGATED LAND 416 ACRES (map attached)		18,800 gals/day X 248 days pumped
Yearly Total		135 cubic yds	4,662,400 gallons

VII. Offline Settling Basin Discharge Frequency (generally)

N/A #hours/day N/A #days/wk N/A #months/year or Other N/A

DEQ TFRO

Jan. 2006

POND CLEANING RECORDS
PSA SUNNYBROOK

Main Hatchery

Q = Quiescent
WP = Whole Pond
LA = Land Applied
S = Stored

Date	Pond # Cleaned	Person Cleaning	Q	WP	LA	S
1/4	J10 to J14	Darrell	✓			✓
1/4	D1 to D3	Darrell	✓			✓
1/10	D4 to D10	Darrell	✓			✓
1/11	E1 to E7	Darrell	✓			✓
1/12	F8 to G10	Darrell	✓			✓
1/9	C1 to C5	Vince		✓	✓	
1/10	C6 to C8	Vince		✓	✓	
1/11	C9 to C10	Vince		✓	✓	
1/12	C11 to C12	Vince		✓	✓	
1/16	I1 to I7	Darrell	✓			✓
1/17	I8 to I13	Darrell	✓			✓
1/18	I14+15, J1	Darrell	✓			✓
1/19	J2 to J4	Darrell	✓			✓
1/20	C8 to C11	Vince	✓	✓		
1/21	C12 & C13	Vince	✓	✓		
1/22	J5 to J11	Darrell	✓			✓
1/23	J12 to K3	Darrell	✓			✓
1/22	C14 to C16	Vince	✓	✓		

POND CLEANING RECORDS

PSA SUNNYBROOK

Main Hatchery

Q = Quiescent
WP = Whole Pond
LA = Land Applied
S = Stored

Date	Pond # Cleaned	Person Cleaning	Q	WP	LA	S
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[illegible]

POND CLEANING RECORD

PSA SUNNYBROOK

Hatch Building

January 2006

Q = Quiescent
WP = Whole Pond cleaned
LA = Land Applied
S = Stored

DATE	POND # CLEANED	PERSON CLEANING	Q	WP	LA	S
1/1/06	HB 1-20 + HC 1-10	Fred		✓	✓	
1/2				✓	✓	
1/3				✓	✓	
1/4				✓	✓	
1/5				✓	✓	
1/6				✓	✓	
1/7				✓	✓	
1/8				✓	✓	
1/9				✓	✓	
1/10				✓	✓	
1/11				✓	✓	
1/12				✓	✓	
1/13				✓	✓	
1/14				✓	✓	
1/15				✓	✓	
1/16				✓	✓	
1/17				✓	✓	
1/18				✓	✓	
1/19				✓	✓	
1/20				✓	✓	
1/21				✓	✓	
1/22				✓	✓	
1/23				✓	✓	
1/24				✓	✓	

PSA SUNNYBROOK

Hatch Building

Q = Quiescent
WP = Whole Pond cleaned
LA = Land Applied
S = Stored

[illegible]

PSA SUNNYBROOK ANNUAL PRODUCTION
2006

	TROUT	TILAPIA
Jan.	130,440	43,048
Feb.	124,364	48,906
Mar.	146,135	41,756
Apr.	112,441	42,830
May	125,236	47,981
June	121,575	51,895
July	102,132	43,463
Aug.	117,061	45,795
Sept.	193,334	44,931
Oct.	115,264	44,732
Nov.	129,451	48,007
Dec.	127,121	46,378
TOTAL	1,544,554	549,722

PSA SUNNYBROOK
2006
Feed Purchased

	TROUT	TILAPIA
Jan.	164,680	66,670
Feb.	168,420	79,200
Mar.	199,160	79,190
Apr.	143,850	62,160
May	168,300	80,660
June	155,500	75,360
July	132,530	87,600
Aug.	180,220	80,340
Sept.	169,550	86,970
Oct.	139,065	66,785
Nov.	174,055	66,575
Dec.	162,880	71,640
TOTAL	<u>1,958,210</u>	<u>903,150</u>

PSA SUNNYBROOK
List of Fish Feed

Nelson Silver Cup Feeds

4.5 mm steelhead w/ asta pink
4.5 mm steelhead float in bulk
2.5 mm steelhead
1.5 mm steelhead
Swim-up/starter:
#1
#2
#3

4.5 mm Tilapia 32-6 float in bulk
2.5 mm Tilapia 40-8 in sx.
1.5 mm Tilapia 40-8 in sx.

The fish are fed daily by demand feeders on a % of body weight figured weekly.

PRISTINE SPRINGS INC.
PSA SUNNYBROOK
MONTHLY WATER FLOWS 2006

JAN.	191.82
FEB.	191.95
MAR.	191.09
APR.	187.52
MAY	174.11
JUNE	170.51
JULY	175.03
AUG.	181.85
SEPT.	192.72
OCT.	200.01
NOV.	204.39
DEC.	198.55

All flows avg. Per. DMR reports

SETTLING PONDS
Cleaning Record

Feb. 6/06 Lower ponds cleaned
20 cubic yds. Solids removed

Feb. 7/06 Upper ponds cleaned
28 cubic yds. Solids removed

May 18/06 Upper ponds cleaned
10 cubic yds. Solids removed

May 19/06 Lower ponds cleaned
11 cubic yds. Solids removed

Oct. 24/06 Upper ponds cleaned
8 cubic yds. Solids removed

Oct. 24/06 Lower ponds cleaned
14 cubic yds. Solids removed

Dec. 10/06 Upper ponds cleaned
8 cubic yds. Solids removed

Dec. 11/06 Lower ponds cleaned
10 cubic yds. Solids removed

Summary of Non Compliance

0 non compliance to report



A photograph of a green, cylindrical, vertical engine or pump unit installed in a confined, cluttered space. The unit has a white top section and is surrounded by various pipes, wires, and mechanical components. The background is dark and shows signs of wear and debris.

Pump #2, Lower Pump Station



Photos taken
by
Amanda Folsom
? 2000?



