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DEPARTMENT OF
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BEFORE THE DEPARTMENT OF WATER RESOURCES
OF THE STATE OF IDAHO

IN THE MATTER OF THE PETITION
DELIVERY CALL OF RANGEN, INC.'S
WATER RIGHT NOS. 36-02551 & 36-
7694

Docket No. CM-DC-2011-004

**RANGEN, INC.'S MOTION IN
LIMINE TO EXCLUDE
TESTIMONY OF JOHN S.
CHURCH AND REQUEST FOR
HEARING**

Petitioner Rangen, Inc. ("Rangen"), by and through its attorneys, hereby moves the Director of the Idaho Department of Water Resources ("Department" or "IDWR"), the hearing officer for the above-captioned matter, to enter an Order pursuant to IDAPA 37.01.01.600 prohibiting the Idaho Ground Water Appropriators, Inc. ("IGWA") from offering any testimony from Economist John S. Church at the hearing of this matter

**RANGEN'S MOTION IN LIMINE TO EXCLUDE TESTIMONY OF JOHN S. CHURCH
AND REQUEST FOR HEARING - 1**

because his opinions are irrelevant and inadmissible on constitutional or statutory grounds. Alternatively, Rangen requests that it be allowed to designate an economist to rebut Church's testimony. Rangen requests that a hearing on this Motion be conducted. As grounds, Rangen states the following:

I. ISSUE PRESENTED

1. The issue to be decided is whether the testimony of Economist John S. Church should be excluded pursuant to IDAPA 37.01.01.600 ("Rule 600").

II. LEGAL STANDARD

2. Rule 600 of IDWR's Rules of Procedure gives the Director the discretion to exclude evidence at a hearing. Rule 600 states in relevant part: "The presiding officer, with or without objection, may exclude evidence that is *irrelevant*, unduly repetitious, *inadmissible on constitutional or statutory grounds*, or on the basis of any evidentiary privilege provided by statute or recognized in the courts of Idaho." IDAPA 37.01.01.600 (emphasis added).

III. ANALYSIS

3. IGWA recently disclosed that it intends to call John S. Church as an expert witness at the hearing of this matter. See IGWA's Expert Witness Disclosure dated June 27, 2012.
4. John S. Church works as an independent economic consultant. See Expert Report of John Church, ¶ 1 submitted to the Director in connection with a delivery call made by A & B Irrigation District, American Falls Reservoir District #2, Burley Irrigation District, Milner Irrigation District, Minidoka Irrigation District, North Side Canal Company, and

Twin Falls Canal Company (attached hereto as Exhibit 1 and hereinafter referred to as “Church Report”).

5. Although Church’s opinions in this case have not yet been disclosed, Church’s economic work and opinions are well known to the Department and the parties. IGWA previously hired Church to serve as an expert in connection with a delivery call made by A & B Irrigation District, American Falls Reservoir District #2, Burley Irrigation District, Milner Irrigation District, Minidoka Irrigation District, North Side Canal Company, and Twin Falls Canal Company (hereinafter referred to as “Surface Water Coalition Call”) and in connection with the delivery calls made by Clear Springs Foods, Inc. and Blue Lakes Trout Farm, Inc. (hereinafter referred to as “Clear Springs/Blue Lakes Call”). See p. 5, lines 11-18 of Deposition of John Church dated November 15, 2007 attached hereto as Exhibit 2 (hereinafter referred to “Church Depo.”).

6. Church’s role as an economist in the Surface Water Coalition Call and Clear Springs/Blue Lakes Call was to evaluate the economic impacts of the water calls upon the economy of Idaho and south central Idaho and provide testimony concerning those impacts. See p. 5, line 24 – p. 6, line 7 of Church Depo. See also ¶ 5 of Church Report.

7. IGWA took the position that Church’s testimony was relevant to the delivery calls because a senior’s water delivery call must be rejected pursuant to the “full economic development” provision of Idaho Code § 42-226 if curtailment would result in substantial economic harm. See p. 44 of Groundwater Users’ Opening Brief submitted to Idaho Supreme Court in connection with Clear Springs/Blue Lakes Call (excerpts attached hereto as Exhibit 3).

8. Section 42-226 of the Idaho Code states in relevant part:

The traditional policy of the state of Idaho, requiring the water resources of this state to be devoted to beneficial use in reasonable amounts through appropriation, is affirmed with respect to the ground water resources of this state as said term is hereinafter defined and, while the doctrine of “first in time is first in right” is recognized, a reasonable exercise of this right shall not block *full economic development of underground water resources*.

I.C. § 42-226 (emphasis added).

9. IGWA argued in the Clear Springs/Blue Lakes Call that:

The Ground Water Act’s stated policy goal of “full economic development” necessarily gives relevance to and requires the Director to consider the economic effect of curtailment when responding to delivery calls against groundwater rights. If curtailment will result in substantial economic harm, the senior’s water delivery call must be rejected. I.C. § 42-226.

See p. 44 of Groundwater Users’ Opening Brief submitted to Idaho Supreme Court in connection with Clear Springs/Clear Lakes Call (excerpts attached hereto as Exhibit 3).

10. The Idaho Supreme Court rejected IGWA’s interpretation of I.C. § 42-226 in Clear Springs Foods, Inc. v. Spackman, 150 Idaho 790, 252 P.3d 71 (2011).

11. First, the Supreme Court made it clear that I.C. § 42-226 has no application in delivery calls between senior spring users like Rangen and junior ground water users.

See In re Delivery Call of A&B Irrigation District, Docket Nos. 28403/38421/38422 (August 2, 2012), p. 12 (discussing holding of Clear Springs Foods, Inc. v. Spackman, 150 Idaho 790, 808, 252 P.3d 71, 89 (2011)).

12. The Spackman Court also held that:

The reference to “full economic development of underground water resources” [as used in I.C. § 42-226] does not mean that the groundwater appropriator who is producing the greater economic benefit or would suffer the greater economic loss is entitled to the use of the ground water when there is insufficient water for both the senior and junior appropriators. If that were the basis for allocating water in

times of shortage, then water would be allocated among farmers based upon the market prices of their respective crops and their expected yields.

Spackman, 150 Idaho at 802, 252 P.3d at 83 (emphasis added).

13. The Spackman Court explained that the Idaho legislature enacted I.C. § 42-226 in 1951. 150 Idaho at 801, 252 P.3d at 82. At the time it was enacted, the statute read as follows:

It is hereby declared that the traditional policy of the state of Idaho, requiring the water resources of this state to be devoted to beneficial use in reasonable amounts through appropriation, is affirmed with respect to the ground water resources of this state as said term is hereinafter defined.

Id. (quoting I.C. § 42-226 as originally enacted).

14. In 1953, the Idaho legislature added the “full economic development” language to the end of the first sentence of § 42-226. Id. The language was added to change the Supreme Court’s prior holding in Noh v. Stoner, 53 Idaho 26 P.2d 1112 (1933). Spackman, 150 Idaho at 83, 252 P.3d at 83. In Noh, the Supreme Court held that a prior appropriator of ground water was protected in his historic pumping level. Id. The Spackman Court explained that: “The 1953 amendment recognized that in order for there to be full economic development of underground water resources, a senior appropriator with a shallow well should not be able to block subsequent appropriators of groundwater. To prevent that from occurring, the senior appropriator is protected only ‘in the maintenance of reasonable ground water pumping levels as may be established by the state reclamation engineer.’” Id. (quoting I.C. § 42-226).

15. The Supreme Court unequivocally held in Spackman that: “*A delivery call cannot be denied on the ground that curtailment of junior appropriators would result in substantial economic harm.*” 150 Idaho at 803, 252 P.3d at 84 (emphasis added).

16. The Spackman Court reasoned that adopting IGWA's position would be contrary to the provision in Idaho Code, § 42-233a which states:

The director, upon determination that the ground water supply is insufficient to meet the demands of water rights within all or portions of a critical ground water area, shall order those water right holders *on a time priority basis*, within the area determined by the director, *to cease or reduce withdrawal of water* until such time as the director determines there is sufficient ground water.

Id. (discussing I.C. § 42-233a) (emphasis in original).

17. The Court also held that IGWA's position is contrary to Article XV, § 3, of the Idaho Constitution which states that: "Priority of appropriations shall give the better right as between those using the water" Id.

18. The Spackman Court went on to explain that IGWA's "full economic development" argument was inconsistent with the definition of "Full Economic Development of Underground Water Resources" found in the Department's Conjunctive Management Rules. Id. (discussing IDAPA 37.03.11.010.07). The Department defines "Full Economic Development of Underground Water Resources" as:

The diversion and use of water from a ground water source for beneficial uses in the public interest at a rate that does not exceed the reasonably anticipated average rate of future natural recharge, *in a manner that does not result in material injury to senior-priority surface or ground water rights*, and that furthers the principle of reasonable use of surface and ground water as set forth in Rule 42.

IDAPA 37.03.11.010.07 (emphasis added).

19. The Supreme Court also held that IGWA's position was contrary to the State Water Plan. One of the requirements of the State Water Plan is that: "[e]xisting rights, established duties, and the relative priorities of water established in article XV, section 3

of the constitution of the state of Idaho shall be protected and preserved.” Id. (citing I.C. §42-1734A(a)).

20. The Spackman decision makes it clear that the economic impact arguments made by IGWA in past water delivery call cases are without merit and should not be advanced in this case. Church’s testimony concerning possible economic impacts caused by a curtailment are contrary to Article XV, § 3 of the Idaho Constitution and violate the mandates of I.C. § 42-233a, Conjunctive Management Rule 37.03.11.010.07 and the State Water Plan (I.C. §42-1734A(a)).

21. Moreover, Church’s testimony concerning any possible economic impacts caused by a curtailment does not have any tendency to make the existence of any fact that is of consequence in this delivery call more or less probable than it would be without his testimony. See I.R.E. 401 (“Relevant Evidence” means evidence having any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence). As such, Church’s testimony is irrelevant and should be excluded pursuant to Rule 600.

22. The bottom line is that:

In making a determination of whether or not to regulate juniors, the Director is required to evaluate whether the quantity [of water] available meets or exceeds the quantity the senior can put to beneficial use. ***If the Director regulates juniors to satisfy the senior’s decreed quantity there is no risk of injury to the senior. However, if the Director regulates juniors to satisfy a quantity less than decreed, there is risk to the senior that the Director’s determination is incorrect. There is no remedy for the senior if the Director’s determination turns out to be in error and the senior comes up short of water during the irrigation season.***

See In re Delivery Call of A&B Irrigation District, Docket Nos. 28403/38421/38422 (August 2, 2012), p. 24 (quoting with approval the reasoning of the District Court)

(emphasis added). There is no place for the economic analysis advanced by IGWA, and, as such, Church's testimony should be excluded pursuant to Rule 600.

IV. RELIEF SOUGHT

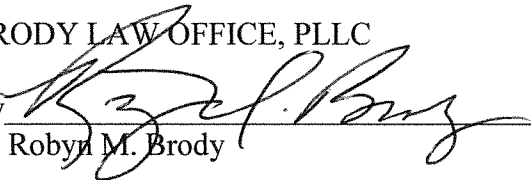
23. For the foregoing reasons, Rangen, Inc. respectfully requests that the Director enter an Order prohibiting IGWA from offering the testimony of Economist John S. Church at the trial of this matter. Alternatively, Rangen requests permission to identify an expert witness to rebut Church's testimony.

24. Rangen requests a hearing on this Motion.

DATED this 15th day of August, 2012.

BRODY LAW OFFICE, PLLC

By


Robyn M. Brody

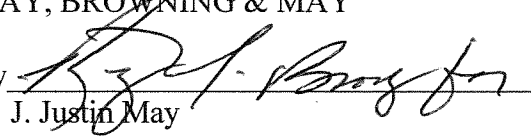
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CERTIFICATE OF SERVICE

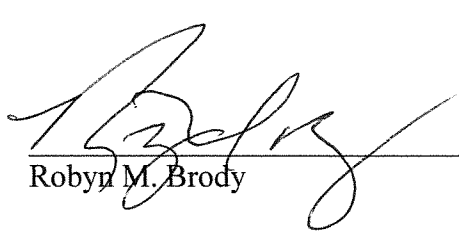
The undersigned, a resident attorney of the State of Idaho, hereby certifies that on the 15th day of August, 2012 she caused a true and correct copy of the foregoing document to be served upon the following by the indicated method:

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**BEFORE THE DEPARTMENT OF WATER RESOURCES
OF THE STATE OF IDAHO**

**IN THE MATTER OF THE REQUEST
FOR ADMINISTRATION IN WATER
DISTRICT 120 AND THE REQUEST
FOR DELIVERY OF WATER TO
SENIOR SURFACE WATER RIGHTS BY
A & B IRRIGATION DISTRICT,
AMERICAN FALLS RESERVOIR
DISTRICT #2, BURLEY IRRIGATION
DISTRICT, MILNER IRRIGATION
DISTRICT, MINIDOKA IRRIGATION
DISTRICT, NORTH SIDE CANAL
COMPANY, and TWIN FALLS CANAL
COMPANY**

EXPERT REPORT OF JOHN CHURCH

1. I am president of Idaho Economics, an economic consulting firm located in Boise, Idaho. The firm's mailing address is P.O. 45694, Boise, Idaho 83711. I am an independent economic consultant and a visiting assistant professor in the Economics Department at Boise State University. I have a Bachelor of Science degree in civil engineering from the University of Washington, a Bachelor of Business Administration degree from Boise State University, and Master of Science degree in economics from the University of Idaho. Prior to becoming an economic consultant I was corporate economist for Idaho Power Company in Boise, Idaho.

2. I have 17 years of professional experience at Idaho Power Company as corporate economist and 8 years of experience as an independent economic consultant. I have experience in building economic models and performing economic impact analysis studies. I have constructed and maintain a long-term economic forecasting model for the purpose of forecasting economic activity and demographic characteristics of the State of

EXPERT REPORT OF JOHN CHURCH—I



Idaho and each of Idaho's forty-four counties. A significant portion of this forecasting and analysis concerns Idaho's agricultural industry and the outlook for agricultural products. The output of this economic forecasting model is regularly used by various clients around the state of Idaho for their long-term business and resource planning needs. In addition, I have experience in the economic valuation of long-term resource purchase contracts, the economic evaluation of decision alternatives, economic modeling of local area impacts resulting from transportation improvement projects, and the economic modeling and forecasting of long-term demand and supply for elementary and secondary education teachers. I often am asked by the media and various organizations to comment on or evaluate economic trends and developments in Idaho. I have served as an expert witness on these and related subjects on many occasions.

3. I have prepared economic impact studies for the Idaho National Engineering and Environmental Laboratory (now the Idaho National Laboratory), resorts, planned communities, location decisions by manufacturing, utility, and service industry firms, expansion decisions by manufacturing firms. For many economic impact studies I have also prepared fiscal impact studies for site or regulatory approval. I have prepared and presented sworn testimony before state regulatory authorities, legislative committees, and to state and federal courts.

4. I have reviewed numerous materials pertaining to the current controversies between holders of surface water rights for irrigation and holders of groundwater rights for irrigation and other purposes diverted from the Eastern Snake Plain Aquifer ("ESPA") in areas that are tributary to the Snake River upstream from Milner Dam. These materials include, among others:

- The January 14, 2005 letter to the Director, Idaho Department of Water Resources ("IDWR" or "Department") from the seven surface water irrigation entities calling themselves the Surface Water Coalition ("Coalition") initiating the Delivery Call action in which this report is being submitted;
- The Director's February 14, 2005 and May 2, 2005 Orders in this case;
- Three economic studies (discussed below) evaluating the effects of shutting off ground water wells as generally requested by the Surface Water Coalition, as well as several sources of data concerning income, jobs, local and state tax collection, and Idaho's agricultural economy;
- The September 15, 2004 *ESPA Conceptual Settlement Framework*, a/k/a the "Strawman Proposal" pertaining to various aquifer management measures;
- The proposed *Ground Water Districts' Mitigation Plan for the American Falls Reach of the Snake River* dated February 8, 2005 and submitted by six ground water districts and one irrigation district whose members rely on ESPA ground water (the "Ground Water Districts");

- Dr. Charles Brendecke's March 23, 2005 affidavit and accompanying materials submitted to IDWR pertaining to the Ground Water Districts' proposed mitigation plan;
- The Coalition's *Joint Response to Director's February 14, 2005 Request for Information* dated March 15, 2005, and its *Supplemental Response to Director's Information Request* dated April 15, 2005.

5. The purpose of this Report is to evaluate certain questions regarding the economic implications of groundwater pumping as it may have affected the water supplies to certain surface water diverters who use such water for irrigation of commercial agricultural crops, and the economic effects of shut-offs of groundwater wells as proposed by these surface water diverters in the present delivery call before the Department. All opinions in this report are based on my training, experience, and expertise, including my reliance on data, reports, and methods that are reliable and regularly relied upon by experts in my field.

6. I have previously provided, in another matter before the Department, my March 23, 2005 affidavit discussing three economic studies addressing alleged effects on various groups of water users resulting from ground water use, or curtailment of ground water pumping. My affidavit is attached to this report as Exhibit A and is incorporated by this reference. Attached to the affidavit are the three economic studies referenced above.

7. Of particular interest to me in preparing this report is one of these studies, that was written by Joel R. Hamilton, Ph.D., *Economic Importance of ESRPA-Dependent Springflow to the Economy of Idaho* (December 2, 2004) (the "Hamilton Study"). While the Hamilton Study is addressed in my attached affidavit, further comment about it is appropriate here.

8. The Hamilton Study attempts to describe: 1) the economic value of ESPA spring outflows, both in the Thousand Springs reach (Water District 130) and in the American Falls Reach (Water District 120), and 2) the economic damage that has occurred as a result of reduced spring flows in these areas. The Hamilton Study also focuses significant attention on the economic benefits, in the form of the potential hydroelectric generation that additional spring flows would create assuming those flows stay instream through the entire hydropower system on the Snake River.

9. The Hamilton Study asserts that the economic impact of shutting off post-1961 or post-1949 groundwater rights would be minimal. The reasoning is that the economic damage that would result from a curtailment of junior groundwater rights is already accounted for in the economy by what Hamilton assumes to be an essentially equivalent economic harm being experienced by surface water irrigators through reduced water flows. In my opinion, this assumption is unsupported by facts. Nothing in the Coalition's *Joint Response to Director's February 14, 2005 Request for Information* in this case dated March 15, 2005, that I have reviewed would corroborate this assumption.

10. In making its calculations, the Hamilton Study assumes that ESPA groundwater withdrawals have had a direct effect on the availability of surface water supplies and have caused surface water users to forego production (and thus income) and to dry up irrigated lands. Hamilton Study at p. 2. The Hamilton Study's central premise, which it describes as "a theme . . . repeated several times," is that "senior water right holders already are experiencing the economic effect of a curtailed water supply." Hamilton Study at p.18. Again, the Hamilton Study provides no data to support this position.

11. Similarly, Hamilton claims that the surface water users have had to adapt and be creative to deal with what Hamilton infers are groundwater pumping-induced water shortages, and as a result they have incurred a significant expense to install sprinkler systems to make more efficient use of water. Hamilton then concludes that this is a cost imposed by groundwater pumping and already borne by the economy that is somehow balanced or offset by shutting down groundwater-irrigated acres. This is illogical. A rational economic view is that each water user would take, and has taken, those economically-appropriate measures to increase efficient use of the water resource and thereby maximize their own economic output per unit of water. Doing so would tend to maximize economic outputs from all water users that are dependent on the resource. If an irrigator can make his diversion or delivery system more efficient, doing so presumably provides its own economic benefits to that farmer, and in any event was not done in the context of a counterbalancing requirement that ground water rights be curtailed. Furthermore, it would in no way "repay" the surface irrigators for their investment to have the ground water users curtailed.

12. I have seen no documentation that any surface water users receiving their water supply from the Coalition members actually have dried up acreage in the recent drought of 2004, or in 2005. However, these assertions are again made without data or the specific information that would support this position.

13. There is no concrete evidence that surface-irrigated lands in Twin Falls, Jerome, and Gooding Counties have been taken out of irrigation due to lack of water since 1990, and there appears to be no correlation between water supply and farm production in these counties.

14. Idaho's agricultural industry is in troubling economic times. The potato industry and market reflects the economic tensions faced by many in Idaho agriculture today. As an economist, I often refer to statements of industry analysts and leaders, including those reported in the press, for data concerning economic trends, including those affecting the agricultural economy Idaho. My review of such statements has shown that there are several troubling factors facing south Idaho farmers, but I have not found any credible comment that lack of water is among these factors. Attached as Exhibits B and C to this report are articles by Gintautas Duncius of the Wall Street Journal and David Barboza of the New York Times that focus on the current economic problems facing Idaho potato growers. Additional articles which provide insight into the state of Idaho's agricultural industry are combined and attached here as Exhibit D.

15. The common causes that run throughout these descriptions of the troubled state of the potato industry in Idaho are:

- Lower consumer demand for potatoes and potato products nationwide,
- The domestic overproduction of potatoes has forced prices lower,
- Imported Canadian potatoes and potato products have displaced potato supplies that would have, absent the imports, been supplied by U.S. producers,
- Falling prices for potatoes in conjunction with increased input costs have reduced the profitability of many potato growers, and, lately, higher energy prices have increased costs to many of Idaho's potato processors.
- However, the one thing that was not mentioned throughout this catalogue of concerns was any alleged inadequacy in water supplies. Likewise, I have not been able to find specific documented evidence that water supply has been a problem in Idaho's agricultural economy in the period from 1990 to the present.

16. In my opinion, economic forces unrelated to water supply are the major determinates of the state of Idaho's agricultural economy.

17. Over the past ten years agricultural crop producers in South Central Idaho have been facing the increasing economic pressure of very small average annual increases in the price of the agricultural commodity that they produce, and therefore slow growth in the revenues that they receive, while at the same time experiencing a seemingly unrelenting increase in the price of inputs. Energy costs, fertilizer costs, seed costs, the cost of labor and even property taxes are increasing at a faster rate than the price of the agricultural commodity that they produce.

18. Exhibit E provides the background data and some greater detail on this predicament. The figures in Exhibit E are from Table CA-45 Farm Income and Expenses from the detailed local area personal income estimates made by the U.S. Department of Commerce's, Bureau of Economic Analysis. The tables shown in Exhibit E are for Gooding, Jerome, and Twin Falls counties (combined and individually) for the years 1980, 1985, and for the period 1990 through 2003.

19. Pages 1 and 2 represent the combination of the figures from all three counties (Gooding, Jerome, and Twin Falls). Within those tables Line 3 depicts the annual revenues (in current year, or nominal dollars) received by farms from the sale of agricultural crops. Lines 10, 11, and 12 of the table represent the annual expenditures by all farms on three major categories of farm inputs -- seed purchases, fertilizer purchases, and the cost of petroleum products purchased.

20. The annual average rate of increase in the revenues received by the agricultural crop producers in these three counties versus the annual average increase in the cost of the three input categories highlighted is truly reflective of the cost squeeze that

many in Idaho agricultural production are faced with today. Since 1990 through 2003 the annual average increase in the revenues received by crop producers from the sale of their production has increased at an annual average rate of 0.8 percent per year.

21. On the other hand, the total annual expenditures for seed purchases increased at an annual average rate of 4.7 percent per year over the 1990 to 2003 period. Total expenditures on fertilizer increased at an annual average rate of 5.1 percent per year while petroleum product purchases increased at a 3.1 percent annual rate over the 1990 to 2003 period.

22. The growth in the crop producers' revenues did not even keep up with the overall rate of price inflation in the economy. The Consumer Price Index for All Urban Consumers increased at an annual average rate of 2.7 percent per year over the same 1990 to 2003 period. This means that not only is the farmer in these three counties being squeezed by his input prices becoming a larger and larger share of his total revenues, he is also finding that revenue he does receive cannot buy him the same basket of goods and services that it once did. Every year he is falling further and further behind in this economic climate. I have been unable to discern any part of this equation that is specifically attributable to the condition or amount of surface water supplies.

23. Falling crop prices have led the potato producers to voluntarily undertake a program of reducing the number of acres planted so as restrict the available supply and raise prices in the marketplace. (See Exhibit F) This strategy can be somewhat successful for Idaho's potato producers because the State has a very large share of the total national production, provided that the growers can hold to an agreement to restrict the acres planted. Doing so is feasible, in my opinion, because low potato prices already encourage growers to reduce their potato acres. Potato acres planted in Gooding, Jerome, and Twin Falls counties over the last decade were already on a slow decline (see Exhibit G).

24. Why don't the farmers switch to another crop, one with higher market prices and a greater potential to make a profit? At the moment there are no good choices. Wheat prices are lower than a few years ago (see Exhibit H), the price of beans has been falling for the last few years (see Exhibit I), and hay prices are essentially flat (see Exhibit J).

25. Prior to the 2005 irrigation season some persons were anticipating that shortages of surface water would cause dramatic crop losses. As reflected in the Director's May 2 Order in this case, in mid-April 2005 a series of interviews of County Agricultural Extension Agents in the Magic Valley counties was performed in an effort to assess the impact of the drought on crops irrigated from the Snake River in Gooding, Jerome, Lincoln, and Twin Falls counties. In general, it was reported that these interviews found that most growers, through the use of careful water management efforts, and some technological fixes when necessary, had not experienced any appreciable crop losses due to a lack of available water supplies. The 2004 crop production statistics from the National Agricultural Statistics Service (NASS) website at <http://www.usda.gov/nass/> back this up. The NASS 2004 crop production statistics for Twin Falls County show that potato production per acre harvested was at 435 hundredweight per acre, the highest in

over fifteen years. Similarly, yields per acre for other crops were also up from the previous year: Alfalfa Hay at 5.43 tons per acre was up nearly 6.9 percent over 2003 yields, Barley at 121.4 bushels per acre was up nearly 15.4 percent over 2003, and Wheat farmers also experienced a 4.8 percent increase in yield per acre in 2004 to 124.2 bushels. The 2004 average yield of 124.2 bushels of Wheat per acre in Twin Falls County was second only to its previous all time high average yield per acre of 127.8 bushels per acre.

26. Many who were interviewed anticipated that 2005 would be the year of severe water shortages and crop losses as great as 35 to 40 percent. However, they were making these speculations in April 2005—just before it continued to rain another 7 inches in the next 45 days.

27. What prospectively looked to some like a situation of potential, water-related modest economic losses in 2004 the statistics now show produced increased yields from the previous year. In a similar fashion, the Spring 2005 speculation about the magnitude of future economic losses is nothing more than speculation. A loss is not a loss until it is real. The figures do not indicate that such losses occurred in 2005.

28. With one possible exception, the majority of any perceived economic harm being experienced by the surface water users will not be eliminated by a curtailment of the groundwater irrigators. However, the economic effect on the groundwater irrigators would be dramatic and immediate. A shutting down of the groundwater irrigators pumps leaves no transition to a more efficient method, it leaves no possibility of salvaging a portion of a crop, nor does it leave an opportunity for the groundwater user to reallocate any remaining water supplies, or resort to storage, to lessen the harm.

29. The impact of a groundwater curtailment is also to likely have a similar economic impact on many of South Central Idaho's rural communities.

30. The Snyder Study, (attached to Exhibit A) which was commissioned by the Expanded Natural Resources Interim Committee of the Idaho Legislature in 2005, accurately estimates, in my opinion, the economic impact of a potential curtailment of ESPA groundwater supplies to groundwater irrigators and to Idaho's economy.

31. In the Snyder Study, Professors Snyder and Coupal used IMPLAN, a well-known and accepted economic impact model, to examine the relative economic gains and losses that would occur in Idaho's economy due to a curtailment of groundwater supplies to irrigators in the ESPA, with the resultant dry-up of irrigated farmland.

32. The Snyder Study evaluated two scenarios of groundwater well shut-offs. One would simulate shutting off irrigation wells with post-1961 water right priorities. The other evaluated a shut-off of post-1949 priorities. The Snyder Study specifically examined the economic impacts upon three major constituencies that would either receive economic benefit or endure economic damage from groundwater curtailment under these two scenarios. These were: a) the ESPA groundwater irrigators, b) the surface water users, and c) the aquaculture water users in the Thousand Springs area. Since we are, in this report, addressing only the effects of a potential groundwater supply

curtailment on groundwater and surface water users, the predicted impacts on the aquaculture industry are not discussed here.

33. The Snyder Study predicts that a curtailment of a large number of ESPA junior groundwater right holders beginning in the spring of any year would have a near-immediate economic impact in that year, and follow-on impacts in future years. To the extent that such a curtailment actually puts farms or other enterprises out of business permanently, the near-term impact also would become a long-term impact. I find the Snyder Study's methods and conclusions to be reasonable and supported by data and methods that are reliable and regularly relied upon by experts in my field.

34. However, the Snyder Study predicts that the economic changes that would be realized by the surface water users and the aquaculture industry are predicted to accumulate over relatively long periods of time. Furthermore:

The initial benefits of curtailment to the senior surface/spring water right holders will be much less than the amount predicted to occur at steady state. For example, as shown in Appendix A, the economic benefits in the form of gross sales to all senior surface/spring water rights holders is estimated to be only \$0.9 million in the first year of curtailment. The total value of output impact on ground water right holders, however, remains constant at a -\$211 million. Thus, in the first year of curtailment, the relative net economic impact is estimated to be in excess of -\$210 million. Snyder Study at xviii

35. On the other hand, the Snyder Study's predicted economic damages to the groundwater users who would be completely shut off under either of the scenarios would, in the first ten years and when measured in terms of the nominal dollar value of economic output, would be nearly 23 times larger than the predicted economic gains to the surface water users. In my opinion, this is a reasonable prediction of the magnitude of the difference in economic cost-benefit. I provided a chart of these relative effects with my affidavit, attached as Exhibit A. It accurately reflects the magnitude of harm and benefit.

36. In my opinion, a curtailment of groundwater irrigation in the magnitude of either of the Snyder Study scenarios would have an immediate, and large, negative economic impact on the economy of South Central Idaho and ultimately the State.

37. However, even assuming that South Central Idaho's surface-irrigated agricultural economy is suffering due to insufficient water supplies (which, again, is not indicated by any specific data) the slow accumulation of additional surface water supplies to the Coalition members, as shown by the Brendecke work, would not be enough to overcome the macroeconomic forces that have been troubling Idaho's agricultural economy over the last fourteen years in both wet and dry years.

38. However, one consequence of a widespread curtailment of groundwater pumping likely would be that thousands of acres of groundwater irrigated potatoes would be kept out of production, market supply would decrease, and the market price would

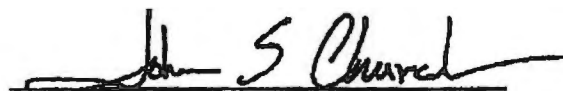
increase for those potato producers who remain in operation, such as the surface water users represented by the Coalition. This is the "exception" referred to above.

39. There are many factors that have an economic effect on the operations of the surface water user. Many of these are larger macroeconomic issues for which any curtailment of water supplies to those using groundwater irrigation sources will not be a remedy. A curtailment will not lower the price of fertilizers, seed, or fuels. It will not, with perhaps the one exception noted above, raise the agricultural product price and improve the surface water user's profitability. As other studies have shown, the economic damages to the overall economy will be immediate and substantial.

40. A widespread curtailment of ESPA groundwater users, such as the post-1961 priority curtailment described in the Snyder Study, would cause substantial, and likely permanent, harm to Idaho's economy that, in its first year alone, would overwhelm any possible long-term gain.

41. An approach that is consistent with state policies of optimizing or maximizing beneficial uses of the State's water resources consistent with full economic development of ground water within the ESPA would be to implement measures that can maximize economic benefits while phasing in any improvements in aquifer water levels that are designed to improve surface water supplies in amounts and at places shown by credible studies and data to relate to positive economic outcomes, and to take steps to minimize the effects of future droughts without causing the disruptions of groundwater curtailment and loss of farm-dependent economics. In my opinion, for any such program to adhere to the principal of maximizing economic development, it would have to keep ground water pumpers in business as irrigators.

Dated: December 30, 2005.


John S. Church

BEFORE THE DEPARTMENT OF WATER RESOURCES
OF THE STATE OF IDAHO

IN THE MATTER OF DISTRIBUTION OF WATER TO)
VARIOUS WATER RIGHTS HELD BY OR FOR THE)
BENEFIT OF A & B IRRIGATION DISTRICT, et al.,)

IN THE MATTER OF DISTRIBUTION OF WATER TO)
WATER RIGHT NOS. 36-02356A, 36-07210, AND)
36-07427)
(Blue Lakes Delivery Call))

COPY

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

DEPOSITION OF JOHN CHURCH

NOVEMBER 15, 2007

REPORTED BY:

JEFF LaMAR, C.S.R. No. 640

Notary Public

**PLAINTIFF'S
EXHIBIT**

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BEFORE THE DEPARTMENT OF WATER RESOURCES
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DEPOSITION OF JOHN CHURCH
NOVEMBER 15, 2007

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Notary Public

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1 THE DEPOSITION OF JOHN CHURCH was taken on
2 behalf of the American Falls Reservoir District #2
3 at the offices of Racine, Olson, Nye, Budge &
4 Bailey, Chartered, 101 South Capitol Boulevard,
5 Suite 200, Boise, Idaho, commencing at 8:10 a.m. on
6 November 15, 2007, before Jeff LaMar, Certified
7 Shorthand Reporter and Notary Public within and for
8 the State of Idaho, in the above-entitled matters.

APPEARANCES:

10 For American Falls Reservoir District #2:
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16 Company, Twin Falls Canal Company, A & B Irrigation
17 Company, Burley Irrigation Company, and Clear
18 Springs:
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23 Boise, Idaho 83701-2139
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25 ///

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1 JOHN CHURCH,
2 first duly sworn to tell the truth relating to said
3 cause, testified as follows:
4
5 EXAMINATION
6 BY MR. ARKOOSH:
7 Q. Mr. Church, my name is Tom Arkoosh. And
8 I represent the American Falls Reservoir District
9 No. 2.
10 A. Uh-huh.
11 Q. And this deposition is given in both the
12 surface water call and the Thousand Springs call.
13 And I guess we can stipulate, Counsel,
14 that we'll just have one transcript. And both
15 depositions are noticed for this time, so we'll just
16 take them together and put both captions on the face
17 of the deposition?
18 MS. McHUGH: Yeah, that's fine.
19 MR. ARKOOSH: Okay.
20 Q. Who are your employers in these calls?
21 A. Idaho Ground Water Users Association.
22 Q. In both calls?
23 A. In both calls, yes.
24 Q. Okay. And what was your charge? What
25 were you asked to do?

1 A. To evaluate the economic impacts of
2 these ground water calls upon the economy of Idaho
3 and south central Idaho, review the reports of
4 Snyder and Coupal and Hamilton and Hazen in terms of
5 the validity of their economic impact studies and
6 analyses, to offer my opinions as to what the
7 economic impacts may be.
8 Q. Okay. I see two different things, then,
9 Mr. Church: One is to review other people's
10 analyses, and the other thing is that -- were you to
11 do a separate independent analysis?
12 A. No, I didn't do a separate independent
13 analysis.
14 Q. So then the substantive material that
15 has led to your opinions is found in all of the
16 other reports that you just described?
17 A. A substantive amount of that is in those
18 reports that I've described. I did use some
19 supplemental materials that is attached to my
20 reports.
21 Q. Okay. And you were to evaluate the
22 economic impacts insofar as you did any independent
23 work through these reports and what other little
24 supplemental material you looked at and based on
25 your experience on Idaho and south central Idaho; is

1 that right?
2 A. Yes.
3 Q. What's the difference? Why do you say
4 Idaho and south central Idaho?
5 A. Well, there is a difference. A great
6 deal of the economic impact would be specifically
7 damaging to the economy of south central Idaho. And
8 what I mean by that is Cassia, Minidoka, Twin Falls,
9 Jerome, Lincoln, Gooding Counties, and to a lesser
10 extent Blaine County.
11 However, some of that does spill over
12 into other parts of Idaho. And I think the
13 input/output analysis that Snyder uses in his model
14 is not specific to south central Idaho but is rather
15 specific to Idaho. And so it does pick up some
16 economic impacts that will fall outside of the area.
17 In particular, tax impacts will fall
18 outside of the area. A lot of supplier impacts will
19 fall outside of area also, the area of south central
20 Idaho.
21 (Mr. May joins the proceedings.)
22 Q. (BY MR. ARKOOSH): Any other impacts?
23 Tax and supplier impacts. Any others?
24 A. Well, that translates to not only tax
25 revenues to the State of Idaho, but also income

1 effects to persons throughout the state of Idaho,
2 employment effects to persons in the state of Idaho.
3 Q. Any others?
4 A. Loss of sales. But those really
5 translate down to the other two, yes.
6 Q. Are you going to offer or have you
7 formed, either one -- and that is a compound
8 question -- any other opinions that you have not
9 given us in your direct and rebuttal testimonies?
10 A. No.
11 Q. Okay. Do you have your rebuttal report
12 for the surface water call in front of you?
13 MS. McHUGH: He has his rebuttal report of
14 the Thousand Springs case. It's identical.
15 THE WITNESS: Yes.
16 MR. ARKOOSH: No, it doesn't matter, if it's
17 identical.
18 MS. McHUGH: Okay.
19 Q. (BY MR. ARKOOSH): Are they identical,
20 the two rebuttal reports?
21 A. I only wrote one.
22 Q. And this is a rebuttal to Dr. Hamilton's
23 work; is that correct?
24 A. Yes.
25 Q. You expressed the opinion on page 2 of

1 your rebuttal report that "It is clear that
2 Dr. Hamilton misses the intent of the
3 Snyder/Coupal," C-o-u-p-a-l, "report when he
4 comments at paragraph 21 of his expert rebuttal
5 report: The decision by Snyder and Coupal to
6 exclude these," quote, "externality," close quote,
7 "effects such as hydropower from their analysis is
8 perplexing," et cetera.

9 Do you see that language?

10 A. I do.

11 Q. Okay. And then the point that "The
12 purpose of the Snyder/Coupal analysis was explained
13 at page IX of the report: The Natural Resources
14 Interim Committee of the Idaho Legislature
15 determined that it should commission an independent
16 economic analysis to provide an assessment."

17 Do you see that language?

18 A. Yes, I do.

19 Q. Would you expound on that point? Let me
20 paraphrase it.

21 As I understand what you're saying,
22 Dr. Hamilton shouldn't read the Snyder/Coupal report
23 to measure effects throughout the Idaho economy, but
24 instead should read it to measure the effects in
25 south central Idaho.

1 Is that a fair paraphrase?

2 A. No, that's not a fair assessment of what
3 I was saying there.

4 Q. Okay.

5 A. What I was saying there essentially is
6 if you go to that section of the -- I'll set this
7 over here. Snyder and Coupal, if you go to that
8 section of their report, they're essentially telling
9 you the parameters that they had to do their study.

10 Q. Okay.

11 A. And essentially they were charged with
12 examining three direct sectors of the economy, and
13 not treating all of the sectors that could have been
14 impacted. Certainly the hydropower sector could
15 have been impacted. But specifically they were
16 directed and scoped down to the point of looking at
17 what were the effects upon the surface water users
18 if they were to put the call into place and receive
19 more water, to the ground water users as to what
20 would be the economic impacts upon them if a call
21 were in place, and to the spring water users, what
22 would be the effects upon them if a call were in
23 place.

24 Now, certainly there's going to be
25 effects to other pieces and parts to the economy.

1 And that really was an analysis in, I think, the
2 Snyder study of the whole economy, but they were
3 charged with looking at three pieces and parts.

4 What I'm saying here is Hamilton
5 criticizes them for not looking at other parts of
6 the economy. But they specifically said up front
7 that they were charged to look at three specific
8 sectors.

9 Q. For purposes of the call, what's the
10 relevant inquiry, in your view?

11 A. In terms of economic impacts?

12 Q. Yes.

13 A. I think that the relevant inquiry gives
14 you -- well, let me put it this way.

15 The overall economic impacts are largely
16 reflected in examining those three sectors of the
17 economy the Snyder and Coupal work was charged to
18 look at. So we will probably have -- daring to put
19 a phrase to it -- that kind of the Mackenzie
20 approach: We'll have the 80 percent solution
21 with -- quote, "80 percent solution," unquote, with
22 examining those three sectors. So we'll be very
23 close to the total economic impacts.

24 Q. You seem to be saying, then, the
25 relevant inquiry is the total economic impact to the

1 economy of the state and not just those three
2 factors of the economy?

3 A. Those three factors of the economy --
4 those three sectors that will be impacted will be
5 the largest components of the economic impacts of
6 the state.

7 Q. Okay. You're answering a different
8 question than I'm asking, and I think you know that.

9 A. Yes.

10 Q. Why don't you answer first the question
11 I'm asking, and then let's talk about the effects of
12 the study.

13 What is the relevant inquiry for
14 purposes of the call, the state economy or just
15 those three sectors of the economy?

16 A. Mr. Arkoosh, I don't think you can
17 separate the two.

18 Q. I agree. They're all part of an
19 economy. But one economy is larger than sectors of
20 an economy.

21 Is the relevant inquiry the economic
22 impacts on the economy in the state of Idaho?

23 A. Yes.

24 Q. Okay. And Snyder/Coupal specifically
25 said that they were not making an analysis of the

1 effects on the entire economy in the state of Idaho;
2 correct?

3 A. They specifically focused their analysis
4 upon three sectors that they were charged to look
5 at. In total, it would not have captured all the
6 economic impacts upon the state of Idaho.

7 Q. You indicate at page 3 of your rebuttal
8 testimony that "If Dr. Hamilton really wants a more
9 complete analysis of potentials costs and benefits
10 associated with the curtailment of ground water
11 pumping in the ESPA, he should lobby the Idaho
12 legislature to sponsor a further study that would
13 build upon the information already known and
14 complete a review of the other sectors of the Idaho
15 economy that he is concerned about."

16 Do you see that language?

17 A. Yes.

18 Q. Okay. Can you expound on that? I mean,
19 what does lobbying the legislature have to do with
20 the development of expert testimony in this case?

21 A. The legislative committee commissioned
22 the study, provided an amount of money for the study
23 and a time frame for this study to be done. And in
24 that regard, that was a large constraint as to how
25 much could be done, what sectors could be looked at,

1 given the budget that they had and the time that
2 they had.

3 If he wants a more complete analysis,
4 then a larger budget would probably be necessary and
5 a longer time frame would be necessary.

6 So given the constraints the committee
7 provided, essentially budget and time, that it
8 necessarily focused the study down to the three
9 sectors of that 80 percent solution of the impacts
10 on the economy.

11 If you want a more complete evaluation
12 of all those impacts, then we should go back to the
13 committee and say, "We need more to do more to
14 really get this thing fleshed out. Instead of
15 reaching the 80 percent solution, we want to reach a
16 95 percent solution."

17 Q. The purpose of your work in presenting
18 the Snyder/Coupal report is to advance the position
19 of IGWA, as I understand your charge in these two
20 pending calls; is that correct?

21 A. The purpose of my work was to evaluate
22 these reports. To the extent that it does agree
23 essentially with IGWA's position, I assume that
24 that's why they hired me. I probably would have
25 given them a different answer if I really thought

1 there was a different answer.

2 Q. Did you participate in the development
3 of the requests for the Snyder/Coupal report?

4 A. Not for the requests for it.

5 Q. What was your participation?

6 A. I was there in terms of data assembly.
7 I had a contract with the State of Idaho to do
8 fiscal impacts as a side adjunct of what Snyder and
9 Coupal came up with.

10 So Snyder and Coupal were going to
11 coming up with economic impacts to those three
12 sectors to show what happened to the Idaho economy.
13 I, in turn, were to take that and trace that back to
14 say here's what would happen to tax revenues to the
15 state of Idaho and to local governments.

16 Q. Who was your client in that work?

17 A. The Idaho attorney general's office.

18 Q. And specifically with whom did you
19 interact?

20 A. Clive Strong.

21 Q. And what did he ask you to do?

22 A. Essentially what we've just explained,
23 to do a fiscal impact analysis on the state of
24 Idaho. That never was completed, though.

25 Q. I was going to say I've never read it.

1 A. Yeah.

2 Q. So why was it not completed?

3 A. It was not completed because I misread
4 the contract. And I did some consulting work with
5 Givens, Pursley for IGWA. And the contract with the
6 attorney general's office had an exclusivity clause
7 in it that in this period of time I was to work with
8 no one else.

9 Q. Do you have that State contract?

10 A. No, I do not.

11 Q. Not here, but do have a copy of it?

12 A. I may. To be honest, it was a mistake
13 that I deeply regret. And I very seldom make
14 mistakes in that magnitude. That contract was
15 cancelled. Clive and I just agreed to cancel the
16 contract. I stepped back.

17 Q. So if you do have it, would you look for
18 that and provide us a copy of that State contract?

19 A. If I do have it. I may -- honestly, I
20 may have just said okay. This is an episode I would
21 have rather gotten rid of.

22 Q. Did you have conversations with Clive
23 regarding the development of that contract and the
24 piece of work itself?

25 A. No.

1 Q. You didn't have any discussions with
2 Clive?

3 A. Well, in terms of the parameters that he
4 wanted, I pretty well understood what he wanted out
5 of that. And that was essentially as an adjunct to
6 the input/output analysis that Snyder and Coupal
7 were doing, what would be the fiscal impacts upon
8 the State of Idaho. And in terms of tax revenue
9 impacts.

10 Q. Why would the State of Idaho look at
11 that question? Do you understand why? And if you
12 do, can you explain why?

13 A. Well, in general, I think it is part of
14 the economic impacts. So it's -- and in the sense
15 that the study focused -- in terms of Snyder and
16 Coupal's focused down to three sectors of the
17 economy and what were the impacts upon those three
18 sectors.

19 This was almost like a side adjunct to
20 it as to what impacts will it have on tax revenues
21 in the state of Idaho.

22 Now, specifically, why they wanted to
23 know that, I don't know. I mean, nobody told me
24 exactly why they wanted to know that.

25 Q. Do you have an idea why they wanted to

1 know that?

2 A. It was part of the economic impacts.

3 Q. From your conversations with your then
4 employers --

5 A. No.

6 Q. -- you don't have an idea?

7 A. No.

8 Q. Okay. Mr. Church, you're going to have
9 to let me finish a question --

10 A. Certainly.

11 Q. -- and I'll try and let you finish an
12 answer. And it's very hard to do. I understand
13 that.

14 A. Kind of that radar thing that comes out
15 once in a while.

16 Q. Did you discuss the work that you were
17 to do with the State of Idaho with anyone other than
18 Clive?

19 A. With Snyder and Coupal, I did. And that
20 was essentially that I needed their results to
21 complete my analysis. So I needed to have their
22 projected economic impacts to essentially translate
23 that into some fiscal impacts.

24 Q. Did you discuss it with anyone else?

25 A. No.

1 Q. Any legislators?

2 A. No.

3 Q. Anyone else in the AG's office?

4 A. No.

5 Q. The rest of your rebuttal goes on to
6 point out that although Dr. Hamilton expanded the
7 scope of the inquiry by talking about those what
8 we've labeled "externalities" that were not in the
9 Snyder/Coupal report, you're somewhat critical of
10 the way he handled some of those externalities; is
11 that fair to say?

12 A. I don't think it's fair to say I was of
13 the way he handled those externalities. I think I
14 was critical of the fact that he was essentially
15 casting some doubt onto the report because of
16 incompleteness, when in actuality the report had
17 been defined and stated up front that it was defined
18 to look at these three sectors.

19 Q. That was your first opinion --

20 A. That was my first opinion, yes.

21 Q. -- that we've just discussed.

22 But you go on, and you say at page 3,
23 for instance, in the middle of the page, you say,
24 "Further, Dr. Hamilton misinterprets the purpose and
25 intent of my expert report," and then you go on to

1 say that "Although he notices -- he agrees with a
2 number of the assumptions, he didn't come to
3 adequate conclusions regarding the externalities
4 that he examined." Starting at page 4 you talk
5 about domestic and industrial, page 5 livestock,
6 page 6 sugar beet and potato processing, page 5 is
7 ESPA.

8 Do you see that discussion?

9 A. I do.

10 Q. Is that a fair paraphrase that after you
11 said that he's misread the purpose of the
12 Snyder/Coupal report, then you say that where he's
13 expanded it, he hasn't necessarily done it
14 correctly?

15 A. Let me see if I said "done it
16 correctly."

17 I don't read that into it, that he did
18 not do it correctly.

19 Q. Could have done it differently? Could
20 have done it more completely? Could have done it
21 more expansively? I'm just looking for a paraphrase
22 so we can continue the discussion rather than read
23 the whole rebuttal.

24 A. Well, in a sense he has said that we
25 didn't include these externality sectors -- quote,

1 "externality sectors of the economy," and in that
 2 regard the report is incomplete. And I've
 3 criticized the fact that you could have made or
 4 should have made a request to expand the economic
 5 impact analysis to include those sectors. And then
 6 I also said, though, that Dr. Hamilton could have
 7 inferred or at least made some better judgment than
 8 he had in terms of these sectors by just commonsense
 9 analysis.

10 Q. Okay. And that's what I was getting to.
 11 You've looked at the externalities and you've
 12 applied a commonsense analysis and you've come to
 13 some various conclusions?

14 A. Yes.

15 Q. Okay. Let's talk about that method and
 16 let's talk about applying that method to some
 17 factors. I want to give you a definition first.
 18 When I talk about a healthy aquifer, I'm speaking of
 19 an aquifer whose reach gains, well levels, and
 20 spring flows are not declining.

21 Okay?

22 A. Okay.

23 Q. And an unhealthy aquifer is an aquifer
 24 where those factors are on the decline. Okay?

25 Does common sense tell us that a healthy

1 aquifer advances the state's economy or restricts
 2 the state's economy?

3 A. Common sense would say that it advances
 4 the state's economy.

5 Q. Okay. So in terms of advancing the
 6 state's economy, obtaining a healthy, stable aquifer
 7 is a good, positive thing economically; is that
 8 correct?

9 A. It would be a good, positive thing
 10 economically.

11 Q. Okay. And in order to get to a healthy
 12 economy, notwithstanding the agreements regarding
 13 the condition of the economy, we want to be sure
 14 that demand does not outstrip supply of water; is
 15 that right?

16 A. In a very short-term sense, that may not
 17 put your aquifer back to the state that you want it
 18 to come back to. It may mean that demand would have
 19 to be less than supply.

20 Q. And on the short term, that's correct.

21 But not certainly demand exceeding
 22 supply or available supply or usable reachable
 23 supply; is that correct.

24 A. That's correct.

25 Q. Okay. We don't want the demand to be so

1 heavy on the aquifer, especially in a time of
 2 drought, that we're reducing those levels that I
 3 described in order --

4 A. Especially in a time of drought, yes.

5 Q. Okay. So one benefit of being sure
 6 demand is either equal to or less than supply is
 7 that it offers a benefit to the economy?

8 A. Yes.

9 Q. Okay. And conversely, when demand
 10 outstrips supply in both the short term and the long
 11 term, it is a detriment to the state's economy, and
 12 specifically to the south central Idaho economy?

13 A. In the short term?

14 Q. In the short term and in the long term.

15 A. Well, there's a difference. I think in
 16 the short term if you supposedly mine the water, you
 17 would have a benefit to the economy in the short
 18 term. The long term would be negative to the
 19 economy.

20 Q. Okay. You indicated that the
 21 Snyder/Coupal report was peer reviewed; is that
 22 correct?

23 A. Yes.

24 Q. What does that term mean?

25 A. It's been reviewed by other economic

1 professionals. It was reviewed in terms of the
 2 hydrologic assumptions that were put into it and
 3 what acres would be essentially curtailed by a --
 4 sprinkled acres, ground-water-use acres would be
 5 curtailed, what could be grown upon them post
 6 curtailment.

7 So in terms of the assumptions, they
 8 were reviewed by professionals in agriculture and
 9 hydrology, and in terms of the forecast and the
 10 methodology, reviewed by economists.

11 Q. And who are those people that did the
 12 review? Do you know?

13 A. Lots of names, but not specifically, no.

14 Q. Okay. Where do we find that list of
 15 names? In the report?

16 A. Yes. Yes.

17 Q. Okay. If you'd look at page 3 of your
 18 testimony, if you have that.

19 A. Rebuttal?

20 Q. No. The actual direct testimony.

21 A. Okay.

22 Q. I'm sorry. I think you're right.

23 Page 3 of your report.

24 Go off the record just a minute.

25 (Recess.)

1 MR. ARKOOSH: Let's go back on the record.

2 Q. Do you recall, Mr. Church, language in
3 either your report or testimony as follows: "There
4 appears to be no correlation between the water
5 supply and farm production in Twin Falls, Jerome,
6 and Gooding Counties, for example. I conclude that
7 economic forces unrelated to water supply are the
8 major detriments to the state of Idaho's
9 agricultural economy. A rational economic view is
10 that each water user takes economically appropriate
11 measures to increase efficient use of water
12 resources, thereby maximizing his economic output
13 per unit of water, and that if an irrigator can make
14 his diversion or delivery system more efficient,
15 doing so provides its own economic benefits to the
16 farmer and was not done in the context of
17 counterbalancing requirement that ground water users
18 be curtailed."

19 Do you recall that language?

20 A. I do recall that language.

21 Q. And do you still agree with that
22 opinion?

23 A. Yes, I do.

24 Q. Okay. So in summary, it seems to me
25 that what you're saying is that one of the problems

1 correlation between water supply and farm production
2 in Twin Falls, Jerome, and Gooding Counties, for
3 example, you're only talking about a decision to
4 idle lands? You're not talking about getting caught
5 in an irrigation season and shutting off water to a
6 growing crop?

7 A. No, I wasn't talking about that.

8 Q. That's pretty damaging, though, isn't
9 it?

10 A. It can be. It depends on which crop it
11 is and which stage of the process it is, where it is
12 in that crop production function.

13 Q. Well, it was all crops in mid-August
14 across 64,000 acres.

15 Were you aware of that?

16 A. No, I wasn't aware that it was to that
17 extent.

18 Q. And if you recall, 2004 was one of the
19 hot drought years.

20 Do you recall that?

21 A. Yes.

22 Q. Okay. So that would be a material
23 economic impact, would it not?

24 A. Yes. American Falls Irrigation District
25 is in what counties?

1 that -- farm production problems suffered by surface
2 water users were not due to lack of water supply but
3 from other forces; is that right?

4 A. In the context of they were -- well,
5 they were caused by other forces to a large extent.

6 Q. Well, let me just give you for instance.
7 Later on you say that "There's been no evidence
8 presented that anybody ceased to irrigate on the
9 basis of lack of water."

10 Do you recall that in your report?

11 A. Yes, I recall that.

12 Q. Are you aware that, for instance,
13 American Falls Reservoir District No. 2 shut off in
14 mid-August in 2004? They ran out of water. Were
15 you aware of that?

16 A. Oh, I'm aware that they have
17 occasionally run out of water early in the year.
18 That has not been in the sense of cease to irrigate.
19 I mean, in the sense the way I phrase it here as
20 "Did not irrigate lands or put idle lands or set
21 aside lands."

22 Q. Well, they just quit irrigating crops in
23 the ground; isn't that right?

24 A. That's right, yes.

25 Q. So when you say that there's no

1 Q. Well, it's spread across several. But
2 it's called the Gooding system. It's Gooding
3 County, Lincoln County, Jerome County, runs across
4 those counties.

5 But you were either not given or did not
6 have that information that in 2004, the year before
7 the call, that that reservoir district was shut down
8 in mid-August?

9 A. Let me look at something real quick.

10 Very dangerous proposition to pick up
11 your binder by the rings and have it fall apart on
12 you, which I did before the PUC one time. Lost all
13 my stuff.

14 Yes. In forming my analysis, I had only
15 gone up to data through 2003 which was available at
16 that time -- at that time.

17 Q. Okay. What are the economically
18 appropriate measures you talked about? When you say
19 "A rational economic view is that each water user
20 takes economically appropriate measures to increase
21 efficient use of water resources, thereby maximizing
22 his economic output per unit of water."

23 What are "economically appropriate
24 measures"?

25 A. Well, it could be a matter of leveling

1 the land, using sprinklers to get a better
2 application of water, to apply it in a correct
3 fashion so you do not have runoff. Some very
4 high-tech sort of things today where sensors are in
5 the ground that detect what the water content is of
6 the soil, so on and so forth. So do I need to water
7 now or do I need to water later? This sort of
8 thing. Very efficient use. It probably puts the
9 right amount of water on the crop at the right time.

10 Actually, I do believe Dr. Hamilton even
11 points that out as being a significant factor where
12 he says, "Much of the interest in sprinklers and
13 other high-application-efficiency irrigation systems
14 results from the somewhat higher yields they often
15 make possible. Sprinklers often allow better timing
16 of water application, more even water distribution,
17 and hence can increase crop consumptive water use
18 along with yields."

19 Q. So faced with a water shortage, your
20 common sense as an economist, to use your term,
21 tells you that people would use their water more
22 efficiently?

23 A. Yes.

24 Q. Would they do other things faced with a
25 water shortage? Would they try and increase the

1 supply of water?

2 A. Well, of course, they would.

3 Q. I would guess that one's common sense
4 would tell one that if a junior user was faced with
5 curtailment, he would try to go out and get some
6 water?

7 A. And even if a senior user were faced
8 with a shortage, he would go out and try and get
9 some water.

10 Q. Sure.

11 A. Yeah.

12 Q. Okay. That's Adam Smith's economic
13 hand -- invisible hand at work, isn't it?

14 A. Yeah.

15 Q. I mean, you try to go out and maximize
16 your profits.

17 So you try to get the inputs you need to
18 maximize your profits; isn't that correct?

19 A. That's correct. It may mean, though,
20 that to the extent -- and this is an unknown -- to
21 the extent that the senior surface water users have
22 backup irrigation wells to be the buffer against the
23 shortage.

24 Q. Well, any water user will do all he can
25 to both maximize the use of the water he has, and if

1 it's not enough water, he will do what he can within
2 the terms of profitability to get more water, would
3 he not?

4 A. Yes.

5 Q. Okay. You have the Snyder/Coupal report
6 in your hands. Would you look at page 55.

7 I thought that that was -- off the
8 record.

9 (Discussion.)

10 MR. ARKOOSH: Back on the record.

11 Q. Are you aware of a study done of a basin
12 in northern Spain called "Multi Criteria Modeling of
13 Irrigation Water Market at Basin Level" --

14 A. No, I'm not.

15 Q. -- done by a couple of economists, Jose
16 Rodriguez and Yolanda Martinez?

17 A. No.

18 Q. Are you familiar with that?

19 A. I'm not.

20 Q. They came to a couple of conclusions. I
21 want to read one to you and ask you if you agree or
22 disagree with the conclusion.

23 A. Okay.

24 Q. It says, "On the basis of our results,
25 some interesting practical conclusions can also be

1 drawn, the most important of which is the potential
2 of water markets to act as a demand policy
3 instrument to improve economic efficiency and
4 agricultural labor demand, particularly in periods
5 of water scarcity. Our results confirm this
6 positive impact from the economic and social points
7 of view. These gains are due to transfers being
8 made to those producers with more highly commercial
9 profiles enjoying greater competitive advantages,
10 favorable soil and climate conditions, and better
11 geographic locations downstream."

12 Do you agree with that?

13 A. I do. I think water markets are
14 advantageous.

15 Q. Okay. And would you elaborate on that?
16 "Advantageous," what do you mean by
17 that?

18 A. It would allow a better distribution of
19 water. It would allow water to move to its highest
20 use to where it would be most productive in the
21 economy.

22 So those, essentially that would have a
23 higher value for it and receive greater profit --
24 that's their motivation -- would be willing to pay
25 for it.

1 Q. Would those greater profits benefit the
2 economy overall in the kind of input/output analysis
3 that Snyder/Coupal used?

4 A. Yes. Yes.

5 Q. Okay. Let me put this -- go ahead.

6 Finish your answer.

7 A. No. Go ahead. No. Go ahead.

8 Q. In layman's terms, the water would
9 follow the money, would it not? Where it can be
10 most beneficially used is where the water would go
11 if, again, Adam Smith's invisible hand were allowed
12 to operate?

13 A. The water would follow the money. I
14 guess that's one way of putting it. The money would
15 attract the water.

16 Q. Okay. And overall, then, that would be
17 a benefit to the economy?

18 A. Yes.

19 Q. Okay. Because we would have more
20 efficient and ultimately more profitable use of the
21 water; is that right?

22 A. That's right.

23 Q. Okay. Now, I'm going to tell you,
24 page 55 of the Snyder/Coupal report that I have --

25 A. I think we're the same now.

1 Q. Okay. In the middle of that paragraph
2 they write this sentence regarding suggestions for
3 further analysis. "These models can address the
4 issue of profitability and may also feed into a
5 larger regional impact model such as the one used in
6 these analyses."

7 Do you see that language?

8 A. Yes.

9 Q. Okay. That indicates to me that there's
10 not been an analysis of profitability done in the
11 input/output model that Snyder/Coupal used?

12 A. No, there was not.

13 Q. Okay. In your view, using common sense
14 in your experience as an economist, what would
15 happen if there were a threat of curtailment or
16 order of curtailment? What would the individual
17 farmer do facing that threat or facing an order of
18 curtailment? How would he respond to that?

19 A. Restate that.

20 Q. Okay. Using your common sense, that
21 commonsense method that you pointed out in your
22 rebuttal report, and your experience as an
23 economist, what would a farmer do facing a threat of
24 curtailment?

25 A. Well, the legal process is the first

1 one, which we're going through right now.

2 Q. Okay.

3 A. That's probably the first step that any
4 one of them would make and I think both of them have
5 made in terms of parties here or to all parties --

6 Q. Okay.

7 A. -- is going through the legal process to
8 try and mitigate or dismiss or abate that threat to
9 the extent that they can.

10 If they cannot, then obviously they're
11 going to find different strategies for survival
12 financially, economically, that may be "What can I
13 do without the water?" or "What can I do if I only
14 receive part of the water? What other alternatives
15 do I have for the assets that I've got?"

16 That can involve, if I'm not harvesting,
17 then "Let me get rid of assets that I have." Maybe
18 I do not need machinery anymore. Maybe I can cut my
19 expenses that way. Maybe I can enroll my land in
20 some sort of set-aside program that would allow me
21 to earn something rather than nothing. Maybe I can
22 buy water.

23 Q. Okay.

24 A. Unfortunately, sometimes the water bank
25 doesn't work all that well here.

1 Q. Well, don't the conjunctive management
2 rules have a means to buy water outside the water
3 bank?

4 A. I can't really speak to that.

5 Q. Okay. The conjunctive management rules
6 allow a junior user who's been ordered to curtail to
7 mitigate for the injury that he's causing so that he
8 doesn't have to curtail.

9 You're aware of that, I'm sure?

10 A. Yes.

11 Q. And that, in effect, is a type of water
12 market; isn't that right?

13 A. Uh-huh.

14 Q. And so a private mitigation agreement
15 could be as simple as a senior pumper paying a
16 junior pumper not to pump and then asking for
17 approval from the department.

18 You're aware of that process, are you
19 not?

20 A. Uh-huh.

21 Q. Would that be one of the strategies that
22 your common sense leads you to believe that could be
23 employed?

24 A. It could be.

25 Q. Okay. And would that simultaneously

1 reduce demand on the aquifer?

2 A. Restate your position again. In terms
3 of senior pumper paying junior pumper. Why?

4 Q. Not to pump, so that the senior pumper
5 would mitigate the use that he's going to make of
6 the aquifer and he would continue to pump.

7 A. So the amount that the senior pumper is
8 pumping has not changed?

9 Q. But the junior pumper no longer pumps,
10 or vice versa, depending on which one.

11 A. In other words, you effectively cut
12 pumping from the aquifer?

13 Q. Correct.

14 A. Okay.

15 Q. So wouldn't that reduce demand on the
16 aquifer?

17 A. That's correct, if you cut pumping from
18 the aquifer.

19 Q. And as a rational economic being, to
20 make that decision, the junior user would have to
21 decide that it's economically feasible for him to do
22 that, and the senior user who would give up his
23 senior rights to let the junior user mitigate would
24 have to go through the same economic process?

25 A. Right.

1 Q. So the water would move to the most
2 effective use for profitability, as it does in all
3 markets?

4 A. Is the curtailment of pumping valued
5 correctly? I mean taking less out of the aquifer.

6 Q. Well, I'm just looking at it as two
7 farmers: One junior user is threatened to pump and
8 he's found a senior user who's willing to sell so he
9 can mitigate and continue to pump.

10 As rational economic beings, it would
11 move to the most profitable use? I mean, isn't that
12 the assumption in the market, it would move to the
13 most profitable use?

14 A. So the -- doesn't quite fit with me.
15 I'm sorry.

16 Q. Okay.

17 A. In the sense that the senior pumper has
18 the threat of being curtailed --

19 Q. Junior. Junior pumper.

20 A. The junior pumper has the threat of
21 being curtailed?

22 Q. That he seeks water to mitigate so he
23 can continue to farm. If his operation is more
24 profitable than the senior who owns the water,
25 wouldn't the water flow to where it's more

1 profitable to use ultimately in the market?

2 A. That's different than what I realized
3 you stating the first time around.

4 Q. Okay. I misstated myself.

5 A. Yeah. Because the senior was paying the
6 junior not to pump, not the junior paying the senior
7 not to pump.

8 Q. No, it's the junior.

9 The person facing curtailment is the one
10 that needs to mitigate or cease farming --

11 A. Right.

12 Q. -- or find other strategies?

13 A. That's my misunderstanding of what you
14 were saying, because it didn't make sense to me as
15 to why the senior would be paying the junior if the
16 junior was the one who was going to be curtailed.
17 And I couldn't understand why the senior was going
18 to be curtailed.

19 Yes, that would make sense. That would
20 make sense.

21 Q. Okay. And it would flow to the --

22 A. The highest use.

23 Q. Yeah. And the same could be said of any
24 senior user and junior user. If the junior user has
25 got a highly-profitable operation, he could pay a

1 canal company not to use water or a settler on a
2 canal company or a canal company water user not to
3 use water as well; isn't that correct?

4 A. That's correct.

5 Q. And there are two, I see from our prior
6 discussions, beneficial outcomes to this: One, we
7 were going to decrease demand on the aquifer; and
8 second, we're going to use the resource to increase
9 the overall profit in the economy.

10 Those are at least two beneficial
11 aspects of doing that; is that right?

12 A. That's correct.

13 Q. Okay.

14 A. There's a difference between short term
15 and long term with those two things.

16 Q. Okay. Please elaborate on that.

17 A. Well, again, the long-term benefit would
18 be to -- very cautious with that cup, I see. The
19 long-term benefit would be to bring the aquifer to
20 an equilibrium. In the short term that may have
21 some severe economic impacts in getting to that
22 long-term solution.

23 So necessarily the possible short-term
24 outcomes could be different than the long-term
25 outcome. The short-term outcome could be very

1 negative initially, and that is close in time. The
2 long-term outcome could be positive, but that is
3 very far out in time, in terms of values.

4 Q. But even in the short term, I've never
5 seen any analysis done by anybody in this case that
6 says if we maximize the efficient use of water by
7 allowing the profitable enterprises to use the
8 water, it would benefit the economy. I've never
9 seen anybody do such an analysis.

10 Are you aware of such an analysis?

11 A. No, I'm not.

12 Q. But really, that's what would happen;
13 you would have to investigate the strategies people
14 would employ in face of curtailment. You've
15 addressed increased deficiencies, but the other
16 strategy is actually going out and mitigating.

17 There's one strategy really contemplated
18 by the conjunctive management rules nobody's really
19 investigated, the economic effect of that, have
20 they, that you're aware of?

21 A. No, not that I'm aware of.

22 Q. So why do we limit ourselves to the
23 assumption when we know or common sense tells us
24 there are a variety of other strategies out there
25 that people will pursue? Why do we limit ourselves

1 to the assumption that everybody's just going to
2 curtail and that's going to be the effect on the
3 economy? That's the most irrational, isn't it?

4 A. Well, to an extent, I agree. There's a
5 part that's missing. There are strategies that are
6 interim -- I'm going to say gradients of strategies.
7 The Snyder/Coupal study essentially says they will
8 be curtailed, but doesn't necessarily give them a
9 zero value, "What can they do otherwise?" There is
10 some of that built into it.

11 There is some assumptions from the
12 agricultural economists and people who know the land
13 and from the people who know the water that say
14 these acres could grow this under that circumstance.

15 Q. But, Mr. Church, they've only gone back
16 and said, "Well, we're going to revert those to dry
17 farms, and that's the only economic benefit we're
18 going to investigate. We're not going to talk about
19 the mitigation effects."

20 A. That's exactly correct. That analysis
21 was not done. All I'm saying is they didn't go
22 from -- from the state today to zero. They went
23 from the state to almost zero, dry land farming.

24 Q. So given that we might increase overall
25 profitability on the aquifer and given that we might

1 increase the health of the aquifer, the curtailment
2 scenario could ultimately overall result in a
3 healthier Idaho economy?

4 A. In the long run.

5 MR. ARKOOSH: I'm going to take a little
6 break.

7 Is that okay?

8 THE WITNESS: That's fine.

9 (Recess.)

10 Q. (BY MR. ARKOOSH): Before we took a
11 break, we were talking about short term and long
12 term.

13 Would you tell me what those two terms
14 mean to you, "short term" and "long term"?

15 A. Well, short term is in a situation where
16 you can change some inputs or some processes but not
17 others, or not have a significant effect on others.

18 Long term is where you could change
19 practically everything. You could change -- in
20 terms of a production plant, you could change the
21 size of the plant. You could make it bigger.
22 Necessarily, in the short term -- tomorrow -- you
23 couldn't.

24 So like tomorrow or the next day, next
25 week, for example, Micron could not double its

1 output. But in the long term it could by building a
2 bigger plant.

3 In terms of this context for the water
4 rights and the flows of the aquifer and economic
5 benefits and costs, short term is essentially the
6 immediate impacts.

7 The long term is, "Well, what will it
8 take to get those flows to that point that everyone
9 is satisfied with or happy with." That's a
10 long-term sort of thing, and it's somewhat uncertain
11 as to how long that will be, but pretty well, I
12 think, agreed it's going to be in the terms of a
13 decade or decades.

14 Q. So one irrigation season would be in the
15 short term, given the way you're using it?

16 A. Short term, yes. Yes. And even two or
17 three or four or five would be short term --

18 Q. Okay.

19 A. -- in terms of this context.

20 Q. But even during a short term, you
21 acknowledge that when a person makes a water call,
22 there's going to be some benefit to reduction in
23 demand across the aquifer to a senior user, both as
24 a spring user and as a reservoir user? I mean, you
25 may not realize all the benefits of the call, but

1 you will realize some of the benefits of the call?

2 A. The person who is --

3 Q. Calling.

4 A. -- calling the water, some, yes.

5 Q. Okay.

6 A. Although I will add from what I've seen
7 of the hydrologic models, it's going to be very
8 minimal in the first year or two.

9 Q. Well, to get to the long term, we're
10 going to have to start with the short term.

11 Do you agree with that?

12 A. We'll have to start someplace, yes.

13 Q. I mean, if curtailment would really
14 happen, if the effect of curtailment, the fifth year
15 has got to start with the first year, correct?

16 A. That's correct.

17 Q. Okay. Let's talk about the short term
18 for the senior right now.

19 You know, I mean, you are not aware that
20 American Falls Reservoir District No. 2 shut down in
21 the middle of August when you did your review of the
22 economic effects of a curtailment?

23 A. No, I did not.

24 Q. Okay.

25 A. But my data essentially went up through

1 '93 in terms of -- sorry, 2003 in terms of what I --

2 Q. Are you aware that the fish farms in the
3 Thousand Springs area are not receiving their full
4 water right?

5 A. I am aware of that.

6 Q. Are you aware, for instance, that the
7 depth of the wells on the A & B project have gotten
8 so deep that they can't, as a practical matter,
9 deepen them anymore and some of those wells are not
10 receiving the water?

11 A. I'm not aware of that.

12 Q. Okay. Would that have any effect on
13 your analysis of the effects of the economy of
14 curtailment in the short term?

15 A. In the case of the A & B District, that
16 would have an effect. I have looked at the fish
17 farming operations, though, in particular. And
18 while their flows are down and that's what they have
19 said, and it's very plausible, but in terms of value
20 of output and output, it's not down. In terms of
21 fish production, U.S. Department of Agriculture says
22 fish production is up.

23 Q. Overall maybe, but on a particular farm
24 suffering from lack of water?

25 A. Not on a particular farm, no. Overall.

1 Q. Okay. And would you agree with me that
2 more water, if it is consistent, means more fish;
3 correct?

4 A. I don't know the fish production
5 function. I can't say.

6 Q. Are you aware when you came to the
7 conclusion on the short term that surface water
8 projects are taking, for instance, half an inch
9 rather than three-quarters of an inch, which is
10 their usual duty of water, or half an inch rather
11 than five-eighths of an inch? Are you aware that
12 that's going on?

13 A. Uh-huh.

14 Q. And you have to have to answer "yes" or
15 "no" audibly.

16 A. Yes. Yes. Yes.

17 Q. Okay. So for these senior projects and
18 these senior fish farms, and even in the short term,
19 that have either self-curtailed their use or were
20 forced to curtail their use, wouldn't there be an
21 economic benefit if we got started in the
22 rehabilitation of the aquifer?

23 A. There would be an economic benefit.

24 However, let me point out that there comes an
25 economic cost too. I mean, that's the crux of the

1 analysis that was done by Snyder and Coupal was,
2 yes, there is a benefit. And they even point out in
3 there that there are some benefits, especially to
4 the aquaculture industry. That one has some
5 positive benefits in a reasonable amount of time.

6 But there are some negatives that go
7 along with it. And to the extent, as you say, there
8 are some mitigation strategies that could be used,
9 that will lessen the negatives. But again, there's
10 a lot of negatives to be lessened.

11 Q. Well, but no one's ever done the
12 analysis about the mitigation strategies. And it
13 could be that overall for the state's economy -- and
14 we really don't know this without doing the
15 analysis -- but it could be all the negatives are
16 mitigated? I mean, if you put water into more
17 profitable uses for the economy itself, even in the
18 short term, you could avoid all the negative impacts
19 on the state's economy?

20 A. Are you assuming the water stays in the
21 state?

22 Q. Yes, I'm assuming all other things
23 equal. I'm just assuming that there's a call made,
24 it's effective as an order, and then farmers act as
25 rational beings so the juniors can mitigate and the

1 seniors have certainty in water supply.

2 Even in the short term, there could be
3 an overall benefit to the state's economy?

4 A. If the water stays in the state, yes.

5 Q. Okay.

6 A. If you put it up to the highest bidder,
7 that may not necessarily be the case.

8 Q. Well, there are -- and I know you're
9 aware of this -- there are barriers to buying water
10 out of state. There are artificial legal barriers
11 to doing that.

12 You're aware of those?

13 A. Some of them, yes.

14 Q. Okay. And there's one benefit we seem
15 to -- I know he's talked about some benefits to the
16 seniors. But there's one benefit that seems to be
17 hugely overlooked to me, and it's the uncertainty of
18 not knowing whether you're going to have your water
19 supply or not.

20 Now, you would agree with me that that's
21 a pretty negative benefit for the state because you
22 are forced as a senior user to plant
23 less-water-consumptive crops in your decision-making
24 process?

25 A. That would be a strategy that would --

1 some of them would undertake, yes.

2 Q. Well, you're almost forced to undertake
3 it, aren't you?

4 A. Not necessarily.

5 Q. You could be irrational and gamble, I
6 suppose.

7 A. Sure. That's not irrational. People do
8 it all the time.

9 Q. But it would be a lot better if you knew
10 you're going to have your water, wouldn't it, for
11 the economy of the senior user and ultimately the
12 state?

13 A. More knowledge is always better, yes.

14 Q. Okay.

15 A. But they will never have perfect
16 knowledge.

17 Q. Do you know why no analysis has been
18 made of what we'd really expect in the face of a
19 call about how the mitigation market would work
20 and -- let me rephrase that question.

21 Why are we assuming everybody is just
22 going to shut off rather than look at available
23 strategies? Do you know why? Are you just
24 critiquing the reports as you found them?

25 A. I do not know why that analysis has not

1 been done. I have thought about it. I have never
2 offered a comment on it. I have been charged to
3 look at these studies that have been completed,
4 Coupal, Hazen, Hamilton, so on and so forth.

5 The analysis that you're asking about is
6 complex. It is time-consuming. You would
7 essentially have to ask a lot of people what their
8 strategy would be.

9 And I have found in the past that when
10 you're asking questions about this particularly
11 sensitive subject -- water -- that you do not -- you
12 don't necessarily get the rational answer that you
13 would in reality. Some people will react and just
14 knee-jerk react. "No, that will not happen," for
15 example.

16 So it would be sort of a focus group
17 analysis with people that are being rational, not
18 necessarily espousing a point of view, but making a
19 rational economic decision, which could be difficult
20 to set up, that framework. It's a complex framework
21 and it's a complex problem and hasn't been explored.

22 Q. Are you aware that in the face of this
23 call various junior users are out actually buying or
24 optioning water as a hedge against the contingency?

25 A. No, I am not.

1 Q. Are you aware of that?

2 A. No, I'm not aware of that.

3 Q. But that would be a rational economic
4 behavior in your view, would it not?

5 A. Yes.

6 Q. And you would expect to see it, I would
7 think?

8 A. Yes. The options, yes.

9 MS. McHUGH: You said "optioning" water?

10 THE WITNESS: Option.

11 MS. McHUGH: I thought you said "auctioning."

12 THE WITNESS: No.

13 MR. ARKOOSH: Take a short break.

14 (Recess.)

15 MR. ARKOOSH: Let's go back on the record.

16 Q. I just wanted to be clear that when you
17 were discussing what I heard you say to be
18 irrational answers, you were not talking about
19 irrational behavior, you were just talking about
20 when you tried to do a study like that, it would be
21 very difficult to gather information regarding what
22 people really will do as differentiated from what in
23 a panic situation they'll tell you that they would
24 do; is that right?

25 A. Exactly.

1 Q. Right.

2 A. What they really will do will be a
3 different scenario than what you would probably get
4 in a focus group asking them what they would do.

5 Q. Correct. Okay. And so when things like
6 this happen -- I mean, you look at something like
7 the director sends out a threat of curtailment or he
8 sends out an actual curtailment order -- obviously
9 there's a certain amount of panic by those affected.

10 But as with all of these things, the
11 rational economic being goes from panic to planning,
12 I'm assuming; is that correct?

13 A. That would be correct.

14 Q. And you're worried if you did a study,
15 you'd get the panic answer rather than the planning
16 answer; is that right?

17 A. That's correct. I think that from my
18 experience with dealing with people involved with
19 water that it's usually not a rational answer that
20 you get.

21 Q. Okay. But farmers, in terms of
22 obtaining and using water, are going to be very
23 rational, are they not?

24 A. They're rational beings, yes. They may
25 react with a knee-jerk reaction sometimes, but they

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1 are rational.

2 Q. Okay. I want to ask you a few questions
3 to educate me.

4 What is an input/output analysis?

5 A. It's essentially a model that links
6 sectors of the economy and through a complex process
7 says, "This sector has this effect on these other
8 sectors."

9 So in the legal services industry
10 category, it earns income, and where does it a
11 acquire goods and services that it uses. So it
12 hires people. It uses electricity. It rents office
13 space. Those linkages are identified through an
14 input/output analysis.

15 To the extent that they link within a
16 local economy -- now, necessarily the United States
17 economy is pretty well self-contained. There's a
18 lot of stuff goes across borders. But an
19 input/output analysis is going to capture most of
20 the economic activity being fed right back in the
21 U.S. economy.

22 On the other hand, if you get to
23 Challis, Idaho, for example, money spent there,
24 earned there, is probably not going to stay there,
25 to the large extent. And so that is identifying the

1 linkages that earnings have in that area and those
2 industries have, but they're by and large going out
3 somewhere else and affecting the economy. And it
4 tries to identify what stays in an area and what
5 doesn't stay in an area.

6 Q. How does one physically perform such an
7 analysis? Do you use spreadsheets or --

8 A. Well, it is a matrix that is essentially
9 mined from a massive amount of data that the federal
10 government gathers on business activity, things
11 called "value-added surveys." In fact, I did one of
12 those for Idaho Power quite a few years ago. It was
13 an industry census that, you know, as required by
14 law, you must fill out this form.

15 And they essentially define what inputs
16 you buy, where you buy them from, and what you
17 produce and what you sell it for and where do you
18 sell it and who do you sell it to to identify those
19 linkages.

20 Q. What do you think of those kind of
21 modeling processes? You've performed one for Idaho
22 Power. Was that for the state economy?

23 A. That was not an input/output model. An
24 input/output model is essentially a static model.

25 Q. Okay.

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1 A. It is an analysis of "If you did this,
2 this effect would happen." So in regards to if I
3 were to open up a production plant in Boise, hire
4 500 people, have a payroll of \$15 million, buy these
5 kind of inputs, this would predict the impacts upon
6 other sectors of the economy and essentially that
7 multiplicative effect that that new plant would have
8 on the local economy.

9 What I did for Idaho Power, and what I
10 still do for a lot of clients and Idaho Power
11 included, is I do time-series analysis. I do
12 forecasting of the future. So I'm forecasting
13 employment by category: population, number of
14 households, translates to residential customers,
15 personal income by county, by their service
16 territory, and by the state.

17 Q. So an input and output analysis is sort
18 of a snapshot; fair to say?

19 A. Fair to say.

20 Q. And the kind of work you're doing, the
21 modeling you're doing over time is sort of more like
22 a running motion picture showing the changes over
23 time; is that right?

24 A. Right. It's a predictive model of
25 future economic activity.

1 Q. Has anybody ever done, to your
2 knowledge, such a prediction of what would happen in
3 the event that we started managing this aquifer and
4 turned it into what we earlier defined as a healthy
5 aquifer? Has anybody ever done that work?

6 A. Not that I know.

7 Q. Isn't that really the relevant inquiry
8 for the state's economy? We're going to be a few
9 years into the future rather than this snapshot
10 we've tried to take here?

11 A. Well, you've taken essentially 30
12 snapshots in the Snyder model. It goes out 30
13 years. So essentially it's taking this state, this
14 state, this state, and looking at it in a -- excuse
15 me, 30 year snapshots into the future.

16 So in that regard, he has a -- similar
17 to what you have in a motion picture animation -- is
18 a flip chart of here's the impacts over time by a
19 series of snapshots.

20 Does it look at the whole economy? No.
21 It's really focused on those three sectors that they
22 were charged to look at.

23 Q. And does it include how rational people
24 really will act in the face a curtailment order?

25 Probably not; is that correct? Let me restate the

1 question.

2 As we discussed, isn't the underlying
3 assumption people just shut off and that's that?

4 A. No. I don't believe that's the
5 underlying assumption. There are strategies between
6 their assumption, which I said earlier is something
7 greater than zero, which I would say would be the
8 complete shutoff scenario. It's greater than zero,
9 but there's something in here that could be
10 mitigated. They didn't go to the complete extent of
11 examining all those mitigation measures and those --

12 Q. I never saw anywhere where he talked
13 about mitigation. I just saw that he said, you
14 know, "If you shut the pump on a well in Tetonia,
15 for instance, it could become a dry farm again."
16 But I never saw anywhere where he said, "And they
17 went out and marketed water."

18 A. No.

19 Q. Okay.

20 A. That's what I'm essentially saying.

21 Q. That's not a mitigation strategy.
22 That's you're just left without the well so you do
23 what you can with the assets you have remaining.

24 I think the word "mitigation strategy"
25 is the confusing part.

1 That's not going out and mitigating by
2 getting water to replace the water you're going to
3 use, that's just using the assets you have
4 remaining?

5 A. It's not a water mitigation strategy.

6 It's an economic mitigation strategy.

7 Q. What is a production function in an
8 input/output model?

9 A. It's a model of inputs that come into a
10 particular production of a product and how those
11 inputs are combined. So you -- to result in an
12 output.

13 Q. Well, getting to this question is why I
14 asked for that definition, because has the
15 input/output model in the Snyder/Coupal report used
16 the same production function for alfalfa grown by
17 ground water pumpers as it has for alfalfa grown by
18 surface water users?

19 A. Is that a question?

20 Q. Yes. Has it done that?

21 A. Did it use --

22 Q. Use the same production functions for
23 those two groups for alfalfa.

24 A. I don't know.

25 Q. Okay. Tell me what you know about the

1 CREP program.

2 A. The what?

3 Q. The CREP program.

4 A. The agricultural set-aside program?

5 Q. Yes.

6 A. Very little.

7 Q. Okay. Do you know why nobody is signing
8 up?

9 A. No.

10 Q. Okay. You've not investigated that?

11 A. No. I have not investigated that, no.

12 MR. ARKOOSH: Okay. Take a little break
13 again.

14 (Recess.)

15 Q. (BY MR. ARKOOSH): Mr. Church, have you
16 reviewed the department's orders as a result of the
17 calls in the 120 and the 130? Have you actually
18 looked at the orders?

19 A. No.

20 Q. Okay. I notice that the Snyder/Coupal
21 report has got two scenarios in it: that we shut off
22 essentially half way and then we shut off all the
23 way; is that correct?

24 A. Yes, it has two different time frames in
25 terms of water rights as of what dates.

1 Q. So if I were to tell you that the orders
2 in 120 and 130 differ substantially from either one
3 of those scenarios, do you know of anybody that's
4 done a correlation between what's actually proposed
5 by the department and what the Snyder/Coupal report
6 tries to measure?

7 A. I know of no one who has done that
8 study.

9 Q. Wouldn't that be a relevant inquiry, in
10 your view?

11 A. That would be a relevant inquiry, yes.

12 Q. Are you aware that there have been
13 mitigation agreements entered as a result of orders
14 in the 120 and the 130?

15 A. I'm aware of mitigation agreements.

16 Q. Which ones are you aware of?

17 A. Specifically, I can't state which ones
18 I'm aware of.

19 Q. Didn't the dairy people enter into a
20 mitigation agreement?

21 A. I'm not aware of that.

22 Q. You're just aware that there are some
23 mitigation agreements out there?

24 A. Yes.

25 Q. Is that what we talked about, that one

1 would expect that rational economic beings would go
2 out and seek to mitigate in the market?

3 A. That's the process, yes.

4 Q. Okay. When we push toward the long-term
5 goal of what I called a healthy aquifer or you could
6 call it equalizing the aquifer or you could call it
7 making demand equal supply, however you want to call
8 it, when we push towards that goal, are there
9 various ways to get there that have varying costs?

10 A. I imagine there are.

11 Q. Okay. Let me give you an example of
12 what I'm talking about.

13 Are you aware of the CAMP process that's
14 ongoing?

15 A. No.

16 Q. Okay.

17 A. It doesn't ring a bell.

18 MS. McHUGH: Maybe the acronym is --

19 THE WITNESS: Yeah.

20 Q. (BY MR. ARKOOSH): It's an aquifer
21 management plan. There's an effort by a lot of
22 involved parties to put together an aquifer
23 management plan. And in that aquifer management
24 plan, it includes the effort to find various goals
25 for --

1 A. I'm aware of that.

2 Q. -- fixing the aquifer.

3 A. Yes. I'm not aware of the specifics.

4 But I'm aware that that's out there, yes.

5 Q. Okay. In order to gauge the effects on
6 the state's economy of arriving at certain goals, do
7 you think it would be beneficial for the state's
8 economy now -- I'm not talking about the various
9 individuals involved, but for the state's economy to
10 make an assessment of one means of reaching a goal
11 versus another means, if this CAMP process decides
12 the state should reach the various aquifer
13 management goals?

14 A. I think that there's, as you've said,
15 various different scenarios on how you could reach a
16 goal, whatever goal you want to reach. And a
17 necessary part of that would be an evaluation of the
18 cost benefit in terms of the economics for the
19 overall economy --

20 Q. So is this --

21 A. -- in those processes and those
22 strategies.

23 Q. So as an economist with your experience
24 in the state of Idaho, you would recommend to
25 whoever is trying to reach those goals to take a

1 look at the cost --

2 A. Economic impacts of every scenario, yes.

3 Q. Okay. So that they really should look
4 at the economic impacts of a curtailment scenario
5 versus the economic impacts of the various other
6 scenarios that flow through the CAMP process in
7 order to reach the goals they ultimately agree to?

8 A. Yes.

9 Q. Okay.

10 A. Let me add, it should be an economic
11 impact analysis that looks at it, not just as a
12 snapshot at a point in time, though, but as an
13 ongoing kind of projection, if you will, of impacts
14 over a longer period of time. Because in some cases
15 you're not going to see some impacts in the short
16 run or they're going to be very negative or very
17 positive, but it's going to be different in the long
18 run.

19 So I think it really takes a longer-term
20 picture, and the reference to the time of that
21 picture is really kind of up to the goal that wants
22 to be reached. In terms of aquifer, how long that's
23 going to take by those educated guesses or
24 predictions of hydrologists and so on and so forth.
25 So that's the long term I'm talking about.

1 Q. So for the health of the state's
2 economy, really the relevant inquiry is the
3 long-term inquiry; is that right?

4 A. The relevant inquiry is the long term,
5 yes. However, the short-term costs may determine
6 someone's course of action. In other words, if the
7 pain is too much, the long term may not be the goal
8 that anybody wants to reach.

9 Q. Okay. We've not established because
10 we've not really done -- well, for the curtailment
11 scenario, for instance, we've not really done an
12 analysis of what people really will do. We've just
13 made an assumption that everybody is going to shut
14 off their well and then go from there; is that
15 correct?

16 A. I believe you're correct. We haven't
17 done an analysis of all the strategies that would be
18 used.

19 MR. ARKOOSH: I believe Mr. Simpson has some
20 inquiries.

21 MR. SIMPSON: You believe? You can sit
22 there. We haven't changed. Are you okay?

23 (Discussion.)

24 ///

25 ///

EXAMINATION

2 BY MR. SIMPSON:

3 Q. Mr. Church, I guess we can go back on
4 the record under the presumption that that little
5 dissertation by Mr. Arkoosh was not on the record.

6 Mr. Church, my name is John Simpson.
7 And I represent various surface and spring water
8 users throughout the reaches of the Snake River, and
9 in both what I'll call the 120 surface water
10 delivery call case and the 130 spring water users
11 delivery call cases. And I have just some follow-up
12 questions to what Mr. Arkoosh asked you to start
13 with.

14 The first area I'd like to ask you
15 further on is: Were you involved in any way in the
16 development of the sectors that the Coupal/Snyder
17 study would analyze?

18 A. No.

19 Q. So you did not assist the legislature or
20 the AG's office or anyone within state government in
21 identifying the scope of the Coupal study?

22 A. No.

23 Q. Did you have an opportunity after the
24 Coupal study was identified, the scope of that
25 study, to provide any input that perhaps that study

1 should be enlarged in terms of the scope, the
2 sectors it looked at within the state economy?

3 A. Did I have the opportunity or did I take
4 the initiative?

5 Q. Either.

6 A. I did not take the initiative to offer
7 any suggestions as to widening the scope of the
8 study. And -- and I did realize that there are
9 other sectors that should be examined. However, at
10 that point the parameters of the study had been
11 pretty well set. So I didn't go further.

12 Q. As a part of your involvement with the
13 AG's office, I think your testimony was that you
14 were not involved in any of the meetings with
15 legislative leadership or the AG's office regarding
16 the Snyder/Coupal study?

17 A. Oh, I was in a meeting at IDWR where
18 legislators were there, the director was there,
19 Snyder and Coupal were there, and many
20 representatives of the University of Idaho's
21 Hydrology Water Resources Research Institute, so on
22 and so forth, were there.

23 But it was -- I'm trying to recall the
24 context of that meeting. It was really a kind of
25 "Let's all get together and here are your contacts

1 and things that you need to interface with other
2 people about" sort of meeting.

3 Q. So in essence, that was bringing Snyder
4 and Coupal into the State arena, if you will, and
5 identifying if you had hydrology questions, that's
6 who they would contact; if you had economic
7 questions, here's where you go, so on and so forth?

8 A. Yes. It was establishing the linkages.

9 Q. Okay.

10 A. And I think the legislators were there
11 largely to -- they were members of the committee,
12 largely to just see how it was going and to identify
13 these people themselves in their mind, perhaps.

14 Q. Okay.

15 A. And introducing Snyder and Coupal for,
16 you know -- and their qualifications. And the
17 reason, I think, to an extent that they were hired
18 is because they were not from Idaho. So that kind
19 of removes them a little bit from, you know, the
20 process of someone's on this side or that side.
21 Supposedly, if you're not from Idaho, then you're
22 removed from having a side.

23 Q. Did you take any meeting notes or were
24 there any documents handed out at that meeting or
25 any of the other meetings that you attended?

1 A. Not at the meetings, no. I don't recall
2 any documents. And I've really gotten out of the
3 habit of taking notes at meetings. It's usually all
4 up here.

5 Q. Good habit.

6 A. I learned that at Idaho Power. From
7 attorneys, as a matter of fact.

8 Q. Do you recall if at that meeting the
9 scope of their study was further refined or was it
10 explained by any of the individuals at that meeting
11 to them: legislators, department officials, AG's
12 office, or anyone else?

13 A. I -- I really don't recall, period. I
14 mean, further refined? I don't recall. Scope
15 identified at that meeting? No, I don't recall. It
16 may have been done afterwards. I really don't
17 recall.

18 Q. You indicated that the Coupal/Snyder
19 study was peer reviewed and you identified for
20 Mr. Arkoosh that those individuals who peer reviewed
21 that report were identified in the report; is that
22 your testimony?

23 A. They're identified in that report and I
24 think there's some adjunct pieces of work that were
25 referenced in that report, like in the bibliography

1 of that report, in terms of modeling the aquifer and
2 flow impacts and things like that that were used as
3 a basis for the input/output analysis.

4 Q. Okay. And if you need to refresh your
5 recollection, you can refer back to that report as
6 to those individuals who did peer review and in what
7 portions of the report and what expertise areas.

8 With respect to the economics, who peer
9 reviewed that report?

10 A. I know Zena Cook was one at Water
11 Resources. There was a couple of economists at
12 U of I that peer reviewed the report. I looked at
13 the report, but I offered no peer review comments on
14 it.

15 Q. And again, we could find those in the
16 report itself?

17 A. I do believe so.

18 Q. Okay. Other than that meeting that you
19 identified where Snyder and Coupal were brought in
20 and it was kind of an introduction for whom their
21 contacts would be in various areas, did you have any
22 other meetings that you attended where the report
23 was discussed?

24 A. No, I don't believe I did. I had some
25 meetings concerning some information that was passed

1 to me in relationship to valuation of crops that
2 could be curtailed or lessened. I had meetings
3 concerning some of the preliminary work I had done
4 on fiscal impact analysis.

5 But as far as the input/output analysis
6 that Coupal and Snyder performed, I don't recall any
7 other meetings that I was involved, and that process
8 went on -- went on without my active inputs. And
9 for a period of time while that was going on, I was
10 off doing other consulting projects, because I had a
11 gap there in terms of I needed inputs from that to
12 do my fiscal impact analysis.

13 Q. Just so I'm clear, your testimony today
14 here is that you have no understanding regarding the
15 scope of the orders issued by the director either
16 with respect to the surface water call or the
17 Thousand Springs calls, and how those orders vary
18 from the Coupal/Snyder report in terms of the
19 economic consequences they looked at?

20 A. I have not reviewed those two orders and
21 the parameters that they have outlined in those
22 orders, nor have I done any analysis or I know of
23 any analysis that compares that to the scenarios
24 that Snyder and Coupal laid out in their report.

25 Q. So you could not offer opinions as to

1 the validity of those scenarios offered by the
2 Coupal/Snyder report in terms of their relevance to
3 the economic impact of the Blue Lakes order or the
4 Clear Springs orders in 130?

5 A. No.

6 Q. And likewise, you could not provide any
7 testimony with regard to the relevance of the
8 Coupal/Snyder scenarios, economic scenarios they
9 laid out, in reference to the Surface Water
10 Coalition order issued by the director in 2005?

11 A. I could not offer an opinion, no.
12 Although I will say the Snyder/Coupal study does
13 outline a level, if you will, of curtailment, those
14 scenarios in 1949 or 1961. That outlines a level.
15 Now, whether there are a linear relationship between
16 that level and some other level, I don't know.

17 Q. And you haven't undertaken that kind of
18 linear analysis, nor do you plan to do so prior to
19 your testimony at these hearings?

20 A. No, I do not.

21 Q. Would you agree that if there were
22 mitigation agreements such as the ones identified by
23 Mr. Arkoosh which allowed junior water users to
24 continue to produce, to pump, those mitigation
25 agreements would affect economic analyses performed

1 by the Coupal/Snyder report?

2 A. They would result in a different set of
3 economic impacts if there were mitigation measures.
4 Now, it doesn't necessarily mean that all of those
5 economic impacts would be -- you might still produce
6 more crop than what was perceived in the Snyder and
7 Coupal study because some of it was mitigated.

8 On the other hand, it might result in
9 lower incomes than what Snyder and Coupal have come
10 up with in terms of costs of mitigation, the
11 associated costs of doing business.

12 Q. So there may be positive or negative
13 impacts associated with those mitigation agreements,
14 but those were not analyzed in those reports?

15 A. They were not, no.

16 Q. Likewise, if there were other mitigation
17 agreements that were entered into or other
18 alternatives to individuals being curtailed, those
19 likewise would have relevance in determining the
20 overall impact as studied by Coupal and Snyder or by
21 any other economist in their work in this case?

22 A. Yes. Other mitigation agreements would
23 have positive and negative effects that would result
24 in a different set of economic effects than perhaps
25 is in this study or is in any other study.

1 Q. If you could, could you turn to your
2 prefiled expert testimony in the Blue Lakes delivery
3 call/Clear Lakes delivery call case filed on
4 September 12th, 2007.

5 A. Oh, okay.

6 Q. Too many notebooks.

7 A. Yes, too many notebooks.

8 MS. McHUGH: I think I'll make a copy. It
9 might be faster.

10 MR. SIMPSON: Yes.

11 (Recess.)

12 Q. (BY MR. SIMPSON): Before we start, I
13 just had a couple more questions on your testimony
14 you provided Mr. Arkoosh.

15 The first being: Do you recall your
16 testimony regarding that -- and he gave you examples
17 such as American Falls Reservoir District No. 2 and
18 the aquaculture rights in the Thousand Springs area
19 and A & B -- the impact today if their supplies are
20 not sufficient to meet either their production needs
21 in terms of ground water pumping or their surface
22 water deliveries to them.

23 Do you recall that testimony?

24 A. Yes.

25 Q. And I think -- correct me if I'm

1 wrong -- you indicated that with respect to A & B
2 that would be an analysis in terms of the impact
3 with respect to the ground water availability to
4 A & B, the ground water side; if truly they were not
5 able to acquire water relative to ag production on
6 those lands, that should be considered in the short
7 term.

8 Do you recall that testimony? Is that
9 generally correct?

10 A. Yes, that's generally correct.

11 Q. Okay. And I think Mr. Arkoosh
12 questioned you with respect to American Falls
13 Reservoir District No. 2. My question goes to your
14 statement regarding aquaculture facilities down
15 there and the fact that the flows are down, but you
16 indicated overall in the United States fish
17 production is up.

18 Do you recall that testimony?

19 A. I do recall. I don't believe I was
20 saying the United States. I was saying Idaho.

21 Q. Okay. So your testimony is you reviewed
22 documents or information relative to fish production
23 in Idaho is up.

24 In what time frame are you talking?

25 A. Over the last ten years.

1 Q. Okay. So the period 1997 to 2007?

2 A. '96 to 2006.

3 Q. And in terms of that fish production,
4 are there particular species that you're talking
5 about or just overall aquaculture production?

6 A. Trout.

7 Q. Trout production. And did you review
8 any data with respect to either the Blue Lakes Trout
9 facility or the Clear Springs facilities regarding
10 their production, whether it's up, down?

11 A. No, I did not.

12 Q. So you're still looking at the fish
13 production from a state perspective, if you will?

14 A. From a -- yes, a state perspective, yes.

15 Q. Okay. And with respect to individual
16 facilities, do you think that either their fish
17 production either in terms of declining fish
18 production or lost opportunities with respect to
19 fish production relative to the availability of
20 flows would be relevant in terms of your overall
21 economic analysis?

22 A. If a particular farm or operation losing
23 water is relevant?

24 Q. Right.

25 A. Yes, it would be relevant.

1 Q. So my question goes towards you've
2 analyzed fish production relative to the state of
3 Idaho and whether fish production is up or down.

4 Do you think it's also relevant in terms
5 of whether an individual facility or facilities are
6 not able to produce at productive levels given
7 spring flow declines in a particular reach?

8 A. Well, it's relevant. But the causation
9 may not be necessarily what we might think. It
10 might not be because of that. I'm just thinking
11 there could be many causes for something to occur.

12 Q. Okay. And my question goes towards the
13 issue of Coupal -- that the Coupal and Snyder report
14 looked at the regional economy, if you will -- that
15 is, the south central Idaho economy -- and the
16 impacts on ground water pumping, on surface water
17 practices, on spring water practices.

18 Do you think that economic analysis
19 should be narrowed to look at individual water right
20 holders such as a ground water pumper versus a
21 surface water irrigator or ground water pumper
22 versus a spring water user? Would that analysis be
23 applicable here?

24 A. I don't think it would be. I don't
25 think you'd get the causation or the correlations to

1 make a good analysis that way.

2 Q. Okay. Do you think it's relevant that
3 with respect to aquaculture that it's
4 nonconsumptive, the use of water is considered
5 nonconsumptive?

6 A. Relevant in what regard? In terms --
7 let me say it allows other uses after it's done, and
8 that should be considered, yes.

9 Q. As opposed to ground water pumping,
10 which the water that's pumped out of the ground, a
11 portion of that water is totally consumed, do you
12 think that's relevant in terms of comparing the
13 economic analysis of ground water pumping to
14 aquaculture?

15 A. Well, yes, that's relevant. But then
16 also surface water is consumed too. So that's
17 relevant too.

18 Q. So in terms of water consumed by a
19 ground water pumper, does that water leave the
20 state?

21 A. Does it leave the state? Eventually,
22 yes, it does, John. But no.

23 Q. Are you aware of sensitivities
24 associated with the aquaculture market in terms of
25 opportunities for production and marketing of

1 aquaculture products?

2 A. No, I'm not aware of the market.

3 Q. Do you think that the loss of market
4 opportunities would be relevant in consideration of
5 an economic analysis associated with southeastern
6 Idaho relative to ground water pumping and spring
7 water uses?

8 A. If that were the causation. There may
9 be a whole bunch of things that would influence the
10 market and the access to the market and the
11 availability of a market that would have to be
12 identified. Whether that is all associated with
13 lack of ground water or spring water that keeps them
14 out of the markets, I think is a bigger question in
15 light of that the market has many factors that pull
16 upon it.

17 Q. And one of the factors in market
18 opportunities may be the ability to produce a
19 product that would allow you to enter that market;
20 correct?

21 A. That's correct.

22 Q. Okay. Turning to your report, on page 4
23 of your report --

24 A. Uh-huh.

25 Q. -- under the second question and answer,

1 on line 10 you state, "To provide an opinion as to
2 what full economic development of the Eastern Snake
3 Plain Aquifer must consider."

4 What do you mean by "full economic
5 development"?

6 A. To maximize the economic effects of
7 using the water from the Snake River Plain Aquifer.
8 So what I mean is, essentially what's the
9 combination of things that could give you the
10 maximum impact?

11 Q. And is that a phrase that you developed
12 or were you provided that phrase or did you review
13 it in documents provided to you?

14 A. "Full economic development"?

15 Q. Yes.

16 A. I believe is actually in some rules of
17 the Department of Water Resources.

18 Q. And did you review those rules prior to
19 developing your opinions?

20 A. Many, many months ago, yes.

21 Q. I'd like for you to look at Exhibit 37,
22 if you would, please.

23 A. 37.

24 Q. I believe Exhibit 37 are the conjunctive
25 management rules?

1 A. Uh-huh.
 2 Q. And are those the rules that you looked
 3 at prior to developing your opinions?
 4 A. Yes.
 5 Q. And on page 3 of those rules, rule 7?
 6 A. Rule 7.
 7 Q. It states, "The full economic
 8 development of the underground resource."
 9 Is this the rule by which you identified
 10 this concept of full economic development?
 11 A. That is the rule where I got the phrase
 12 "full economic development," yes.
 13 Q. And in developing your definition of it,
 14 did you consult or consider any other documents
 15 other than the rules that you have in front of you?
 16 A. No.
 17 Q. Did you talk to anyone about what that
 18 definition should --
 19 A. Encompass?
 20 Q. Yes.
 21 A. No, nor was I specifically guided as to
 22 what was meant by it. It was kind of the economic
 23 efficiency argument. Economic efficiency is the
 24 situation where you can allocate something to get
 25 the highest level of output. You can't reallocate

1 it in another way without losing some output. So
 2 full economic development is economic efficiency in
 3 that regard.
 4 Q. Okay. So would it be true that if the
 5 resource was fully appropriated or fully allocated
 6 that you've reached full economic development of
 7 that resource?
 8 A. No. It may be inappropriately allocated
 9 and it may be overappropriated.
 10 Q. So if the resource is fully appropriated
 11 in terms of there's water rights issued for the
 12 resource and there's not a sufficient supply of that
 13 resource to satisfy those water rights, would full
 14 economic development occur, short of a reallocation
 15 through the water right transfer process, for
 16 example, or sale and purchase of water rights?
 17 A. Just because you have the water right
 18 appropriated doesn't necessarily mean that it's
 19 reaching its highest and best use or the use that
 20 would produce the most in the economy.
 21 And I may give an example, as I
 22 mentioned earlier to the -- to the court reporter
 23 here that -- and this is just an example -- of
 24 people that -- or things that are not to the highest
 25 and best use.

1 When I went to college here at Boise
 2 State, I was a housekeeping supervisor. I had
 3 degree and I was cleaning surgery rooms, not to
 4 mention I had two people that also had degrees
 5 cleaning surgery rooms: One with a master's degree
 6 and one with a Ph.D. was cleaning surgery rooms.
 7 Now, that is economic inefficiency. Highest and
 8 best use for the economy? No. But that's where
 9 they were allocated at that time.
 10 So what I'm saying here with
 11 appropriations is, yes, you can have it all
 12 appropriated. It doesn't necessarily mean that is
 13 full economic development, because it could be
 14 reallocated in a different way.
 15 Q. Right. And with respect to water and
 16 water rights, reallocation could be accomplished
 17 through the transfer or the sale and purchase of
 18 water rights --
 19 A. Partially.
 20 Q. -- in terms of demand?
 21 A. Partially. Not completely, because
 22 physically -- there's some physical limitations to
 23 that. I mean, you just can't necessarily get the
 24 water to all the places.
 25 Q. Right. And that would be accomplished

1 through a water right transfer which is an
 2 administrative process by which the department could
 3 analyze whether or not such a transfer of the water
 4 from one location to another or from one user to
 5 another could be accomplished legally; correct?
 6 A. That may take you part of the way there.
 7 But what I'm saying is there may be a physical
 8 limitation to actually reaching that optimum.
 9 Q. And when we say "physical" --
 10 A. I mean like move the water to the place
 11 or even substitute water from one place to another
 12 place.
 13 Q. Geographically?
 14 A. Yes.
 15 Q. Okay. I just wanted to make sure we're
 16 thinking about the same physical nature.
 17 And that reallocation, as we've been
 18 talking about, to create full economic development
 19 might occur also through what Mr. Arkoosh described
 20 was the mitigation process where a junior might buy
 21 out a senior or, you know, the free-market process
 22 itself, water right transfers, subject to the
 23 geographic limitation that you described?
 24 A. That could be moving closer to that full
 25 economic development, yes.

1 Now, again, I'm going to come up with
2 short term and long term, though. In the short term
3 you may be moving towards that ideal that would be
4 full economic development; however, this doesn't
5 give a time frame for this. And so in the short
6 term, you are definitely out of full economic
7 development in some cases. I mean, you're just
8 going to be. Some negatives will occur and some
9 positives will occur. Studies like Snyder's and
10 Coupal's says there's more negatives than positives
11 in the short term.

12 Q. Well, at the same time, you're moving
13 towards full economic development through that
14 process of reallocation where the water's bought and
15 sold and transferred through that process?

16 A. You're moving toward more economic --
17 greater economic efficiency. This doesn't give a
18 time frame for full economic development.

19 Q. Right. Were there any other rules
20 within the Exhibit 37 that you reviewed as part of
21 your background in forming your opinions in this
22 case? Do you recall?

23 A. No, I don't believe there was.

24 Q. In particular, just that one rule that
25 we've been talking about?

1 A. Yes. That was kind of my guiding light
2 as to full economic impacts.

3 Q. Okay. Don't put away your report yet,
4 please. Just a number of the questions I have.

5 A. This is your exhibits.

6 Q. Okay. On page 6 of your report --

7 A. Yes.

8 Q. -- on line 16, you identify spring
9 users.

10 Can you define what you mean by a
11 "spring user"?

12 A. Well, what -- specifically what I was
13 thinking of was those water users in the Thousand
14 Springs reach -- I guess you could say it's a
15 reach -- of the Snake River from like Twin Falls
16 down to Hagerman where the springs erupt out of the
17 canyons. Those water users below there, many of
18 them primarily being aquaculture industries, but
19 there are some hydros and surface irrigation, things
20 like that.

21 Q. Okay. In the context of what we've been
22 talking about full economic development, would you
23 believe that in any kind of an aquifer management
24 program or a plan as you've described in your
25 testimony, that that plan should consider the

1 aspects of full economic development as you've
2 testified here today?

3 A. Could you restate that again, please,
4 John?

5 Q. Well, in your report you identify that a
6 planning process should be part of a management
7 program and you've testified here today regarding
8 your general understanding of the aquifer
9 management -- Eastern Snake Plain Aquifer management
10 planning process.

11 Would you consider that that planning
12 process should consider the items you have
13 identified with respect to full economic
14 development; that is, moving the resource to its
15 fullest and best use and how you reallocate that
16 through transfers, through mitigation, through the
17 free market process?

18 A. Oh, yes. Essentially that's what
19 Mr. Arkoosh asked me. That mitigation process and
20 the processes that you go through hasn't been
21 identified. And in practicality, those processes
22 and all those scenarios that could be undertaken to
23 mitigate should be explored.

24 On the other hand, if you can get a
25 rational answer or an answer that really reflects

1 what they would do under those circumstances,
2 perhaps, is another problem.

3 Q. Okay. On page 7 of your report,
4 starting on line 9, you make the statement, "A
5 ground water curtailment program, if implemented
6 today, would not result in a turnaround in
7 availability of surface or spring water tomorrow or
8 next year."

9 What's your basis for making that
10 statement?

11 A. The basis for making that statement is
12 essentially the hydrology reports that had come out
13 and the economic impact reports of Snyder and
14 Coupal's projections, which were based upon those
15 hydrology models, which say if you cut off this
16 pumping today, does it have an impact upon spring
17 flows or surface waters tomorrow, next year, so on
18 and so forth.

19 There seems to be a significant time lag
20 between the effects of stopping pumping and the
21 withdrawals from the aquifer and increased flows in
22 the river, either from springs or recharge coming
23 back to the river, the surface system.

24 Q. So if the ground water model depicted
25 that if water were curtailed on the Eastern Snake

1 Plain, that there would be amounts accruing in the
2 reaches of the Snake River below Milner and in
3 springs associated with spring water rights, senior
4 spring water rights, and that water would be put to
5 beneficial use, would that change the opinions that
6 you've identified in your report?

7 A. It's a matter of time frame. What I'm
8 referencing here is the time frame of those
9 increases. Those increases undoubtedly would be
10 there in the long run, not necessarily in the short
11 run.

12 Q. So if those increases were there next
13 year as a result of curtailment occurring on the
14 plain, would those increases change some of the
15 opinions that you've generated in your report?

16 A. In terms of full economic development?
17 No.

18 Q. In terms of moving towards full economic
19 development?

20 A. In terms of moving towards full economic
21 development? Perhaps. It depends on -- if we're
22 talking about water moving to its best use and
23 highest use, it doesn't necessarily mean that it
24 runs out the springs as the best use or the highest
25 use.

1 Q. In terms of water delivery to a property
2 right holder, a water right holder, and them putting
3 that water to beneficial use, should that be
4 considered as part of your opinions if that water
5 were to appear next year and they could put that
6 water to beneficial use?

7 A. If that water were to appear next year,
8 it would be miraculous that you could cut off water
9 in terms of pumping and have it show up at the
10 springs.

11 However, if it were used beneficially,
12 it would lessen the negative economic impacts that
13 would occur, not necessarily bring us to that point
14 of full economic development.

15 Q. So your understanding of the
16 Snyder/Coupal report was that from a hydrologic
17 standpoint, their understanding is that if you
18 curtailed out on the plain, that that water wouldn't
19 be there in the springs tomorrow or next year or for
20 some short-term period as you've described it here
21 today?

22 A. Uh-huh, that's my understanding.

23 Q. Okay.

24 A. As a matter of fact, I think even
25 Dr. Hamilton states that in his 1977 study of the

1 drought that one of the possibilities of curtailment
2 could be that it would enhance spring flows. But he
3 said it was really not assessable because of the
4 time lags involved.

5 Q. But that's obviously a 1977 study done
6 by Dr. Hamilton prior to the development of the
7 ground water model, a tool that's available for the
8 State?

9 A. Prior to the sophistication of these
10 ground water models, yes.

11 Q. Okay. So again, the underlying premise
12 of the Snyder/Coupal report, as you understand it,
13 is that curtailing ground water rights out on the
14 plain would not yield increased flows in the springs
15 in the short term, as you've described it? It's
16 more of a long-term perspective?

17 A. It's a long-term perspective.

18 Q. On the same page, page 7, beginning on
19 line 20, you make the statement, "Finally an
20 approach that is consistent with the State policies
21 of optimizing or maximizing beneficial uses of the
22 State's water resources."

23 Do you see that statement?

24 A. Yes. Yes.

25 Q. What State policies were you referring

1 to when you made this statement?

2 A. Well, that full economic development
3 policy is consistent with State policies of
4 optimizing or maximizing beneficial uses. And what
5 I'm referring to there in my context here, the
6 statement is that economic efficiency, that ideal of
7 allocating this sort of produces the most efficient
8 level of output, highest level of output.

9 Q. So again, this refers back to that rule
10 that we identified in the conjunctive management
11 rules that you reviewed as part of your generation
12 of your opinions?

13 A. Yes, with the -- with the caveat that I
14 am contexting it in the framework of economic
15 efficiency as economists know economic efficiency.

16 Q. Are there other State policies beside
17 the one that's identified as you described it in the
18 rules associated with conjunctive management that
19 you're relying upon? That is, you've identified,
20 quote, "State policies," and so it would lead one to
21 believe there's more than one.

22 A. No. No. No. No.

23 MR. SIMPSON: Let's go off the record for a
24 couple minutes.

25 (Recess.)

1 MR. SIMPSON: Back on the record.
 2 Q. Just a couple more questions and then
 3 I'm done.
 4 Would you agree that the predicate to
 5 market, as we've described it, which results in full
 6 economic development is a property right -- having
 7 property rights in a tangible item or in a water
 8 right, for example, or a piece of real estate, which
 9 is then subject to the market, allowing the
 10 development of that right and perhaps the transfer
 11 of that property right?

12 A. A property right will provide the
 13 motivation for transfers, development, at higher
 14 valuations.

15 Q. Ultimately, the fullest development of
 16 that right itself?

17 A. To the extent possible.

18 Q. What would be the economic consequences
 19 if the water supply -- that is, the ESPA and overall
 20 the water supply in the Snake River basin continues
 21 to decline, what would be the economic consequences
 22 on the relative sectors that, for example, are
 23 described in the Coupal/Snyder report?

24 A. I really don't know that, John. I mean,
 25 what scenario would that be? How would that occur?

1 When would it occur? And if it continues to
 2 decline, at what rate? No, I don't know.

3 Q. But would you agree that --

4 A. It would have an impact.

5 Q. -- continual decline would have an
 6 impact, and it most likely would be a negative
 7 impact on the relative factors or sectors?

8 A. In terms of other aquifers around the
 9 country that have seen that situation, it's had a
 10 negative impact.

11 Q. It's had a negative impact on ground
 12 water users, surface water users, basically property
 13 right holders, and in addition the local and
 14 regional economies within the areas that are
 15 impacted by that water supply; would you not agree?

16 A. I would agree. Those are very extreme
 17 scenarios, though. Very extreme scenarios.

18 Q. You mean the scenarios that you've
 19 observed in other water supply conditions, other
 20 aquifers that have declined?

21 A. Yeah, that's a very extreme scenario.
 22 The aquifer in a sense goes away is a very extreme
 23 scenario.

24 Q. But if an aquifer continues to decline
 25 or a water supply continues to decline, short of an

1 aquifer going away, there are negative impacts?

2 A. Negative impacts, yes.

3 MR. SIMPSON: That's all the questions I
 4 have.

5 MR. MAY: I don't have any.

6 MS. McHUGH: I just have a couple questions.

EXAMINATION

9 BY MS. McHUGH:

10 Q. The Snyder/Coupal report contains some
 11 analyses and values the three sectors -- bad
 12 question -- but places some values that are relevant
 13 to the three sectors that the report analyzed; is
 14 that true?

15 A. That's true.

16 Q. Is it fair to say that you could use
 17 those valuations and that information on those
 18 sectors to apply them to other curtailment priority
 19 dates, for example?

20 MR. ARKOOSH: Object to the form.

21 MS. McHUGH: Okay.

22 THE WITNESS: Pardon me?

23 Q. (BY MS. McHUGH): He objected to the
 24 form of my question. My form was bad, which is
 25 true.

1 MR. ARKOOSH: Merely a lawyer noise,
 2 Mr. Church. You can go ahead and answer the
 3 question.

4 THE WITNESS: Yeah.

5 Q. (BY MS. McHUGH): So I can re-ask my
 6 question or you can answer it.

7 A. Well, actually, I just didn't hear what
 8 you said. That's what I meant.

9 Q. Okay. Anyway. Okay. We'll re-ask the
 10 question.

11 Do you recall when John asked you about
 12 whether or not the Snyder/Coupal report looked at
 13 the -- that you looked at the actual orders and
 14 whether the Snyder/Coupal report considered
 15 information contained in those curtailment orders?

16 A. Yes. I recall that, yes.

17 Q. Okay. The analysis in the Snyder/Coupal
 18 report, would it inform what the economic
 19 consequence would be of curtailing back to different
 20 dates, other than what's the Snyder/Coupal?

21 A. It could provide a guideline for doing
 22 that. I think I responded to John by saying that I
 23 don't believe anyone has done that in terms of kind
 24 of an interpolation between different points. I
 25 don't think anybody's done that, nor have I ever

1 been charged to do that myself, nor have I done
2 that.

3 But it could be used as a parameter or
4 parameters to examine between those two priority
5 dates, and maybe even up to the present: Here's
6 impacts at this priority date, impacts at that
7 priority date, and then by some method of allocation
8 we could have this impact to another priority date.

9 Rather an interpolation, but maybe an
10 interpolation based upon the amount of water that
11 would be different between the two, the withdrawal,
12 sort of, of the curtailment waters.

13 Q. In the Snyder/Coupal report, they place
14 certain values on irrigated agriculture, for
15 example.

16 Would that inform what in fact is the
17 value of certain irrigated agriculture, for
18 instance?

19 A. Yes.

20 Q. And would that be the same for the other
21 sectors it considered?

22 A. Yes. Yes.

23 Q. Go ahead.

24 A. I'll have to amplify that a little bit.

25 Given that Snyder and Coupal's report is

1 dated as of some date, it may be different as of
2 this date, largely due to cost changes and price
3 changes and things like that that may have occurred.

4 So in a relative sense, if you treat
5 everything in the constant dollars of the date that
6 report was done, that would definitely be a relative
7 sort of impact.

8 If somebody wanted to recalibrate it to
9 a different date, it would be completely
10 different -- may be different.

11 Q. Recalibrate it to a different date as to
12 the date the report was made?

13 A. Yes.

14 Let me point out, though, that higher
15 prices and perhaps bigger profits also means bigger
16 losses if you curtail something. So it could be
17 much larger negatives.

18 Q. Would you expect that the analysis of
19 the Snyder/Coupal report as far as its positive and
20 negative inputs would change dramatically based on,
21 let's say, a priority date cut of -- if the priority
22 date that was curtailed was five to ten years
23 junior?

24 MR. ARKOOSH: Object to the form.

25 Q. (BY MS. McHUGH): You can still answer.

1 A. In relative magnitude between the
2 winning and losing sectors of the economy, those
3 ones that are examined, I don't think it would
4 change the magnitude of them. It might lessen them.
5 But it wouldn't change the magnitude relative to
6 each other.

7 MS. McHUGH: Okay. I have nothing further.

8 MR. SIMPSON: Mr. Arkoosh?

FURTHER EXAMINATION

11 BY MR. ARKOOSH:

12 Q. Well, I was just going to ask you, you
13 know, if profits are greater today, the losers could
14 lose more and the winners could get more; is that
15 right?

16 A. Well, that's true, yeah. Profits are
17 greater today --

18 Q. The winners win more and the losers lose
19 more?

20 A. The winners win more and the losers lose
21 more.

22 MR. ARKOOSH: I have nothing further.

23 ///

24 ///

25 ///

FURTHER EXAMINATION

2 BY MR. SIMPSON:

3 Q. Mr. Church, is it reasonable, in your
4 view, to perform a statistical analysis, a linear
5 interpolation with two points?

6 A. It is not a linear interpolation that
7 I'm really mentioning. It is kind of a linear
8 adjustment of the results. But what I'm saying is
9 that input/output model and the types of parameters
10 that it uses, you could reasonably use a different
11 set of water parameters and scale it because the
12 input/output model parameters will not change
13 between one level and another level of water use.
14 So you could scale it up or down to an extent.

15 Q. And are you aware of -- let's just take
16 1949 and 1961 -- the number of water rights that
17 were acquired in that period of time as opposed to
18 the number of water rights that were acquired at
19 some other time, say 1961 to 1970?

20 A. Not specifically. I've seen numbers to
21 that effect. But, yeah, I don't recall. I'm not
22 specifically aware of them, no.

23 Q. Or the location of those water rights?

24 A. No, I don't know.

25 Q. Do you think that information would be

1 relevant in order to determine whether or not this
2 extrapolation that you've been describing could be
3 done?

4 A. And the -- yeah, it would be relevant,
5 and the type of wells and the uses would be
6 relevant.

7 Q. Right. In other words, there would be a
8 lot of background work to be done before one could
9 reach a conclusion that one could take two points
10 and then utilize those two points to draw
11 conclusions to a third point or a fourth point?

12 A. You would have to make some assumptions
13 about who would be impacted and where.

14 Q. And how much?

15 A. Well, how much essentially is going to
16 come with some priority date. That's how much.

17 Q. That's right.

18 A. But who and what -- essentially what
19 would occur with that.

20 MR. SIMPSON: Okay. That's all I have.

21 MR. MAY: I don't have anything.

22 MS. McHUGH: Okay. Dan's out of luck. We're
23 off the record.

24 (Deposition concluded at 11:13 a.m.)

25 (Signature requested.)

1 -oOo-

1 CERTIFICATE OF WITNESS

2
3 I, JOHN CHURCH, being first duly sworn,
4 depose and say:

5 That I am the witness named in the foregoing
6 deposition, consisting of pages 1 through 102; that
7 I have read said deposition and know the contents
8 thereof; that the questions contained therein were
9 propounded to me; and that the answers contained
10 therein are true and correct, except for any changes
11 that I may have listed on the Change Sheet attached
12 hereto.

13 DATED this ____ day of _____ 2007.

14
15 _____
16 JOHN CHURCH

17 SUBSCRIBED AND SWORN to before me this
18 ____ day of _____ 2007.

19
20
21
22
23 _____
24 NAME OF NOTARY PUBLIC
25 RESIDING AT _____
MY COMMISSION EXPIRES _____

1 CHANGE SHEET FOR JOHN CHURCH

2 Page ____ Line ____ Reason for Change

3 Reads

4 Should Read

5 Page ____ Line ____ Reason for Change

6 Reads

7 Should Read

8 Page ____ Line ____ Reason for Change

9 Reads

10 Should Read

11 Page ____ Line ____ Reason for Change

12 Reads

13 Should Read

14 Page ____ Line ____ Reason for Change

15 Reads

16 Should Read

17 Page ____ Line ____ Reason for Change

18 Reads

19 Should Read

20 Page ____ Line ____ Reason for Change

21 Reads

22 Should Read

23 Page ____ Line ____ Reason for Change

24 Reads

25 Should Read

REPORTER'S CERTIFICATE

I, JEFF LaMAR, CSR No. 640, Certified
Shorthand Reporter, certify:

That the foregoing proceedings were taken
before me at the time and place therein set forth,
at which time the witness was put under oath by me.

That the testimony and all objections made
were recorded stenographically by me and transcribed
by me or under my direction.

That the foregoing is a true and correct
record of all testimony given, to the best of my
ability.

I further certify that I am not a relative or
employee of any attorney or party, nor am I
financially interested in the action.

IN WITNESS WHEREOF, I set my hand and seal
this ____ day of _____, 2007.

JEFF LaMAR, CSR NO. 640
Notary Public
Eagle, Idaho 83616

My commission expires December 30, 2011

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REPORTER'S CERTIFICATE

I, JEFF LaMAR, CSR No. 640, Certified
Shorthand Reporter, certify:

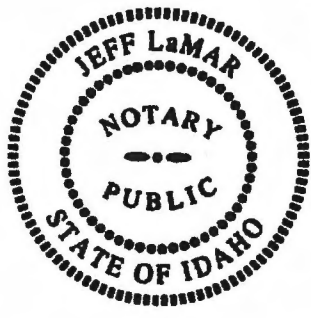
That the foregoing proceedings were taken
before me at the time and place therein set forth,
at which time the witness was put under oath by me.

That the testimony and all objections made
were recorded stenographically by me and transcribed
by me or under my direction.

That the foregoing is a true and correct
record of all testimony given, to the best of my
ability.

I further certify that I am not a relative or
employee of any attorney or party, nor am I
financially interested in the action.

IN WITNESS WHEREOF, I set my hand and seal
this 21st day of November, 2007.



A handwritten signature of Jeff LaMar, consisting of stylized, overlapping loops and lines.

JEFF LaMAR, CSR NO. 640
Notary Public
Eagle, Idaho 83616

My commission expires December 30, 2011

Docket No. 37308-2010

IN THE SUPREME COURT OF THE STATE OF IDAHO

**IN THE MATTER OF DISTRIBUTION OF WATER TO WATER RIGHT
NOS. 36-04013A, 36-04013B, AND 36-07148 (Clear Springs Delivery Call)**

**IN THE MATTER OF DISTRIBUTION OF WATER TO WATER RIGHT
NOS. 36-02356A, 36-07210, AND 36-07427 (Blue Lakes Delivery Call)**

**CLEAR SPRINGS FOODS, INC.,
Petitioner/Respondent/Cross-Appellant,**

v.

**BLUE LAKES TROUT FARM, INC.,
Cross Petitioner/Respondent/Cross-Appellant,**

v.

**IDAHO GROUND WATER APPROPRIATORS, INC., NORTH SNAKE GROUND
WATER DISTRICT, and MAGIC VALLEY GROUND WATER DISTRICT,
Cross Petitioners/Appellants/Cross-Respondents,**

v.

**GARY SPACKMAN., in his capacity as Director of the Idaho Department of Water Resources;
and the IDAHO DEPARTMENT OF WATER RESOURCES,
Respondents/Respondents on Appeal/Cross-Respondents,**

v.

**IDAHO DAIRYMEN'S ASSOCIATION, INC., and RANGEN, INC.,
Intervenors/Respondents/Cross-Respondents.**

GROUNDWATER USERS' OPENING BRIEF

**On Appeal from the District Court of the Fifth Judicial District
of the State of Idaho, in and for the County of Gooding.**

Honorable John M. Melanson, District Judge, Presiding.



The central purpose of the Swan Falls Agreement would be ruined if spring water rights were entitled to increase surface water supplies above the minimum flows via the curtailment of ground water pumping. The State of Idaho and the Idaho Department of Water Resources entered into the Swan Falls Agreement only on condition that other water uses could continue or be developed so long as those minimum flows were maintained. The benefit of that bargain would be annihilated if spring users were entitled to command water flows above the minimum flows which were agreed to.

(R. Supp. Vol. 6, p. 4796.)

As a matter of law, the terms of the Swan Falls Agreement render any delivery call by spring users invalid so long as the minimum flows at the Murphy Gauge are maintained. Blue Lakes and Clear Springs cannot be permitted to force the State to abandon the Swan Falls Agreement and deprive the State of its ability to develop the additional water secured by the Agreement. The curtailment orders should be set aside because they fail to comply with the comprehensive water management plan established by the Swan Falls Agreement and State Water Plan. If the Court accepts this argument, it will be unnecessary to remand this case for further proceedings.

II. The curtailment orders violate the law of full economic development of groundwater resources set forth in Ground Water Act.

This Court should set aside the curtailment orders because they violate the overarching policy of the Ground Water Act (“Act”) that “while the doctrine of ‘first in time is first in right’ is recognized, a reasonable exercise of that right shall not block full economic development of underground water resources.” I.C. § 42-226 (emphasis added). The Act is acutely relevant to this case because it is the only place in Idaho’s water code where the Legislature addresses the situation of a surface water user seeking to curtail a junior groundwater user. In fact, it was the

1953 amendments to the Act that first authorized the Director to administer groundwater rights for the benefit of surface rights. 1953 Idaho Sess. Laws, ch. 182. Prior to 1953, holders of surface water rights had neither a recognized right nor an administrative mechanism to seek priority administration against groundwater rights. As discussed below, this right to seek administration (through enforcement of priority) against groundwater rights is conditional.

To achieve this goal of full economic development, the Act provides that “appropriators of underground water shall be protected in the maintenance of reasonable ground water pumping levels.” I.C. § 42-226 (emphasis added). The Act enables groundwater development to expand so long as it does not “result in the withdrawing of the ground water supply at a rate beyond the reasonably anticipated average rate of future natural recharge” (i.e. so long as withdrawals do not outpace inputs). I.C. § 42-237A(g).²¹ Simply stated, if hydraulic conditions can sustain the existing diversions from the aquifer, the Act precludes curtailment. On this condition the Legislature made groundwater rights subject to curtailment by surface water rights.²²

This administrative scheme is founded on precedent from this Court. As early as 1923, in a case involving groundwater, the Court held that a water user has “no right to insist the water-table be kept at the existing level in order to permit him to use the underground waters.” *Nampa & Meridian Irrigation Dist. v. Petrie*, 37 Idaho 45, 51 (1923). The Court explained that “[t]o hold that any land owner has a legal right to have [] a water table remain at a given height ... is not required by either the letter or spirit of our constitutional and statutory provisions in regards

²¹ The Act even permits over-drafting of an aquifer in certain circumstances. I.C. § 42-237A(g).

²² Notably, the water rights that Blue Lakes and Clear Springs used to make their delivery calls were appropriated *after* the Ground Water Act was amended to provide for full economic development in 1953.

to water rights.” *Id.* As the Court later stated in *Nettleton v. Higginson*, “the entire water distribution system under Title 42 of the Idaho Code is to further the state policy of securing the maximum use and benefit of its water resources.” 98 Idaho 87, 91 (1977).

The Act’s attention to reasonable pumping levels and the balance between withdrawals and recharge reflect the Legislature’s expectation that aquifer levels would decline as ground-water pumping expanded. With respect to the ESPA specifically, the anticipated lowering of the water table was also expected to result in an accompanying reduction in the amount of water that overflows from the ESPA through the springs in the Thousand Springs area. Therefore, the Legislature provided that the Act applies “[w]hensoever any person owning or claiming the right to the use of any surface or ground water right believes that the use of such right is being adversely affected by one or more users of ground water rights of later priority” I.C. § 42-237B (emphasis added).

Former Director Ken Dunn testified that because of the Act’s directive for full economic development of groundwater resources, “the Department would not have permitted spring users in the thousand springs reach to curtail ground water pumping on the Eastern Snake River Plain.”

Id. The policy was incorporated in the first State Water Plan adopted in 1977, which states:

Aquaculture can expand when and where water supplies are available and where such uses do not conflict with other beneficial uses. It is recognized, however, that future management and development of the Snake River Plain Aquifer may reduce the present flow of springs tributary to the Snake River, necessitating changes in diversion facilities.

(Ex.440, Policy 5G) (emphasis added.)

The Act and its mechanism for achieving full economic development were challenged in 1973. *Baker v. Ore-Ida Foods, Inc.*, 95 Idaho 575, 576 (1973). An earlier decision of this Court suggested that “a senior appropriator of ground water is forever protected from any interference with his method of diversion.” *Id.* at 581 (citing *Noh v. Stoner*, 53 Idaho 651 (1933)). Under *Noh*, “the only way that a junior can draw on the same aquifer is to hold the senior harmless for any loss incurred as a result of the junior’s pumping.” *Id.* In *Baker*, the Court recognized that its prior decision in *Noh* was problematic, since “[i]f the costs of reimbursing the senior became excessive, junior appropriators could not afford to pump the aquifer.” *Id.*

In response, the Court reversed its prior holding, explaining that it was “inconsistent with the constitutionally enunciated policy of optimum development of water resources in the public interest.” *Id.* at 583. The Court concluded that “the Ground Water Act is consistent with the constitutionally enunciated policy of promoting optimum development of water resources in the public interest.” *Id.* at 584 (internal cite omitted); see also Idaho Const. art 15, § 3 (stating “[t]he right to divert and appropriate the unappropriated waters of any natural stream to beneficial use, shall never be denied....”). Further, the Court explained that

A senior is not absolutely protected in either his historic water level or his historic means of diversion. Our Ground Water Act contemplates that in some situations senior appropriators may have to accept some modification of their rights to achieve the goal of full economic development.

Id. A water user is not entitled to curtail junior-priority groundwater rights simply because the water table has lowered. While this means that junior-priority groundwater pumping may have some negative impact on senior-priority water users, the Court explained that

In the enactment of the Ground Water Act, the Idaho legislature decided, as a matter of public policy, that it may sometimes be necessary to modify private property rights in ground water in order to promote full economic development of the resource. The legislature has said that when private property rights clash with the public interest regarding our limited ground water supplies, in some instances at least, the private interests must recognize that the ultimate goal is the promotion of the welfare of all our citizens.

Id. (internal cite omitted); see also *Schodde v. Twin Falls Land and Cattle Co.*, 224 U.S. 107, 120 (1912) (holding that a water right “is not an unrestricted right, but must be exercised with some regard to the rights of the public”). The ultimate criterion of groundwater administration is “how best to utilize the annual supply without over-drafting the stock which maintains the aquifer’s water level.” *Baker*, 95 Idaho at 580.

That is not to say that the directive for full economic development does away with the right of priority. To the extent necessary to prevent over-drafting of the aquifer, priority of right still determines which water rights get shut off to maintain a stable water table. But the Act unquestionably places limits on the exercise of priority. *Parker v. Wallentine*, 103 Idaho 506, 512 (1982) (confirming that the doctrine that first in time is first in right “was modified in certain respects by the enactment of the Ground Water Act”).

The CM Rules incorporate the Act and its policy of full economic development of groundwater resources:

These rules integrate the administration and use of surface and ground water in a manner consistent with the traditional policies of reasonable use of both surface and ground water. The policy of reasonable use includes the concepts of priority in time and superiority in right being subject to conditions of reasonable use ... and full economic development as defined by Idaho law.

CM Rule 20.03. In addition, the CM Rules specifically instruct the Director to consider “[t]he amount of water available from the source from which the water right is diverted” when responding to delivery calls made against groundwater rights. CM Rule 43.01.a.

This Court has considered and upheld the constitutionality of the CM Rules, and affirmed the Director’s duty in conjunctive water administration to consider “the reasonableness of a diversion, the reasonableness of use and full economic development.” *AFRD2*, 143 Idaho at 876. As explained by the Court, “[w]hile the prior appropriation doctrine certainly gives pre-eminent rights to those who put water to beneficial use first in time, this is not an absolute rule without exception.” *Id.* at 880.

The Ground Water Act facilitates full economic development by protecting groundwater pumping so long as a reasonable aquifer levels are sustained. In addition, the Act lends support to common law prohibition of monopolistic water use. It also requires the Director to consider the economic impact of curtailment. When applied to the facts of this case, these considerations uniformly and powerfully show that the curtailment orders violate the law of full economic development of groundwater resources.

A. The curtailment orders require the water table of the ESPA to be maintained at an inflated level contrary to the Act.

The fact that (a) the spring water rights by which Blue Lakes and Clear Springs demand curtailment were appropriated when ESPA overflow was at an all-time high; (b) these peak flows cannot be restored without returning to flood irrigation, retiring Palisades Reservoir in favor of winter canal flows, and drying up nearly one million groundwater irrigated acres; (c) annual

recharge to the ESPA (7.5 million acre-feet) is far above annual groundwater withdrawals (2.1 million acre-feet); (d) current spring flows remain 1,200 cfs above natural levels; and (a) the ESPA is at or near equilibrium (See Statement of Facts pp. 13-15 *supra.*), clearly precludes curtailment based on the administrative scheme embodied in the Ground Water Act. The central premise of the Act is that the ESPA and other aquifers will be administered to achieve full economic development by protecting the use of groundwater provided reasonable, sustainable aquifer levels are maintained.

The original curtailment orders issued in 2005 cite the law of full economic development (R. Vol. 1, p. 63 ¶ 6; R. Vol. 3, p. 512 ¶ 6) and note the difference between recharge into and withdrawals from the ESPA (R. Vol. 1, pp.45-45, ¶¶ 3-6; R. Vol. 3 pp. 487-88, ¶¶ 3-6). However, the orders do not take the next step and apply the law of the Act to the foregoing facts. The orders do not address administration of the ESPA based on reasonable aquifer levels at all. Massive and permanent curtailment was ordered without any meaningful analysis of the most defining statutory criterion for administering groundwater rights in response to delivery calls made by surface water rights.

After the hearing, the hearing officer acknowledged that “‘first in time is, first in right’ is fundamental to water administration but is subject to consideration of the public interest,” (R. Vol. 16, p. 3690), yet still offered no analysis of the aquifer level, the relationship between recharge and withdrawals, or the fact that spring discharges remain higher than historic levels.

On judicial review, the district court acknowledged that both the CM Rules and Idaho Code § 42-226 require analysis of full economic development, but the court refused to reverse the curtailment orders, explaining:

Such a determination of “reasonableness” required the Director to balance the State’s policy of full economic development, the exercise of senior priority rights, and the public interest. A determination of full economic development, as contemplated by the CMR and Idaho Code § 42-226, is not an analysis of the “highest and best” use of the water or the “best economic return” from the use of the water. Rather, full economic development denotes expansive utilization of the aquifer, and does not necessarily dictate a preference of a more profitable or popular water use over another. Applying the balancing test, the Director made findings that the Spring Users were employing reasonable diversion practices and that the amount of undeveloped water or “dead storage” in the aquifer was reasonable under the circumstances.

(Clerk’s R. p. 121.) This conclusion is mistaken. First, full economic development is not a balancing test. While the Director may exercise discretion in defining a reasonable aquifer level, he cannot refuse to consider whether the rate of groundwater withdrawal exceeds the reasonably anticipated rate of future recharge, or refuse to administer the ESPA based on reasonable aquifer levels.

Second, the district court properly noted that “any public interest or full economic development analysis has to start with the premise that a certain amount of undeveloped water or ‘dead storage’ is acceptable” (Clerk’s R. p. 79), but mistakenly assumed the Director actually made a determination of reasonable aquifer levels. While the Director recognized that annual recharge is greater than withdrawals, he not apply the fact to the law of the Act by making specific findings or conclusions concerning reasonable aquifer levels or the amount of “dead storage” required by the curtailment orders.

The district court further assumed that the Director actually made findings that the Spring Users' were not monopolizing the aquifer, but this assumption is equally untrue. *Id.* p. 78-79. While the district court was clearly troubled by the "overwhelming" evidence "that the curtailment of ground water does not result in a timely proportionate increase to spring flows" and that "the majority of the projected increases to the respective sub-reaches is water not used by the Springs Users and discharges from the aquifer through other spring complexes," *Id.* at 78, the district court ultimately affirmed the curtailment orders based on an assumption that the Director directly considered these issues.

Due to the lack of specific findings or conclusions concerning reasonable aquifer levels, we are left with nothing more than an inference that the Director must have believed that curtailment is consistent with administrative scheme embodied in the Act. But inferences are not enough to sustain the curtailment orders. The Director has a statutory duty to provide "a concise and explicit statement of the underlying facts of record supporting the findings." I.C. § 67-5248. This Court should not give deference to inferred findings and conclusions concerning facts that are at the very heart of this case. The lack of any meaningful analysis of the recharge/withdrawal balance and reasonable groundwater levels has resulted in the Act being utterly trivialized, with the Director now excused from making any meaningful application of the Act in the future.

Instead of the ESPA being administered for maximum sustainable beneficial use, the orders aim to maximize overflow from the ESPA, minimizing beneficial use of Idaho's most productive aquifer and encouraging additional delivery calls by spring users. Blue Lakes and Clear Springs have "no right to insist that the water table be kept at the existing level," *Petrie*,

37 Idaho at 51, yet the curtailment orders guarantee them an inflated water table that is impossible to restore without a total reversion to inefficient flood irrigation and a reversal of a half century's worth of groundwater development.

The curtailment orders should be set aside because they violate the Ground Water Act. With annual recharge into the ESPA far greater than withdrawals, the water table of the ESPA at or near equilibrium, and spring discharges well above natural levels, it makes no sense and is contrary to the directive for full economic development and the maintenance of reasonable pumping levels to permanently dry up more than 70,000 acres of farmland. This is precisely why the Act provides that senior water users may have to accept "some modification of their rights in order to achieve the goal of full economic development." *Baker*, 95 Idaho at 584.

B. The curtailment orders give Blue Lakes and Clear Springs an unreasonable monopoly over the ESPA.

Violation of the Act is further evidenced by the gross monopoly created in Blue Lakes and Clear Springs by the curtailment orders. It has long been "[t]he policy of the law of this State [] to secure the maximum use and benefit, and least wasteful use, of its water resources." *Poole v. Olaveson*, 82 Idaho 496, 502 (1960) see also *Parker v. Wallentine*, 103 Idaho 506, 650 P.2d 648 (1982) (stating that "it is clearly state policy that water be put to its maximum use and benefit"). Accordingly, the CM Rules precludes monopolistic water use by providing that "[a]n appropriator is not entitled to command the entirety of large volumes of water in a surface or ground water source to support his appropriation contrary to the public policy of reasonable use of water." CM Rule 20.03.

The policy against monopolistic water use is rooted in our constitutional guarantee that “[t]he right to divert and appropriate the unappropriated waters of any natural stream to beneficial uses, shall never be denied” Idaho Const., Art. 15, § 3. As this Court explained more than a century ago,

In this arid country where the largest duty and the greatest use must be had from every inch of water in the interest of agriculture and home-building, it will not do to say that a stream may be dammed so as to cause subirrigation of a few acres at a loss of enough water to surface-irrigate ten times as much by proper application.

Van Camp v. Emery, 13 Idaho 202, 208 (1907). The United States Supreme Court, applying Idaho law, relied on this same policy in the case of *Schodde v. Twin Falls Land and Cattle Co.* 224 U.S. 107. In that case, water diversions into the newly-constructed Twin Falls Canal had substantially reduced the flow of water in the Snake River, preventing Schodde from being able to divert his more senior water right and leaving him without any water for his 430-acre farm. *Id.* at 114-16. Though senior in priority, the Court denied Schodde any recourse because protecting his diversion would unreasonably impair the public interest in maximizing development of the Snake River. *Id.* The Court reasoned that a water right “must be exercised with reference to the general condition of the country and the necessities of the people, and not so to deprive a whole neighborhood or community of its use and vest an absolute monopoly in a single individual.” *Id.* at 121 (quoting *Basey v. Gallagher*, 87 U.S. 670, 683 (1874)).

In *Schodde*, the Court justified its decision with the following hypothetical, which is remarkably relevant to this case:

Suppose from a stream of 1000 inches a party diverts and uses 100, and in some way uses the other 900 to divert his 100, could it be said that he made such a

reasonable use of the 900 as to constitute an appropriation of it? Or, suppose that when the entire 1000 inches are running, they so fill the channel that by a ditch he can draw off to his land 100 inches, can he then object to those above him and appropriating the other 900 inches, because it will so lower the stream that his ditch becomes useless? This would be such an unreasonable use of the 900 inches as will not be tolerated under the law of appropriation.

Id. at 119. It was patently unreasonable to the *Schodde* Court to curtail water to thousands of irrigated acres if only ten percent of the curtailed water could be used by the senior water user.

While the *Schodde* Court did not state what it believed to be a reasonable return on curtailment, the hypothetical certainly implies it must be greater than ten percent. The best evidence of a reasonable rate of return on curtailment in this case was given by Clear Springs' CEO Larry Cope who testified that he believed that at least a two-thirds (sixty-seven percent) return on curtailment within ten years is an appropriate standard. (Cope, Tr. Vol. 1, p. 159, L. 12-16.)

In this case, the scope of curtailment is so broad that Blue Lakes is projected to receive **less than one percent** of the water curtailed. (See Statement of Facts at p. 40 *supra*.) Worse yet, Clear Springs is projected to receive only **one quarter of one percent** of the water curtailed. *Id.* The disparity between the amount of water curtailed and the projected benefit to Blue Lakes and Clear Springs could hardly be more extreme. The return on curtailment of less than one percent simply cannot be squared with holding in *Schodde* that a ten percent rate of return is patently unreasonable, particularly given the testimony of Mr. Cope that a two-thirds return should be required.

The remaining ninety-nine percent of the curtailed water is turned into unusable “dead” storage that serves the sole purpose of propping up an inflated water table and spring discharges. (Clerk’s R. pp. 77-78.) This massive surplus of unusable storage water is contradictory to the law of full economic development as well as the constitutional promise that “[t]he right to divert and appropriate the unappropriated waters of any natural stream to beneficial uses, shall never be denied” Idaho Const. art. XV, § 3.

The Director’s original curtailment orders fail to even mention, let alone make discrete findings or conclusions concerning, the disparity between the amount of water curtailed and the fractional return to Blue Lakes and Clear Springs, or the amount of groundwater that must be permanently stored in the ESPA to prop up the water table and support their inflated spring flows. Following the hearing, however, the hearing officer did note the stark imbalance:

One of the most startling facts in these cases is the amount of acreage that must be curtailed in order to deliver water to the Spring Users facilities. It is not a one cfs to one cfs increase to the Spring Users ratio. The vast majority of the water that will be produced from curtailment does not go to the Blue Lakes and the Snake River Farm facilities. Perhaps it will go to beneficial use in Idaho, perhaps not.

(R. Vol. 16, p. 3690.) Still, it was not enough for the Director to change course and narrow the scope of curtailment. The hearing officer did cite *Schodde* and CM Rule 20.03 in response to the Spring Users’ argument that even more acres should have been curtailed (R. Vol. 16, p. 3712), but neither the hearing officer nor the Director were willing to go one step further and question whether fewer acres should be curtailed given the tiny rate of return on the broad curtailment ordered in an emergency in 2005.