Randall C. Budge, ISB #1949
Candice M. McHugh, ISB #5908
RACINE OLSON NYE
BUDGE & BAILEY, CHARTERED
101 S. Capitol Blvd., Suite 208
Boise, Idaho 83702
Telephone: (208) 395-0011
rcb@racinelaw.net
cmm@racinelaw.net

BEFORE DEPARTMENT OF WATER RESOURCES

STATE OF IDAHO

IN THE MATTER OF PETITION TO AMEND RULE 50.01 OF THE CONJUNCTIVE MANAGEMENT RULES (37.03.11)	**IGWA'S COMMENTS ON PETITION TO AMEND CM RULE 50**

The Idaho Ground Water Appropriator's, Inc. ("IGWA") for and on behalf of its members hereby submit these comments to *Clear Springs Foods, Inc.'s Petition to Amend Rule 50* ("*Petition to Amend Rule 50*") and in accordance with the Department's deadline to submit comments by May 31, 2011.

INTRODUCTION

Clear Springs Foods, Inc. filed its *Petition to Amend Rule 50* with the Idaho Department of Water Resources ("IDWR" or "Department") on November 10, 2010, seeking to amend Rule 50.01 of the Rules for Conjunctive Management of Surface and Ground Water Resources, IDAPA 37.03.11 ("CM Rules"). IDWR published notice on the negotiated rulemaking on February 2, 2011, and held a public meeting on March 9, 2011. Following a second meeting held on April 6, 2011, IDWR set a comment deadline of May 31, 2011.

PROPOSED RULE 50 BOUNDARY CHANGE

The *Petition to Amend Rule 50* seeks to adopt the boundary for the Eastern Snake Plain Aquifer Model ("ESPAM") as the CM Rule 50.01 area of common ground water supply for the ESPA. The *Petition to Amend Rule 50* requests CM Rule 50.01 be changed as follows:

> The area of coverage of this rule is the aquifer underlying the Eastern Snake River Plain as the aquifer is defined in the report, ~~Hydrology and Digital Simulation of the Regional Aquifer System, Eastern Snake River Plain, Idaho, USGS Professional Paper 1408-F, 1992 excluding areas south of the Snake River and west of the line separating Sections 34 and 35, Township 10 South, Range 20 East, Boise Meridian~~ Enhanced Snake Plain Aquifer Model Final Report dated July 2006, Idaho Water Resources Research Institute Technical Report 06-002.

The proposed change would expand the area considered to be the area of common groundwater supply for the ESPA. Generally, the area would be increased to include land on the Rexburg Bench, in the Big and Little Lost River valleys, the Bliss-King Hill area, the Oakley Fan and the lower portions of tributary valleys south of American Falls Reservoir.

The current CM Rule 50.01 area appears to stem from the USGS' Regional Aquifer System Analysis (RASA) study that began in 1979, specifically studies done by R.L. Whitehead (1986, 1992) and S.P. Garabedian (1992). In the introductory section of his 1992 report, Whitehead states as follows:

> Areal extent of the Snake River Plain, as defined in this study, is based on geology and topography. Generally, the boundary of the plain is at the land-surface contact between the Tertiary and older rocks that border the plain and the Quaternary sedimentary and volcanic rocks that underlie the plain. In some areas an arbitrary boundary was selected on the basis of topographic relief, even though the younger rocks extend beyond the boundary.

Thus, the current CM Rule 50.01 defines its boundary based on rigorous analysis of geologic data. In contrast, the ESPAM boundary was established primarily for practical reasons: 1) to include irrigated lands left out of the domains of prior aquifer models, including the model developed in the USGS RASA study, and 2) to simplify definition of boundary conditions, particularly tributary underflows, for the ESPAM.

COMMENTS

IGWA opposes the proposed amendment to CM Rule 50.01 for the following reasons:

1) As depicted on the attached map, entitled, *Generalized Stratigraphy of the Eastern Snake Plain Showing Selected Boundaries*, the current CM Rule 50.01 area of common groundwater supply for the ESPA is properly established based upon rigorous geologic analysis and evaluation. IGWA supports the current definition of the area of common groundwater supply based upon geologic information and opposes a definition that incorporates areas that have not undergone thorough analysis of their similarity and relationship to the area of common groundwater supply.

2) Geologic evidence shows that the area located in the Madison Ground Water District proposed to now be included in the area of common groundwater supply for the ESPA differs from the geology within the regional basalt aquifer. Based on this evidence, these areas should remain outside the CM Rule 50.01 boundary.

3) Geologic and other evidence also shows that wells in portions of the area located in the Aberdeen-American Falls Ground Water District that are now proposed to be included in the area of common ground water supply may not be accessing the regional basalt aquifer. There is also evidence that shows water levels in the area do not exhibit the common behavior that would be expected of wells in the regional basalt aquifer. Based on this evidence, these areas should remain outside the CM Rule 50.01 boundary.

4) Finally, geologic and other evidence also shows that portions of the region located in the Southwest Irrigation District area and Goose Creek Irrigation District area that are now proposed to be included in the area of common groundwater supply show very complex geology and may not be substantially connected to the regional basalt aquifer. Based on this evidence, these areas should remain outside the CM Rule 50.01.

CONCLUSION

Based on the foregoing, IGWA requests that the Department deny the *Petition to Amend Rule 50.*

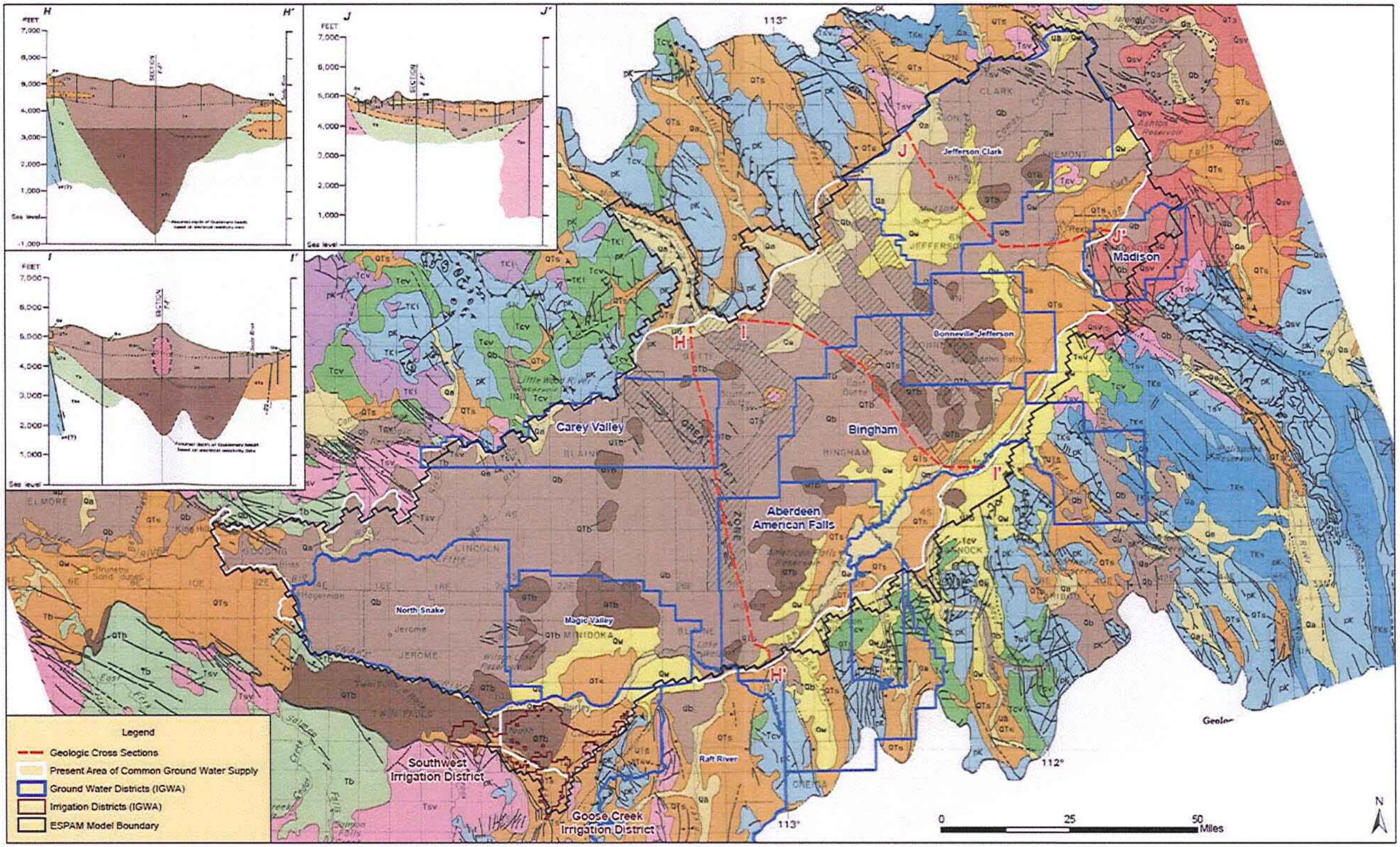
DATED this 27th day of May, 2011.

RACINE, OLSON, NYE, BUDGE & BAILEY, CHARTERED

By: Candice McHugh

RANDALL C. BUDGE
CANDICE M. McHUGH
Attorneys for IGWA

Generalized Stratigraphy of the Eastern Snake Plain Showing Selected Boundaries (adapted from Whitehead, 1992)



EXPLANATION AND DESCRIPTION OF MAP UNITS

		Rock unit and map symbol	Physical characteristics and areal distribution	Water-yielding characteristics	Known thickness (ft)
QUATERNARY	Holocene	Alluvium Qa	Chiefly flood-plain deposits. May contain some glacial deposits and colluvium in the uplands. Clay, silt, sand, gravel, and boulders; unconsolidated to well compacted; unstratified to well stratified. Alluvium floors the tributary valleys and flood plains of the main streams and forms fans at mouths of some valleys.	Hydraulic conductivity variable, moderately high in coarse-grained deposits. Sandy and gravelly alluvium yields moderate to large quantities of water to wells. Transmissivity ranges from about 16,000 to more than 160,000 ft²/d (Nace and others, 1957, p. 55). Specific capacities commonly range from 20 to 100 (gal/min)/ft. An important aquifer.	<250 (?)
QUATERNARY	Holocene	Windblown deposits Qw	Chiefly windblown deposits, include some lake and glacial-flood deposits; mantle much of the lowland areas; include active sand dunes in places, generally in northern Owyhee County and in northern part of eastern plain.	Generally above the water table.	<100 (?)
QUATERNARY	Pleistocene	Younger basalt Qb	Olivine basalt, dense to vesicular, aphanitic to porphyritic; irregular to columnar jointing; thickness of individual flows variable, but averages about 20-25 ft (Mundorff and others, 1964, p. 143). Includes beds of basaltic cinders, rubbly basalt, and interflow sedimentary rocks. Chiefly basalt of the Snake River Group. Crops out in much of Snake River Plain; mantled in many places with alluvium, terrace gravel, and windblown deposits.	Hydraulic conductivity variable but extremely high in places; formational conductivity high because of jointing and rubbly contacts between numerous flows; rock conductivity low. Unit constitutes the Snake River Plain aquifer east of King Hill (Mundorff and others, 1964, p. 8). Specific capacities of 500-1,000 (gal/min)/ft are common. Transmissivity determined from aquifer tests ranges from about 100,000 to more than 1,000,000 ft²/d in much of the Snake River Plain (Mundorff and others, 1964, p. 159; Nace and others, 1957, p. 55).	>4,000 Includes QTb below
QUATERNARY	Pleistocene	Younger silicic volcanic rocks Qsv	Rhyolitic ash-flow tuff, occurs as thick flows and blankets of welded tuff with associated fine- to coarse-grained ash and pumice beds. Include rocks of upper part of the Yellowstone Group and Plateau Rhyolite. Mantle much of Yellowstone Plateau in northeastern part of basin.	Hydraulic conductivity generally unknown but may be high as indicated by rapid percolation of surface runoff (Whitehead, 1978, p. 10). Tightly welded in places. Specific capacities range from 2 to 60 (gal/min)/ft. An important aquifer locally.	>3,000
QUATERNARY AND TERTIARY	Pleistocene, Pliocene, and Miocene	Basalt QTb	Olivine basalt similar to Qb above. Included as part of the Snake River Plain aquifer. Tentatively assigned to upper part of Idaho Group. Exposures generally have well-developed soil cover.	Hydraulic conductivity slightly lower than Qb above. It decreases with increasing age.	Included with Qb above
QUATERNARY AND TERTIARY	Pleistocene, Pliocene, and Miocene	Older alluvium QTs	Subaerial and lake deposits of clay, silt, sand, and gravel. Compacted to poorly consolidated; poorly to well stratified; beds somewhat lenticular and intertongued; contains beds of ash and intercalated basalt. Widespread tuffaceous sedimentary rocks and tuff in western part of basin. Includes upper part of Idaho Group and Payette and Salt Lake Formations. In places, underlies the older basalt (Tb).	Hydraulic conductivity highly variable; generally contains water under confined conditions; yields to wells range from a few gallons per minute from clayey beds to several hundred gallons per minute from sand and gravel. Specific capacities range from 5 to 60 (gal/min)/ft. In places, an important aquifer.	>5,500
TERTIARY	Pliocene and Miocene	Older basalt Tb	Flood-type basalt, dense, columnar jointing in many places; folded and faulted (except for the Banbury Basalt); may include some rhyolitic and andesitic rocks; some flows of vesicular olivine basalt (Banbury), interbedded locally with minor amounts of stream and lake deposits. Includes Columbia River Basalt Group or equivalent (Miocene) and the Banbury Basalt of the Idaho Group (Miocene).	Hydraulic conductivity variable, may be high in places. Locally yields small to moderate amounts of water to wells from fractures and faults; some interbedded zones of sand and silt yield good supplies of water under confined or unconfined conditions. Specific capacities range from 3 to 900 (gal/min)/ft. An important aquifer.	>7,000 (The Banbury Basalt is generally <1,000. The older basalt may be >7,000 in the western plain)
TERTIARY	Pliocene to Oligocene	Older silicic volcanic rocks Tsv	Rhyolitic, latitic, and andesitic rocks, massive and dense; jointing ranges from platy to columnar; occur as thick flows and blankets of welded tuff with associated fine- to coarse-grained ash and pumice beds (commonly reworked by flowing water) and as clay, silt, sand and gravel; locally folded, tilted, and faulted. Include Idavada Volcanics.	Hydraulic conductivity highly variable. Joints and fault zones in flows and welded tuff and interstices in coarse-grained ash, sand, and gravel yield small to moderate, and rarely large, amounts of water to wells. Commonly contain thermal water under confined conditions. Specific capacities range from 1 to >2,000 (gal/min)/ft and are generally <400 (gal/min)/ft. An important aquifer.	>3,000
TERTIARY	Eocene and Paleocene	Volcanic rocks, undifferentiated Tcv	Extrusive rocks range in composition from rhyolite to basalt. Include welded tuff, pyroclastic, tuffaceous, and other clastic and sedimentary rocks. Chiefly Challis Volcanics; mainly crop out in mountains and foothills north of the eastern plain; may include some intrusive rocks.	Hydraulic conductivity generally low. Little information available on yields to wells. May be an important aquifer locally for domestic and stock use.	>5,000
TERTIARY AND CRETACEOUS		Sedimentary rocks, undifferentiated TKs	Undifferentiated shale, siltstone, sandstone, and freshwater limestone of Tertiary and Cretaceous age. Younger rocks composed chiefly of breccia, conglomerate, and sandstone. Exposed in eastern part of basin. May include a few small outcrops of Jurassic age.	Hydraulic conductivity generally low. Little information available on yields to wells; weathered zones and fractures may yield moderate quantities of water to wells; large yields may be obtained in places. May be an important aquifer locally.	>10,000
TERTIARY AND CRETACEOUS		Intrusive rocks TKi	Chiefly granitic rocks of the Idaho batholith; include older and younger crystalline rocks; crop out in a few places south of Snake River in Idaho and northern Nevada.	Hydraulic conductivity generally low. Faults, fractures, and weathered zones may yield small quantities of water to wells. Not an important aquifer.	Unknown
PRE-CRETACEOUS		Pre-Cretaceous rocks, undifferentiated pK	Well-indurated sedimentary and metamorphic rocks that have been folded, faulted, and intruded by igneous rocks. Crop out in mountainous areas. Include extrusive rocks of Permian and Triassic age in western part of basin. May include Cretaceous or younger sedimentary rocks.	Hydraulic conductivity low. Faults, fractures, and weathered zones may yield small quantities of water to wells. Little information available on yields to wells. Not an important aquifer.	>12,000