RINGERT CLARK
CHARTERED LAWYERS

RECEIVED
MAR 0 3 2009
DEPARTMENT OF
WATER RESOURCES

Laura E. Burri
Adam S. Christenson
Jeffrey R. Christenson
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D. Blair Clark *
S. Bryce Farris
Jon C. Gould
David Hammerquist
Charles L. Honsinger **
James P. Kaufman
Jennifer Reid Mahoney
James G. Reid *
Daniel V. Steenson

March 2, 2009

Edwards Family, LLC
c/o Ms. Dana Hofstetter
Hofstetter Law Office, LLC
608 W. Franklin Street
Boise, ID 83702

Quail Hollow, LLC
c/o Mr. Andrew Waldera
Moffatt Thomas
P.O. Box 829
Boise, ID 83701-0829

Mary Ryan
Rose Ryan
4504 Foothill Road
Boise, ID 83703

Ken Neely
Idaho Department of Water Resources
P.O. Box 83720
Boise, ID 83720-0098

Re: Proposed Resolution

Dear Water District 63-S Members:

As you may be aware, The Terteling Company, Inc. has filed a Petition for Order Implementing Watermaster's Monitoring Plan in Water District 63-S with the Idaho Department of Water Resources. Although a copy has been served on each of the members of the District, along with the watermaster, I am including another copy herewith for your convenience.

This correspondence is to notify you that The Terteling Company, Inc. will, at the Water District 63-S annual meeting this coming Thursday, March 5, introduce and propose the adoption of the enclosed Resolution supporting the issuance of the Order requested by the Petition for Order Implementing Watermaster's Monitoring Plan.

Please feel free to contact me for discussion of the same.

Sincerely,

Charles L. Honsinger

enclosure

cc: Client

RESOLUTION

WATER DISTRICT 63-S

BE IT RESOLVED that Water District 63-S believes and understands that in order to provide good and dependable information to its members and the watermaster upon which administrative decisions can be made, it is necessary to standardize monitoring of diversions within the District together with the reporting thereof. Therefore, Water District 63-S hereby notifies its members and the Idaho Department of Water Resources that it SUPPORTS the Petition for Order to Implement Monitoring Plan filed by The Terteling Company, Inc. with the Idaho Department of Water Resources on February 27, 2009, a copy of which is attached hereto.

Dated this _____ day of March, 2009

_____
President
Water District 63-S

Attest: _____
Secretary

RECEIVED
MAR 03 2009
DEPARTMENT OF
WATER RESOURCES

CHARLES L. HONSINGER (ISB #5240)
RINGERT LAW CHARTERED
455 S. Third, P. O. Box 2773
Boise, Idaho 83701-2773
Telephone: (208) 342-4591
Facsimile: (208) 342-4657

Attomeys for Petitioner The Terteling Company, Inc.

BEFORE THE DEPARTMENT OF WATER RESOURCES
OF THE STATE OF IDAHO

IN THE MATTER OF WATER DISTRICT 63-S, STEWART GULCH	)	PETITION FOR ORDER IMPLEMENTING WATERMASTER'S MONITORING PLAN

COMES NOW, The Terteling Company, Inc., by and through its attorneys, Ringert Law Chartered, and hereby petitions the Director of the Idaho Department of Water Resources ("IDWR") to issue an order adopting and implementing in Water District 63-S the monitoring plan created by Water District 63-S Watermaster Ken Neely. This petition is made pursuant to the authorities in Chapters 6 and 7, Title 42, Idaho Code. This petition is supported by the argument hereinbelow and by the attachments hereto.

FACTS

Water District 63-S was created pursuant to a Final Order Adopting Proposed Memorandum Decision and Order issued by IDWR on December 5, 1989. See Exhibit A attached hereto. The three major water users in Water District 63-S are The Terteling Company, Inc. (owner of water right nos. 63-12, 13, 15, 3603, 7595), Edwards Family, LLC (owner of

water right no. 63-14), and Quail Hollow, LLC (owner of water right nos. 63-4037, 9758). See Table 1 attached hereto as part of Exhibit B. These three parties have, over approximately the past two years, been engaging in settlement discussions between themselves and IDWR in an attempt to resolve their respective objections to IDWR's recommendations of each other's water rights in the Snake River Basin Adjudication. As part of those discussions, the watermaster of Water District 63-S drafted and circulated a monitoring plan applicable to the three major water right users in the District. See Exhibit B attached hereto. Unfortunately, the parties have been unable to resolve their objections to each other's water rights, and as a result, the monitoring plan created by the Water District 63-S watermaster has not been implemented.

ARGUMENT

I.C. §42-601 *et. seq.* provides the Director of IDWR with the authority to direct and control "the distribution of water from all natural water sources within a water district" through duly appointed watermasters. I.C §42-701 provides in relevant part that appropriators "shall construct and maintain, when required by the director . . . a . . . measuring device at such point as is most practical . . . for the purpose of assisting the watermaster." In Water District 63-S, the director has required the installation of flow, pressure and volume measuring devices therein. See Exhibit A, Final Order, p. 3. However, the Director has never issued an order adopting a plan with the level of detail regarding reporting and measuring requirements as has been created by the watermaster. See Exhibit B. As the watermaster has drafted the plan, and as it would be helpful to the measurement and distribution of water within Water District 63-S, The Terteling Company, Inc. hereby respectfully requests that the Director issue an Order adopting and requiring the implementation of the Watermaster's monitoring plan.

Dated this 27th day of February, 2009

Charles L. Honsinger
Ringert Law Chartered
Attorneys for The Terteling Company, Inc.

CERTIFICATE OF MAILING

I certify that on February 27, 2009, I mailed the original and copies of this form, including all attachments, to the following persons by mailing the original and/or copies, postage prepaid and addressed as follows:

Edwards Family, LLC
c/o Ms. Dana Hofstetter
Hofstetter Law Office, LLC
608 W. Franklin Street
Boise, ID 83702

Quail Hollow, LLC
c/o Mr. Andrew Waldera
Moffatt Thomas
P.O. Box 829
Boise, ID 83701-0829

Mary Ryan
Rose Ryan
4504 Foothill Road
Boise, ID 83703

Ken Neely
Idaho Department of Water Resources
P.O. Box 83720
Boise, ID 83720-0098

Signature of person mailing form

Exhibit A

BEFORE THE DEPARTMENT OF WATER RESOURCES

OF THE STATE OF IDAHO

IN THE MATTER OF CREATION OF WATER DISTRICT 63-S, STEWART GULCH	)))	COUNTY: ADA

FINAL ORDER
ADOPTING PROPOSED MEMORANDUM DECISION AND ORDER

This matter having come before the Idaho Department of Water Resources (Department) as a petition to form a water district and also as a response to an Order to Show Cause why the Department should not prohibit or limit the diversion of water under certain groundwater rights, the Department finds, concludes and orders as follows:

FINDINGS OF FACT

1. On August 22, 1989, the Department received a request to create a water district and appoint a watermaster. On the same date, the Department also received a request to issue a summary order prohibiting water use from some wells used by Quail Hollow Golf Course.

2. The rights to the use of low temperature geothermal groundwater from certain wells in the vicinity of 36th Street and Hill Road in Boise, Idaho were decreed in the case of Silkey v. Tiegs, et. al., Ada County Case No. 11748 on June 13, 1930. The decree found that water to supply the rights was diverted from a common and interconnected source.

3. The decree recognized that water was diverted by means of artesian pressures and established a distribution scheme to protect historic pressures and flow rates by artesian pressure.

4. The identification numbers of the rights and current users of water under the rights as confirmed by the Silkey decree are as follows: 63-0012, 63-0013 and 63-0015, Hunt Bros. Floral, Inc.; 63-0014, Edwards Greenhouses; and 63-0016, M.E. or R.E. Ryan.

5. Two wells are operated for irrigation purposes by Quail Hollow Golf Club under Claim No. 63-4037P and Permit No. 63-9758. Claim No. 63-4037P claims a priority date of 1931. Permit No. 63-9758 has a priority of June 30, 1981. Data gathered by the United States Geological Survey, represented by hydrographs that are part of the record in this matter and testimony of witnesses, establish that the source of water diverted from the Quail Hollow wells is interconnected with the source of water for the rights decreed in the Silkey decree.

6. Testimony indicates the water supply for wells owned by J. A. Terteling also appears to be interconnected to the water supply for the previously described rights.

Order #1

State of Idaho
DEPARTMENT OF WATER RESOURCES

1301 North Orchard Street, Statehouse Mail, Boise, Idaho 83720 -(208) 327-7900

CECIL D. ANDRUS
GOVERNOR
R. KEITH HIGGINSON
DIRECTOR

December 5, 1989

RECEIVED
DEC 08 1989
Department of Water Resources
Western Regional Office

Susan D. Miner, Esq.
Hawley, Troxell, Ennis & Hawley
P. O. Box 1617
Boise, ID 83701

Dear Ms. Miner:

RE: WATER DISTRICT 63-S, STEWART GULCH

Enclosed is a memorandum decision and order which creates the above referenced water district. The intent of the order is to manage the low temperature geothermal water resource (not the cold water) in the area.

Note that the order requires the installation of measuring equipment on or before April 1, 1990. The department will provide technical advice upon request relative to the needed equipment. The measuring equipment, however, shall be of a type acceptable to the department to monitor the following parameters:

1. Instantaneous rate of withdrawal and cumulative volume withdrawn;
2. Well head temperature;
3. Well head pressure or drawdown;
4. Closed-in pressure or water level when the well is not being used.

The question of the applicability of the reasonable pumping level provisions of the Idaho Code and the authority granted the department by Section 42-237a, Idaho Code, remain before the department and will be addressed in a separate action.

Please feel free to contact the department if you have questions.

Sincerely,

L. Glen Saxton

L. GLEN SAXTON, Chief
Water Allocation Bureau

c: IDWR - W. Region

7. Department records show that Raymond F. Stralow owns a well once known as the Church well, and has filed a claim in the Snake River Basin Water Rights Adjudication alleging a date of priority of January 1, 1900. The Stralow well is also interconnected with the water supply for the uses of water listed above.

8. Section 42-602, Idaho Code, requires the Department to supervise the distribution of Idaho's public waters in accordance with the rights of prior appropriation.

9. Section 42-604, Idaho Code, charges the Department with the responsibility to create water districts and Section 42-605, Idaho Code, provides for the election or appointment of a watermaster to administer the use of water under rights within the water district.

10. The Silkey decree directs the Department to form a water district and administer the uses accordingly.

11. Many legal issues of law and fact have been raised regarding the authority of the Department under Section 42-237a, Idaho Code, to enjoin the use of water by later-in-time diverters to protect senior water rights and the general applicability of the ground water act to wells which predate the act.

12. Both issues of fact and law have been raised and remain to be resolved regarding the scope of authority granted to the Department by Idaho Code, Section 42-237a. A legal question must be resolved regarding the applicability of the reasonable pumping level language as provided in Section 42-226, Idaho Code. Furthermore, if a reasonable pumping level should be established, a factual question regarding what level is reasonable must also be resolved.

13. The unresolved issues of fact and law described in findings of fact Nos. 11 and 12 are before the Department in a separate but related show cause proceeding and will not be further addressed in the present proceeding.

14. Flow measuring devices and pressure measuring equipment are needed on each well to determine the amount of water being diverted within the water district and to properly deliver the water to those entitled to its use.

CONCLUSIONS OF LAW

1. The Department is authorized to create a water district and appoint a watermaster for proper distribution of the water decreed in the case of Silkey v. Tiegs together with other water rights which divert and use water from the same low temperature geothermal aquifer.

2. Section 42-607, Idaho Code states:

> It shall be the duty of the said watermasters to distribute the waters of the public stream, streams or water supply, comprising his water district, among the several ditches taking water there from according to the prior water rights of each respectively, and whole or in part, . . . provided, that any person or corporation claiming the right to the use

> of waters of the stream or water supply comprising a water district, but not owning or having the use of any adjudicated or decreed right therein, or right therein evidence by permit or license issued by the Department of Water Resources, shall for purposes of distribution during the scarcity of water, be held to have a right subsequent to any adjudicated, decreed, permit, or licensed right in such stream or water supply. . .

3. Interim management is needed. The Department should create a water district for the management and supervision of the low temperature geothermal resource.

4. The Department should require the installation and maintenance of flow measuring devices and pressure measuring equipment which enable a watermaster to properly distribute water to those entitled to its use.

ORDER

IT IS HEREBY ORDERED AS FOLLOWS:

1. Water District 63-S, Stewart Gulch, is hereby created in connection with the use of the low temperature geothermal water resource.

2. The area within the following boundaries shall constitute the water district as shown on Figure 1, attached:

> Beginning at the East Quarter corner of Section 15, T4N, R2E, B.M., thence south approximately one and one-half mile to the southeast corner of Section 22, thence west one mile to the southwest corner of Section 22, thence south one-half mile to the east quarter corner of Section 28, thence west one-half mile to the center of Section 28, thence south one-half mile to the south quarter corner of Section 28, thence west approximately one and one-half mile to the southwest corner of Section 29, thence north one mile to the northwest corner of Section 29, thence east one mile to the Northeast corner of Section 29, thence north one-half mile to the west quarter corner of Section 21, thence east one-half mile to the center of Section 21, thence north one-half mile to the north quarter corner of Section 21, thence east one-half mile to the northeast corner of Section 21, thence North one-half mile to the west quarter corner of Section 15, thence east one mile to the point of beginning, all in T4N, R2E, B.M.

3. The owners of wells used for the diversion of low temperature geothermal water within the district shall install flow measuring devices and the rate of flow and volume of pressure measuring equipment acceptable to the Department for the measurement of the rate of flow and volume of water diverted from their respective wells. Such devices and/or equipment shall be installed on or before April 1, 1990.

4. Certain domestic heating uses are exempt from regulation by the watermaster of the district. The intent of this exemption is to exclude from

regulation the heating of single family residences and in-house uses of the water which utilize the heat of the water where total use of water per household does not exceed 13,000 gallons per day. Wells not used exclusively for domestic heating purposes are subject to regulation and the requirement to install measuring devices and/or pressure measuring equipment.

Dated this 5th day of December, 1989.

R. KEITH HIGGINSON
Director

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this the 5th day of December, 1989, I deposited in the United States mail, postage prepaid a true and correct copy of each of the foregoing ORDER ISSUING PROPOSED DECISION and PROPOSED MEMORANDUM DECISION AND ORDER sent to:

William F. Ringert, Esq.
Ringert, Clark, Harrington, Reid, Christenson & Kaufman
P. O. Box 2773
Boise, ID 83701-2773

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Hawley, Troxell, Ennis & Hawley
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Boise, ID 83701

J. A. Terteling
877 W. Main, Rm. 706
Boise, ID 83702

Kenneth R. Arment
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RITA I. FLECK
Secretary/Records Manager

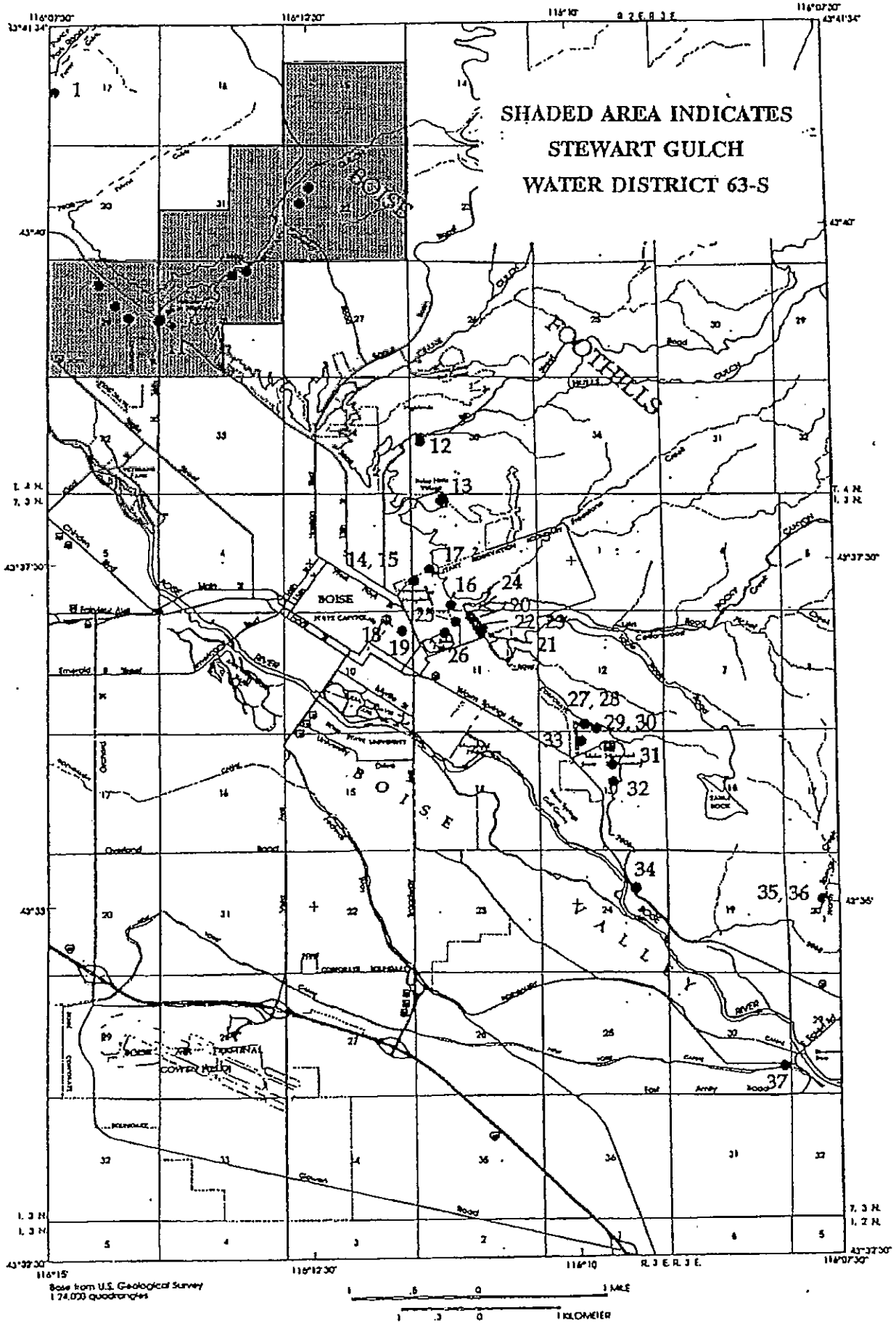

SHADED AREA INDICATES
STEWART GULCH
WATER DISTRICT 63-S
FOOTHILLS
BOISE
BENCH
1
12
13
14, 15
16
17
18
19
20
21
22, 23
24
25
26
27, 28
29, 30
31
32
33
34
35, 36
37
Base from U.S. Geological Survey
1:24,000 quadrangles
1 MILE
1 KILOMETER

FIGURE 1

Exhibit B

STATE GROUND WATER DISTRICT 63-S LOW-TEMPERATURE GEOTHERMAL AQUIFER MONITORING AND REPORTING PLAN

July 18, 2008 Draft

Designated Long-Term Monitoring. Commencing on January 1, 2009, aquifer pressure and withdrawal monitoring data shall be collected at all of the wells owned and operated by the three major low temperature geothermal users (Terteling, Edwards, and Quail Hollow) in Ground Water District 63-S. The sections below describe, in more detail, the monitoring plan.

Aquifer Pressure Monitoring. Water level/wellhead pressure monitoring shall be as follows.

1. Continuous (once every six hours) data logger recordings shall be collected.

2. Manual, non-pumping water level/shut-in wellhead pressure data shall be collected monthly. The Water Master will provide a standard data entry chart to the users.

3. Manual, non-pumping water level/shut-in wellhead pressure data shall be collected weekly from January 1 to February 15, and from June 1 to July 15 to ensure capture of the annual high and low aquifer pressures for the year.

4. Each user who owns a non-artesian well will install and maintain a barologger to correct their data and to serve as back-up for the other users in the case of equipment failure.

Withdrawal Monitoring. Withdrawal monitoring shall be as follows: Manual recordings of the instantaneous discharge rate and the gallons-pumped "totalizer" reading shall be collected at least monthly and weekly when weekly pressure readings are required.

Temperature Monitoring. Temperature data shall be collected using data loggers and hand measurements. Frequency of data logger measurements is listed in Table 1. Hand measurements shall be done using a digital thermometer. Hand measurements are to be done twice a year (at the end of the heating season (on or around May 1) and at the end of the irrigation season (on or around October 1). To ensure an accurate temperature, hand measurements shall be collected after the well has been in operation for at least eight hours.

Calibration. Each individual water user is responsible for periodic (annual) calibration of its instruments, gages, sounding tapes, and flow-meters to ensure monitoring accuracy. It is required that hand held instruments be calibrated at least yearly and that back-up sounding tapes are calibrated to the main sounding tape so that measurements are not significantly different when a change to a new instrument is used. The calibration will include (1) comparison measurements of pressure (calibrated gages versus well gage and/or transducer) and (2) calibration checks of flow meters using an ultrasonic flow meter or other means (weir, flume, timed filling of a tank such as a 55 gallon barrel), and (3) comparison of a calibrated water level tape to the digital data-logger measurement of the same time. Calibration checks shall scheduled so that the Water Master can be present. Water users shall document the calibration results and submitted them to the Water Master annually.

Reporting. The parties shall submit monitoring data quarterly to the Water Master. Each data submittal shall include all the digitally acquired and hand-measured monitoring data collected from the previous quarters. The four quarters shall end on March 31, June 30, September 30, and December 31. In addition to the data, the reports will include any monitoring variations during the reporting period, or anything unusual with the dataset. The monitoring data shall be submitted to the Ken Neely, Water Master, within 30 days of the end of the quarter (ken.neely@idwr.idaho.gov).

The IDWR shall prepare an annual summary of monitoring data from the previous water year by December 1.

Compliance. The parties to this plan are agreeing to submit the type of monitoring data and the frequency of monitoring data at the prescribed report times described herein. In the event that a party does not meet the elements of this plan, the Water Master shall notify the Water User in writing of the deficiency, and all Water Users shall be copied on such notices. After thirty (30) days written notice to a party for non-compliance with the aquifer monitoring program data logging and reporting requirements, the Water Master may immediately curtail the non-compliant party's diversion from any well not in compliance with the aquifer monitoring program. Failure to comply with the aquifer monitoring program shall result in a proportional diminution in allowable diversion volume in the following year based upon the proportion of the previous calendar year that the party was in non-compliance. However, a breakdown of monitoring equipment that is promptly repaired shall not be considered a violation under this section.

Monitoring Methodology. Each Water User shall prepare a brief but detailed description of monitoring and calibration methods for the Water User's own wells to IDWR by August 15, 2008. IDWR will send copies of all the plans to all of the water users. IDWR will review the plans and return all comments to the users by September 3, 2008. The water users may submit comments to the other users' plans to IDWR by October 31, 2008.

Each individual Water User monitoring description shall be attached to this plan as Appendices. Each description will include the following information.

1. Identification of monitored wells.

2. Reference point descriptions for water level measurements (with photographs).

3. Description of measuring equipment (including model numbers, serial numbers and calibration information for flow meters and data-loggers).

4. Name, address, and telephone numbers for individuals responsible for acquiring and submitting monitoring data.

5. A description, for each well to be monitored, of the monitoring methods and protocol.

6. All well heads where pressure measurements are taken shall be equipped with quality 0-30 psi double- pressure gage clusters with isolation valves. Diameter of guage and increment of the accuracy of face plate on the gauge (estimate to ½ psi).

7. Water level sounding tubes shall be installed in all wells equipped with downhole pumps. Sounding tubes shall be maintained and replaced as appropriate when downhole pumps are pulled for servicing.

A field trip to each well site will be conducted by the Water Master after January 1, 2009 to obtain standardized photographs and to document equipment installation and measuring points.

Monitoring Equipment: See Appendix A for monitoring equipment recommendations as presented by Ed Squires, Hydro Logic Inc.

Effective Date: This Plan and all of its monitoring elements shall be effective commencing January 1, 2009

Review and Modification. This plan shall be subject to periodic review at the regularly scheduled annual District meetings. This plan may be modified only by

means of a written agreement signed by each of the Parties. A modification shall not be binding upon IDWR unless accepted by the Director.

Appendix A. Recommended Monitoring Equipment (as presented by Ed Squires)

For ease of data manipulation by the Water Master, IDWR, and individual Water Users, and because digital equipment is not in widespread use within the District, it is encouraged that all Water Users employ the same equipment and standardized protocols.

1) Pressure transducer/data-loggers. Solinst Levelogger digital pressure transducer/data-loggers of the appropriate accuracy range for measuring aquifer pressures and/or water levels in wells.

2) Barometers. Solinst Barologger atmospheric pressure transducer and digital data loggers for correction of aquifer pressure data for barometric effect.

3) Monitoring tubes. One-inch diameter, schedule 80, flush-joint PVC monitoring tubes for wells with below ground aquifer pressures. Care must be taken not to compress, bend, or band these tubes during installation of the pumps so that the data-loggers will not be obstructed (it is best if these tubes are "hung" in the well). It is recommended that two such tubes be installed so that the routine and regular water level measurements are not conducted in the same tube that houses the data logger.

4) Water-level sounding tapes. Steel tapes require no calibration as such. Care is taken to ensure that the wetted chalk measurement is accurate and that "held" footage is known with confidence. Only when an unclear first measurement is obtained or when a measurement is markedly different, is a second conformational measurement obtained. Owing to the relatively great depth to water and the time (cost) to carry out routine monitoring runs, the number of repetitive measurements is considered adequate to avoid multiple measurements in each well during each visit. If electric sounding tapes are used, which they are generally not for this monitoring, only complete full-length tapes are used and only when calibrated regularly with a steel tape.

5) Thermometers used to measure water temperature are Model 315, "tpi" brand digital thermometers with a resolution of 0.1 °F, a sampling interval of 1.5 seconds, and a range of -58 °F-to-302 °F. Although the guaranteed accuracy of these thermometers is +/- 2.0 °F, we check calibration of the field thermometers with a VWR Model 61102-005 mercury-filled (non mercury), ASTM-rated thermometer with 0.5 °F accuracy and a Hannah Instruments Model 9023 multi-meter with +/- 0.9 °F accuracy prior to field measurements. We have

consistently found the accuracy of the used digital thermometers to be within 0.5-to-0.75 °F of the guaranteed-accurate thermometers. We have selected these units for field use because non-mercury-filled thermometers do not have the desired accuracy and because of the cost and ease of use.

6) Pressure gauges. In general, we have found that installed (on the well head plumbing) pressure gauges have short-lived accuracy on the geothermal system piping. If only single gauge is used, the monitoring should be considered highly questionable. Rather, we rely on a separate twin set of high-accuracy gauges that are kept in a controlled environment and carried to the well during field visits (Figure 2). In this way, the gauges are calibrated with each measurement. The well head plumbing is equipped with a quick-connect pressure measuring port to which the brace of gauges is connected. With both gauges at the same elevation, they must read identically or one of the instruments is considered faulty. All above ground aquifer pressures are measured using a brace of Ashcroft Duraguage Plus gauges mounted in a manifold capable of measuring pressures simultaneously (Figure 2). The two gauges are direct reading, Model # 1279AS, 0-to-30 psi range, guaranteed accurate to +/- 5% of full scale (~ .35 feet), gages with 4½-inch diameter indicator scales. These are non-fluid filled gages to ensure accuracy at a wide range of temperatures.

Table 1. Monitoring Plan for Water District 63S

WELL NAME	WELL NAMES AND WATER RIGHTS~~OWNERSHIP~~	WATER LEVEL/ AQUIFER PRESSURE MEASUREMENTS	WITHDRAWAL MEASUREMENTS	MEASUREMENT FREQUENCY
Edwards	Edwards Family, LLC (63-0014)~~Greenhouse~~	a) Wellhead pressures using a transducer and data-logger. b) Hand written recording of shut-in pressures from pressure gages.	b) Hand written recording of flow rate and totalized volume.	a) Continuous [1] b) Monthly [2]
Nibbler	Quail Hollow LLC (63-04037)~~Golf Club~~	a) Water levels using a transducer and data-logger. b) Hand written recording of water level using a measuring tape.	b). Hand written recording of flow rate and totalized volume.	a) Continuous [1] b) Monthly [2]
Office [3]	The Terteling Co., Inc. (63-0012, 63-0013, 63-0015).	Hand written recording of shut-in pressures from pressure gages.[4]	Hand written recording of flow rate and totalized volume.	Monthly
Pool	The Terteling Co., Inc. (63-3603, 63-7595)	a) Water levels using a transducer and data-logger. b) Hand written recording of water level using a measuring tape.	b). Hand written recording of flow rate and totalized volume.	a) Continuous [1] b) Monthly [2]
Silkey	The Terteling Co., Inc. (63-0012, 63-0013, 63-0015).	a) Wellhead pressures using a transducer and data-logger. b) Hand written recording of shut-in pressures from pressure gages.	b). Hand written recording of flow rate and totalized volume.	a) Continuous [1] b) Monthly [2]
Tee Ltd.	Quail Hollow LLC~~Golf Club~~ (63-09758)	a) Water levels using a transducer and data-logger. b) Hand written recording of water level using a measuring tape.	b). Hand written recording of flow rate and totalized volume.	a) Continuous [1] b) Monthly [2]
Tiegs	The Terteling Co., Inc. (63-0012, 63-0013, 63-0015).	a) Wellhead pressures using a transducer and data-logger. b) Hand written recording of shut-in pressures from pressure gages.	b). Hand written recording of flow rate and totalized volume.	a) Continuous [1] b) Monthly [2]
Windsock	The Terteling Co., Inc. (63-0012, 63-0013, 63-0015, (63-3603, 63-7595)).	a) Water levels using a transducer and data-logger. b) Hand written recording of water level using a measuring tape.	b). Hand written recording of flow rate and totalized volume.	a) Continuous [1] b) Monthly [2]

- [1] Once every ~~six~~ hours for the first year; then once every six (6) hours, unless the Water Master determines otherwise.
- [2] In addition to monthly measurements, weekly measurements of shut-in pressure/water levels are to be recorded from January 1 to Feb 15, and from June 1 to July 15.
- [3] Well is not currently planned to be connected for use. If the well is connected, then monthly hand-written measurements will be recorded.
- [4] Since the historic pressure readings from this well mirror the Silkey and Tiegs well, a data logger will not be required.

Formatted Table

EXHIBIT 1

BOISE FRONT GEOTHERMAL AQUIFER MONITORING AND REPORTING PLAN

Designated Long-Term Observation Well Monitoring. Commencing on the later of August 15, 2002 or the effective date of this Plan, water level/wellhead pressure data shall be collected at least weekly and reported at least quarterly to IDWR for the wells listed on Table 1 for purposes of this Agreement. The Party designated in the table as responsible for each well shall complete the collection and reporting of data for that well at the Party's own expense. For the wells listed in Table 1 that are equipped with pressure transducers and data loggers, manual measurements (steel tape, electric line, or pressure gage) shall be collected at least weekly during the months of September and February for verification purposes. Transducer/data loggers shall be downloaded semiannually in June and December.

Production and Injection Well Monitoring. Commencing on the later of August 15, 2002 or the effective date of this Plan, each Party shall at its own expense collect at least weekly and report at least quarterly to IDWR (1) the production (instantaneous and totalized flow) and discharge temperature data for the geothermal production wells operated by the Party and (2) injection volume (instantaneous and totalized flow) and injection temperature in any injection well operated by the Party within the BFGMA (Boise Front Groundwater Management Area). These wells are listed in Table 2. Each Party shall also collect water level/well head pressure from their respective production and injection wells on a weekly basis during the following 6-week periods: September 1 through October 12 and February 1 through March 14. For purposes of this Agreement, the City shall collect and report production and discharge temperature data for its existing production wells at the City Well House No. 2 and water level/pressure data for its existing production wells at each of the three City production wells.

Secondary Observation Well Monitoring. Additional wells to be monitored for water levels are listed in Table 3. Data from this monitoring may be useful for aquifer modeling purposes or other studies.

BLM, Harris, Quail Hollow, and VA Wells. The parties shall reasonably cooperate with each other and with the IDWR to assure that BLM, Harris Warm Springs Creek (Harris), Quail Hollow Golf Course (Quail Hollow), and VA well data continues to be collected and reported to IDWR and is available to each of the Parties. These non-party wells are listed in Table 4. The IDWR shall to the extent of its authority require the following: VA and Quail Hollow shall collect water level/well head pressure, production (instantaneous and totalized flow), and discharge temperature data for their respective geothermal production wells. The VA shall collect wellhead pressure,

injection volume (instantaneous and totalized flow), and injection temperature in the VA injection well. Production and temperature data shall be collected at least monthly. VA and Quail Hollow shall collect water level/well head pressure from their respective wells on a weekly basis during the following 6-week periods: September 1 through October 12 and February 1 through March 14. BLM water levels shall be measured at least weekly on a year-around basis. Harris well monitoring and reporting shall be as provided in the March 29, 2002 Stipulated Agreement for Withdrawal of Harris Protest regarding the City Petition in this matter.

Calibration. The IDWR or another entity agreed upon by the Parties shall annually visit each well listed in Tables 1-4 over which a Party has possession or control or to which access is otherwise permitted for purposes of calibration checks of monitoring equipment. The calibration will include (1) comparison measurements of pressure (calibrated gages versus well gage and/or transducer) and (2) calibration checks of flow meters using the IDWR ultrasonic flow meter or other means.

Reporting. The Parties shall submit data to IDWR on a quarterly basis. The Parties shall submit data on a standard form if such a form is provided by IDWR. Each Party shall submit data to IDWR within 30 days after the end of each quarter. Upon the end of each quarter, IDWR shall notify each Party of the due date for submitting data. For this purpose, the end of each quarter shall be December 31, March 31, June 30, and September 30 of each year. The IDWR shall prepare semi-annual summaries of monitoring data within 60 days of the end of each six-month monitoring period and provide the summaries to the Parties. For this purpose, six-month monitoring periods shall be January 1 through June 30 and July 1 through December 31. The IDWR shall also provide data in response to requests by any Party on a case-by-case basis. The IDWR shall promptly notify Parties who fail to report their data by the due date following each quarter, and such Parties shall be subject to IDWR assessing civil penalties for failure to report in accordance with IDWR authority. All Parties shall be copied on such notices and assessments of civil penalties.

Monitoring Methodology. Each Party shall prepare a detailed description of monitoring methods for the Party's own wells by the later of August 15, 2002 or the effective date of this Plan. These descriptions shall be attached to this plan as Appendices A through F. Each appendix will include the following information. A field trip to each well site for interested Parties is recommended to obtain standardized photographs and vertically accurate GPS measurements.

1. identification of monitored wells

2. reference point descriptions for water level measurements (with photographs)

TABLE 1 - PRIMARY OBSERVATION WELLS

Well Name	Well Ownership	Monitoring Responsibility	Water Level Measurement Method	Minimum Measurement Frequency	Remarks
Kanta	State IDL	City	Transducer/data logger	Continuous**	City to purchase transducer; State to provide access
BWS#3	BWS	BWS	Transducer/data logger	Continuous**	
BGL#1	City	City	Transducer/data logger	Continuous**	
Edwards	Edwards	Edwards	Pressure Gages	Weekly	Measure shut-in pressure
Tiegs	Terteling	Terteling	Transducer/data logger	Continuous**	City to purchase transducer; well available following transfer approval

TABLE 2 - PARTY PRODUCTION AND INJECTION WELLS

Well Name	Well Ownership	Monitoring Responsibility	Water Level Measurement Method	Minimum Measurement Frequency	Remarks
Edwards	Edwards	Edwards	Pressure Gages	Weekly	Measure operating pressure, totalizer reading, flow rate, temp.
City Injection	City	City	Transducer/data logger	Continuous**	Measure operating pressure, totalizer reading, flow rate, temp.
BGL-2	City	City	Electric Line	Weekly*	Measure static water level or pumping water level, flow rate, totalizer reading, temp.
BGL-3	City	City	Electric Line	Weekly*	Measure static water level or pumping water level, flow rate, totalizer reading, temp.
BGL-4	City	City	Electric Line	Weekly*	Measure static water level or pumping water level, flow rate, totalizer reading, temp.
BWS East	BWS	BWS	Air Line	Weekly*	Measure static water level or pumping water level, flow rate, totalizer reading, temp.
BWS West	BWS	BWS	Air Line	Weekly*	Measure static water level or pumping water level, flow rate, totalizer reading, temp.
Flora Shed	Terteling	Terteling	Pressure Gages	Weekly*	Measure shut-in pressure, totalizer reading, flow rate, temp.
Flora Office	Terteling	Terteling	Pressure Gages	Weekly*	Measure shut-in pressure, totalizer reading, flow rate, temp.
Pool	Terteling	Terteling	Electric Line	Weekly*	Measure static water level or pumping water level, flow rate, totalizer reading, temp.
Windsock	Terteling	Terteling	Electric Line	Weekly*	Measure static water level or pumping water level, flow rate, totalizer reading, temp.
Motorcycle Club	Terteling	Terteling	Electric Line	Weekly*	Measure static water level or pumping water level, flow rate, totalizer reading, temp.
Capitol Mall #1	State DA	State DA	Pressure Gages	Weekly*	Measure operating pressure, totalizer reading, flow rate, temp.
Capitol Mall #2	State DA	State DA	Electric Line	Weekly*	Measure static water level or pumping water level, flow rate, totalizer reading, temp.

TABLE 3 - SECONDARY OBSERVATION WELLS

Well Name	Well Ownership	Monitoring Responsibility	Water Level Measurement Method	Minimum Measurement Frequency	Remarks
Quarry View Shallow	City	City	Electric Line	Monthly	upon agreement by the parties, may be dropped from program following one year
Quarry View Deep	City	City	Electric Line	Monthly	upon agreement by the parties, may be dropped from program following one year
Gamble	City	City	Electric Line	Monthly	City to monitor water level until Tiegs Well is available
Pen Well No.1	State IDL	State IDL	Electric Line	Monthly	upon agreement by the parties, may be dropped from program following one year

TABLE 4 - NON-PARTY WELLS

Well Name	Well Ownership	Monitoring Responsibility	Water Level Measurement Method	Minimum Measurement Frequency	Remarks
BLM	US	USGS	Transducer/data logger	Continuous**	City agrees to take over monitoring if USGS discontinues monitoring
VA Test Injection	VA	VA	Pressure Gages	Weekly*	Measure static pressure or water level
VA Production	VA	VA	Electric Line	Weekly*	Measure pumping water level, flow rate, temp.
VA Injection	VA	VA	Pressure Gages	Weekly*	Measure operating pressures, flow rate, temp.
Quail Hollow Lower	Quail Hollow	Quail Hollow	Electric Line	Weekly*	Measure static water level or pumping water level, flow rate, temp.
Quail Hollow Upper	Quail Hollow	Quail Hollow	Electric Line	Weekly*	Measure static water level or pumping water level, flow rate, temp.
Harris	Harris	Harris FRO	Transducer/data logger	Continuous**	Per 3/29/02 Stipulated Agreement for Withdrawal of Harris Protest; City to purchase transducer

*Sept 1 - Oct 12 and Feb 1 - March 14 only

**supplement continuous monitoring with weekly hand measurements in September and October

3. reference point elevation (GPS) National Geodetic Vertical Datum, 1929 ("NGVD 29")

4. description of measuring equipment (including model numbers, serial numbers and calibration information for flow meters)

5. name, address, and telephone number for individual responsible for submitting monitoring data

6. remarks regarding monitoring methods or protocol

7. All well heads where pressure measurements are taken shall be equipped with quality 0-50 psi double- pressure gage clusters with isolation valves.

8. Water level sounding tubes shall be installed as appropriate when pumps are pulled for servicing.

Effective Date: This Plan shall be effective upon acceptance by the Director of IDWR.

Review and Modification. This plan shall be subject to periodic review and modification. This plan may be modified only by means of a written agreement signed by each of the Parties. A modification shall not be binding upon IDWR unless accepted by the Director.