SOUTHEAST BOISE GROUND WATER MANAGEMENT AREA

MANAGEMENT PLAN

March 9, 2001

I. INTRODUCTION

Ground water resources supply much of the drinking water, irrigation, and industrial needs of the Boise area. Careful management of our ground water supplies is essential for the long-term economic vitality of our community. In 1993, United Water Idaho (formerly Boise Water Corporation) identified an area in southeast Boise with declining water levels. Based upon that investigation and information collected by Boise State University, United Water petitioned the Idaho Department of Water Resources (IDWR) to declare a Ground Water Management Area (GWMA) under Section 42-233b, *Idaho Code*.

IDWR reviewed the available technical information and notified all potentially affected parties holding water rights in excess of 0.10 cubic feet per second (cfs). Based upon the information gathered, IDWR staff recommended the establishment of a GWMA, referred to as the Southeast Boise Ground Water Management Area (SBGWMA). The IDWR Director established the SBGWMA on October 14, 1994. The Director's Order stated the goals and objectives of the management area, created an advisory committee, set the boundaries of the GWMA which included seventeen (17) square miles in Southeast Boise, and required existing water users diverting more than 0.20 cfs to monitor and report annual ground water usage.

A key component of the Director's Order was the development of a Ground Water Management Plan ("Plan") that balances the goals of protecting existing water users and maximizing the public benefit of the ground water resource. In order to accomplish the goals and objectives of the Order, the Advisory Committee developed operational procedures and a dispute resolution process. Subcommittees were created to address disputes and collect ground water data. Investigations and dispute resolution processes led to the creation of a Ground Water Management Plan.

The Plan strives to curtail the trend of declining water levels while protecting the rights of existing water users. The SBGWMA Plan attempts to balance the need to maximize the use of the resource and protect the quality of the ground water resource while encouraging water conservation.

All but the southernmost four square miles of the SBGWMA are within the Boise Front GWMA, which was established in 1987 to protect low temperature geothermal water ("hot wells"). Any activity related to drilling and/or using hot wells would be subject to the provisions of that earlier in time GWMA in addition to any applicable provisions of the SBGWMA.

II. PURPOSE AND AUTHORITY

The Plan governs administration of ground water resources within the boundaries of the SBGWMA pursuant to *Idaho Code*.

The Plan implements the Order issued by the Director on October 14, 1994 which created the SBGWMA. The Plan includes recommendations of the Advisory Committee created by that Order. A copy of the Order is included as Attachment A. The Plan is consistent with the Boise City Comprehensive Plan and the Recommendations of the Boise Visions Steering Committee, 1992, concerning water supply, quality and management.

III. GOALS

The goals of the Plan are to:

A) Protect water rights and water quality;

B) Maximize the benefit of and augment the water resource within the management area, including aquifer recharge and other approved management activities;

C) Determine aquifer water balance and sustainable yield, if possible; and

D) Evaluate the adequacy of and need for changes to the management area boundary.

IV. WATER USE POLICIES

A) It is the policy of the Plan to encourage to the extent economically and practically feasible:

(1) the use of surface water for irrigation and other uses;

(2) artificial recharge to stabilize and enhance ground water levels and to store water for future use; and

(3) conservation of water for future use.

B) New ground water rights shall not be issued in the management area without mitigation except as provided for in the Order creating the SBGWMA and by Paragraph D below.

C) Aquifer recharge, storage and recovery projects may be conducted as authorized by Idaho law.

D) New domestic uses defined by Section 42-111, *Idaho Code,* may be authorized based on IDWR approval of a drilling prospectus and a well drilling permit. New domestic uses shall be discouraged if water can be reasonably supplied from a municipal source.

E) Conservation of ground water through:

(1) development and use of alternate water sources,

(2) reduced ground water use,

(3) improvements in water management techniques,

(4) any other case-specific condition acknowledged by statute, regulation, a Court or the Director,

is in the public interest and provides good cause for non-use of water rights within the SBGWMA during the life of the Plan. Ground water rights with diversion points located within the management area shall not be considered lost, abandoned and/or forfeited for non-use, in whole or in part, if at least one of the conditions listed above accompanies the reduction in use. The five (5) year period of non-use for forfeiture of a water right shall resume upon termination of this Plan unless non-use is otherwise authorized by law or such conditions set forth in *Idaho Code*.

F) The Director's approval of the Plan establishes a defense to forfeiture for activities described in the above Paragraph IV-E.

G) Water users subject to annual measurement reporting and who divert more than fifty (50) acre feet per year shall submit individual water management plans. The individual plans shall include specific discussion related to the Goals, Monitoring elements and Water Use Policies of the SBGWMA Plan. Executive summaries of these individual plans are presented in Attachment B. These parties shall submit their completed individual plans to the Director within six (6) months of the date that the Director adopts the SBGWMA Plan.

V. MONITORING

A) Monitoring in and around the GWMA shall be accomplished as a cooperative effort among water users and IDWR. Monitoring will consist of two parts:

(1) annual water use measurement reporting, and

(2) ground water level monitoring.

B) IDWR approved monitoring equipment shall be required for water measurement reporting and/or any other data collection activities identified by the Plan.

C) The annual water measurement-reporting program shall be continued, with improvements in measuring accuracy as appropriate. This program applies to all ground water rights exceeding 0.20 cfs. IDWR shall send water measurement reporting forms to the reporting parties by January 31 of each year to facilitate reporting of water used in the preceding year. The completed annual measurement reports shall be submitted to IDWR by March 15 of each year.

D) A permanent water level observation well network shall be established consisting of no less than twenty (20) observation wells strategically located throughout and adjacent to the management area. Initially, ground water levels will be measured in twenty-seven (27) wells. Observation well locations are shown in Attachment C. Four (4) wells will be equipped with continuous water level monitoring equipment, and data compilation for these wells will be done by Micron Technology. The remaining wells will be monitored at the frequency and by the party shown on Attachment C. The Advisory Committee and IDWR shall approve replacement of any observation well.

E) Monitoring data from the above monitoring items C and D shall be maintained in an IDWR database. Data will be collected by the responsible party and submitted to IDWR. Submission of the data will be in a format and frequency acceptable to GWMA water users and IDWR. Raw data and/or summarized data derived from the above items C and D may be made available to the public on request.

F) Annual data for the period of January 1 through December 31 from the above monitoring activities shall be compiled in an annual summary report prepared by IDWR. The summary report shall be presented for Advisory Committee approval at its annual meeting. The monitoring plan will be reviewed and evaluated by the Advisory Committee to determine if changes are necessary.

G) Any well to be abandoned in the management area shall require a well abandonment approval issued by IDWR. This requirement will protect water quality and limit wasting of water that might otherwise result from improper well abandonment techniques.

H) The Advisory Committee recommends that the Director provide for aquifer monitoring for any new ground water diversions approved in and around the GWMA to the extent that such monitoring would be expected to yield data relevant to the boundaries and conditions of the management area.

VI. ADVISORY COMMITTEE

A) The Advisory Committee recommends that the Director hold a public meeting in the local area prior to approval of the Plan.

B) The Advisory Committee shall continue to perform the duties described in the Order including recommending solutions to issues that arise in the SBGWMA.

C) The Advisory Committee shall meet at least once a year no later than May 31. Minutes from this annual meeting shall be provided to the Director.

D) The Plan shall be reviewed annually, and modified as needed, by the Advisory Committee. At the end of each five (5) year period starting from the date the Plan is approved by the Director, the Advisory Committee shall issue a summary report to document the progress of the Plan. Modifications to the Plan shall be submitted to the Director for approval.

APPENDIX

A … IDWR Order designating the management area, October 14, 1994.

B … Executive summaries of Micron Technology Inc. and United Water Idaho Inc. [1] individual plans.

C … Map of monitoring wells, including table of monitoring parties and frequency of measurements.

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[1] United Water Idaho Inc. summary was electronically received by IDWR on June 1, 2000.

BEFORE THE DIRECTOR OF THE DEPARTMENT OF WATER RESOURCES

OF THE STATE OF IDAHO

IN THE MATTER OF DESIGNATING	)	
	)	
THE SOUTHEAST BOISE	)	ORDER
	)	
GROUND WATER MANAGEMENT AREA	)	

This matter having come before the Director of the Idaho Department of Water Resources as a result of concern over the effect of additional ground water pumping on the availability of water to existing wells in the Southeast Boise area in Ada County, the Director Finds, Concludes and Orders as follows:

FINDINGS OF FACT

1. On October 12, 1993, Boise Water Corporation submitted a petition to the Director of the Department of Water Resources (Department), requesting designation of a ground water management area in the vicinity of the Boise-Fan aquifer.

2. On December 9, 1993, the Department held a public meeting for the purpose of disseminating information about the petition, ground water levels, the potential for establishing a ground water management area in southeast Boise, and the proposed area boundaries. All known holders of ground water rights with rates of flow in excess of 0.10 cubic feet per second were mailed notice of the meeting and proposed area boundaries.

3. The Department solicited responses to the petition with an initial deadline of December 31, 1993. This deadline was later extended to January 18, 1994 based on requests from respondents. Input ranged from support of the designation, to requests for more extensive designation, to one request for no designation. Information provided in responses and all available technical data were reviewed by Department staff. Based on this technical review, Department staff recommended that a ground water management area be established, but that

APPENDIX A

the area designated should be only part of the area proposed in the petition. The area for which designation is proposed is shown on Attachment 1. This area is described as the Southeast Boise Ground Water Management Area (SBGWMA).

4. Management of ground water within the Boise River basin is directed toward specific aquifer units as they become identified and defined. The Boise-Fan aquifer is a large buried alluvial-fan located at the head of the Boise River Valley. Depth to water within the aquifer ranges from 300 feet to 600 feet depending on location. Technical descriptions of the aquifer are provided in two studies funded primarily by Boise Water Corporation and prepared by Edward Squires and others.[1] Based on information provided by these studies and an independent review by Idaho Department of Water Resources (IDWR) staff, geologic and hydrogeologic evidence suggests that ground water recharge from the Boise River to the Boise-Fan aquifer is restricted by subsurface structural features.

5. Ground water withdrawals from the Boise-Fan aquifer are presently contributing to a lowering of the water table within part of the aquifer. This lowering has caused several domestic wells to become inoperable and has affected existing production wells by reducing yield and increasing pumping costs. Continued lowering of water levels will cause more shallow domestic wells to become inoperable thus requiring deepening or re-drilling. Most large-bore production wells are already completed throughout the entire usable water-bearing section and cannot be successfully deepened. Based on declining water level trends, the ability to maintain the present level of withdrawal from the aquifer is doubtful.

1.Squires, Edward, Spencer H. Wood and James L. Osiensky, "Hydrogeologic Framework of the Boise Aquifer System, Ada County, Idaho", Idaho Water Resources Research Institute, Moscow, Idaho, March, 1992.

Squires, Edward, Spencer H. Wood, James L. Osiensky, and Roger D. Dittus, "Groundwater Conditions and Hydraulic Testing of the Boise-Fan Aquifer of Southeast Boise River Valley, Ada County, Idaho", Report prepared for Boise Water Corporation, October, 1993.

6. Data are insufficient to compute a projected reasonably anticipated average rate of future natural recharge which would be the foundation for a water balance computation. However, the rapid increases in declines in water levels in recent years provide the basis for the determination that conditions in the Boise-Fan cold water aquifer are found to be approaching the conditions of a critical ground water area.

7. A summary of water diversions within the Boise-Fan aquifer has been prepared. Attachment 2 is a listing of recorded ground water rights with rate of flow greater than 0.10 cubic feet per second (cfs) within the area.

8. The boundaries of the SBGWMA partially overlap the boundaries of the Boise Front Low Temperature Geothermal Ground Water Management Area, which was designated on June 15, 1987.

9. The SBGWMA is totally contained within the area impacted by the Boise River Basin Moratorium. This moratorium on certain water right development was declared on May 15, 1992, and an amended moratorium order was issued on April 30, 1993.

CONCLUSIONS OF LAW

1. As between appropriators, the first in time is first in right. I.C. Sec. 42-106.

2. The appropriation must be for some useful or beneficial purpose, and when the appropriator or his successor in interest ceases to use it for such purpose, the right ceases. I.C. Sec. 42-104.

3. All rights to divert and use the waters of this state for beneficial purposes shall hereafter be acquired and confirmed under the provisions of Chapter 2, Title 42, Idaho Code, and not otherwise. Such appropriation shall be perfected only by means of the application, permit and license procedure as provided in this title; provided, however, that in the event an appropriation has been commenced by diversion and application to beneficial use prior to the effective date of

this act it may be perfected under such method of appropriation. I.C. Sec. 42-201(1).

4. All ground waters are property of the state, whose duty it is to supervise the appropriation and allotment of the same. Aquifers are to be administered to assure that early appropriations of ground water are protected in the maintenance of reasonable ground water pumping levels as may be established by the Director. I.C. Sec. 42-226.

5. "Critical ground water area" is defined as any ground water basin, or designated part thereof, not having sufficient ground water to provide a reasonably safe supply for irrigation of cultivated lands, or other uses in the basin at the then current rates of withdrawal, or rates of withdrawal projected by consideration of valid and outstanding applications and permits, as may be determined and designated, from time to time, by the Director. I.C. Sec. 42-233a.

6. "Ground water management area" is defined as any ground water basin or designated part thereof which the Director has determined may be approaching the conditions of a critical ground water area. I.C. Sec. 42-233b.

7. The Director may allow withdrawal at a rate exceeding the reasonably anticipated rate of future natural recharge if the Director finds it is in the public interest and if it satisfies the following criteria: (1) A program exists or likely will exist which will increase recharge or decrease withdrawals within a time period acceptable to the Director to bring withdrawals into balance with recharge, and (2) Holders of senior rights to use ground water will not be caused thereby to pump water from below the established reasonable pumping level or levels. I.C. 42-237a(g).

8. In connection with his supervision and control of the exercise of ground water rights the Director has the power to determine what areas of the state have a common ground water supply. I.C. Sec. 42-237a(g).

9. To assist the Director in the administration and enforcement of this act, and in making determinations upon

which said orders shall be based, he may establish a ground water pumping level or levels in an area or areas having a common ground water supply as determined by him as hereinafter provided. I.C. Sec. 42-237a(g).

10. The Director is empowered to order the installation and maintenance of approved measuring devices consistent with the purposes of Section 42-701, Idaho Code. I.C. Sec. 42-237a(h).

11. If the Director finds, on the basis of available information, that a person is diverting water or has diverted water from a natural watercourse or from a ground water source without having obtained a water right to do so or is applying water or has applied water not in conformance with a water right, then the Director may file an action seeking injunctive relief or may commence an administrative enforcement action by issuing the person a written notice of violation directing the person to cease or desist the activity or activities alleged to be in violation of applicable law or any existing water right. I.C. Sec. 42-351(1).

12. After notice, the Director may suspend the issuance or further action on permits or applications as necessary to protect existing vested water rights or to ensure compliance with the provisions of chapter 2, title 42, Idaho Code, or to prevent violation of minimum flow provisions of the State Water Plan. I.C. Sec. 42-1805(7) and Water Appropriation Rule 7.

13. The Director may seek a preliminary or permanent injunction, or both, or a temporary restraining order restraining any person from violating or attempting to violate: a) those provisions of law relating to all aspects of the appropriation of water, distribution of water, headgates and measuring devices; or b) the administrative or judicial orders entered in accordance with the provisions of law. I.C. Sec. 42-1805(9).

14. "Rules for Conjunctive Management of Surface and Ground Water Resources" have been promulgated in accordance with the the Idaho Administrative Procedure Act. Many of these

rules can be applied within the SBGWMA, particularly IDAPA rule 37.03.11.0411 which provides for administration of diversion and use of water within a ground water management area, and provides that in order to establish whether withdrawals from the wells are exceeding the capacity of the system and to protect early appropriators, all existing and future wells within the area designated must be controlled and monitored.

15. The Director should designate a ground water management area for the Southeast Boise area in Ada County, Idaho, to be identified as the SBGWMA.

16. The SBGWMA pertains to the cold water aquifer, having temperature of less than or equal to eighty-five (85) degrees Fahrenheit. The Boise Front Low Temperature Geothermal Ground Water Management Area pertains to low temperature geothermal water, having temperature of greater than eighty-five (85) degrees Fahrenheit.

17. The SBGWMA will supplant or replace the Boise River Basin Moratorium with respect to regulation of the cold water aquifer within the boundaries of the area.

18. Establishment of the SBGWMA should be accompanied by a statement of specific management goals and objectives to meet the purposes for which the ground water management area is designated. For convenience of discussion and implementation, these goals and objectives are identified below in outline form. A primary aspect of implementation of goals and objectives is the establishment of an Advisory Committee. Formative information for this Committee is also provided in the statement of goals and objectives.

STATEMENT OF GOALS AND OBJECTIVES

I. MANAGEMENT GOALS

The goals for management of the SBGWMA are:

A. Obtain accurate information about:

1. Water supply,

2. Withdrawals (current and future), and

3. Uses.

B. Provide clear, understandable management policies for the resource.

Idaho Department of Water Resources (IDWR) management policies need to be available in written form and available to existing and potential future users of the resource as well as to the public. These policies must:

1. Maintain consistency in IDWR actions,

2. Minimize administrative documentation,

3. Minimize management cost to users and the public,

4. Provide a reliable basis for actions of both users and IDWR, and

5. Result in the compilation of a water balance, identification of a reasonable pumping lift, and preparation of a Ground Water Management Plan.

C. Stabilize depletion from the aquifer at the existing or a reasonable rate (whichever is less), until a new equilibrium condition can be accurately predicted.

D. Protect existing ground water users.

E. Maximize public benefit from the ground water resource.

The goals of protecting existing ground water users and maximizing public benefit from the ground water resource may appear to be in conflict, one seeking to minimize the number of users and the other seeking to maximize development. IDWR must balance these goals to obtain a workable management plan.

II. OBJECTIVES TO MEET GOALS

A. Existing Uses

1. Each use should be limited to the lesser of the recorded right, or beneficial use being made of the water, or sustained historic diversion rate and/or volume.

2. Well and system construction should be required to prevent waste above and below ground.

3. IDWR-approved monitoring equipment, data collection, and reporting should be required where practical.

B. Permits

All water right permits within the SBGWMA pertain to systems that have been either substantially or completely developed. Therefore, permit holders should not be required to submit any development information to the Department in addition to timely proof of beneficial use.

C. Applications

1. Future applications should be rejected unless information is provided by the applicant to demonstrate the use will not cause:

a) Additional depletion of the aquifer, and

b) An increase in pumping lift to existing users or undeveloped permit holders, pending determination of a reasonable pumping level.

2. The applicant should be responsible to provide all existing users and holders of undeveloped permits a copy of the application and supporting information upon request.

3. Domestic uses (exempted from the filing of a water appropriation permit by Sec. 42-227, Idaho Code) should be authorized only after approval of a drilling prospectus submitted with the application for the required drilling permit.

D. Delivery

1. A water user who operates a well at a diversion in excess of water rights will be ordered by the Director to cease and desist based on the authorities in Sections 42-237a(g), 42-311, 42-350 and 42-351, Idaho Code.

2. IDWR may create a water district and appoint a watermaster upon entry of an interim administrative order or a decree in the Snake River Basin Adjudication (or other adjudication) to measure and deliver water to the users.

III. CREATION OF THE SBGWMA ADVISORY COMMITTEE

A. Introduction

The SBGWMA is the source of water for three major water users, none of which holds senior priority water rights. These three water users, J.R. Simplot Co. (doing business as Golden Development Company), Micron Technology Inc., and Boise Water Corporation, have determined that it is in their best interest to coordinate efforts to satisfy the needs of senior water right holders in order to continue to fully utilize the

aquifer to satisfy their diversion requirements.

B. Objectives

This combination of large water users lends itself to the formation of a SBGWMA Advisory Committee, which has the following objectives:

1. Serve as a forum for collecting and reviewing data obtained relative to the SBGWMA.

2. Serve as a forum for mediating water related issues involving water users within the SBGWMA.

3. Develop a ground water management plan for the SBGWMA as a proposal to the Director.

C. Guidelines

Because there is no known precedent for this group within the State of Idaho, implementation and development of the group will be a dynamic process. The group should develop written guidelines which describe its operational procedures, and submit these guidelines for review and approval by the Director.

D. Composition

The SBGWMA Advisory Committee should initially be comprised of representatives from J.R. Simplot Co., Micron Technology Inc., Boise Water Corporation, the City of Boise, Boise State University, IDWR, and two representatives of independent water users, to be selected by IDWR.

E. Authority

The SBGWMA Advisory Committee should seek consensus on solutions that are mutually beneficial to all parties. The Committee does not have formal enforcement authority. Establishment of the Advisory Committee is not intended to limit or divest the statutory enforcement responsibilities of IDWR.

F. Dispute Resolution

IDWR encourages disputes regarding pumpage of ground water within the SBGWMA to be first referred to the Advisory Committee. Matters on which consensus with all Advisory Committee members and the contesting parties is not achieved will be referred to IDWR and will first be set for informal resolution, under the provisions of section 67-5241, Idaho Code, if doing so will expedite the case without prejudicing the interests of any party. Matters not resolved in this manner will be set for a formal hearing, in accordance with

the provisions of IDAPA rule 37.03.11 and the Administrative Procedure Act.

ORDER

NOW, THEREFORE, IT IS HEREBY ORDERED as follows:

1. The following described area is included within and designated as the "Southeast Boise Ground Water Management Area" (SBGWMA) pursuant to the provisions of Section 42-233b, Idaho Code:

Sections 25 and 36, Township 3 North, Range 2 East, B.M.
Sections 1, 12 and 13, Township 2 North, Range 2 East, B.M.
Sections 30, 31 and 32, Township 3 North, Range 3 East, B.M.
Sections 4, 5, 6, 7, 8, 9, 16, 17 and 18, Township 2 North, Range 3 East, B.M.

2. Water users who divert ground water at a rate in excess of 0.20 cfs within the SBGWMA are required to install Department-approved monitoring equipment, and to participate in a data collection and reporting process, to be established by the Department in cooperation with the Advisory Committee.

3. A water user or an applicant who proposes to construct, repair, deepen or enlarge a well located within the SBGWMA is required to submit for review and approval a drilling prospectus with each application for a drilling permit.

4. An applicant for appropriation of ground water within the SBGWMA is required to furnish sufficient technical data and plans to allow a preliminary determination by the Director that water is available, that existing users will not be injured, and that depletion of the aquifer will not be increased. Applications will not be advertised and protest hearings will not be scheduled until an affirmative preliminary determination is made by the Department.

5. The Southeast Boise Ground Water Management Area

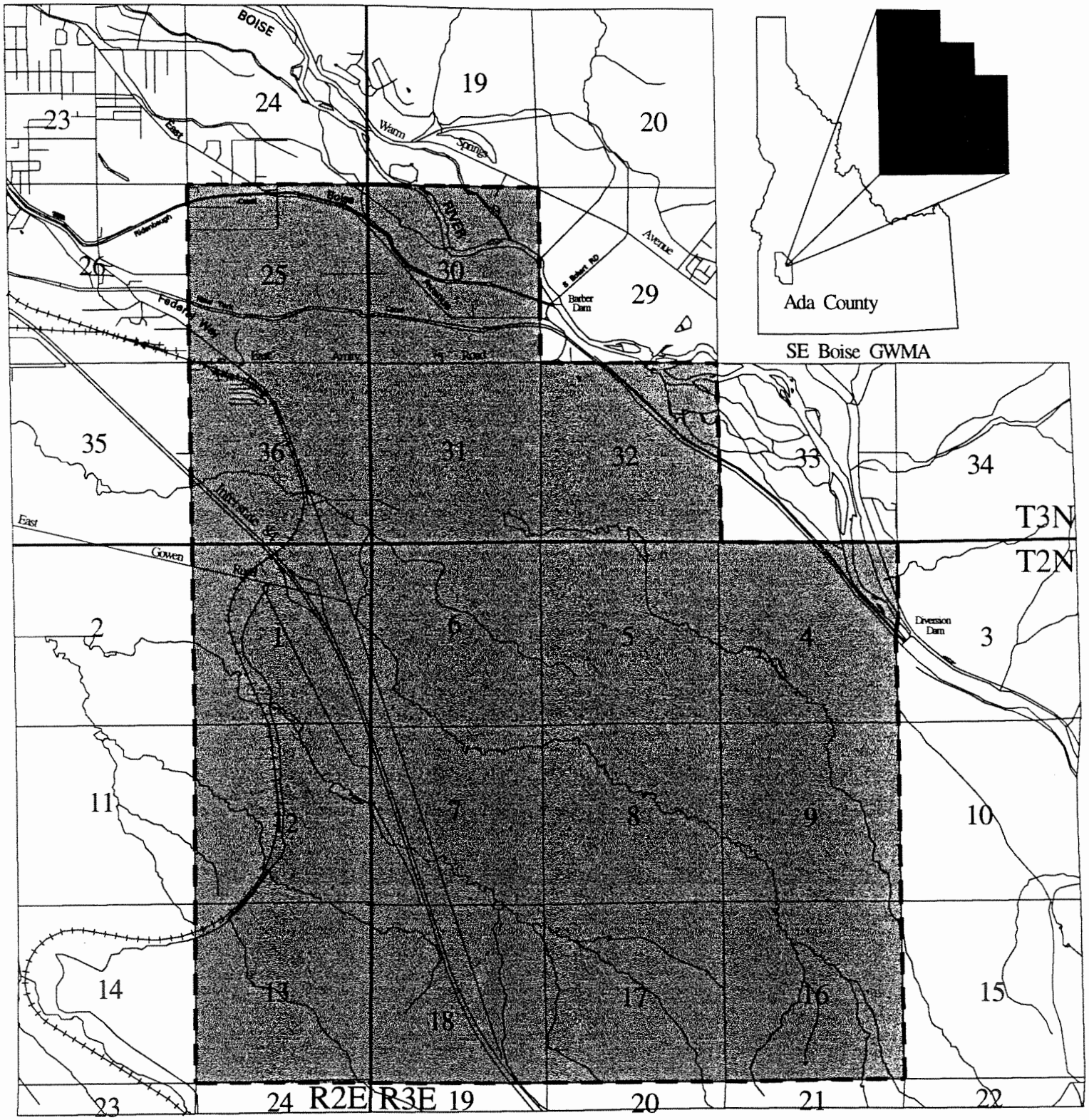
Advisory Committee is hereby established, in accordance with the provisions identified herein. The Committee is hereby directed to develop written guidelines which describe its operational procedures, and to submit these guidelines for review and approval by the Director, no later than June 1, 1995.

Dated this 14TH day of OCTOBER, 1994.

R. Keith Higginson

R. Keith Higginson, Director
Idaho Department of Water Resources

Southeast Boise Ground Water Management Area



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Attachment 1

Prepared by:
IDAHO GEOGRAPHIC INFORMATION CENTER
Idaho Department of Water Resources
1301 North Orchard Street
Boise, Idaho 83706
(208) 327-7900

WATER RIGHT RECORDINGS FOR GROUND WATER DIVERSIONS GREATER THAN 0.10 CFS WITHIN THE SOUTHEAST BOISE GROUNDWATER MANAGEMENT AREA

	W/R #	Use*	cfs	Stage	Priority	Name
1.	63-04388	I	.11	Stat Claim	06/01/1910	Johnson
2.	63-04999	I	.32	Stat Claim	03/15/1927	Guiles
3.	63-04360	I	.64	Stat Claim	06/01/1931	Prickett
4.	63-04947	I,D	.16	Stat Claim	01/01/1933	Myers
5.	63-02501	I,D	.20	License	09/20/1934	Rodgers
6.	63-04478	I,D	.12	Stat Claim	05/01/1947	Viani
7.	63-02666	I,D,C,Cl	.11	License	06/11/1947	Idaho Power Co
8.	63-04084	D	.14	Stat Claim	06/01/1949	Kirwan
9.	63-02914	Ind,D	.33	License	11/15/1952	Bunting Tractor
10.	63-03118	D,Cl	1.40	License	01/14/1958	Idaho Power Co
11.	63-03197	I	.51	License	05/12/1960	Idaho Power Co
12.	63-05061	I,S	.12	Stat Claim	06/01/1960	Meyer
13.	63-03416	D,F	.56	License	12/07/1964	Security Industries
14.	63-03544	D,F,Cl	2.67	License	09/22/1966	Idaho Power Co
15.	63-07199	Ind	1.09	License	02/21/1969	Emkay Development
16.	63-07304	I,D	.36	License	02/19/1971	Thunderbird Dev
17.	63-07577	M	2.01	License	04/06/1972	Boise Water Corp
18.	63-07606	D	.22	License	05/30/1972	Showalter
19.	63-08006	I,D,F	.82	License	07/15/1974	Granger
20.	63-08181	I,D	.14	License	07/24/1975	County of Ada
21.	63-08236	M	3.63	License	11/28/1975	Boise Water Corp
22.	63-08401	D	.70	License	01/06/1977	Blue Valley MH Park
23.	63-08992	D,F	7.00	Permit	07/25/1977	Boise Water Corp
24.	L63-08992	M	1.97	License	07/25/1977	Boise Water Corp
25.	63-09029	I,C,F,Ind	4.00	Permit	09/09/1977	Boise Water Corp
26.	63-09025	I,S	.14	License	10/12/1977	Spiers
27.	63-09137	D,Ind	.26	License	04/17/1978	Riddle
28.	63-09357	Ind,F	.60	License	03/12/1980	Micron Technology
29.	63-10208	Ind,D	.61	License	11/22/1983	Micron Technology
30.	63-10617	I,D	.20	Permit	04/19/1988	Beymer
31.	63-11195	I	.13	License	03/06/1990	Ada County Parks
32.	63-11293	Ind	2.25	Permit	04/19/1990	Micron Technology
33.	63-11546	C	0.29	License	05/30/1991	Croman Corp
34.	63-11541	I,M	2.90	Permit	05/31/1991	Boise Water Corp
35.	63-11610	I	1.10	Permit	07/15/1991	Golden Development
36.	63-11566	I	.30	Permit	07/24/1991	Indep. School Dist
37.	63-11816	I	.25	Application	04/28/1992	Boise Park System
38.	63-11949	M	1.10	Permit	10/14/1992	Boise Water Corp
39.	63-12062	I	.22	Permit	10/01/1993	Indep. School Dist

* Use: I - Irrigation, D - Domestic, M - Municipal, C - Commercial, Ind - Industrial, Cl - Cooling, F - Fire Protection, S - Stockwater

ATTACHMENT 2

MICRON TECHNOLOGY, INC.

RECEIVED
APR 0 5 2000
WATER RESOURCES
WESTERN REGION

Groundwater Management Plan Summary
Micron Technology, Inc.
February 22, 2000

Micron operates a semiconductor manufacturing facility on approximately 280 acres of developed land within Township 2N, Range 3E, Sections 5, 6, 7, 8 and 18 in Ada County, within the Southeast Boise Ground Water Management Area (SBGWMA). The facility employs over 9000 workers. The company is the largest private employer and corporate taxpayer in the State of Idaho.

Water is a critical raw material in semiconductor manufacturing. Consequently, a reliable supply of high-quality, constant-temperature water is vital to Micron's viability in Boise. Currently, Micron diverts ground water from its own wells, purchases water from United Water Idaho, and aggressively reclaims and reuses large volumes of waste water generated during manufacturing. In the near future, the company plans to divert recently acquired surface water for use in landscape irrigation and aquifer storage, recovery, and recharge. Stored water would eventually be used in manufacturing. Micron has also funded development of other sources of groundwater outside the SBGWMA and a distribution system for delivery into southeast Boise including the SBGWMA.

1. Reclamation and Reuse

As early as 1984, Micron recognized the need for conservation of local water resources and installed its first wastewater reclaim system in the newest production area. By the early 90's, Micron saw the potential impacts of the demands of growth on the local groundwater supply. In response, the company worked with United Water and others and financially supported the work, which resulted in the declaration of the SBGWMA in 1994. At that time, Micron also increased its substantial investment in advanced methods of wastewater recovery and reuse, setting a goal of 75% wastewater reuse. Today, Micron supports nearly 100% of its production needs with ground water from on-site wells combined with reclaimed wastewater. The company has spent in excess of $14 million on these projects.

2. Alternative Sources of Supply

In 1993, Micron initiated negotiations with United Water Idaho (UWI, f/k/a Boise Water Company) to explore options to conserve the aquifer and to develop alternative water sources for the southeast Boise area. The result was the $7 million Southeast Boise Water Supply Project, which Micron funded at no interest. The project involved development of new wells in southwest Boise, the construction of a pipeline and storage to deliver water to new growth in southeast Boise as well as Micron, and the reduction of production within the SBGWMA. The project enabled UWI to deliver

ground water to the area from a relatively untapped aquifer outside the SBGWMA and to cease pumping from two of their larger production wells (Gowen and Oregon Trail) within the area. Since UWI ceased pumping the Gowen and Oregon Trail wells in September 1997, the water level in the Boise Fan Aquifer has begun to stabilize for the first time since regular monitoring began.

Micron also worked with UWI, J.R. Simplot Company (JRS) and the Surprise Valley Development Company (SVDC) and others to deliver surface water from the Boise River to the SBGWMA. The Surprise Valley Project involves a diversion works and pipelines. On company property, Micron plans construction of a treatment facility in the near future that will be used to treat surface water supplies piped from the Boise River. These supplies will then be injected through a recently constructed (and permitted) underground injection well for later diversion. These surface supplies will further help to stabilize and augment the groundwater supply in the SBGWMA. Micron has spent over $4 Million on these projects to date. Another $4 Million is currently budgeted.

The Surprise Valley Pump Station, in its first full year of operation (1999) delivered 915 acre feet of surface water into the SBGWMA, replacing a large quantity of groundwater diversions. In year 2000, Micron will replace ground water with surface water for landscape irrigation and some industrial uses at its facility. Micron hopes to initiate demonstration of their aquifer recharge and recovery project early in year 2001.

Micron hopes to continue to utilize its existing groundwater rights and on-site wells to meet the future needs of its manufacturing operations. To the extent practical, this source of water supply will be supplemented with surface water from the Boise River, reclaimed wastewater, municipal supplies, and recharged ground water.

3. Zoning and Other Conservation Activities

Earlier this year, the company completed a three-year project to rezone the Boise plant site to gain legal recognition for and authority to install drought tolerant landscaping. The company expects considerable savings of water from reduced watering requirements.

Throughout the Boise facility, the company employs low flow shower heads, faucets, and toilets to further conserve water.

Most of the water that cannot be reclaimed or resused for production or irrigation is returned to the Boise River via city pipelines and treatment works. The company has spent over $6 Million to pretreat these waters prior to discharge to the city system.

United Water Idaho Inc.

Ground Water Management Plan - Executive Summary

Southeast Boise Ground Water Management Area

Since the Department of Water Resources established the Southeast Boise Ground Water Management Area in 1994, United Water has actively participated in the Southeast Boise Ground Water Management Area Advisory Committee supplying funding and in-kind services for ground water monitoring and water right dispute resolution. It has been United Water Idaho's intent to reduce the historical amount of water it withdrew from the Boise Fan aquifer underlying the 17 square miles within the management area boundary.

The goal of reducing the amount of water United Water withdraws from the aquifer has been achieved by taking two large bore production wells (Gowen Well and Oregon Trail Well) out of service and transferring ownership of the facilities to Micron Technology. This was accomplished through a cooperative agreement with Micron Technology in which two replacement wells were drilled outside of the management area, a three million gallon capacity storage reservoir was constructed, and approximately seven miles of transmission main was installed to convey water to the Southeast Boise Ground Water Management Area. The project also connected an existing United Water Idaho production well to the distribution system providing potable water service and fire protection to the homes and businesses located within the ground water management area. Since August of 1997, no water has been withdrawn from the Gowen or Oregon Trail wells. Based on historical production levels, this has reduced the amount of water withdrawn from the aquifer by 800 to 900 million gallons per year.

United Water Idaho funded a cooperative program with Boise State University to maintain continuous water level monitoring of two key observation wells within the management area since 1991. This nine year program documented the need for the management area and has shown the positive effects of water management in the area through recovering water levels in the observation wells. United Water Idaho continues to provide water level monitoring data from five supply wells located in, or in the area surrounding, the Southeast Boise Ground Water Management Area.

Additionally, United Water Idaho has partnered with Micron Technology, J. R. Simplot Company and Surprise Valley Homeowners Association in the construction of a surface water intake structure and pump station on the Boise River. Assuming sufficient surface water rights can be obtained, United Water will use its portion of the facility as a raw water supply for a future water treatment plant to be located within the ground water management area. United Water anticipates construction of the treatment plant to occur within three to five years; this will reduce the area's dependence on ground water currently being conveyed into the management area and provide for future domestic use and fire protection.

United Water has implemented an aquifer storage and recovery project in west Boise, outside of the management area. In the future, United Water expects to be able to apply the information gained from the west Boise project to a project within the management area. This may be accomplished alone or in a partnership with other water users within the management area.

United Water intends to continue to supply potable water and fire protection to the existing residents of the area and provide potable water and fire protection to future growth within the management area and beyond. This will require use of our existing groundwater sources, present and future surface water sources, as well as aquifer storage and recovery.

United Water intends to continue to play an active role in the Southeast Boise Ground Water Management Area Advisory Committee stressing continued vigilance regarding ground water contamination, review of the management area boundaries, and establishment of a reasonable water level within the management area.