

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

IN THE MATTER OF THE MITIGATION) COMPUTATIONS IN WATER DISTRICT 120) FOR THE SURFACE WATER COALITION) _____)	IDWR'S RESPONSE TO IGWA'S SECOND QUESTIONS (NOS. 34-48)
---	--

Please note in Question No. 35, IGWA has identified an apparent contradiction in the Department's response to IGWA Question Nos. 2, 21, and 32, which the Department responded to on May 29, 2009. The Department's response to IGWA Question No. 35 is intended to resolve the contradiction.

QUESTION 34: Hearing Officer Schroeder's *Opinion Constituting Findings of Fact, Conclusions of Law and Recommendation*, dated April 22, 2008 ("Hearing Officer's Opinion") at page 61, paragraph 9 states: "The Ground Water Users have no obligation to make up for water that will not be applied to its licensed or adjudicated purpose, e.g., the sale of water for flow augmentation . . . (it would be different) if the requirement for augmentation were to arise from a mandate without compensation to the Surface Water Users. Were that the case, the Ground Water Users would be subject to contribution for their depletion of the river." Further, Idaho Code § 42-1763B(4) states that flow augmentation is not a recognized beneficial use of water. Please describe how that requirement is addressed in the mitigation computations.

ANSWER 34: The current process used to supply flow-augmentation rental is to supply it from the reservoir system and not deduct it from individual spaceholders' allocations nor from individual spaceholders' carryover in the year the flow augmentation is supplied. This process results in a storage deficit at the end of the year whereby the sum of all spaceholder carryover is greater than the reservoir system's physical contents by an amount equal to the flow augmentation supplied. For example, if 150,000 acre-feet of flow augmentation were supplied, the total spaceholder carryover at the end of the irrigation season may total 2,150,000 acre-feet, while the physical contents in the reservoir system would only total 2,000,000 acre-feet.

If the reservoir system refills to 100% (or the USBR evacuates additional reservoir space for flood-control) following the release of flow augmentation, there are no impacts to spaceholders (or ground water users) as a result of supplying flow augmentation the previous season, and no adjustment would be necessary for mitigation computations. In other words, when individual carryover or storage allocations are not affected by the supplied reservoir system flow-augmentation water, there are no increased mitigation obligations to ground water users.

If the reservoir system fails to refill and there are "impacts" (shortages) to spaceholders' storage allocations due to the supply of flow augmentation from the previous season,

spaceholders are either paid for those impacts or they receive rental storage in an amount equal to the impacts. If this situation were to occur for a SWC spaceholder requiring mitigation from ground water users, the mitigation computation would be adjusted for such an impact due to supplying flow-augmentation water the previous season.

Impacts to a SWC entity requiring mitigation has never occurred under the current methods of supplying flow augmentation water since the supply procedure was first implemented in the 2005 Water District 01 Rental Pool Procedures. If a SWC entity requiring mitigation is impacted in the future from water supplied for flow augmentation, then adjusting mitigation obligations for these impacts when, or if, they occur would be consistent with the Hearing Officer's Opinion, dated April 22, 2008.

QUESTION 35: In the Department's Answers to IGWA's Questions 2 and 21, the Department indicated that water leased, rented or sold by SWC entities would be accounted for in determining the amount of carryover storage. This response appeared to be contradict the Department's Answer to Question 32 stating: "Mitigation obligations of Ground Water Users are not adjusted for any SWC unfilled reservoir space (if any) attributed to impacts from flow augmentation rentals." Please explain this apparent contradiction.

ANSWER 35: The answer to Question 32 should have said mitigation obligations of Ground Water Users have not been adjusted for any SWC unfilled reservoir space attributed to impacts from flow augmentation rental because there have not been any impacts to SWC entities requiring mitigation since the procedures for supplying flow augmentation rental were implemented in 2005. In the future, if a situation occurs where there are impacts to SWC entities requiring mitigation, those impacts will be included in computing future mitigation obligations.

QUESTION 36: The Hearing Officer's Opinion at page 67, paragraph 4 states: "If crop needs are met by the combined use of natural flow and storage water and there is sufficient water for reasonable carryover, there is no material injury. This assumes that crop needs are fully met. Curtailment, however, only extends to providing the amount of water necessary to replace ground water depletions to reasonable carryover storage." As this statement was made under the topic heading "Total Water Supply" and "Full Head Gate Delivery", it seems to have more significance than just to carryover storage alone and seems to limit how much curtailment is allowed in general. Please explain how this statement is addressed in the mitigation computations and proposed protocol.

ANSWER 36: The mitigation computations treat natural flow and storage water as a total water supply available to the SWC for RISD. The sources are not treated separately for RISD. The draft protocol does not limit the amount of water SWC members may carryover from year-to-year. The draft protocol does limit, however, the amount of reasonable carryover that can be obtained by curtailment of junior ground water users.

QUESTION 37: Will curtailment be limited to provide no more than the amount of depletions attributable to ground water pumping? How are shortages to RISD or carryover that are caused by factors other than ground water pumping (e.g., drought, changed irrigation practices) factored into the mitigation computation protocol?

ANSWER 37: In dry years junior surface water users are frequently curtailed to allow senior surface water users access to water even though they are not responsible for the drought. The ESPA model indicates that if the ground water users did not consumptively use the water, it would show up in the Snake River, thus, in water short years, junior ground water users must either curtail or supply replacement water to senior surface water users.

QUESTION 38: Is there an assumption that all reductions to carryover storage are due to ground water depletion? If so, why?

ANSWER 38: No, carry-over shortages may be caused by a number of things, such as out of basin leases, low snowpack, hot dry summers, etc. Conjunctive Management Rule 42.01.g states, "In determining a reasonable amount of carry-over storage water, the Director shall consider the average annual rate of fill of storage reservoirs and the average annual carry-over for prior comparable water conditions and the projected water supply for the system." Thus, the Departments model for determining carry-over attempts to take into account the conditions that impact carry-over, i.e. low snow pack, dry summers, etc.

QUESTION 39: CM Rule 43.03.b. states: "[C]onsideration will be given to the history and seasonal availability of water for diversion so as not to require replacement water at times when the surface right historically has not received a full supply, such as during annual low-flow periods and extended drought periods." Explain how your proposed protocol will account for these considerations.

ANSWER 39: The currently proposed protocol uses the 2006 diversions (adjusted for weather conditions) with both predicted and actual storage allocations used to determine full-supply shortfalls in a given irrigation season. The adjusted diversions and actual storage allocations would encompass the varying effects of low-flow periods and extended droughts. Mitigation obligations are limited to the amount of depletion attributed to junior ground water pumping, not to exceed the reasonable full supply of the SWC entity.

QUESTION 40: Please answer the following questions and include explanation:

a) It appears that the verification-period (post 1988) residuals for the carryover regression equations are not normally distributed, but are skewed in a direction that corresponds to over-prediction of reasonable carryover, sometimes by large amounts. According to Dr. Van Kirk, this reflects the influence of factors not considered in the regression equations. What evaluations has the Department done to evaluate what these factors might be and how the regression equations could be made to accommodate them?

b) What units are used for each of the independent and dependent variables in the carryover regressions?

c) Some of the carryover regression equations have the potential to predict unreasonable amounts of carryover. For example, the equation for AFRD#2 does not appear to permit the calculation (except fortuitously) of zero carryover, though zero carryover has occurred

several times in the past. Also, the equation for AFRD#2, and possible others, calculates reasonable carryover as a relative difference between large numbers; accordingly it may be highly sensitive to small errors in the values of independent variables. Has the Department carried out any analysis of the likely range of values that these carryover equations can predict, the degree to which predicted values may fail to recognize extenuating circumstances (e.g., reservoir storage restrictions, changes in water bank rules), and the sensitivity of predicted values to errors in the independent variables?

d) If the carryover regression equations are not designed to force a zero intercept, doesn't this mean that in every year when the reservoirs do not fill, the equation will predict there is some carryover the calling party is "entitled" to?

ANSWER 40:

a) The regression equations capture the effect of measured parameters and their influence on carryover during the modeled period (pre-1987). The deviation of the residuals that indicate over-prediction of carryover in the post 1989 period is the result of an "unknown" variable exerting influence that was not an influence in the modeled period. That "unknown" variable in the regression equations is the effects of groundwater depletions. No evaluation of the unknown variable can be done since it is the unmeasured quantity the regression model is designed to simulate.

b) The units are:
Heise runoff : 100 acre-feet
Storage Allocation: acre-feet
Diversion: acre-feet
Potential Crop ET: inches
PDSI: unitless

c) The Department has not carried out analysis of the range of values the equations can predict, as the period of record has sufficient wet and dry cycles to capture a broad range of extremes within the period after Palisades became operational that can be reasonably expected to occur in future years.

d) Depending on the values of the parameters used as the inputs for the prediction equation for a given year, a positive value of carryover is possible during years without complete reservoir fill. This positive value represents a carryover amount that would have been present during years of similar climatic conditions without groundwater influence on river reach gains.

QUESTION 41: Do the regression equations account for the effects of a series of years when the delivery of rented storage in past years will affect the current year fill, e.g., as occurred in the mid-1980s? Please explain.

ANSWER 41: The regression equations are not effected by the years in the 1980s when the system did not fill. After adjustments were made for reservoir storage restrictions at Jackson

Lake and American Falls during the 1980 period, the individual contract space of the SWC entities were fully allocated.

QUESTION 42: Would you agree that the proposed protocol assumes that the SWC are all using water reasonably, but that an independent evaluation will be made under the CM Rules regarding material injury on any future delivery calls by other surface water users or if water use by the SWC changes that would reduce the amount of water that they need? If the answer is no, please explain.

ANSWER 42: Yes.

QUESTION 43: The 1900 natural flow water rights of TFCC and NSCC equal 3400 cfs and are large enough to command the entirety of the reach gains below Blackfoot. Some users, e.g., AFRE#2, are highly dependent on storage rather than natural flow, due to their junior natural flow priorities. Irrigation season depletions from groundwater pumping cannot further reduce the natural flow availability to such users if they would have been out of priority for natural flow anyway. How does the proposed procedure avoid assigning replacement obligations for RISD shortages to such users?

ANSWER 43: For such users with junior natural flow rights and a majority of supply coming from storage, it is only those years when reservoirs do not fill and full storage allocations do not occur that mitigation would be required.

QUESTION 44: Since some SWC entities rely almost exclusively upon natural flow (such as TFCC and NSCC) and other rely almost exclusively upon storage (such as AFRD#2) and the depletions from ground water pumping affect each supply for each entity differently, please explain how these differences will be addressed and accounted for in the proposed mitigation computation protocol. How does the proposed protocol account for seasonal variability in water supply that is not caused by ground water pumping?

ANSWER 44: The protocol assumes the total supply is derived from a combination of storage and natural flow sources. To the extent that the beneficial use is not met from the total supply from those two sources, mitigation for that amount is required, limited to depletions caused by junior groundwater pumping that are found by the Director to be causing material injury.

QUESTION 45: Referring to IDWR's answer to IGWA's Question 18, please explain:

a) What is meant by "As before" in the last sentence that states: "As before, any volume of water less than the reasonable carryover deficit amount owed to the SWC must be provided immediately and any volume of water in excess of the reasonable carryover deficit may be provided to the SWC at the time of need."

b) In this same last sentence quoted above, please explain when is "the time of need."

ANSWER 45:

a) "As before" refers to the first protocol injury calculation description, and the times for when the reasonable carryover shortfall and any remaining shortfall to in-season supply is due.

b) The time of need is the period when water supplies and requirement are known with the greatest degree of certainty prior to the end of the season in October, but before storage supplies have been fully utilized. This is generally during the month of September after the peak demand months. The exact date is not precise and will vary from year-to-year depending on the various climatic conditions encountered during the growing season, as well as crops grown and their planting and harvest dates.

QUESTION 46: Will the computation of mitigation requirement be performed separately for each SWC entity? If the answer is no, please explain.

ANSWER 46: Yes.

QUESTION 47: With respect to the storage water leased by ground water users for mitigation purposes to comply with early season estimates of shortage, please answer:

a) Is it contemplated that the past practice will continue of allowing IGWA to notify the Watermaster of Water District 01 that the ground water users have the required amount of storage available for delivery when needed?

b) If after the final accounting for Water District 01 is completed and the leased amount exceeds the amount delivered to SWC entities, will IGWA continue to be able to maintain control and carry water it has purchased until it is delivered?

c) If ground water users provide replacement water and the receiving entity ends the year with a greater-than-reasonable amount of carryover storage, will ground water users be able to retrieve the over-supply, re-book it to another entity that may have a carryover deficit, or otherwise obtain some credit or benefit for it? Please explain.

ANSWER 47:

a) If the approved plan uses rental storage for mitigation, the mitigation rental leases and fees must be submitted to Water District 01 by the required date to allow for timely delivery of the water.

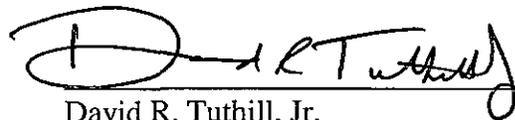
b) IGWA does not have any contracted reservoir space to carryover any unused rental to the next season. IGWA should provide in its leases that only the amounts required for mitigation shall be transferred from the lessors' storage allocations. Alternatively, the leases could provide for assigning unused rental back to the lessors in exchange for the lessors giving IGWA a monetary credit.

c) The mitigation obligation is determined at the beginning of the irrigation season. The reasonable carryover storage computation is only used at the end of the season for the purposes of putting the ground water users on notice that they may be responsible for additional mitigation if the reservoir system does not refill the following season. If the replacement water provided at the beginning of the season should result in increasing the carryover of the receiving entity, it could result in decreasing the need for additional mitigation the following season. However, if it is determined using an after-the-fact accounting process that the increased carryover did not benefit the receiving entity, no credit or benefit would be realized by the groundwater users.

QUESTION 48: In 2008, the Director and the Hearing Officer approved the Ground Water District's replacement water plan that mitigated material injury predicted to TFCC by underwriting TFCC's water supply. Under the new protocol, could such a plan be used as a Mitigation Plan in CM Rule 43? If the answer is yes, please explain any expected changes that would be required to such a plan. If the answer is no, please explain why.

ANSWER 48: The Draft Protocol anticipates that the Director will require assurance that the required replacement water is capable of being provided. There appears to be a typographical error on Question No. 48 because in 2008, a replacement plan was not required of IGWA because the water supply was sufficient to satisfy the requirements of the SWC. In 2007, IGWA's replacement plan was approved by the Director. A replacement plan is not considered to be equivalent to a Mitigation Plan under Rule 43. The Draft Protocol would allow the use of a replacement plan; the Director recognizes that this matter is presently at issue before the District Court. Because this is not the proper forum, the Director will not comment on the appropriateness or inappropriateness of IGWA's suggested Mitigation Plan.

DATED this 11th day of June, 2009.



David R. Tuthill, Jr.
Director

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 11th day of June, 2009, a true and correct copy of the foregoing document was served upon the following by the indicated method:

RANDY BUDGE
CANDICE MCHUGH
RACINE OLSON
PO BOX 1391
POCATELLO ID 83204-1391
rcb@racinelaw.net
cmm@racinelaw.net

(x) U.S. Mail, Postage Prepaid
() Facsimile
(x) E-mail

JOHN SIMPSON
TRAVIS THOMPSON
BARKER ROSHOLT
PO BOX 485
TWIN FALLS ID 83303-0485
jks@idahowaters.com
tlt@idahowaters.com

(x) U.S. Mail, Postage Prepaid
() Facsimile
(x) E-mail

TOM ARKOOSH
CAPITOL LAW
PO BOX 2598
BOISE ID 83701
tarkoosh@capitollawgroup.net

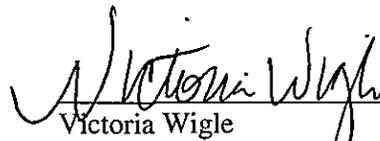
(x) U.S. Mail, Postage Prepaid
() Facsimile
(x) E-mail

W. KENT FLETCHER
FLETCHER LAW OFFICE
PO BOX 248
BURLEY ID 83318-0248
wkf@pmt.org

(x) U.S. Mail, Postage Prepaid
() Facsimile
(x) E-mail

SARAH KLAHN
WHITE JANKOWSKI
511 16TH STREET STE 500
DENVER CO 80202
sarahk@white-jankowski.com

(x) U.S. Mail, Postage Prepaid
() Facsimile
(x) E-mail


Victoria Wigle
Administrative Assistant to the Director
Idaho Department of Water Resources