Exhibit
A

Historical Timeline of Aquaculture in Idaho and Clear Springs Foods, Inc.

The artificial propagation (production of young) of fish began in ponds in China about 3000 years ago but it was not until market demand for seafood significantly increased (sometime after 1950), and the application of scientific methods and technology development occurred that commercial aquaculture (fish grow out at high density) became feasible in Idaho and globally. In Idaho, this conjunction occurred in late 1950-1965. A time line of rainbow trout aquaculture follows.

1700-1790: over-fishing, pollution and dams deplete various wild species of fish in US and in Europe. This creates demand for wild fish stock replacement.

1790-1850: Fish culture becomes well established in Western Europe, the Balkans, and in Scandinavia. Fry for culture are captured from the wild and used for re-stocking in public waters.

1853: First artificial propagation of brook trout occurs in the US (Theodatus Garlick and H.A. Ackley) in Ohio. Trout feed consists of boiled lean meat, egg yolk, liver, heart, and clabbered milk. Maggot factories established (meat and entrails suspended over fish ponds) to feed fish.

1866-1870: Brook trout, Atlantic salmon, American shad, whitefish, lake trout, and yellow perch successfully propagated and cultured. All fish raised for stocking in public waters.

1870: Fish culture practiced in 19 of 37 states plus territories of Colorado and Kansas. State Fish Commissions culture designed for restoration of fishery resources. Foundation of fish culture well established for fishery conservation.

1870-1950: Fish diets continue to be composed of ground meat (horse, cattle, and carp) particularly liver, heart and spleen.

1909: First commercial fish farm in Idaho at Devil's Corral Spring near Shoshone Falls. Farm closed one year later in 1910 presumably because there was no fish market.

1915-1930: Warren Meader pioneers rainbow trout brood stock and egg production at farms near Pocatello (Papoose Springs) and Soda Springs (Caribou Trout Farm later sold to Clear Springs Trout Co. and renamed Soda Springs).

1919: Frame Trout Farm in Twin Falls opens. Farmed continuously until 1973.

1920: Snake River bottomland opened to homesteading allowing land below the Snake River Canyon rim to be developed, thus allowing for fish farm development at headwaters of springs. In the late 1920's Burt Perrine, son of L.B. Perrine, began raising trout in the Snake River Canyon near Twin Falls at a site close to the current Blue Lakes Trout Farm. This farm became Royal Catfish Industries and operated until 1975. Also in the 1920's, the Southern Idaho Fish & Game Association (a sportsman's club) began construction of a hatchery in Rock Creek Canyon. The club leased the facility to the Idaho Fish & Game in 1931, and then to the College of Southern Idaho in 1976. CSI now uses the farm for its aquaculture training program.

1928: Jack Tingey starts Snake River Trout Company (located at the current location of Clear Springs Foods Snake River Farm). Farm consists of earthen ponds. Ted Eastman and Percy Greene employed by Jack Tingey. Tingey's vision was to develop a trout farm dedicated to producing food fish. He was successful in developing fresh trout markets as far away as Chicago where he shipped product with ice departing from Shoshone on the old REA rail system.

1930-1933: Hagerman National Fish Hatchery (USFWS) built for conservation fishery.

1932: In response to Idaho Power's filing on all springs in the Hagerman Valley, the "1932 Decree or New International Decree (?)" resolved water rights for those people who settled the area and claimed water rights since the late 1800's from Billingsley Creek, Riley Creek and various springs. This decree also established that the common source of water for this area was the underground aquifer generally to the east of Hagerman. Many of these properties would later expand the beneficial use of their water to include fish propagation on small farm ponds when technology advanced to the point that aquaculture became profitable through the "Clear Springs Farm Pond Program".

1935: Percy Greene establishes Greene's Trout Farm on south side near Twin Falls.

1930-1940: Joint research conducted at a New York State laboratory and Hagerman's Tunison lab (now the University of Idaho Hagerman Experiment Station) developed dry feed formulations that replaced those originally made from decaying animal carcasses. In the early 1940's, dry diets were first tested at Tupper's Trout Farm in Hagerman.

1938: George Isaac purchases Caribou Trout Farm for trout egg production from Warren Meader.

1940: IDF&G acquires Tucker Ranch property for Hagerman State Fish Hatchery and Wildlife Management Area. Thirteen ponds for bass, bluegill and catfish were constructed by 1942. First IDF&G trout hatchery building built by 1942 with full construction completed by 1949.

1946: Art Wylie establishes Canyon Trout Farm on Rock Creek. Ted Eastman returns from WWII again finding employment with Jack Tingey and then with Bob Erkins at Snake River Trout Company.

1948: Earl Hardy and Al Iverson establish Rainbow Trout Farm at head of Cedar Draw (now part of Idaho Trout Company).

1949: Rangen Inc., founded in 1925, starts its Aquaculture Division, providing high quality dry diets based on formulations developed by the Tunison lab in Hagerman. Food conversion ratios drop from 5:1 using carcasses to present efficiencies of 1.25:1 using dry feeds.

1950- present: Selective breeding of rainbow trout for growth in flowing water culture conditions begins in Washington.

1951-1952: Rimview Trout Company started near Niagara Springs by Milford Schmekpepper. Ralph Nelson starts Crystal Springs Trout Farm near Niagara Springs.

1952: Rainbow trout aquaculture starts in Great Britain. Bob Erkins purchases Snake River Trout Company from Jack Tingey. Eventually changes name to 1000 Springs Trout Company.

1953: US Trout Farmers Association formed to enhance communication and technology transfer throughout the United States.

1956: Snake River Trout Company builds first local processing plant- previous processing capacity in area very limited. Automated processing equipment installed thereafter. Blue Lakes Trout Farm built by Percy Greene and Stan Miller. A processing plant was added to Rainbow Trout Farm (now Idaho Trout Company).

1958: David Haskell (New York Fish Conservation Department) establishes scientific principles of flowing water fish culture. Definition of chemical and biological parameters affecting fish in confinement takes fish culture from art to science.

1960: Al Dunn purchases Caribou Trout Farm from George Isaac.

1962: Rangen Inc.'s Research Hatchery established. Notable research accomplishments include: development in mid-1980's of a stable form of Vitamin C now included in all aquatic animal feeds world wide (Rangen sold the formula to Hoffman-LaRoche); collecting efficacy data in mid-1990's to support FDA approval of BASF's pigment canthaxanthin (dietary pigment that turns trout and salmon flesh red); collecting manufacturing data in late 1970's to support FDA approval of the first of only 3 medicated feeds ever to be approved for fish; fish vaccine development; and feed product and ingredient testing.

1964: Idaho Trout Company builds new processing plant in Filer.

1965: Rainbow trout market demand spurs growth of trout industry in California, Colorado, Montana, Missouri, Wisconsin, West Virginia and North Carolina.

1966: Clear Springs Trout Company formed (Ted Eastman President). Clear Springs Trout Company builds Clear Lake Farm. Earl Hardy acquires trout farm at the Clear Lake site.

1966-1979: Clear Springs Trout Company successively builds and expands seafood processing plant at current location.

1968: Norman Standal starts building ponds for Whitewater Farm.

1969: Clear Springs Trout Company purchases Crystal Springs Trout Farm (near Niagara Springs). Eliminates existing facility which consisted of earthen ponds, develops efficient water capture structure and builds existing modern farm. Idaho Power sells properties with spring water, allowing for larger hatchery development. George Lemmon and Norman Standal establish Magic Springs Trout Farm near the Hagerman National Fish Hatchery on one of those properties.

1970: Jones Trout Farm (Billingsly Creek) built on family ground owned since 1896.

1972: 1000 Springs Trout Farm is sold to Inmont Corporation of New Jersey. Clear Springs Trout Company starts farm pond grow-out system. Production of rainbow trout and other farmed aquatic species expands greatly through the 1980's.

1973: Clear Springs Trout Company builds Box Canyon Trout Farm and expands its processing plant. Babington demand feeders designed and built.

1975-1980: First fish pump, automatic live fish grader, and boning tool built and patented by George Lemmon. Idaho Trout Company acquires Rim View Trout Farm and builds a second processing plant at Clear Lakes Trout Farm (?).

1978: Clear Springs Trout Company builds fish feed mill in Buhl.

1981: Clear Springs Trout Company purchases 1000 Springs Trout Company from Inmont Corporation. Rebuilds Snake River farm and builds research building. Rebuilding completed in 1988.

1983: Clear Springs Trout Company installs hydroelectric operation at Box Canyon.

1985: Clear Springs Trout Company purchases Caribou Trout Farm from Al Dunn and builds Soda Springs Brood Farm.

1987. Magic Valley Steelhead Hatchery built. Part of the Lower Snake River Fish and Wildlife Compensation Plan to mitigate for dams.

1991: Clear Springs Trout Company purchases Coast Oyster Company in Washington. Clear Springs Trout Company changes name to Clear Springs Foods, Inc. to reflect broader product offerings. Clear Springs Foods further automates processing plant with introduction of robotic cutting machines and pin-bone removal equipment.

1996: Clear Springs Foods acquires existing Pillsbury Oven Baked Bean plant in Buhl and reconstructs to form a specialty products plant.

2000: An Employee Ownership Plan and Trust (ESOP) is established and the 400 Clear Springs Foods employees purchase 100 % ownership of the company through the beneficial trust.

2001: Clear Springs Foods completes long-term trout supply contract with Chilean trout producer.

2003: Clear Springs Foods completes two long-term trout production facility leases at Briggs Creek.

2005: Clear Springs Foods completes additional long-term supply agreement with additional South American trout producers.

2006: Idaho produces 70-75% of all farm raised trout in the US. Approximately 561 trout farms located throughout the US (42 states). United Nations projects aquaculture supplies 40-45% of all seafood consumed globally.

2006-2007: Clear Springs Foods completes major automation update at processing and specialty products facilities.

Exhibit
B

Global Seafood Market and Aquaculture

In the US there has been a seafood trade deficit for well over 20 years. In 2006 this trade deficit was over $8 billion. Imports of shrimp, salmon, tilapia, and other seafood create an extremely competitive market in which product price, quality, product availability and choice determine consumer purchasing decisions. These conditions prevail in the current seafood market compelling all US fish farmers and seafood processors to seek production cost reductions, greater production and processing efficiencies and product choice if they are to remain competitive. Natural resource barriers (i.e. availability of suitable water) and the technologic aquaculture challenge associated with some species (e.g. rainbow trout) preclude the excessive production of these species in many countries.

Capture fisheries have historically provided all seafood in the US and most of the world. As wild stocks have dwindled from over fishing and effects of pollution, and sustainable catch has been maximized, aquaculture has become an increasingly important supplier of seafood for human consumption (in 2007 about 45% according to the United Nations Food and Agriculture Organization). Seafood consumption itself has grown steadily in the US since the early 1980 (from about 12 lb/capita to 16.5 lb/capita). Starting sometime in the 1950s interest in commercial fish farming began to grow throughout the US and globally. This interest occurred because of market demand for consistent supply and quality of seafood. According to the United Nations, the phenomenal growth in world aquaculture over the last fifty years has been most notable in Asia and the Pacific regions. World aquaculture has grown at an average annual rate of 8.8 percent from 1950 to 2004. Production in the last fifty years has grown from less than a million tones in the early 1950s to 60 million tones in 2004 (United Nations). Nearly 70% of aquacultured products are produced in China. The potential to enhance food supply in low income, food deficit countries and the economic opportunity for all fish farmers fostered increased emphasis on aquaculture science and technology development ultimately leading to today's modern aquaculture industry. Over 442 aquatic animal species are farmed for human consumption, sport fishing and stock enhancement. The year round availability of some farmed species such as Idaho rainbow trout and consistency of high quality allow Idaho rainbow trout to compete for consumer purchase in the North American market.

Rainbow trout competes in the US market with other seafood and with poultry, pork and beef. Consumer price remains a significant factor in purchase decisions. Much of the imported farm raised seafood arrives at significantly lower price than domestic seafood because international labor costs (particularly China, SE Asia and South America) are very much lower. Additionally environmental constraints on international production are much less than in the US further creating significant operational cost disadvantages to US producers.

Idaho produces 70-75% of all rainbow trout produced in the US for human consumption. Total production of rainbow trout in the US has been essentially constant over the past 20 years averaging around 55 million lbs per year. Fluctuations in total production arise because of variation in water flows, drought, floods, disease and predators, and market forces. Barriers to trout production in the US are lack of suitable water resources and production costs. Rainbow trout production volume in Idaho varies but is about 40 million pounds per year. The production capacity of Idaho, and any other trout producer, is determined by water availability, water quality, and the application of technology.

Aquatic animal production method significantly impacts production costs. Some aquatic animal species can be intensively raised in stagnant warm water ponds (e.g. channel catfish, basa, and tra). Others are primarily raised in open water (ocean, lake, large river) net pens (e.g. salmon, tuna and sea bass). Most rainbow trout grown in the US are intensively produced in flowing water culture systems because of the stringent water quality requirements of this species. Commercial success of rainbow trout farming demands intensive culture practices provided by flow-through water systems.

The following background materials on the global fish market and aquaculture are included on the enclosed CD:

The State of World Fisheries and Aquaculture (2006) – FAO Fisheries and Aquaculture Department, Food and Agriculture Organization of the United Nations

State of World Aquaculture, FAO Technical Publication 500 (2007), Food and Agriculture Organization of the United Nations:

Chapter 2 – Production: environments, species, quantities, and values
Chapter 3 – Markets and Trade
Chapter 8 – Trends and Issues

Exhibit
C

To: Terry Huddleston
From: Timberly Maddox and Tom Scott
Date: March 16, 2005
Subject: Water at Snake River Farm Complex

Pertaining to your request that water at Snake River Farm be mapped and quantified, we have put together the following analysis. Please refer to the attached map for the following discussion.

A Brief History

Water at the Snake River Trout Farm was measured in 8 places by taking the crest depth over a weir. These individual flows were then added together to get the total water flow through the farm. When the new Snake River facility was built, the water was captured in two large pipes that are still in use today. Meters are used to measure the water in these pipes. Water was diverted to the new facility in December of 1987. At this time there was a 9.75 cfs increase in flow measured through the farm.

Where does water go?

At the spring, water is collected into several pipes and is sent to:

- the golf course and housing development (~1.5 cfs) (1)
- Snake River Brood (SRB) raceways and Spawn building (~37 cfs) (2)
- Snake River Farm (SRF) (~52 cfs) (3)
- the Visitor's Center pond (~0.3 cfs – when in operation) (4)

Water is also collected from the spring that feeds the drinking fountain above the road (~ 0.5 cfs). This water feeds the wet labs in the Research Building.

Visitors Center

There is a sprinkler line (6) tapped into the upper spring pool. This line irrigates the area around the Visitors Center and around the Freezer Building (via box 10). The Freezer Building is located where the old Processing Plant was located. The water line (11) that fed the old Processing Plant is currently turned off. If water were ever to flow through this line, it would not be included in our weekly water readings.

Water that exits the Visitor's Center pond (14) combines with the overflow from the off-line settling ponds (15) next to SRF and is piped to Clear Lake Creek. There is a standpipe (8) in the sturgeon pond at the Visitors Center that allows the pond to be drained. The water from here ties in with the Visitors Center pond effluent line.

SPI Lab
Water that exits this lab is piped directly to Clear Lake Creek (7).

Reuse Water Line
The pipe that runs to the SRB raceways and Spawn building and then on to SRF is termed the reuse water line. All of the water that runs through the SRB raceways and spawn building is collected into the reuse pipe and is sent to SRF. There is a sprinkler line (21) at the end of the pipe that waters the grass and trees around the SRF raceways.

All of the water that runs through the wet labs (except the SPI Lab) in the Research building exits on the east side of the building. This water is collected in a box with overflow capability (9) and enters the re-use water pipe. Any overflow in the collection box (12) goes down a standpipe and combines with the line from the sturgeon pond.

Fresh Water Line
The pipe that runs directly from the spring to SRF is termed the fresh water line. There are 4 pipes that carry water from this line (intermittent and continuous flows).

1. There is a water tower (5) at the Research Complex.
2. Near the on-site residence, there is a line to a water tower and sprinkler box (18), which irrigates around the on-site residence, the Hatchery building, and off-line settling ponds.
3. There is a line that enters the Snake River Hatch House (20). All of the water that exits the HH enters SRF (19) in raceways 15 and 16.
4. There is also a line to the golf course (22) at the end of the pipe.

Manure Systems
Water from the manure systems at Snake River Brood, Snake River Farm, and Snake River Hatch House (13,16, and 17) is sent to the off-line settling ponds (OLSP) at SRF. Water exits the OLSP via line 15. There is an overflow (23) available for the OLSP, but this is rarely used.

What is measured and where?

Visitors Center

Water running through the visitors center pond is measured weekly by taking the crest depth over a weir as described in the attached "Compliance Monitoring Sampling: Flow" directions. Water is not measured while the sprinklers (6) are running. We could calculate the amount of water that exits through the sprinkler line based on the amount of time the sprinklers are running.

SPI Lab

Water that exits this lab (7) is measured weekly by taking the crest depth over a weir (as described in "Compliance Monitoring Sampling: Flow").

Reuse and Fresh Water Lines

We have two manholes northeast of the on-site home that access the water lines entering SRF. This is where flow measurements are taken (as described in "Compliance Monitoring Sampling: Flow"). Until March 14, 2005, SRF used a Peek Measurement model 500MBHR/2110M1F flow meter. As long as the impellor is turning freely, calibration is not required for this meter. Flow is measured instantaneously everyday in each pipe. Flow is also totalized every other day in each pipe and an average flow for the period is calculated.

As described above, there are several lines that exit from or enter into these pipes. Most of the exiting lines control intermittent flows (sprinklers and overflow). Any water that exits upstream from the flow meter **while instantaneous readings are being recorded** is not included in the instantaneous flow readings. Every effort is made to take instantaneous readings when the sprinklers are not on. Also, any water that **continuously** exits upstream from the flow meter is not included in the instantaneous and totalizer readings. Any water that exits downstream of the meter is accounted for.

There is one continuously exiting flow upstream of the meter (1) and one intermittent exiting flow downstream of the meter (22) that is not measured by Clear Springs Foods Inc. (CSF). These are the lines to the golf course and housing development. The golf course and housing development has a 3 cfs water right. Half of the flow (1.5 cfs) is taken upstream of the meter and the other half is taken downstream of the meter. Because we don't measure these flows, we don't know what amount is being taken. If the full amount were taken this would represent 3.4% of Snake River's average total flow – 1.7% above the meter and 1.7% below the meter. The upstream golf course and housing development flow (1) is highly variable - depending on the water requirements of these two entities. This flow is not included in our weekly totalizer readings. The downstream golf course flow (21) is only being used when the golf course runs its sprinkler system. This flow is included in our weekly instantaneous and totalizer readings.

Reuse Water Line

All of the flow that goes through the collection box (9) near the Research building is included in our instantaneous and totalizer flow readings. While this collection box does have overflow capability (12), overflow is rare. We do have the capability to measure this overflow by measuring the crest depth over a weir.

The sprinkler line (21) on the Reuse Water Line has intermittent flow. Because this line is located downstream from the flow meter access point, both instantaneous and totalizer readings are unaffected by any potential flow. This line is not measured individually. We could calculate the amount of water that exits this line based on the amount of time the sprinklers are running.

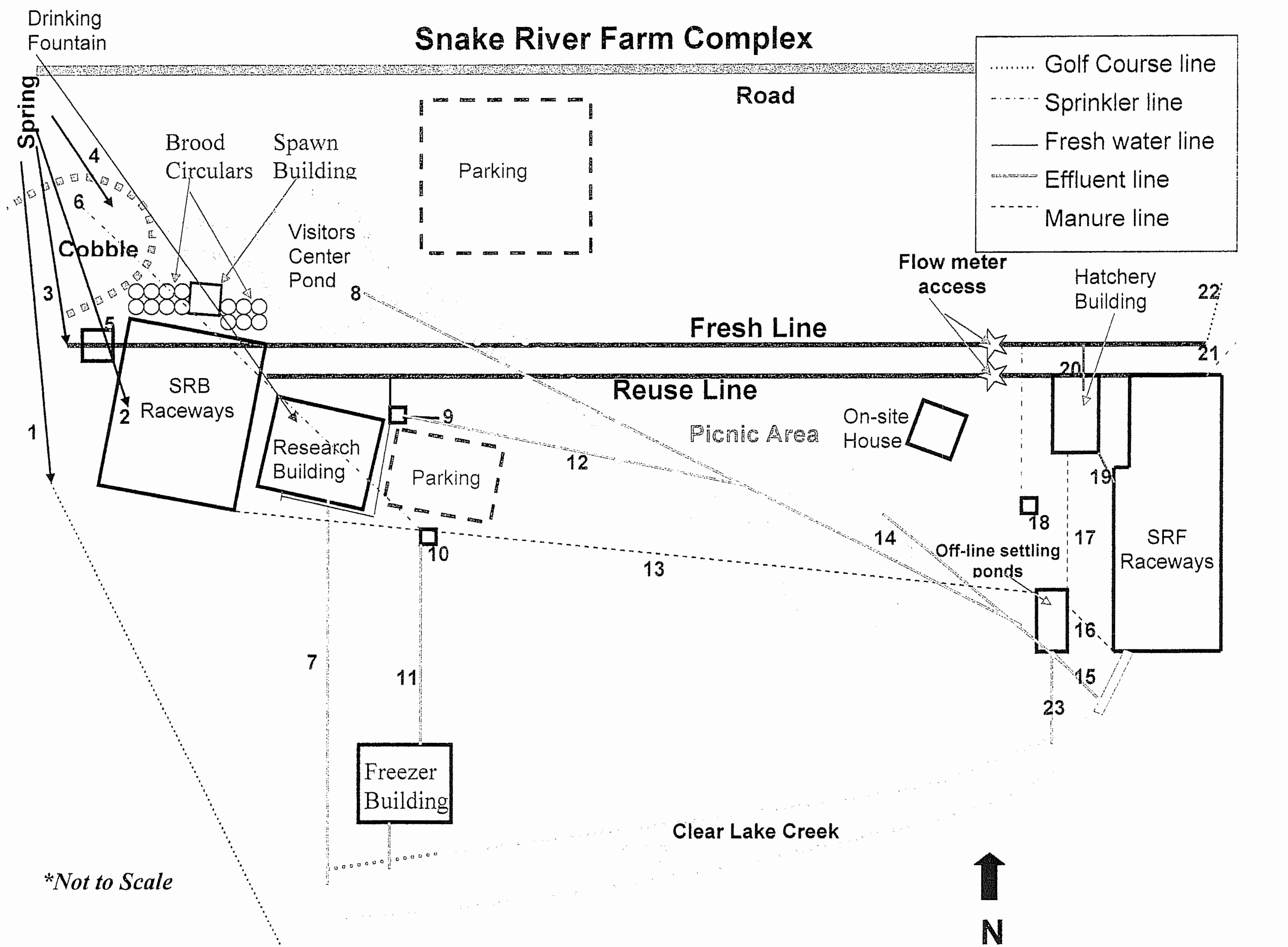
Fresh Water Line

There are two water towers (5 and 18) on the Fresh Water Line. Both of these water towers have intermittent flows – water only exits when a truck is being filled with water. We are able to take instantaneous readings when the water tower near Research (5) is not in use.

Both of the sprinkler lines (6 and 18) on the Fresh Water Line have intermittent flows. Because they are intermittent, we are able to take instantaneous readings when the sprinklers are not running. They are not included in the totalizer flow readings. These lines are not measured individually. We could calculate the amount of water that exits these lines based on the amount of time the sprinklers are running.

Manure Systems

The manure system at Snake River Brood (13) is operated for one hour every other month. Because Snake River Brood is upstream of the flow meter, instantaneous flow readings are not taken when the manure system is operated. The manure systems at Snake River Farm (16) and the associated Hatch House (17) are operated on a daily basis. The amount of water entering the off-line settling ponds - from all sources - is calculated and included in our monthly reports to EPA and IDEQ and our yearly report to IDWR. The flow meter on the fresh and reuse lines have already measured this flow.


Snake River Farm Complex
Drinking Fountain
Spring
Road
Parking
Golf Course line
Sprinkler line
Fresh water line
Effluent line
Manure line
Brood Circulars
Spawn Building
Visitors Center Pond
Cobble
Flow meter access
Hatchery Building
Fresh Line
Reuse Line
SRB Raceways
Research Building
Parking
Picnic Area
On-site House
Off-line settling ponds
SRF Raceways
Freezer Building
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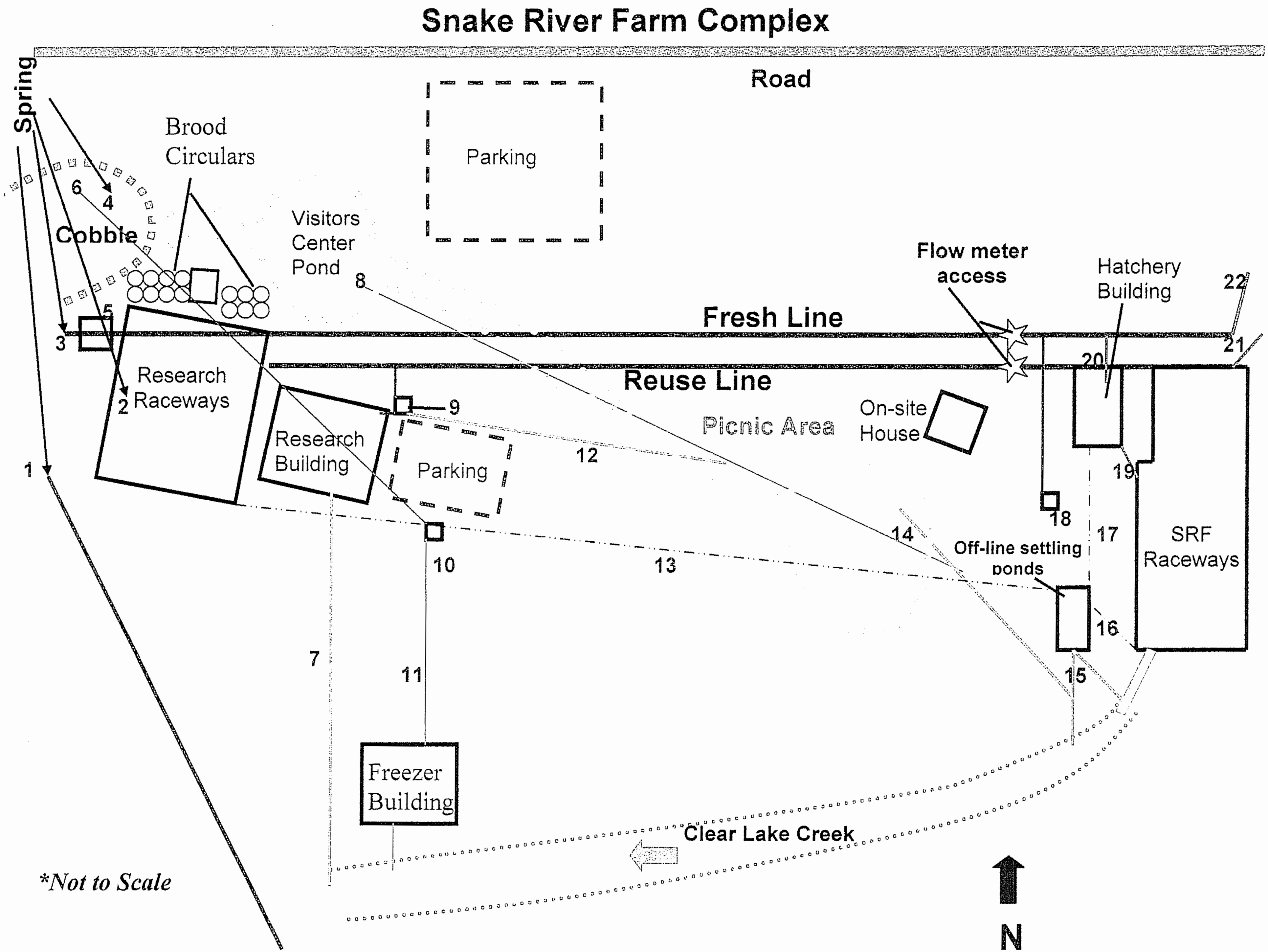
Snake River Farm Complex
Road
Spring
Brood
Circulars
Parking
Visitors
Center
Pond
Cobble
Flow meter
access
Hatchery
Building
Fresh Line
Reuse Line
Research
Raceways
Research
Building
Parking
Picnic Area
On-site
House
Off-line settling
ponds
SRF
Raceways
Freezer
Building
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Snake River Farm Raceway Fill-Up Times and Weir Readings

April 28, 2005

Prepared by Timberly Maddox

In order to most accurately measure water flow readings at the Snake River Farm, raceway fill-up times were conducted on E section on 4/19/05. Weir measurements on D section were also performed for comparison. Raceway dimensions (length and width) were measured on 4/18/05. (Areas of the standpipes, screens, and pilasters have been subtracted from raceway dimensions). At the time of measurement, the 1 and 2 series were shut off due to low water flow.

The Fresh and Reuse pipes were measured separately and flows were added together to get a total farm flow. On 4/18/05, Tom Scott ensured that no raceway was receiving water from both pipes. The water level in each raceway was raised a minimum of six inches. A stilling well with a ruler was employed to measure the change in water level. Two start times and one stop time were utilized. Please refer to Figure 1 and Figure 2 for illustrations of pond dimensions.

Flows from the Visitor's Center and SPI Lab were also measured by measuring inches over a weir.

Each pond on A - D Section is connected to the High Flow Manure System (Figure 3 and Figure 4). This system is used to clean quiescent zones (QZ). Each section of the QZ has a slide gate that is opened when the QZ is being cleaned and solids are then pushed into the manure line. Occasionally, these slide gates leak when the system is not in use. The water that leaks into the system is water that would normally flow into the pond downstream. To recover this water, valves have been installed on the line that allows us to place this water back into the raceways – rather than send it to the OLSP. These valves are closed when the system is in use. Terry Huddleston, Tom Scott, and Timberly Maddox estimated leakage from the high flow manure system into the OLSP as < 50 gpm. Leakage from high flow manure system into 1B was measured using barrel fill-up times. There is a spring behind the manager's residence that is piped to 1B (Figure 4). This spring was also measured using barrel fill-up times. Rich Schneider, based on flow into each operating tank, stated flow through the Envirotron as 70 gpm (Figure 4). There were fourteen tanks operating at 5 gpm. Flows were calibrated to fill-up times at the time the tanks were put into operation.

Fill-up time flows are not exact for each of the two pipes delivering water to the farm for the following reasons:

1. On 4/19/05 there was leakage from the slide gates (< 1.5 cfs) into the high flow manure system. This leakage emptied into the 8 and 16 series, 1B, and the OLSP. The 8 and 16 series were exclusively using Fresh water. Leakage to 1B and the OLSP was measured separately from raceway fill-up times and is expected to come proportionately from Fresh and Reuse ponds. The high flow manure system leakage to 16E was measured and deducted from 16E fill-up flow rate to provide a valid comparison to the 16D weir reading. Slide gate leakage to 8B, 8C, 16C, and 16D was estimated based on the average of leakage to 1B and 16E. Because we can reasonably expect that leakage into the 8 and 16 series (fed by the Fresh pipe) comes proportionately from Reuse and Fresh ponds - we can state that the Fresh pipe has been attributed more water than it is truly carrying, while the Reuse pipe has been attributed less. Flows should be adjusted by reallocating the Reuse portion of the leakage that was included in fill-up times. Flow proportions for 1B and 8B (leakage from A section) are 54% Fresh and 46% Reuse. Flow proportions for OLSP, 8C, 16C, 16D, and 16E are 58% Fresh and 42% Reuse. Flow proportions are based on the number of head valves open for each pipe.

2. On 4/19/05 there were leaks in head valves on Fresh pipe into A section ponds receiving exclusively Reuse water – attributing 0.07 cfs more water to the Reuse pipe and less to the Fresh pipe.

3. On 4/19/05 0.16 cfs was taken from 3B and 4B (both on exclusively Reuse water) to feed the Envirotron. Envirotron flows were measured independently of raceway fill-up times.

Total fill-up time flows plus the aforementioned measured and estimated flows are accurate (as described) for the total amount of water traveling through the Snake River Complex on 4/19/05. Given these corrections, flow in the Fresh pipe should be adjusted by –0.31 cfs and the Reuse pipe should be adjusted by 0.80 cfs (please review Table 1). Flow corrections for leakage to high flow manure system are exclusively for the Reuse portion of the leakage, since the fresh portion has been correctly allocated. These flow corrections are only accurate for 4/19/05 (the day that measurements were performed).

Table 1. Reassignment of flows to Fresh and Reuse pipes for 4/19/05. All flows are in cfs. Flow proportions for 1B and 8B (leakage from A section) are 54% Fresh and 46% Reuse. Flow proportions for OLSP, 8C, 16C, 16D, and 16E are 58% Fresh and 42% Reuse. Flow proportions are based on the number of head valves open for each pipe.

			High Flow Manure System					
	Head Valves	Envirotron	1B	OLSP	8B	8C,16C, &16D	16E	Total △
Fresh	0.07		0.12	0.06	-0.12	-0.32	-0.12	-0.31
Reuse	-0.07	0.16	0.10	0.05	0.12	0.32	0.12	0.80

Meter readings (in each of the two pipes delivering water to the farm) were performed while fill-up times were being conducted. Instantaneous readings were taken before and after fill-up times were completed. Also, a totalizer reading was taken during fill-up times.

Weir measurements in the D section spillways were also taken using a metal ruler to the nearest 1/8-inch. These measurements generally correlate to fill-up times. Once a correction factor of 1.087 is applied to the total flow in each raceway (as calculated by weir measurements), the weir measurements and fill-up times for each pond are within 3% of each other. Corrected total weir flow and total fill-up time flow is within 0.6% of each other (total weir flow/total fill-up time flow). Weir measurements prove to be a good way to double check for meter malfunction or as a substitute during meter down times. It should be noted that any flow into the Envirotron, OLSP, or 16E from the high flow manure system would need to be added to the flow obtained by weir measurements.

Please review the attached packet for results, data sheets, and pictures.

Exhibit
D

Alternatives to flow-through culture

Water quality has been scientifically demonstrated to significantly impact fish survival and consequently the production capacity of aquaculture facilities. Next to water itself, water quality is the primary limiting factor in rainbow trout aquaculture. Rainbow trout have stringent physiologic requirements relative to many other kinds of fish particularly warm water aquacultured fish. For example rainbow trout require cold water temperature (optimal 15 C), water with high oxygen content (100 % saturation) and low concentrations of carbon dioxide. Channel catfish can thrive at cold and warm water temperatures, low dissolved oxygen concentrations and relatively higher amounts of carbon dioxide. The specific physiologic requirements of the rainbow trout animal account for why rainbow trout are most frequently found in pristine mountain streams rather than various impaired waters. Rainbow trout are also very sensitive to various pollutants such as nitrite nitrogen (cause of toxic methemoglobinemia) and unionized ammonia. The US EPA uses rainbow trout as one of their test animals for whole effluent toxicity testing because they are exquisitely sensitive to pollution. These physiologic requirements are significant and they create barriers to rainbow trout aquaculture for potential competitors nationally and globally. These physiologic requirements also account for why Idaho, with water from the ESPA, produces 70-75 % of all farm raised trout in the US.

Three additional methods of farming rainbow trout have been proposed as part of a remedy for the depletion of ground water associated with pumping in the ESPA. These are recirculating aquaculture systems (RAS), pump-back aquaculture system, and use of irrigation return flows. Clear Springs Foods has examined the feasibility of each alternative production method and concludes that none of them are commercially feasible because they are not economical, reliable or compliant with food and environmental safety requirements.

Recirculating aquaculture systems (RAS) rely on extensive treatment and conditioning of water for growing fish. Various model reuse and partial reuse systems have been developed (Summerfelt et al., 2004) but are hampered by reliability and cost problems (Kazmierczak and Caffey, 1996). Short term system failure due to bio-filtration collapse or temperature and oxygen control failure result in catastrophic and complete loss of crops. Long-term economically viable RAS has not been achieved in the US for any fish species. Capital investment is high relative to other aquaculture systems and management costs are intensive and high. Publicly funded RAS does exist but these are neither reliable nor commercially viable.

Pump-back systems where various quantities of water from a fish farm would be pumped back for re-use suffer the same constraints as RAS. Effluent water would need to be pumped through some type of filtration system and then subjected to re-conditioning to some but lesser degree than with RAS. Failure of the pump-back (e.g. power failure) would result in catastrophic loss of fish due to lack of water. They are neither reliable nor cost-effective.

Irrigation return flows do not provide year-round water supply, do not meet the physiologic requirements of rainbow trout, are contaminated by pesticides and likely contain a cornucopia of pathogenic organisms. Contamination of rainbow trout by pesticides would cause trout to be "adulterated" and hence not safe for human or animal consumption. Additionally, irrigation return flows would not meet federal and state water quality requirements or effluent limitations for point sources. NPDES permitted facilities, such as those at Clear Springs Foods, would not be able to comply with discharge limitations if irrigation return flows were used.

Reports referenced above are included on the enclosed CD:

A partial-reuse system for coldwater aquaculture, (Summerfeldt et al. 2004)

The Bioeconomics of Recirculating Aquaculture Systems (Kazmierczak and Caffey (1996)

Exhibit
E

R&D Spring Site Sampling - *Started in November 2006 after value > 5 mg/l* NO_3-NO_2 *Nitrogen at Snake River Farm Influent Site*

Sample Site Code

R&D #1	Springs for R&D Raceways, taken at sandbag diversion (end of the pipe we walked up)
R&D #2	Springs for Snake River Raceways, taken at grates prior to tunnel
R&D 2A	Springs for R&D Water Tower & Snake River Raceways, taken at cement diversion (leaks from cement - inbetween R&D #1 and R&D #2)
R&D #3	Springs for Visitor Center and Snake River Raceways, taken at diversion for secondary water to lab.
Fountain Spring	Springs for R&D Lab, taken at rock cistern on road
SR1	NPDES compliance influent site for Snake River Farm

NOTE:

1. The first two sampling dates (11/20/06 & 11/22/06) not all sites were sampled nor had been choosen for sampling
2. Sampling date 1/26/07 only three sites sampled. DEQ additional sample since initital sample (1/16/07) at Visitor Center (R&D #3) had a value of 1.6mg/l compared to Clear Springs Foods Inc. value of 6.50 mg/l.

Nitrate-Nitrite Nitrogen Data (mg/l)

Date	R&D #1 (mg/l)	R&D #2 (mg/l)	R&D #2A (mg/l)	R&D #3 (mg/l)	Fountain (mg/l)	SR1 (mg/l)	Briggs Spring
11/20/2006	3.00	2.60		8.15	2.56		
11/22/2006				8.70			
12/18/2006	2.53	3.45	3.51	7.70	2.47	4.04	
1/16/2007	2.30	2.81	2.96	6.50	2.23	3.42	
1/26/2007				6.13		3.27	2.31
2/12/2007	2.17	2.69	2.66	5.61	2.10	3.06	
3/12/2007	2.03	2.46	2.42	4.93	1.96	2.76	
4/16/2007	1.91	2.01	2.23	4.28	1.86	2.49	
5/14/2007	1.84	2.03	2.11	3.92	1.76	2.36	
6/11/2007	1.71	2.46	2.15	4.67	1.68	2.50	
7/9/2007	2.01	2.23	2.47	5.30	2.00	2.93	
8/13/2007	2.34	3.43	3.04	6.27	2.32	3.49	
9/17/2007	2.75	4.74	3.78	8.07	2.73	4.61	
10/15/2007	3.09	4.31	4.27	9.83	2.91	5.21	

Comment:

Nick Cizmich shared the data from Magic Valley Labs, Twin Falls, on the duplicate samples taken on 1/26/07.
Visitor Center value was 5.88 mg/l Nitrate-N EPA Method 300.0 from Magic Valley Labs
Visitor Center value was 6.13 mg/l Nitrate&Nitrite-N EPA Method 353.3 from Clear Springs Foods, Inc.
SR-1 value was 3.04 mg/l Nitrate-N EPA Method 300.0 from Magic Valley Labs
SR-1 value was 3.27 mg/l Nitrate&Nitrite-N EPA Method 353.3 from Clear Springs Foods, Inc.
Briggs Spring value was 2.12 mg/l Nitrate-N EPA Method 300.0 from Magic Valley Labs
Briggs Spring value was 2.31 mg/l Nitrate&Nitrite-N EPA Method 353.3 from Clear Springs Foods, Inc.

Exhibit
F

BEFORE THE DEPARTMENT OF WATER RESOURCES

OF THE STATE OF IDAHO

IN THE MATTER OF DISTRIBUTION OF	)
WATER TO WATER RIGHT NOS.	)
36-02356A, 36-07210, AND 36-07427	)
(Blue Lakes Delivery Call).	)
______________________________	)
IN THE MATTER OF DISTRIBUTION OF	)
WATER TO WATER RIGHT NOS.	)
36-04013A, 36-04013B, AND	)
36-07148 (SNAKE RIVER FARM);	)
(Clear Springs Delivery Call).	)
______________________________	)

CONTINUED DEPOSITION OF KARL J. DREHER, P.E.

Volume II, Pages 158 - 404

November 1, 2007

REPORTED BY:

COLLEEN P. KLINE, CSR No. 345

Notary Public

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to this discussion, beginning at page 10 of Exhibit No. 11?

A. Again, I'm not saying that there is a specific rule that I followed in doing that analysis. But the analysis is not outside of the rules.

Q. Do you mean, it's within the rules?

A. Well, the rules provide -- they provide a number of specific factors that are looked at. But, you know, they also, in general, frame out how ground water is going to be administered. And this investigation is not outside of the constraints provided by the rules.

Q. Which factor of constraint provided by the rules pertains to this analysis?

A. Well, this analysis goes to -- was done trying to describe what the quantity element of the decreed right -- what that meant. It was, in fact, a maximum authorized rate of diversion.

And the difference -- the reason for the analysis is that the difference is that these, the sources of supply for these rights, does vary significantly seasonally. And that was a factor that existed at the time that the rights were established. So it's simply doing an analysis of what the quantity element means.

Q. Okay. So I take it then that under this heading, none of the discussion pertains to a consideration of the quantity of water that Blue Lakes needs, or would put to beneficial use; is that correct?

In other words, this isn't an analysis of need for water under this section?

A. And the section that you are referring to is Findings 45 through 51?

Q. Correct.

A. Yeah, this does not relate necessarily to how much water is needed by Blue Lakes, or how much they would put to beneficial use. This analysis goes to under what conditions can they call for the distribution of water to their rights.

Q. Now, is this then outside the normal administrative process that you describe, whereby watermasters look at the water rights represented by decrees, licenses or permits, and then make the determination of need, or the extent to which the user will put the water to beneficial use? And then based upon that determination, then administer junior ground water rights as that we've been talking about at pages 10 through 11 paragraphs 45 through 51, again, first of all, does not pertain to an analysis of need, or the extent to which the calling senior will put the water to beneficial use if it's delivered?

A. That's right.

Q. As you describe, it pertains then only to determining what the quantity element of a water right, as you described, means?

A. Of these particular rights to -- I shouldn't say, "these particular rights," because it applies to these particular rights. It applies to all the other rights, in my view, that rely on these highly variable spring flows for the source of their supply.

Q. Would this analysis apply only to variable spring flows, or would it apply to any variable flow in the state of Idaho?

A. Well, certainly, the principle here does not single out spring flows. But this situation is somewhat unique. Where springs vary like this, the uses, they are not all non-consumptive. There is some irrigation uses, of course. But generally, the uses are non-consumptive. And the rights were established does the fact that the junior water rights here were from ground water, support an analysis of the variability of flows in order to determine what Blue Lakes' water rights, as you say, mean? In order to interpret the -- I take it -- let me go at it this way.

If I understand what you are doing in this section of the order is, you were interpreting the quantity element of Blue Lakes' water rights; correct?

A. No, it's not that simple. It's not just interpreting the quantity. It's interpreting a quantity for the purposes of administering junior-priority ground water rights that you are diverting from a different source.

Q. Now, would this analysis be performed outside the context of administration in order to determine the nature and extent of the water right?

A. I'm not sure I understand the question, what you mean.

Q. Okay. Is the situation where Blue Lakes calls for delivery of water, the only context in which the analysis we're discussing at pages 10 and 11 of the order would be performed?

right.

Q. And then these measurements, as you turn back towards the front of the document, range from the 1950s to the early 2000 time frame. Do you recognize that?

A. Yes.

Q. Now, this document reflects flows in the system at the right and left channel, and at the canal diverting to the fish ponds. If you begin with the second to last page, in the 1950s, substantially over 200 cfs; isn't that correct?

A. That's what it indicates.

Q. Okay. And there is an indication that the canal diverting to a fish ponds on March 17, 1950 diverted 23 second feet. And then, for example, there is a page a few pages back, where there is a measurement of April 4th, 1973 indicating a diversion at the fish pond channel at 197 cfs; isn't that correct?

A. That's what it says.

Q. So these measurements would be indicative of substantially higher flows in the '50s, '60s, '70s, as we get into the time when these water rights were appropriated, then exist today that are available in the Blue Lakes diversion; isn't that correct?

A. Well, I believe that's correct. I mean, you know, you can, I guess, get a similar result by simply comparing what I indicated in Finding 58. The last sentence assumes Pristine Springs was receiving its full authorized quantity of 25.3. Blue Lakes Trout was receiving 184.7 cfs of the total 210 cfs diverted from Alpheus Creek into the Perrine Ditch on November 10, 1980.

So if you compare the 184.7 cfs that Blue Lakes was assumed to be receiving in 1980, and you compare that with what existed in November of 2004, you know, the maximum amount in 2004, November of 2004, was 153.85 cfs. So there is certainly less water, apparently, available in 2004 than there was in 1980.

Q. And would you agree with me, that it looks like from these measurements, that there was more water available in the '50s than there was in the '60s? More water available in the '60s than there was in the '70s. And more water available in the '70s than there was in the '80s, and so on as we go forward in time?

A. I don't know about that.

1977 when this measurement was made, there was a period of time where it looked like there was an -- I'll call it transitional stability, and then the declines began to occur again.

So I don't know at what point you are trying to get to, quite honestly.

Q. Just for the annual variation of flow from January through December --

A. Yes.

Q. -- as you've attempted to depict in your order of paragraph 60. Again, given that the annual pattern of flow has been fairly relatively consistent; right?

A. Yes.

Q. Then the March 1st, 1977 measurement would have been taken at a time during 1977 when the flows were on their way towards a low from a high period?

A. For the annual variation?

Q. For the annual variation.

A. Yes, that's correct.

Q. Okay. So then looking at my diagram, if you were trying to infer flows in 1977 to get some kind of a general idea of what the annual variation would be, you would take the flow pattern like what we see in '95 and '96 and 2004, and lift it up, wouldn't you, up to this higher point in 1977? So that you would see an annual flow pattern, like what we see in the other years, but including this March 1, 1977 measurement; isn't that correct?

A. Almost. I think you would have to do that. You would have to subtract the 25 cfs from the March 1st, 1977 measurement.

Q. Okay. Now, even subtracting the 25 cfs, the annual flow pattern existing then in 1977, and certainly then, of course, in 1971, when the water right was applied for, would be much higher than the combined decreed diversion rates for Blue Lakes' first priority water right, and its second priority right 7210, than what I plotted there at 170 cfs; isn't that right?

A. I'm sorry. You are going to have to state that again.

Q. Let me walk it in steps then. Looking at the graph, there is a straight line there at about 145 cfs where I referenced the priority water right 02356A?

A. Yes.

Q. And its second priority water right

on record for the Upper Snake River Basin. As a result, spring discharges in the Thousand Springs area have correspondingly declined based on the USGS data, and is also shown on Attachment A."

Now, I know you discuss a lot of other factors that affect these issues. But I assume that you don't have any reason to modify that observation?

A. No, but it's -- you know, when you write something like this, you hope people don't read it and say, it is just that, and just that alone.

Q. You didn't integrate that in the question?

A. No, I'm trying to clarify. I agree with the statement as written as a summary, or kind of overall description of what's occurred.

Q. That's all I'm asking. And then beyond that you use the model and whatever other tools and information you have available to you, to further ascertain the relationship, to the extent you can, between seepage, recharge, pumping and spring flows and spring water rights. That's been the approach you've taken?

A. That's correct.

Q. Now, the Blue Lakes' water rights having been established in the '70s, after the peak in the incidental recharge to the aquifer, is it possible that curtailing junior ground water rights, that, by definition, didn't exist at the time of Blue Lakes' appropriation, could enhance conditions beyond or better than those that existed on the date of Blue Lakes appropriation?

A. Just curtailing ground water rights?

Q. Yes.

A. Okay. So the question is: Could just curtailing ground water rights enhance the water availability at the springs beyond the time of the appropriations of the early '70s?

Q. Right.

A. No. I would say, no.

Q. Okay. Then looking at your order of May 19th, 2005, again, Exhibit 11, page 11, paragraph 50. And there is the statement that, we've gone over, past midway in the paragraph. "Blue Lakes Trout is not entitled to a water supply that is enhanced beyond the conditions that exist at the time such rights were established."

Is the converse of that, Blue Lakes is entitled to a water supply that reflects conditions that existed at the time the rights were established?

A. Well, this relates to what Blue Lakes has a right to demand through curtailment. And, you know, what this finding was getting at, is we've talked extensively not in -- obviously, not in agreement -- about the seasonal variation in the spring discharge.

That seasonal variation exists today. It existed when the rights were appropriated, although we can't quantify the extent of the variation, because we don't have the sufficient data to do it. But we know that at the time the rights were appropriated, irrigation using surface water supply was done seasonally. That's the overriding factor in the seasonal variation in this observed spring discharge.

And so what this finding is trying to get at is that, although Blue Lakes has a right to divert water up to the maximum authorized amount when it's available, it doesn't have the right to seek -- it doesn't automatically have the right to seek curtailment of junior-priority

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rights, just because that quantity is not always available. That's what this finding is getting at anyway.

Q. Okay. So is Blue Lakes then entitled to a water supply as it existed at the time of appropriation?

A. No, I don't think so. And here's why: The water supply that was available at the time of appropriation was in large part the result of third parties, over which the State has no control, nor do you.

And I've said publicly before, that if an error has been made by the State in allowing the appropriation of unappropriated water, it was not correctly characterizing the nature of that unappropriated water. That remains my position.

So I don't think there is an entitlement. I mean, the conditions were what the conditions were when Blue Lakes appropriated the water, and they are not necessarily entitled to an improvement of those conditions through curtailment of junior rights. But you can't -- it doesn't go the other way.

Q. Okay. So I take it that the maximum that the decree defines, in your view, is further defined by the conditions that existed at the time of the appropriation; is that correct?

A. In part, I think that's correct.

Q. And that would then mean, in the context that we're discussing here, the seasonal variation of flow that existed at the time of the appropriation; is that correct?

A. That's correct.

Q. Okay. And that, as we've discussed those flows that existed at the time of the appropriation, are whatever they were, less than the flows that existed in 2004; correct?

A. Correct. But the -- but, again, some magnitude of seasonal variation, probably not too much unlike what exists today, existed at the time of the appropriation.

Q. Sure. Then is the effect of the order, where you conclude that Blue Lakes' water rights are satisfied with the flows that were present in 2004, is the effect of that to limit Blue Lakes' water rights for purposes of administration to the water supply that existed in 2004?

A. No.

Q. Does it end up having the effect that Blue Lakes is not entitled to a water supply

BEFORE THE DEPARTMENT OF WATER RESOURCES

OF THE STATE OF IDAHO

IN THE MATTER OF DISTRIBUTION OF	)
WATER TO WATER RIGHT NOS.	)
36-02356A, 36-07210, AND 36-07427	)
(Blue Lakes Delivery Call).	)
________________________________	)
IN THE MATTER OF DISTRIBUTION OF	)
WATER TO WATER RIGHT NOS.	)
36-04013A, 36-04013B, AND	)
36-07148 (SNAKE RIVER FARM);	)
(Clear Springs Delivery Call).	)
________________________________	)

DEPOSITION OF KARL J. DREHER, P.E.

October 31, 2007

Volume I, Pages 1 - 157

REPORTED BY:

COLLEEN P. KLINE, CSR No. 345

Notary Public

Q. Do you recall being the Hearing Officer for that hearing?
A. Sure, I was, but that doesn't mean I remember aspects of it.
Q. I'm just asking if you recall it?
A. I recall the hearing.
Q. Okay. And do you recall a statement you made at the end of the hearing, that in your view, mitigation that is offered as an alternative to curtailment, the curtailment has to be as real as curtailment?
A. Yes.
Q. Can you explain what you mean by that, or meant at the time?
A. Well, I think it's pretty simple. That, you know, to the extent curtailment would produce a meaningful amount of water to the holder of a senior right that's being injured, if that out-of-priority depletion is going to be mitigated such that the out-of-priority diversion can continue, then the mitigation has to produce an equal amount of meaningful water supply to the senior as would have curtailment.
Q. In other words, it has to have an equivalent effect of curtailment?

A. That's another way to put it, yes.
Q. Okay. Now, in your order on page 28, as I understand it, in addition to identifying curtailment as an outcome, you offer three mitigation alternatives. And I want to confirm that with you.
On page 28, under paragraph 1, in the middle of the paragraph. There is a sentence that in part reads, "Must submit a plan or plans to the Director to provide mitigation by offsetting the entirety of the depletions for the ESPA under such rights."
A. Yes.
Q. I'll call that mitigation alternative number 1. Now, does that mean offset the entirety of consumptive use of water under the identified ground water rights, whatever they are?
A. Yes.
Q. Okay.
A. Another way to look at it is, you completely mitigate the depletions of the aquifer. It's a pretty high standard, but you completely mitigate depletion of the aquifer. That's what that phrase meant.