

CASE NO. CV-1204049 (and consolidated cases)

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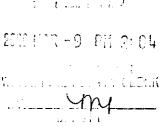
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# IN THE SEVENTH JUDICIAL DISTRICT COURT OF THE STATE OF NEVADA IN AND FOR THE COUNTY OF WHITE PINE

WHITE PINE COUNTY and CONSOLIDATED CASES, et al.,

Petitioner,

vs.

TIM WILSON, P.E., Nevada State Engineer, DIVISION OF WATER RESOURCES, DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES,

Respondent.

DECISION ON MOTION FOR RECONSIDERATION

This case is in the nature of a motion for reconsideration after remand by the Nevada State Engineer ("SE") of this Court's order of December 13, 2013, concerning SE's Orders 6164, 6165, 6166, and 6167; and both protestants and Southern Nevada Water Authority's ("SNWA)" request for judicial review of the SE's Order No. 6446. The Goshute Tribe's appeal of the SE's denial of a Motion to Dismiss and the Millard and Juab Counties appeal of the SE's failure to apply the 3M stipulation to the Utah Counties.

The parties include as Protestants White Pine County, Nevada, Millard and Juab Counties, Utah; Ely Shoshone, Duckwater Shoshone, and the Confederated Tribes of the Goshute Reservation; Presiding Bishop of the Church of the Latter-Day-Saints and others. The Protestants are opposed to SE Orders 6164-6167, and both support and oppose portions

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of SE Order 6446. Similarly, SNWA generally supports Orders 6164-6167 and opposes Order 6446. The SE granted SNWA 83,988 acre-feet in Orders 6164-6167, and denied SNWA application for that same water in Order 6446.

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#### **HISTORY**

#### A. Overview

This Court will not repeat the history of this case except for the events transpiring after the December 13, 2013 remand (See <u>Decision</u> filed Dec. 13, 2013 pp. 2-4 for earlier history).

After remand, the Engineer filed a direct appeal of this Court's order. The Nevada Supreme Court dismissed the appeal for lack of jurisdiction over a non-final order. Subsequently, both SNWA and the SE petitioned the Supreme Court, by writ, challenging the remand order. (Pet. For writ May 30, 2014 SNWA and Pet. For writ, May 30, 2014 SE.). Both writs were denied because the petitioners had an adequate remedy at law by a petition for judicial review of an adverse decision on remand.

The Presiding Bishop of the Church of Latter-Day-Saints, on behalf of Cleveland Ranch, filed a writ challenging the remand order, which affirmed the SE's interpretation of NRS 533.3705(1). The writ was denied. The Supreme Court found that the SE properly interpreted NRS 533.3705 (allowing a graduated pumping plan). CPB v. Seventh Judicial Court, 132 Nev. 67, 72 (2016). After divers appeals and writs were dismissed, the SE set a new round of hearings. The SE determined that an additional administrative hearing was necessary to provide parties the opportunity to fully address the issues remanded by the District Court. SE Ruling 6446, p. 5.

The remand order from this Court did not disturb the bulk of findings of the Engineer but remanded orders 6164, 6165, 6166, and 6167 for:

- 1. The addition of Millard and Juab Counties, Utah in the mitigation plan so far as water basins in Utah are affected by pumping of water from Spring Ranch Basin, Nevada.
- 2. A recalculation of water available for appropriation from Spring Valley assuring that the basin will reach equilibrium between discharge and recharge in a reasonable time.

- 3. Define standards, thresholds, or triggers so that mitigation of unreasonable effects from pumping of water are neither arbitrary nor capricious in Spring Valley, Cave Valley, Dry Lake Valley, and Delamar Valley.
- 4. Recalculate the appropriations from Cave Valley, Dry Lake, and Delamar Valley to avoid over appropriations or conflicts with down gradient, existing water rights.

Court Order Dec. 13, 2013, p. 23.

The State Engineer conducted hearings on September 25 through October 6, 2017. The SE allowed the re-opening of expert testimony by SNWA and other Protestants and allowed public comment. Testimony and other evidence presented was purportedly limited to the four remand issues above. As a result of the 2017 hearings, Order 6446 was published on August 17, 2018. The order denied any appropriations to SNWA from Spring Valley, Cave Valley, Dry Lake Valley, and Delamar Valley. The order also approved the new 3M Plan of SNWA—even though the water appropriation was denied in its entirety. The order also appealed the District Court order of December 2013. SNWA sought judicial review of SE's order denying the water appropriation and the Protestants sought review of the revised 3M approval.

II

### **AUTHORITY AND OBLIGATIONS OF THE STATE ENGINEER**

The Engineer "[s]hall approve an application submitted in proper form which contemplates the application to beneficial use if:"

- (a) The application is accompanied by the prescribed fee;
- (b) The proposed use or change, if within an irrigation district, does not adversely affect the cost of water for other holders of water rights in the district or lessen the efficacy of the district in its delivery or use of water; and
- (c) The applicant provides proof satisfactory to the State Engineer of the applicant's
  - (1) Intention is in good faith to construct any work necessary to apply the water to the intended beneficial use with reasonable diligence; and

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(2) Financial ability and reasonable expectation actually to construct the work and apply the water to the intended beneficial use with reasonable diligence.

NRS 533.370(1).

Additionally, the Engineer must determine:

- 1. Whether there is unappropriated water;
- 2. Whether the proposed use will conflict with existing rights and/or domestic wells; or
  - (a) If the appropriation threatens to prove detrimental to the public interest

"The State Engineer shall reject the application." NRS 533.370(2).

The Engineer must also consider:

- (a) Whether the applicant has justified the need to import the water from another basin.
- (b) If the State Engineer determines that a plan for conservation of water is advisable for the basin into which the water is to be imported, whether the applicant has demonstrated that such a plan has been adopted and is being effectively carried out;
- (c) Whether the proposed action is environmentally sound as it relates to the basin from which the water is exported;
- (d) Whether the proposed action is an appropriate long-term use which will not unduly limit the future growth and development to the basin from which the water is exported; and
- (e) Any other factor the State Engineer determines to be relevant.

NRS 533.370(3).

#### $\mathbf{III}$

#### STANDARD OF REVIEW

After the Engineer issues the rulings, an aggrieved party is entitled to have the order or decision reviewed by the District Court, in the nature of an appeal. NRS 533.450. On a petition for judicial review, the Court is confined to considering the administrative record. NRS 533.450(1). The proceedings in every case must be heard by the Court, and must be

informal, but a full opportunity to be heard must be had before judgment is pronounced. NRS 533.450(2).

In reviewing the record, the Court must treat the State Engineer's decision as "prima facie correct, and the burden of proof shall be upon the party" challenging the decision. NRS 533.450(9). The Court may not substitute its judgment for that of the State Engineer, but is limited to determining whether there is substantial evidence in the record to support the decision. Revert v. Ray, 95 Nev. 782, 786, 603 P.2d 262, 264 (1979). Substantial evidence is "that which a reasonable mind might accept as adequate to support a conclusion." Bacher v. Office of the State Eng'r of Nev., 122 Nev. 1110, 1131, 146 P.3d 793, 800 (2006).

[A] conclusion that substantial evidence supports the findings of a State Engineer does not, however, dispose of the...appeal. The applicable standard of review of the decisions of the State Engineer, limited to an inquiry as to substantial evidence, presupposes the fullness and fairness of the administrative proceedings: all interested parties must have had a "full opportunity to be heard," See NRS 533.450(2); The State Engineer must clearly resolve all the crucial issues presented, see Nolan v. State Dep't of Commerce, 86 Nev. 428, 460 P.2d 124 (1970) (on rehearing); the decision maker must prepare findings in sufficient detail to permit judicial review, id.; Wright v. State Insurance Commissioner, 449 P.2d 419 (Or. 1969); see also NRS 233B.125. When these procedures, grounded in basic notions of fairness and due process, are not followed, and the resulting administrative decision is arbitrary, oppressive, or accompanied by a manifest abuse of discretion, this court will not hesitate to intervene. State ex rel. Johns v. Gragson, 85 Nev. 478, 515 P.2d 65 (1973).

Revert, 95 Nev. At 786, 603 P.2d at 264.

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The Court is free to decide purely legal questions de novo. Town of Eureka v. Office of the State Eng'r of Nev., 108 Nev. 163, 165, 626 P.2d 948, 949 (1992). A purely legal question is one that is not dependent upon, and must necessarily be resolved without reference to, any fact in the case. Beavers v. Department of Motor Vehicles & Pub. Safety, 109 Nev. 435, 438, n. 1, 851 P.2d 432, 434 n. 1 (1993). While the State Engineer's interpretation of law is persuasive, and the court should give it great deference when it is within the language of the applicable statutory provisions, it is not controlling. Town of Eureka, 108 Nev. at 165, 826 P.2d at 950; Anderson Family Assoc. v. Ricci, 124 Nev. Adv. Rep. 17, 179 P.3d 1201, 1203 (2008).

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#### IV.

### STATE ENGINEER'S APPEAL

The Engineer has appealed this Court's order of December, 2013. Therein, the court found that awarding of (a) 61,127 acre-feet annually ("afa") from Spring Valley; (b) 5,235 afa from Cave Valley; (c) 11, 584 afa from Dry Lake Valley, and; (d) 6,042 afa from Delamar Valley, was arbitrary and capricious. In the Spring Valley there was a great deal of evidence and acknowledgement by the SE that, according the SNWA's well configuration, the reservoir would never reach equilibrium and would result in water mining.

The Cave Valley, Dry Lake Valley, and Delamar Valley ("CDD") appropriations were remanded due to the Engineer's acknowledgement that the water flow from CDD was already appropriated in the lower basins, tacitly in Rulings 6165-6167, and explicitly in Ruling 6255. This obviously would result in a conflict with existing rights and was therefore a violation of NRS 533.370(2).

Presumably, the SE did not appeal the original SNWA 3M Plan because the SNWA submitted a new 3M Plan. This Court did not deny water to SNWA, it remanded for the Engineer to recalculate the amount of water to be awarded to SNWA so that it was neither arbitrary nor capricious, nor an interference with existing rights. See generally Court "Decision" Dec. 13, 2013.

In his appeal, the Engineer identified the issue as follows:

- 1. The remand order forces the State Engineer to completely disregard prior policies and practices in determining how much water is available for appropriations.
- 2. The new ET capture rule is unfair to SNWA.
- 3. The remand order re-introduces riparian water law to Nevada.

(See Ruling 6446, pp. 19; 22-23; and 26.).

The Engineer's and SNWA's appeals of the December 2013 remand are dismissed for the reasons that follow.

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### A. Spring Valley Appropriation

The amount of water that may be appropriated is defined as perennial yield ("PE"), which is defined as:

The maximum amount of groundwater that can be salvaged each year over the long term without depleting the groundwater reservoir. Perennial yield is ultimately limited to the maximum amount of natural discharge that can be salvaged for beneficial use. The perennial yield cannot be more than the natural recharge to a groundwater basin and in some cases is less.

Water for Nevada, Nevada Water Resources Report No. 3, prepared by the State Engineer's Office, October 1971, p. 13. and ROA 000056.

Further, the SE has stated:

In theory, with enough time the water removed from the system equals the recharge of the system thereby reaching equilibrium. However, reaching equilibrium may take hundreds of years, and "always involves the depletion of water from transitional storage." Engineer Ans. Brief, p. 54 [filed prior to District Court oral argument, October 2013]. If more water comes out of a reservoir than goes into the reservoir, equilibrium can never be reached. This is known as water mining and "[w]hile there is no statute that specifically prevents groundwater mining, the policy of the Engineer for over one hundred (100) years has been to disallow groundwater mining. This policy remains today. Id.

(See also Court "Decision" Dec. 2013, p. 10).

In 1988, the SE denied an appropriation request in the Pahrump Valley:

The State Engineer is prohibited by law from granting a permit under an application to appropriate the public waters where:

- A. There is no unappropriated water at the proposed source, or
- B. The proposed use conflicts with existing rights, or protectable interests in domestic wells under NRS 533.024, or
- C. The proposed use threatens to prove detrimental to the public welfare.

(Ruling 3486, p. 5). See also <u>Pyramid Lake Painte Tribe v. State Engineer</u>, 126 Nev. 521 at 523 (2010). In denying the application, above, the Engineer explained his reasoning:

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The perennial yield of a groundwater reservoir may be defined as the maximum amount of water of usable chemical quality that can be withdrawn and consumed economically each year for an indefinite period of time, and can be determined by a comparison analysis of groundwater recharge (inflow and the maximum amount of natural discharge—outflow) available for recapture.

Id., at p. 3.

The Engineer then found that the perennial yield must be adjusted because "the capture of all groundwater evapotranspiration by pumping will probably not occur in the foreseeable future because some remaining areas of active evapotranspiration are too remote from the concentrated pumping areas." <u>Id.</u>, at p. 3. Further, the Engineer noted that withdrawals of groundwater in excess of the perennial yield contribute to:

- 1. Water quality degradation
- 2. Storage depletion
- 3. Diminishing yield of wells
- 4. Increased economic pumping lifts
- 5. Land subsidence, and
- 6. Possible reversal of groundwater gradients, which
- 7. Could result in significant changes in the recharge/discharge relationship.

Id. at pp. 3-4. There are numerous rulings by the Engineer citing the above proposition. Ruling 5621 at p. 17; Ruling 5782.

In <u>Pyramid Lake Paiute Tribe v. Ricci</u>, 126 Nev. 521, 524 (2010), the court acknowledged the SE's ruling that "[t]he perennial yield of a hydrological basin is the equilibrium amount or maximum amount of water that can be safely used without depleting the source." Moreover, [t]he maximum amount of natural discharge that can be feasibly captured...[is the] perennial yield...the maximum amount of withdrawal above which overappropriation occurs." <u>State Engineer v. Morris</u>, 107 Nev. 699, 703 (1991).

NRS 533.370(3) provides that in determining whether an application for an interbasin transfer of groundwater must be rejected:

- (c) whether the proposed action is environmentally sound as it relates to the basin from which the water is exported; and...
- (e) any other factor the State Engineer determines to be relevant.

The SE defines "environmentally sound" as water use "[s]ustainable over the long term without unreasonable impacts to the water resources…" Ruling 6164, p. 47, and "limiting groundwater development to a basin's perennial yield ensures sustainable development of the groundwater resource." ROA 039409.

"Generally, groundwater systems are thought to be in steady state prior to human development of the resource. Steady state means that recharge to the groundwater system equals discharge; thereby resulting in a balanced groundwater budget." ROA 039410; 024714. "When pumping occurs, it must reach a new balance between recharge and discharge, or steady state, within a reasonable timeframe, or the water table will continue to decline indefinitely as pumping draws water from storage rather than recharge. ROA 048790. This is known as groundwater mining." Id.

### The Engineer states:

CPB's model simulations, limited to the 15 wells identified as proposed points of diversion, demonstrates that the proposed pumping of 61,000 afa from these 15 wells will never reach a new equilibrium. The primary reason is that the proposed wells are too far from the ET discharge zone(s).

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The Applicants' expert, Andrew Burns, agreed with the CPB's conclusion that there is no pumping rate at which the system would ever reach equilibrium under the current wellfield configuration "...because the production well configuration was not designed to capture ET."

#### SE Ruling 6446 at 16-17.

The water Engineer's rules and policy, above, and Nevada law, cannot be clearer. The rule is to ensure that the basins from which water is taken— and put to beneficial use—will not be depleted and can be sustained in perpetuity. Simply put, taking more water out of a reservoir than goes into it results in the reservoir being depleted. This is not allowed by NRS 533.370.

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In articulating the basis for the SE's appeal he has stated that "[n]otwithstanding the inclusion of the word 'salvaged' in the definition of perennial yield, Nevada groundwater appropriations have never required that a post-development equilibrium condition be achieved within a defined period of time. In applying the Remand Order, the State Engineer is shackled into determining water availability based on capturing discharge in a <u>reasonable amount of time</u>...requirements imposed by the Remand Order are antithetical to the doctrine of prior appropriation and to the prevailing policy which encourages the maximum beneficial use of the state's waters." Ruling 6446, p. 20 (emphasis original).

The Engineer has called this Court's Remand ruling "The New ET Capture Rule." The Engineer is incorrect. As pointed out above, the perennial yield is ET that can be captured—as defined by the Engineer. Further, the Engineer has stated that "when pumping occurs, it must reach a new balance between recharge and discharge, or steady state, within a reasonable time frame, or the water table will continue to decline indefinitely..." ROA 048790, supra (emphasis added).

This Court created neither ET capture as "perennial yield," nor a "reasonable time to equilibrium" rule. These two concepts have been long used by the Engineer, with good reason, and are definitely not a new legal standard. At some point, during the SNWA appropriations in this case, the Engineer began conflating the term evapotranspiration as perennial yield. "Once the perennial yield is set using the ET, if the basin does discharge through ET, that's the water availability question. It ends right there." (Oral Argument, Nov. 12, 2019, p. 90).

The Engineer gave no logical reason for his unilateral change of the ET capture rule. He has stated, however, that the rule change is necessary because "application of the remand runs counter to the long-established intent of Nevada water law—the maximization of the beneficial use of the state's limited water resources." Ruling 6446, p. 28. The Engineer cites to Desert Irrigation, Ltd. V. Michael Turnipseed State Engineer, 113 Nev. 1049 (1997) for the proposition that:

The concept of beneficial use is singularly the most important public policy underlying the water laws of Nevada and many of the western states. In fact, the principle of beneficial use is so well entrenched in our legal lexicon that the Nevada Legislature declared almost a century ago that "[b]eneficial use

shall be the basis, the measure and the limit of the right to the use of water." NRS 533.035.

Illogically, the Engineer has concluded that sustainability and beneficial use are mutually exclusive. Actually, sustainability and maximum beneficial use are two sides of the same coin. One cannot exist without the other. This is not a case of this Court substituting its judgment for that of the current Engineer. It is a case of this Court agreeing with the Engineer's practice before the Engineer's, for no logical, lawful or rational reason for changing the definitions of perennial yield.

For decades, Nevada's Water Engineers have recognized—and stated—that water appropriations must be sustainable, indefinitely, for both the appropriator and the reservoir, as required by Nevada law. The current Engineer, in Rulings 6164-6167, specifically cited the ET capture rule as the basis for perennial yield. Succinctly, for decades, the water statutes have thusly been interpreted, and to unilaterally change the interpretation mid- case—with no rational reason and without any substantial evidence as to why the change is necessary—is contrary to Nevada law and arbitrary and capricious. This Court found, in 2013, that the award, 61,127 afa, was arbitrary and capricious, and, under the circumstances, that finding has not changed.

While this Court has found that the Engineer neither presented substantial evidence to justify changing his own rule within the same case, nor provided a rational reason for the rule change, he has articulated other unwarranted reasons:

The Engineer appeals the previous order:

- 1. Because it is unfair to SNWA, and
- 2. The Court's order re-introduces riparian water law to Nevada, also unfair to SNWA.

Specifically, he states that, "Nearly 30 years have passed since [SNWA's] applications were filed. In that time, the applications have been granted twice under the method used by the State Engineer to determine water availability—a method that has not been repudiated by the legislature and which had been affirmed by the Nevada Supreme Court [Pyramid Lake Paiute Tribe v. Ricci, 126 Nev. Adv. Op. 48 (2010)]. The applications have been remanded to the State Engineer two times. Now, on the second remand, the

District Court has imposed new requirements concerning ET capture and timed equilibrium that have never before been required in Nevada." Ruling 6446, pp. 22-23.

The Engineer is incorrect in his assertions that the District Court, on remand, has imposed "new requirements...that have never before been required in Nevada." Id.

It has been shown above that the Engineer had indeed required ET to be captured since at least 1971, and by the SE "for over a hundred years." SE Ruling 6164 at 56. For a more detailed explanation of the rule and its purpose, see Ruling 6164, pp. 56-57; ROA 000056-57; and State of Nevada Water Planning Report No. 3, prepared by the State Engineer's Office, October, 1971, pp. 12-13.

The Engineer is responsible for the "nearly 30 year" delay in the applications being granted to SNWA. First, the SE began the hearings on the 1989 applications in 2006. Second, the Engineer refused to re-open the protest period after Protestants sought judicial review. The Supreme Court remanded the case so that protests would be heard. The Supreme Court found that the SE had violated NRS 533.370 in failing to act on an application within one year. ROA 000008. Lastly, the case was remanded once again in 2013 because the Engineer violated his own rules in granting over 80,000 afa to SNWA. Court Order December 2013.

The Engineer also avers that by requiring the SE and SNWA to follow the rules expressly articulated by the Engineer, this Court has reintroduced riparian water law in Nevada, which is defined as:

The rights of the owners of lands on the banks of watercourses, relating to the water, its use, ownership of soil under the stream, accretions, etc. Term is generally defined as the right which every person whose land a natural watercourse runs has the benefit of streams as it passes through his land for all useful purposes to which it may be applied.

Black's Law Dictionary, 6th Ed.

Apparently, the SE has unilaterally decided that because SNWA is far removed from Spring Valley and the DDC Valleys, it is unfair and unnecessary to hold them to the Engineer's and Nevada's standard requirements as declared by the SE.

The record in this case clearly indicates that well location is a primary factor in the time it takes for groundwater pumping to capture water that naturally discharges from plants within a basin. Application of the remand instruction would disproportionately favor water applicants adjacent to areas of natural discharge...The practical effect of strictly applying the remand instruction...would be to reintroduce principles that were specifically rejected by the Nevada Judiciary over 130 years ago.

Engineer Ruling 6446, pp. 25-26.

In fact, the remand order has nothing whatsoever to do with riparian water rights. The brutal fact is that Las Vegas is over 300 miles from the Spring Valley basin depending from where one wishes to measure, and a great distance also from the CDD Valleys. Neither the SE nor this Court can change geography. It is also a fiscal fact that an inter-basin transfer of water hundreds of miles away costs more to transport than for a rancher who lives atop the reservoir. Distance and cost to an applicant is precisely why Nevada statutes require the applicant to prove to the SE that the applicant, in good faith, intends to build the necessary infrastructure and has the ability to pay for it. NRS 533.370(1).

By the Engineer's logic, anytime the Engineer grants an inter-basin transfer, follows NRS 533.370 and requires the applicant to pay for it, the Engineer is introducing a riparian system. This, of course, has absolutely nothing to do with "unfairness" or riparianism. It is simply geography and physics, and how inter-basin transfers occur in Nevada under the "prior appropriations" standard.

This Court finds that the Engineer's concept, in this case, of unfairness to SNWA either by the 30-year delay from SNWA applications to the present, or by "riparianism" is invalid and internally inconsistent. It is also against reason and Nevada's water statutes to abrogate the application of those statutes, and the Engineer's long practice, to SNWA's current well configuration applications.

#### B. Cave, Dry Lake, and Delamar Valley ("CDD") Appropriations

The Engineer, in Rulings 6165, 6166, and 6167 awarded the applicant:

Cave Valley 5,235 afa;

Dry Lake Valley 11,584 afa; and

Delamar Valley 6,042 afa.

These awards are not consistent within the course of this case, which will be explained below. This Court remanded the CDD awards for two reasons: first, because the water awarded SNWA was already appropriated in the lower basins, and second, because the

CDD 3M Plan lacked quantitative or qualitative standards or triggers to govern when mitigation must occur.

The SE has briefly explained the geography and hydrology of the CDD Valleys: Cave, Dry Lake, and Delamar Valley (CDD). The Valleys are contiguous and linear, stretching from White Pine County, Nevada, southerly, into Lincoln County. It is approximately sixty (60) miles from the Northern tip of Cave Valley to the southern end of Delamar Valley. ROA 020507. Unlike Spring Valley, which is a "closed valley," the CDD basins are "not closed." ROA 000599. In closed valleys, natural water discharge is by evapotranspiration (E.T.). In CDD, water is discharged by water flow from one basin into another. "Just like water in streams, groundwater moves from areas of higher hydraulic heads to areas of lower hydraulic heads." ROA 017407.

The Engineer described the CDD basins as part of the White River Flow System, (WRFS) consisting of ten (10) additional hydrographic basins, which discharge primarily into the White River Valley, Pahranagat Valley, and the Muddy Springs Area. ROA 000599. Approximately 2,000 afa flow into Dry Lake Valley from Pahroc. ROA 010588. "There is no groundwater E.T. in Dry Lake Valley, (ROA 017415) so all groundwater in Dry Lake Valley flows down gradient to the south to Delamar Valley," and continues from Delamar to northern Coyote Springs Valley. Id.

In essence, the CDD valleys are linear and contiguous so that water flows southward from Cave Valley to Dry Lake and thence to Delamar Valley. Practically all of the outflow is part of the White River Flow System draining into the lower basins.

During the instant case there have been three sets of substantive Rulings by the Engineer: 5875 (2008), 6164-6167 (2012), and 6446 (2018). Additionally, in a separate case Ruling 6255 issued in January, 2014. Ruling 6255 concerned primarily the basins below the CDD Valleys.

In 1998, Dry Lake Water, LLC applied for 40,000 afa from Coyote Springs Valley and four other lower basins, "[t]o tap the deep carbonate aquifer." SE Ruling 6255, p. 6. In making his findings of fact, the Engineer stated:

The carbonate-rock aquifers have long been recognized as a potential water source, but for which the water resources are not well defined, the hydrology and geology of the area are complex and data [are] sparse.

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Id., p. 12. The Engineer also found that:

...to develop the science...a significant period of study would be required and unless this understanding is reached, the development of carbonate water is risky and the resultant effects may be disastrous for the developers and current users.

Id., p. 13, citing to SE Order No. 1169, March, 2002, p. 8.

To be fair, the Engineer did note that much had been learned concerning the carbonate flows since Order 1169 was issued. The Engineer noted:

> There is a very high hydraulic transmissivity found in most of this area of the carbonate-rock aquifer, which results in a flat potentiometric surface in these basins. Changes in the potentiometric surface in any one of these basins occur in lockstep directly affecting the other basins, demonstrating the regional nature of the aquifer across these basins.

SE Ruling 6255, p. 14. In other words, the underground water level in the lower basins goes up and down together. What affects one, affects all.

In Ruling 6255 the Engineer denied the 40,000 afa requested by Dry Lake Water, LLC. The SE found that if the water was granted, the springs in the headwaters of the Muddy River and the Muddy River itself above Moapa would cease to flow in less than 200 years. "The effects would occur much sooner if all the pending applications held in abeyance...were granted and pumped." Ruling 6255, p. 19. The Engineer also found that there was no water available within the five basins area of Coyote Springs, Muddy River. Hidden Valley, Garnet Valley, and California Wash. Further, that all of Coyote Springs Valley is appropriated and granting the water would cause "...wide-ranging effects in a very short time." Id. at p. 19. Regarding the Muddy River and springs, the Engineer has found that "the evidence is overwhelming that unappropriated water does not exist." Id. at p. 26. Additionally, "recharge in each of [Coyote Springs and four other basins] is already appropriated. Subsurface inflow is appropriated as well." Id. at p. 27. (emphasis added).

In other words, the inflow in the down-gradient basins, much of which comes from Cave, Dry Lake, and Delamar, is already appropriated. Yet again, in Ruling 6255, the Engineer found that "[i]n State Engineer's Rulings 6165, 6166, and 6167, there was a consideration for how long it might take for an existing water right to be impacted, and the State Engineer found that where no significant effects would be felt for hundreds of years,

the upgradient water could be appropriated." Id. at p. 26. Thus, the Engineer declares that the water already appropriated down gradient can be also appropriated in Cave, Dry Lake and Delamar because it takes a long time to flow to the lower basins.

This Court, in the December, 2013 Order, disagreed with the Engineer's interpretation of NRS 533.370(2), that "if no measurable impacts to existing rights occur within hundreds of years, then the statutory requirement of not conflicting with existing water rights is satisfied." This court found in 2013, and still finds, that the statute is unequivocal: "...if there is a conflict with existing rights, the application 'shall' be rejected." (Court's December 2013 Order, p. 20).

The analysis does not end here. The Engineer awarded SNWA a total of 22,861 afa, which happens to be the entire recharge of the Cave, Dry Lake, and Delamar Valleys. As in the Spring Valley award, above, the Engineer has, in the middle of the instant case, unilaterally changed the definition of perennial yield. The Engineer's definition now is <u>all</u> of the natural recharge, whether there is a conflict or not, is perennial yield.

The first ruling in this case, SE Ruling 5875, stated:

[w]hen conditions are such that there is subsurface flow through several basins, there is a potential for double accounting and over-appropriating the resource if the perennial yield of each basin is equal to one half of the subsurface outflow and basin subsurface inflows are not adjusted accordingly. Therefore, allowances and adjustments are required to the perennial yields of basins in these flow systems so that over-appropriation does not occur.

### Id. at p. 8. Likewise, in the Engineer's Ruling 5782, he stated:

[M]any of the basins throughout the state also discharge groundwater via subsurface flow to adjacent basins. In basins with substantial subsurface outflow, the perennial yield may include a portion of that outflow; however, the amount of that subsurface discharge that can be readily captured by wells is highly variable and uncertain. Perennial yields for basins with no groundwater ET, that is groundwater is discharged solely by subsurface flow, has generally been established as equal to one-half of the outflow.

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Id. at pp. 9-10.
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No doubt the reason for the caution—and constraint—in appropriating water from basins with little ET to be captured is simply that no one is sure regarding when, where, or how much water flows through the carbonate basins.

"Nevada is a very large state with extremely complex geology and hydrology." SE Ruling 6165, p. 48. The Engineer notes that the models used a 50-year planning horizon because models are uncertain and unreliable after 75 years. Id. "No actual data exists for large-scale pumping." SE Ruling 6165 at p. 104. The Engineer has, in every Ruling within this case noted, often, the difficulty, uncertainty, inaccuracy, and wide range of results of the models used by Protestants and applicants alike.

This Court still finds the abandonment of the Engineer's long-used rules regarding definitions and practice of perennial yield to be arbitrary and capricious. The Engineer supplied no reasons for his rule changes and dismisses a conflict so long as it does not manifest until sometime in the distant future. This Court will not reverse its December 2013 Ruling.

#### V.

#### **ENGINEER'S RULING 6446**

The Engineer's Ruling 6446 addresses the four remand issues in this Court's December 2013 Order. Additionally, the Engineer modified his Ruling 6164 by denying previous awarded water to SNWA. Specifically, "...regardless of whether any if the denied water rights applications are reinstated as a result of any further judicial process Applications 54014 and 54015 cannot be approved and are denied because they threaten to prove detrimental to the public interest as it relates to protecting the Swamp Cedars ACEC." (SE Ruling 6446 at 110, discussed further, infra).

The four remand issues were:

- 1. The addition of Millard and Juab Counties, Utah in the mitigation plan so far as water basins in Utah are affected by pumping of water from Spring Valley Basin, Nevada.
- 2. A recalculation of water available for appropriation from Spring Valley assuring that the basin will reach equilibrium between discharge and recharge in a reasonable time.
- 3. Defining standards, thresholds or triggers so that mitigation of unreasonable effects from pumping of water are neither arbitrary nor capricious in Spring Valley, Cave Valley, Dry Lake Valley, and Delamar Valley.

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4. Recalculation of the appropriations form Cave Valley, Dry Lake and Delamar Valleys to avoid over-appropriation or conflicts with down- gradient, existing water rights.

### A. Spring Valley

Following the December 2013 remand, the Engineer held hearings with the Applicant and many of the Protestants to recalculate the water available for appropriation in Spring Valley. SE Ruling 6446, at 9. The SE noted that this Court did not disturb the SE's finding that the initial calculation of available water was 61,127 acre-feet annually. The Engineer is incorrect. The Court did not challenge the calculation of 61,127 afa as ET; the Court found that the Engineer changed, within this case, the definition of perennial yield. In the beginning of this case, the Engineer's definition of perennial yield was "[t]he perennial yield of a ground water reservoir may be defined as the maximum amount of groundwater that can be salvaged each year over the long term without depleting the groundwater reservoir." SE Ruling 6164 at 56. Within the same Ruling, however, the Engineer's definition became ET is PE. The arbitrary definition change caused the subsequent remand, to recalculate the water available, so that "...limiting groundwater development to a basin's perennial yield ensures sustainable development of the groundwater resource." Also, "...if perennial yield is exceeded groundwater levels will decline and steady state conditions will not be achieved...and may contribute to adverse conditions such as water quality degradation, storage depletion, diminishing yield of wells, increased pumping costs, and land subsidence." Id. These were the reasons for the remand.

Notwithstanding the Engineer's "misgivings" about the remand, the SE "fully [complied] with the remand Order." SE 6446 Ruling at 8.

SNWA applied for the water from Spring Valley showing 15 points of diversion. Protestant Corporation of the Presiding Bishop (CPB) offered a model demonstrating "that the proposed pumping of 61,000 afa from these 15 wells will never reach a new equilibrium. The primary reason is that the proposed wells are too remote from the ET discharge zones." Id. at 16. Further, the Applicant's expert at the hearing agreed with CPB's "conclusion that there is no pumping rate at which the system would ever reach equilibrium under the current well field configuration. The pumping regime offered by the Applicant 'does not reach equilibrium after 200 years of pumping' the Applicant concedes, 'because the production well configuration was not designed to capture ET." Id. at 17. The Engineer agreed that the

well configuration would never reach equilibrium. "Therefore, the State Engineer finds that, under the mandate imposed by the remand Order, no water can be awarded under the applications in Spring Valley and, consequently, the applications are subject to denial." Id. at 18.

At the hearing, the SE did not allow SNWA to present evidence of a different conceptual well field of 81 wells but specifically found that "...it is worthy of little to no weight in the State Engineer's decision, as the State Engineer is limited to considering the pending Applications at their current points of diversion. The Applicant demonstrated no legal basis for the State Engineer to consider a conceptual well field." Id. at 18.

The Applicant also invited the Engineer to award the water but reduce the amount by 9,780 afa as suggested by the District Court, because that amount is based on a "DEIS" model utilizing a conceptual well field of 81 wells. Id. The SE also rejected an 81 conceptual well field.

The Engineer stated, in reference to the 81 well configuration:

While it is true that the District Court relied on the Applicant's citation to the DEIS model, which simulated 81 wells, it is not clear whether the District Court was aware of the well field design behind this scenario. Ultimately, whether the District Court was aware is immaterial, because the State Engineer previously indicated during the 2011 hearing that he was disinclined to consider evidence that was not limited to the proposed points of diversion.

Id. at 14.

Also, "[a]t this time, the State Engineer is only considering the points of diversion for the Applications before him. If the Applicant wishes to change the points of diversion of the Applications, it must submit further applications to change the points of diversion to the State Engineer pursuant to NRS 533.345." Id., citing SE Ruling 6164.

For the above reasons, the Nevada Engineer found that "...he cannot approve the existing applications based on the possibility or promise by the Applicant of future changes to the well field design under later applications not before him." SE Ruling at 13.

This Court finds that rejecting SNWA's application under the current well field configuration is well grounded in Nevada law and will not disturb the Engineer's Spring Valley findings.

### B. Cave, Dry Lake, and Delamar Valleys

In ruling 6446, the Engineer found that applying the December 2013 remand instruction "...the State Engineer finds that there was not substantive evidence to indicate that no conflict would occur with existing down-gradient rights and the applications are subject to denial." Ruling 6446 at 37. The Engineer also stated: "As originally stated by the Legislature in 1913, the State Engineer is duty-bound to grant applications unless a conflict exists. The State Engineer believes that when looking at a potential conflict within a regional groundwater flow system, unless a conflict is shown to be likely within a reasonable planning horizon, it is permissible to appropriate what may be the same water by subsequent applications particularly where such appropriations are subject to safeguards such as vigorous 3M Plans..." Id. at 38.

In Ruling 6446, the Engineer denied the previously granted water, because there was not substantial evidence to indicate that no conflict would occur with down-gradient rights. Id. at 37.

In describing SNWA's steps to show no conflicts, SNWA averred that by, somehow, preserving 39,000 afa in the WRFS, down-gradient rights are protected. Id. at 35. The Engineer had previously, in Ruling 6255, found that 39,000 afa is the supply of water to Coyote Springs Valley and other down- gradient basins. Id. at 35.

The Engineer found that SNWA's calculations of appropriated groundwater in the 11-basin WRFS were reasonably accurate, but that expert analysis attested to the complexity and uncertainty in making the determination. Id. at 35. "However, this exercise is not consistent with the Remand Order's directive that the State Engineer recalculate the appropriations from Cave Valley, Dry Lake Valley, and Delamar Valley to avoid over-appropriation or to avoid conflicts with down-gradient existing water rights." Id. (emphasis original).

The Engineer articulated the Court's reasoning:

The District Court noted that basins like Cave Valley, Dry Lake Valley and Delamar Valley where some amount of groundwater is discharged into a down-gradient basin, there is a risk that appropriating the water up-gradient may cause the water to be withdrawn and used before flowing to down-gradient basins, possibly depriving down- gradient water right holders of water they need. Where subsurface outflow occurs from one basin to another, there is a potential for pumping in an up-gradient basin to conflict with existing water rights in a

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down-gradient basin, given enough time and suitable hydrogeologic conditions for that pumping stress to propagate through the aquifer system.

Id. at 35-36.

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In the instant case, this is exactly what has occurred. The Engineer granted the Applicant nearly 23,000 afa from the CDD Valleys, which recharged the down-gradient basins, which were already completely appropriated. In other words, the CDD water was already appropriated in the lower basins. The Engineer found in Ruling 6165-67 that there was available water to be appropriated, but only because it would take a long time for the conflict to manifest itself. The Engineer did not know how long it would take for the recharge of CDD to reach the lower reservoirs.

To be fair to the Engineer, he did note that "[o]n the other hand, where up-gradient pumping is eventually balanced by a reduction in down-gradient groundwater ET or a reduction in transitional storage, then a conflict with existing water rights does not necessarily occur. But in Ruling 6255, the Engineer found that the evidence of complete appropriation was "overwhelming." Presumably, the water level in the lower basins had reached a steady state (equilibrium) and the water level had dropped the 50 ft.—which the Engineer finds to be a reasonable lowering. SE Ruling 6167 at 101. If the lower basins are in equilibrium, then any reduction in recharge destroys the equilibrium and results in an unreasonable lowering of the water table.

The Engineer also states:

The Applicant did not complete an analysis to demonstrate that its appropriations could be granted without conflicting with existing down- gradient water rights in the manner ordered by the District Court.

Ruling 6446 at 36.

One of the Protestant experts testified that "the Applicants' water rights accounting procedure did not address potential conflicts because it failed to consider where recharge, discharge, and pumping occurs within the regional flow system. Id.

The Engineer stated:

The State Engineer finds despite uncertainty, that to satisfy the direction of the Remand Order, it must be demonstrated that the Applicant's appropriations will not decrease flow that is already appropriated to down-gradient, regardless of how long that might take. The Applicant's evidence failed to make this demonstration. The Applicant's evidence did not consider where recharge occurs, how and where interbasin flows occur in the affected valleys, or whether it could actually be captured. No analysis was done showing that 39,000 afa or subsurface flows leaving the 11-basin WRFS and entering Coyote Springs Valley would remain to satisfy down- gradient appropriations. Similarly, no evidence was presented to demonstrate that interbasin subsurface flow that occurs from the WRFS to the DVFS is available to appropriate without conflicting with existing rights in down-gradient basins.

Id.

Further, "The Applicant presented no new hydrologic evidence demonstrating that up-gradient pumping would not capture the water required to satisfy existing rights in downgradient basins, including the 39,000 afa of subsurface flow leaving the 11-basin WRFS and entering Coyote Springs Valley." Id. at 36.

The Engineer cites to NRS 533.370(2) and his interpretation that a water application should be granted unless it has been shown that there is a conflict with existing rights. The Engineer then cites to section 63 of the 1913 statutes of Nevada, Chapter 140:

It shall be the duty of the state engineer to approve all applications made in proper form where all fees, as in this act provide, have been paid, which contemplate the application of water to beneficial use, and where the proposed use or change does not tend to impair the value of existing rights, or be otherwise detrimental to the public welfare. But where there is no unappropriated water in the proposed source of supply, or where its proposed use or change conflicts with existing rights, or threatens to prove detrimental to the public interests, it shall be the duty of the state engineer to reject sad application and refuse to issue the permit asked for.

Ruling 6446 at 37, n. 173.

The citation above clearly states that the Engineer is "to approve all applications" except where the use tends to impair the value of existing rights or "be otherwise detrimental to the public welfare. The statute does not require that conflicts must be proven before the water is awarded, only if the appropriation "tends to impair." However, even if the statute required proof of a conflict, this has been shown by the Engineer.

to be 5100 afa, but also determined there would be a conflict with existing rights in the Pahrangat Valley, so the award was reduced to 2550 afa. Ruling 5875 at 18. The Engineer, in Ruling 6167, inexplicably increased and reinstated Delamar appropriations to 6,042, with no reference to the previously found conflict, or substantial evidence of how the award of water could increase from 2,550 afa to 6,042 afa. 

The Ruling 5875 was challenged and in Carter v. Griffin Inc. v. Taylor, cv 0830008

In Ruling 5875, the Engineer first calculated the natural recharge of Delamar Valley

The Ruling 5875 was challenged and in <u>Carter v. Griffin Inc. v. Taylor</u>, cv 0830008 (7th Jud. Dist. Ct. Nev., Oct. 15, 2009). The water awards to SNWA from the CDD Valley were reversed because the court found the water was already appropriated in the lower basins. This case was appealed to the Supreme Court, but the appeal was rendered moot when the Supreme Court remanded to the Engineer to reopen the protest period. <u>SNWA v. Carter-Griffin</u>, No. 54986, Slip Op. (Nev. Sept. 13, 2010).

Finally, the obvious conflict was created when the Engineer awarded all of the natural recharge, minus previous appropriation and uncaptured ET, to SNWA knowing that the lower gradient basins were fully appropriated—but the conflict would not manifest until a long time in the future. This of course is a double appropriation.

In short, the duty of the Engineer in cases where there is a tendency of an application to impair the value of existing rights, or where its proposed use conflicts with existing rights is "to reject said application and to refuse to issue the permit asked for." Ruling 6446 at 37, n. 173. This Court will not disturb the Engineer's Ruling denying the current Applications.

#### C. The Revised 3M Plan

"The Remand Order required the Engineer to define standards, thresholds, or triggers so that mitigation of unreasonable effects from pumping water are neither arbitrary nor

<sup>&</sup>lt;sup>1</sup> The Engineer supports his finding that there is newly discovered water in Delamar Valley because of dramatic advances in computer power. The Engineer cites to SNWA's use of the computer program "Excel Solver" as "fundamentally sound". SE Ruling 6167 at pp. 72-73. See also, Ex. No. SE\_\_ 157-58 and SE\_\_ 135.

This Court has reviewed Microsoft's own description of the "Excel Solver" contained on its website:

Excel Solver is an optimization tool that can be used to determine how the desired outcome can be achieved by changing the assumptions in a model. It is a type of what-if analysis and is particularly useful when trying to determine the "best" outcome, given a set of more than two assumptions.

This Court finds, by Microsoft's description of Excel Solver, that there is a great potential to manipulate variables to achieve a pre-determined result. While the Engineer has found that use of Excel Solver is sound, he has not demonstrated that the variables SNWA has used in its calculations are consistent or scientifically valid. There is, therefore, no evidence or data for meaningful judicial review.

capricious in Spring Valley, Cave Valley, Dry Lake Valley and Delamar Valley..." (SE Ruling 6446 at 38).

The Engineer has found, after remand, that the 2017 3M Plan is sound and based on substantial evidence for the Spring Valley, Cave, Dry Lake and Delamar Valleys. Id. at 10. However, the revised 2017 3M Plan is somewhat of a fugitive document with no place to go. The Engineer in Ruling 6446 denied the previously granted water from both Spring Valley and the CDD Valleys. Id at 39. In other words, there are no water appropriations to which the 3M Plan would apply. Nevertheless, the Engineer seeks this Court's approval of the revised 2017 plan. "...assuming arguendo, reinstatement of any water granted under the applications in Rulings 6164, 6165, 6166, or 6167." Id.

As stated earlier, this Court denied the appeals by the Engineer and SNWA of Rulings 6164-6167, deferred to the Engineer and found that the 6446 Ruling, denying the previous 6164-6167 grants was neither arbitrary nor capricious and is based on substantial evidence, and sound interpretation of Nevada water law.

The Engineer has now asked for a declaratory judgment regarding the validity of the 2017 3M Plan. A declaratory judgment is a remedy of a justiciable controversy when a party is in doubt of a legal right. A declaratory judgment is conclusive in a subsequent action between the same parties as to the matters declared. This court will consider the issue of proscriptive validity—or non-validity of the 2017 3M Plan. See NRS 30.010-.060.

The area encompassed by the Spring Valley and CDD aquifers subject to the 3M Plan is 20,688 sq. miles. ROA 000125. Obviously monitoring and management of the area is a massive undertaking, complex and difficult. This Court finds that the difficulty and size of the area means that the rules of any 3M Plan must be strictly adhered to rather than a relaxation of the rules, because the consequence of failure of a 3M Plan would be significantly more catastrophic and far more widespread.

The Engineer has acknowledged, that, "...if the State Engineer approves an application based on a 3M Plan, the decision must be based on presently known substantial evidence and must be sufficiently explained and supported to allow for judicial review.

<u>Eureka County v. SE</u>, 131 Nev. 846, 856 (2015).

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This Court has reviewed the Engineer's findings as well as the presentation of the 3M Plan provided by SNWA. The Engineer has explained the components of the 2017 3M Plan as follows:

The 3M Plans contain the following components:

- (1) unreasonable effects; (2) monitoring; (3) thresholds;
- (4) triggers; (5) investigations; (6) management actions;
- (7) mitigation actions; (8) mitigation action planning;
- (9) reporting requirements; and (10) opportunities for public Each component is briefly discussed below in the following subsections, along with further detailed analyses as they relate to specific resources.

SE Ruling 6446 at 44.

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The SNWA Plan is lengthy and complex and will not, except for some relevant parts, be repeated here. The remand pointed out to the Engineer that the first (2011) 3M Plan was arbitrary and capricious and rejected by this Court because very little of a plan, if any, was actually created. See December 2013 Order. The 2011 Plan was essentially non-existent because the Engineer agreed with SNWA that it was "premature" to plan—only after pumping began could the 3M Plan be devised. Much of the current (2017) plan is also nonexistent and will not be created until either immediately before pumping begins or after. For example, the Engineer reports the testimony of SNWA's expert witness:

> Mitigation triggers are required to signal that thresholds have been crossed, and require mitigation actions to avoid unreasonable effects and comply with Nevada Water law...For existing water rights, the mitigation...trigger is resourcebased, the 3M Plans require the Applicant to conduct a water resource assessment before the groundwater pumping project begins. ... The Water Resource Assessment provides the Applicant with the ability to have a snapshot of the condition of the infrastructure and construction associated with each water right...the water Resource Assessment would be conducted at least three years prior to the initiation of the project.

Id. at 61-62.

When asked at the 2017 hearing why the Water Resource Assessment is not yet completed, the expert stated, "the goal...is to determine the conditions of a particular resource immediately prior to pumping." Id at 62 (emphasis added). Moreover, the Engineer finds the "assessment need not be conducted to inform the decisions the Engineer is making

herein." Id at 63. The Engineer then is endorsing, presumably by invoking "substantial evidence" without knowing what the trigger requiring mitigation is, does not know what the mitigation will be, and does not know if mitigation will be effective.

This Court understands the difficulties both SNWA and the Engineer have in creating and approving, respectively, a 3M that actually complies with the <u>Eureka</u> standards. "Difficulty," however, is no reason at all to excuse the failure to follow the law. This Court finds that approving parts of a 3M Plan in which there is no evidence, let alone substantial evidence, is simply arbitrary and capricious. There are other instances of failure to comply with Eureka.

The State Engineer questioned Mr. Prieur, (SNWA expert witness) about a reserved right and a stockwater right which are within a mile of one of the Applicant's wells, monitoring occurs directly at these sites and a plan for preemptive implementation of mitigation would be in place prior to initiation of GPD pumping operations beginning as identified for Management Category A water rights in the Spring Valley 3M Plan. The State Engineer finds that the management actions specified in the 3M Plan will be effective to avoid an unreasonable effect. The State Engineer further finds that the management actions conform to best practices and industry standards.

See Ruling 6446 at 61.

It is unclear how the Engineer can declare that the 3M Plan will be effective to avoid an unreasonable effect, if he does not know what the plan is or the actual trigger. [T]he State Engineer's decision to grant an application which requires a determination that the proposed use... would not conflict with existing rights, in accordance with NRS 533.370(2), "must be made upon presently known substantive evidence, rather than information to be determined in the future." Eureka, 131 Nev. at 855.

Regarding the requirement of the remand to defined standards, thresholds, or triggers, consider the definition of an investigation trigger provided by SNWA:

The activation conditions assigned to a specific investigation trigger location are dependent on the length, quality, and characteristics of the baseline record. The primary investigation trigger is a decrease in the measured parameter (such as water level or spring flow) that is collected after SNWA GDP pumping begins, which for six continuous months is below the 99.7 percent lower control limit using the

seasonally adjusted linear regression (SALR) method for the baseline data collected prior to SNWA GDP pumping.

The SNWA GDP 3M Plan uses the SALR method to identify a lower control limit for the baseline dataset. A linear regression is a simple method that can be used to construct a model to fit time-series data (Chandler and Scott, 2011). The method uses ordinary lest-squares, which calculates a best-fit line for the observed data by minimizing the sum of the squares of the vertical deviations from each data point to fit the line. "Linear least squares regression is by far the most widely used modeling method. It is what most people mean when they say they have used 'regression,' 'linear regression' or 'least squares' to fit a model to their data." (NIST/SEMATECH, 2017).

Evaluating hydrologic time-series data using a multiple linear regression model provides the ability to assess the trend of the data over a period of time and captures the aggregate effects of the natural and human induced processes on the baseline measurement data. The SALR method also evaluates recurring seasonable variability in the record. A description of the SALR method is presented in the 3M Plan analysis report (Marshall et. al., 2017, in Appendix A). An example demonstrating the activation of an investigation trigger is presented below.

The example shown in Figure 3-2, uses the SALR method applied to a hypothetical baseline dataset which exhibits a strong reoccurring seasonal behavior. The example illustrates the activation of an investigation trigger for the hypothetical dataset. An artificial water-level record was constructed for the period 2006 through 2026 to demonstrate hypothetical hydrologic conditions over an assumed 20 year baseline monitoring period at the hydrologic monitoring location.

(SNWA Ex. 592 at 3-5 ROA 47886).

The above purports to be an objective investigation trigger, but it is not a trigger at all. It is a process, obviously, or even not so obviously, understood by SNWA only. Compare the investigation "trigger" with a trigger used by BLM in Armagosa Valley. "When the water level falls 2.7 feet below a copper washer, mitigation must occur." (October 2013 hr'g T., Vol. I, p. 65, and December 2013 Order, p. 18).

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There is a greater flaw in the 2017 3M Plan than of that cited above. In every "mitigation" section of "The Plan," before any substantive, as opposed to procedural, action is taken, it must first be decided if the "SNWA GDP" pumping is the cause of the triggering event. How this is to be determined is not described or explained in any precise way. There are references scattered about in Ruling 6446:

The 3M Plans require the Applicants to collect data from specific locations within and in the vicinity of the project basins and incorporate that data into a baseline dataset to characterize the variability in natural conditions... [SNWA's expert] testified that the current baseline will be long enough to establish triggers in the period of time between now and when the project pumping begins is taken into account.

SE Ruling 6446 at 57.

Not only does the Engineer acknowledge that triggers are not yet established, there is no declaration about how any adverse effect will be attributed to GDP pumping. In fact, there is little or no evidence about how "cause" of the adverse effect will be determined except that there is ample evidence that "cause" will be determined by SNWA.

The effect of SNWA deciding if their pumping caused the triggering requiring mitigation—or not, is to negate all of SNWA's listed processes from monitoring to mitigation. If SNWA decides a trigger is not caused by SNWA's pumping—the event is over, no mitigation required. The Engineer has stated multiple times, in his approvals of the 3M Plan, that he still has jurisdiction and authority over the plan. Still the Engineer has not explained his role in determining if SNWA's pumping is the cause of conflict. Impliedly, it is SNWA's decision.

Additionally, other parts of the 3M Plan are not based on substantial evidence and does not comport with the <u>Eureka</u> requirements. In the 3M Analysis Report 2017, Protection of Habitat Group, it is stated that a mitigation trigger is activated if, "as a result of SNWA GDP pumping," shrubland cover falls below 95% for five consecutive years. Id. at 7-30 ROA 043257. The mitigation choices are:

- (1) collaborate with BLM and private landowners and fund vegetation treatments;
- (2) collaborate with private land holders and/or water right holders and fund measures to increase water availability to the shrublands;

(3) collaborate with BLM, private landowners and/or federal grazing Permitees and fund measures to reduce other stressors (e.g. reduce livestock grazing during growing season to support plant establishing and growth.)

Id. at 7-31, ROA 043258.

SNWA's plan yet again will determine, unilaterally, if its own pumping is the cause of the shrinking shrubland. There is no data or explanation in the "Plan" to describe exactly how it shall be determined. Moreover, there is no evidence whatsoever that the "menu," above, of how mitigation actions will be successful. Specifically, there is no explanation of exactly what is meant by "...fund measures to increase water availability," or to "fund measures to reduce other stressors;" or to "fund vegetation treatments." ROA 043257.

In approving the 3M Plan in the above issue, the lack of substantial evidence or an explanation that this Court can review renders approval arbitrary and capricious.

Finally, the Engineer has asked for declaratory judgment in the 2017 3M Plan "in the event that further judicial proceedings will reinstate the 6164-6167 appropriations," supra. It must be pointed out yet again that because appropriations in Spring Valley with the current points of diversion will never reach equilibrium, the aquifer will continually be depleted. Thus, environmental devastation and conflict with existing rights is inevitable, basin wide. This inevitably renders any "plan" meaningless. The legislature did not define exactly what it meant by the phrase "conflicts with" as used in NRS 533.370(2), but if an appropriation that would completely deplete the source of existing water rights does not "conflict with" those existing rights, then it is unclear what appropriation ever could. Eureka County v. State Engineer, 131 Nev. 846, 852 (2015).

Likewise, in Cave, Dry Lake, and Delamar Valleys, the Engineer's own findings are "overwhelming" that the water recharge granted to SNWA, has already been appropriated down gradient. Conflicts and adverse environmental effects, as in Spring Valley, are inevitable—even if not for a long time. Additionally, the plan states that because environmental effects are improbable, no triggers or mitigation plan have been created for the CDD Valleys. SNWA 3M Plan 2017, sec. 8-3. While the assertion that environmental effects are "improbable" may be true, there is little evidence provided for judicial review.

The 2017 3M Plan is flawed by either being, in part, arbitrary and capricious, or by not being based on substantial evidence—and in violation of the <u>Eureka</u> requirements. Also,

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the Engineer's failure to address how a mitigation trigger is or is not caused by SNWA pumping does not provide detail to permit judicial review.

This Court rejects the 3M Plan for the reasons cited above. This review of the 3M Plan will not be remanded.

### D. SWAMP CEDAR ACEC

In part, the Engineer has also found the 2017 3M Plan to be inadequate. The Confederated Goshute, Duckwater and Ely Tribes agree. The 3M Plan for the Swamp Cedars Area of Critical Environment Concerns (ACEC) is that "the mitigation trigger is activated if annual tree-cover area for the Swamp Cedars ACEC, compared to the baseline maximum tree cover area, falls below the lower limit of the baseline percent range in cover for a period of five consecutive years as a result of SNWA GDP pumping." (ROA 047923).

The SNWA witness admitted during cross-examination at the 2017 hearing that it was possible for 100% extinction of the Swamp Cedars ACEC before mitigation would be required under the 3M Plan. (ROA 054574 and 054576).

In response to the mitigation trigger in the 3M Plan of possible complete destruction and recognizing the special status of the Swamp Cedars;

The State Engineer finds that it is in the public interest to protect important cultural resources. The Swamp Cedars, a designated ACEC that is within the TCP, which is listed on the National Register of Historic Places, is an example of such an important cultural resource. Applications 54014 and 54015 each request to divert 6.0 cfs (4,343.82 afa) and have proposed points of diversion that are located closest to the Swamp Cedar ACEC. Application 54014 is on the northern border of the ACEC, and Application 54015 is approximately one-half mile north of the northern border of the ACEC.

The State Engineer finds that focusing on the swamp cedar ACEC and existing water rights is a sound approach to avoiding unreasonable effects to terrestrial woodland habitat.

The State Engineer finds that given the local hydrologic characteristics of the area, it is likely that groundwater pumping will affect the supplemental groundwater utilized by the swamp cedars, and it is uncertain that the habitat can be maintained from surface runoff and precipitation alone.

denial of Applications 54014 and 54015, as these applications pose the greatest potential for immediate groundwater drawdown and risk of loss of the swamp cedars in the ACEC. Id. at 86. This Court finds that the Engineer's decision was based upon substantial evidence and judgment that the denial of permits 54014 and 54015 are neither arbitrary nor capricious.

SNWA did appeal to this Court the withdrawal of the previous granted permits on

SE Ruling 6446 at 85-86. The Engineer then found that "the public interest compels the

SNWA did appeal to this Court the withdrawal of the previous granted permits on the grounds that the 3M Plan properly protects the Swamp Cedars; that the claim that groundwater pumping would adversely impact the Swamp Cedars is not supported by substantial evidence; that the Engineer incorrectly used the "public interest" standard instead of the "environmental soundness" standard of NRS 533.370 and; a public interest inquiry was outside the scope of the remand. SNWA Brief, August 2019 pp. 30-36.

The Engineer has found that the public interest concerns of NRS 533.370(2)(a) are relevant to the Swamp Cedars ACEC. The Engineer has reported the testimony of SNWA's witnesses as well as the Protestant witnesses and found that there is substantial evidence to justify his ruling regarding permits 54014 and 54015. The Engineer has found that, the 3M Plan notwithstanding, drawdown for the proximate points of diversion will have an adverse effect on the trees in the ACEC and that precipitation alone cannot sustain the Swamp Cedars. This Court finds that the Engineer relied on substantial evidence derived at the 2017 hearings and that the public interest is certainly to be considered by the Engineer pursuant to NRS 533.370(2)(a).

Regarding the claim by SNWA that a public interest inquiry is beyond the scope of the remand is incorrect. Modification of the previous 3M Plan and recalculation of available water was part of the December 2013 Remand Order. Further, "The State Engineer shall consider the protest, and may, in his or her discretion hold hearings and require the filing of such evidence as the State Engineer may deem necessary to a full understanding of the rights involved..." NRS 533.365(4). Also, "The State Engineer may require further information which will enable the State Engineer to guard the public interest properly before approving or rejecting the application. NRS 533.375.

The Engineer was well within his jurisdiction in considering the public interest inquiry and this Court will not disturb the Engineer's ruling.

### E. GOSHUTE TRIBE AND UTAH COUNTIES

The Protestants Confederated Goshute, Duckwater and Ely Tribes appeal the failure of the Engineer to dismiss this case. The central part of the Tribes argument in the Motion to Dismiss for failure to join necessary parties, Federal agencies "...is that Federal Water Rights and Federal Resources under the 3M Plans cannot be adequately protected without the direct participation of the United States DOI Bureaus. (Tribes April 2019 Brief, p. 41). The Tribes also state that pursuant to Seminole Nation v. United States, 316 U.S. 286 (1942) there is a federal trust responsibility to safeguard the interests of the Tribal Protestants. The Tribes also cite to Revert v. Ray, 95 Nev. 782 (1979) for the proposition that "All interested parties must have had a full opportunity to be heard and the State Engineer must have clearly resolved all the crucial issues presented." Id. at 787. "When these procedures...are not followed and the resulting decision is arbitrary, oppressive or accompanied by a manifest abuse of discretion, the Nevada Supreme Court has stated it will not hesitate to intervene." Id.

"The State Engineer denied CTGR's motion to dismiss, finding that the participation of the DOI Bureaus was not essential, and that the law does not require joinder of a party in the absence of a formal protest to an application. This Court understands the frustrations of the Tribe's effort to include the Department of the Interior in this case. However, this Court can identify no Nevada law that requires inclusion of the Federal agencies as necessary parties. The Court also notes that it has no jurisdiction over the Federal agencies, nor does the Engineer. This Court upholds the Engineer's denial of the Tribe's Motion to Dismiss.

Millard and Juab, Utah, Counties seek judicial review of the Engineer's "refusal of the Counties' request to provide them with the same protection that the Engineer voluntarily provided to GBNP in approving the 2006 stipulation." Opening Brief of Millard and Juab County Utah, April 2019, p. 2. The stipulation referred to is between SNWA and The Federal Protestants. The Federal agencies will withdraw their protest to the water award to SNWA and SNWA will implement the 3M Plan devised by the Federal agencies.

The Engineer has stated, "In accordance with the Remand Order, Millard and Juab Counties were considered and included in the Spring Valley 3M Plan with respect to water basins in Utah that may potentially be affected by GDP groundwater pumping in Spring Valley." SE Ruling 6446 P. 91. The Engineer affirms that the SNWA—Federal stipulations are still in effect and characterizes the stipulation:

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The goal of the stipulation was to (1) manage the development of groundwater in Spring Valley without causing injury to Federal Water rights and/or adverse effects to Federal Resources in the area of interest; (2) accurately characterize the groundwater gradient from Spring Valley to Snake Valley via Hamlin Valley; and (3) to avoid any effects on Federal Resources located in the Great Basin National Park.

Id. at 102-03. "The State Engineer concludes the Applicant adhered to the Remand Order by providing for the inclusion of Millard and Juab Counties, Utah in the Spring Valley 3M Plan insofar as water basins in Utah may be affected by pumping groundwater from Spring Valley, Nevada." Id. at 108.

The Engineer also noted that "...the stipulations are still in effect along with the 2017 3M Plans, it is not necessary to modify the Spring Valley 3M Plan monitoring area to mirror the Federal stipulations." SE Ruling 6446 at 96. Also, "through this Ruling [6446] the 3M Plans are modified to require continued monitoring as long as impacts from GDP pumping are detectable. Id. at 97.

The Engineer has found that the 3M Plan will adequately protect the Utah Counties and this Court will not substitute its judgment for that of the Engineer regarding inclusion of the Utah Counties in the 3M Plan.

In any case, the 3M Plan, in many parts, is not based on substantial evidence and does not comply with the <u>Eureka</u> standards, supra, and is arbitrary and capricious. Thus, whether the Engineer includes Millard and Juab Counties in the stipulated 3M Plan is moot. This plan will not be remanded to the Engineer.

#### VI.

#### **CONCLUSION**

At the outset, this Court emphasizes that it is not bound by, nor does it agree with, the Engineer's interpretation of NRS 533.370.

Accordingly, this Court finds that the water appropriations in Spring Valley threaten to prove detrimental to the public interest because the awards, at the current well configuration, result in water mining, will never reach equilibrium, and will result in depletion of the Spring Valley aquifer. The award is inconsistent with Nevada water law, NRS 533.370, is inconsistent with the State Engineer's long held rules of water appropriation, and is arbitrary and capricious.

This Court also finds that the Engineer has provided substantial evidence that there is little or no water available for appropriations in Cave, Dry Lake, or Delamar Valleys; that the water the Engineer granted to SNWA is already appropriated down gradient, resulting in double appropriation, is inconsistent with Nevada law and will conflict with rights in the down gradient aquifers. This Court finds that a double appropriation is oppressive, arbitrary and capricious.

This Court finds that no new hydrological evidence or data was presented after remand to justify an appropriation of water to Southern Nevada Water Authority.

This Court finds that the Engineer, in following the requirements of the December 2013 Remand properly denied the previously granted appropriations in Rulings 6164, 6165, 6166, and 6167.

This Court finds that the 2017 3M Plan created by SNWA is deficient in multiple respects pursuant to Nevada law requirements and is therefore invalid.

This Court finds that the 2017 3M Plan is moot in that it has no application to the Engineer's denial of water appropriations in Ruling 6446. However, even if it were not moot, the SNWA's plan is deficient in multiple respects, and does not comport with Eureka. It's approval, therefore, would be arbitrary and capricious.

This Court finds that the Engineer was correct in denying the Goshute Tribe, et al.'s Motion to Dismiss. Further, this Court finds no reason to disturb the Engineer's decision to include the Millard and Juab Counties, Utah in the 3M Plan as stated in the Engineer's Ruling 6446.

#### <u>ORDER</u>

For all of the above reasons:

- 1. The Court will not rescind the December 2013 Order and reinstate the award to Southern Nevada Water Authority;
- 2. The Court reverses the water award in Spring Valley with the current well configuration, granted to SNWA by SE Ruling 6164;
- 3. The Court reverses the appropriations granted to SNWA, in Cave, Dry Lake, and Delamar Valleys, in SE Rulings 6165, 6166, and 6167;

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4. The Court affirms the Engineer's findings, pursuant to the Remand, in Ruling 6446, in which water appropriations from Spring Valley, and Cave, Dry Lake, and Delamar Valleys are denied;

5. The Court affirms the Engineer's denial of the Tribe's Motion to Dismiss, and affirms the Engineer's decision to include Millard and Juab Counties' inclusion in the 3M Plan, even though the 3M Plan is superfluous and invalid.

DATED this \_\_\_\_ day of March, 2020.

KOBERT E. ESTES\

SENIOR DISTRICT COURT JUDGE