IN THE SUPREME COURT OF THE STATE OF NEVADA

JASON KING, P.E., in his official capacity as the NEVADA STATE ENGINEER, and the NEVADA DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES, DIVISION OF WATER RESOURCES,

Petitioners,

vs.

THE SEVENTH JUDICIAL DISTRICT COURT OF THE STATE OF NEVADA IN AND FOR THE COUNTY OF WHITE PINE and THE HONORABLE ROBERT E. ESTES, SENIOR DISTRICT COURT JUDGE,

Respondents.

and

MILLARD COUNTY, UTAH; JUAB COUNTY, et al.,

Real Parties in Interest.

Case No. 65776

Electronically Filed
Nov 03 2014 10:43 a.m.
Tracie K. Lindeman
Clerk of Supreme Court

REPLY TO WHITE PINE COUNTY ET AL.'s, CORPORATION OF THE PRESIDING BISHOP'S, THE CONFEDERATED TRIBES OF THE GOSHUTE RESERVATION'S, THE ELY AND DUCKWATER SHOSHONE TRIBES' AND THE UTAH COUNTIES' ANSWERS TO THE STATE ENGINEER'S PETITION FOR WRIT OF MANDAMUS

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I. INTRODUCTION

The State Engineer's Petition for Writ of Mandamus requested review of three narrow and specific issues as follows:

1. Whether the State Engineer's practice of calculating the amount of groundwater available for appropriation from a groundwater basin based on total basin ET is arbitrary and capricious, and whether the State Engineer is required to show that the groundwater basin will reach equilibrium within a given period of time in order to grant a water right.

2. Whether, if the State Engineer chooses to utilize a 3M Plan, specific thresholds for mitigation are required to be identified as part of the 3M Plan before a water right may be granted.

3. Whether the State Engineer's methodology used to determine that appropriations from the Cave, Dry Lake and Delamar Valleys would not conflict with exiting rights downgradient in the White River Flow System is reasonable, and his determination is supported by substantial evidence.

State Engineer's Writ Petition ("Petition") at p. 5.

White Pine County et al. ("WPC"), Corporation of the Presiding Bishop of The Church of Jesus Christ of Latter-Day Saints ("CPB") and the Confederated Tribes of the Goshute Reservation ("Goshute Tribes") all address the first two issues in their Answering Briefs.[1] They assert that the State Engineer authorized "illegal" groundwater mining when he issued permits that allow a lowering of the

[1] The Counties of Millard and Juab, Utah (the "Counties") have filed joinders in CPB's and WPC's Answering Briefs, and the Duckwater and Ely Shoshone Tribes filed joinders in CPB's and the Goshute Tribes' Answering Briefs. The Duckwater and Ely Shoshone Tribes and the Goshute Tribes are referred to collectively herein as the "Tribes." All of the parties filing briefs or joinders are referred to herein collectively as the "Parties in Interest."

groundwater table during the time it takes for the basin to reach a new equilibrium. They also argue that the 3M Plans do not adequately protect the natural resources in the area because they do not contain specific mitigation triggers. Only WPC addresses the third issue pertaining to Cave, Dry Lake and Delamar ("CDD") Valleys, asserting that the State Engineer improperly calculated the perennial yield and permitted conflicts with existing rights by not deducting from the amount of water available for appropriation the existing rights in separate downgradient basins.[2]

In addressing the three relevant issues of this Petition, the Parties in Interest fail to rebut the State Engineer's showing that the District Court's remand instructions constitute a gross abuse of discretion. Instead of reviewing the State Engineer's ruling to determine if substantial evidence supported his decision, the District Court substituted its own judgment for the administrative expertise of the State Engineer and made new law. The Parties in Interest attempt to persuade this Court to condone the District Court's creation of new legal requirements for the

[2] Only the Utah Counties address the issue regarding the 3M Plan including the Utah Counties, which the State Engineer does not dispute. The Parties in Interest also include in their Answering Briefs several issues that are not raised by the State Engineer in his Petition. This Court should not address those issues as part of this Petition, but rather should address those issues, if at all, as part of the State Engineer's appeal. For completeness, the State Engineer will briefly address those arguments by the Parties in Interest even though those issues are not properly before the Court under this Petition.

appropriation of groundwater, even though those requirements are inconsistent with the water laws and the reasonable practice of the State Engineer.

In short, the State Engineer's calculation of the amount of water available for appropriation in Spring Valley followed his practice of using total basin evapotranspiration and was supported by substantial evidence. Because the amount of water available is greater than the amount of water granted under SNWA's permits, no groundwater mining is permitted. The District Court abused its discretion in ordering the State Engineer to recalculate the amount of water available for appropriation using an arbitrary and unprecedented formula. Further, substantial evidence supports that in addition to the appropriations meeting the statutory thresholds regarding public interest and environmental soundness, the State Engineer further mandated the use of a 3M Plan to effectively safeguard against conflicts and unreasonable adverse effects by establishing a framework for setting triggers and thresholds when the necessary monitoring information is complete. Finally, the State Engineer's method of calculating perennial yield for the CDD Valleys is consistent with over fifty years of past rulings and no evidence supports that the appropriations will create conflicts with existing water rights. Thus, the District Court abused its discretion by reweighing—and incorrectly interpreting—the evidence on this issue.

This Court's immediate review of the issues raised in the State Engineer's Petition is imperative for the State Engineer's consistent management of

groundwater appropriations across the state. If this Court determines that it does not have jurisdiction over the State Engineer's Appeal (Case No. 64815), the State Engineer has no plain, speedy and adequate remedy at law. Instead, the State Engineer will be required to issue new rulings that are inconsistent with water statutes and current practices, and then will be forced to appeal his own new rulings in order to allow an opportunity for this Court to review the issues years down the road. This would not be plain, speedy or adequate and would be a tremendous waste of state and judicial resources. For these reasons, the State Engineer respectfully requests that this Court accept the State Engineer's Petition, vacate the District Court's remand instructions and affirm the State Engineer's Rulings.

II. SUMMARY OF ARGUMENTS

A. Writ Relief Is Appropriate

Writ Review is appropriate here if the State Engineer's Appeal is not heard because there is no plain, speedy or adequate remedy at law to address the issues raised in the Petition. Without an Appeal, the State Engineer will be required to issue new rulings contrary to Nevada water law and the State Engineer's practices, and then appeal his own revised ruling with which he disputes. In addition, this Court should resolve the split among the Seventh Judicial District on the issue of whether triggers are required before a water permit may be issued.

B. The State Engineer Has Not Permitted Groundwater Mining and the Appropriations in Spring Valley Are Proper

The Parties in Interest address the issue regarding Spring Valley appropriations by asserting that the State Engineer has permitted "unlawful" groundwater mining. The Parties in Interest argue that the State Engineer has allowed groundwater mining because SNWA's pumping of groundwater will cause a lowering of the static water table for a substantial period of time before the basin aquifer reaches equilibrium (i.e., the point at which the amount of pumping is equal to the amount of evapotranspiration[3] (ET)). The Parties in Interest redefine groundwater mining and attempt to make "unlawful" that which is explicitly allowed under Nevada's water law—"a reasonable lowering of the static water level." NRS 534.110(4). As distinguished from a reasonable lowering of the static water level, "groundwater mining" occurs when the amount of water pumped from a groundwater basin exceeds the perennial yield of that basin and the basin **never** reaches a new equilibrium.

The State Engineer has not permitted groundwater mining in Spring Valley. The State Engineer's perennial yield calculation in Spring Valley was based on substantial evidence and followed his practice of using ET throughout the entire basin. The State Engineer has never calculated perennial yield based on the amount of ET shown to be captured. It is undisputed that the amount of water granted to

[3] Evapotranspiration is the process by which groundwater is transferred from the land to the atmosphere by evaporation from the soil and transpiration from plants.

SNWA for Spring Valley is less than the perennial yield (perennial yield is 84,000 afa, and permits granted 61,127 afa). Accordingly, the State Engineer has not permitted groundwater mining.

The State Engineer found that the appropriations met the statutory requirements under NRS 533.370 and the District Court did not disturb those findings. Thus, the fact that it will take a substantial amount of time for the basin to reach a new equilibrium does not bear on the legality of the appropriations. No requirement regarding the timing of reaching equilibrium exists under the statutes, and the Courts are not at liberty to establish a new requirement. This policy setting task must be reserved for the legislature.

C. The 3M Plans Do Not Require Triggers Before Permits are Issued to be Effective, and No Legal Basis Exists to Require Triggers Before Permits Are Issued

The Parties in Interest scarcely address the narrow issue the State Engineer Petitioned this Court to review—whether specific triggers and thresholds must be identified in a 3M plan before a water right is issued in order to make the plan effective. Instead, the Parties in Interest attempt to boot-strap their own petition for writ review as part of the State Engineer's Petition. In doing so, Parties in Interest make the same arguments they made before the District Court and expand the narrow issue of whether triggers are required in a 3M plan to the much more

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expansive review of the public interest and environmentally sound findings.[4] Essentially, the Parties in Interest dispute the State Engineer's findings that SNWA's permits (a) will not prove detrimental to the public interest under NRS 533.370(2), and (b) are environmentally sound under NRS 533.370(3). Both issues were fully addressed by the State Engineer in Rulings 6164–6167 ("Rulings") and not disturbed by the District Court in its December 10, 2013 Decision. However, the State Engineer's Petition does not raise the public interest or environmental soundness issues.[5] In order for this Court to address the public interest and environmental soundness issues, it must do so in the context of an Appeal, or a Petition for Writ of Mandamus properly filed by the Parties in Interest seeking

[4] The Tribes, more specifically, argue that the 3M Plan does not adequately protect their cultural and spiritual interests which are dependent on the natural resources and that the State Engineer ignored the Tribes' interest altogether. This argument is meritless, as the Rulings fully address the Tribes' cultural and spiritual interests and support the State Engineer's finding that the public interest and environmental soundness requirements are met under the Permits.

[5] The Parties in Interest incorrectly assert that "[t]he district court found that the State Engineer failed to satisfy [the] statutory obligations [under NRS 533.371(6) [*sic*] and 533.370(3)]. Tribes' Brief at p. 8. The State Engineer found that substantial evidence supported granting SNWA's Applications because water was available, the proposed use would not conflict with existing rights nor threaten to prove detrimental to the public interest and was environmentally sound. *See* NRS 533.370(2)–(3); State Engineer Writ Petition Appendix ("SE App.") B, Vol. 1 at SE 000240–241, SE App. C, Vol. 1 at SE 000412–413, SE App. D, Vol. 2 at SE 000577–578, SE App. E, Vol. 2 at SE 000740–741. The District Court agreed with the State Engineer's findings and did not remand or reverse the State Engineer's Rulings on these grounds. SE App. A, Vol. 1 at SE 000024:11–14 ("This Court will not disturb the findings of the Engineer save those findings that are the subject of this Order.").

review of that issue. *Williams v. Eighth Judicial District Court of State, ex rel. County of Clark*, 127 Nev. ___, ___, 262 P.3d 360, 365 (Adv. Op. 45, July 28, 2011).

Nevertheless, if this Court were to address the arguments of the Parties in Interest regarding public interest and environmental soundness as part of this Petition, including the Tribes' cultural and spiritual interests, substantial evidence supports the State Engineer's determination that those interests are wholly protected. The evidence showed that pumping in Spring and CDD Valleys would cause reasonable drawdown and have no effect on plants and animals that primarily rely on precipitation and surface water runoff. Further, the evidence showed that staged development in Spring Valley, in conjunction with the extensive 3M Plans upon which the Permits are conditioned, provide additional protections for the natural resources in the basins, including those that support not only the cultural and spiritual interests of the Tribes, but the interests of all of the Parties in Interest. The staged development initially limits the amount of water that

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may be pumped in Spring Valley to allow for evaluation of impacts,[6] and the 3M Plans are designed to protect against conflicts with existing rights and unreasonable adverse effects to both federal and non-federal rights. The overwhelming evidence showed that the 3M Plans need not identify quantitative triggers or thresholds at the time a water permit is granted in order to accomplish the goal of protecting the resources. The Parties in Interest fail to provide any legal or scientific basis to support their assertion that those triggers or thresholds must be set at the time water rights are granted. Indeed, the Tribes concede that "Nevada law does not set out a specific standard for mitigation plans," and none of the other Parties in Interest point to any legal requirements for a 3M Plan. Tribes' Brief at p. 23.

D. The State Engineer's Method for Calculating Perennial Yield in the CDD Valleys Was Consistent With His Practice and Prior Rulings and the Appropriations Do Not Conflict With Existing Rights

Only WPC addresses the issue regarding the appropriations in the CDD Valleys, asserting that the District Court properly found that the State Engineer's

[6] In another argument that is not at issue for this Petition, the Parties in Interest assert that they were denied the opportunity to present evidence regarding the use of staged development. *See* CPB Brief at pp. 53–56; Tribes' Brief at p. 15, n.2. While this issue is not appropriately before this Court under this Petition, it is briefly addressed below and worth noting here that nothing prevented the Parties in Interest from addressing this issue during the six week hearing before the State Engineer on these applications. Because the State Engineer had previously granted the very same SNWA Applications conditioned upon staged development in 2007, all the parties had notice that the State Engineer contemplated staged development for this Project.

calculation of the perennial yield for the CDD Valleys was not based on substantial evidence. WPC asserts that the State Engineer's decision regarding the CDD Valleys conflicts with prior State Engineer Rulings, including primarily Order 1169 and Ruling 6255, which relate to a number of downgradient basins (and *do not* relate to the CDD Valley basins). This argument is misplaced. Order 1169 relates to a number of basins that functionally share a common, carbonate rock aquifer. The pumping test associated with Order 1169 resulted in almost immediate impacts to senior water rights. The unique geology of those basins supported the findings in Ruling 6255 that new appropriations would conflict with existing rights. Because that geology is not present in the CDD Valleys, Order 1169 and Ruling 6255 are not relevant to the present matter. Thus, WPC's attempt to characterize the State Engineer's method for calculating perennial yield in the CDD Valleys as a "radical" deviation from his regular method rings hollow.

Further, WPC failed to show that the State Engineer's determination that no conflicts would occur in downgradient basins was not based on substantial evidence. Indeed, WPC cannot cite any evidence of conflicts in downgradient basins. In short, WPC's preferred methodology for calculating perennial yield cannot be substituted for the sound methodology followed by the State Engineer.

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III. STANDARD OF REVIEW—THE PARTIES IN INTEREST MISAPPREHEND THE NATURE OF SUBSTANTIAL EVIDENCE REVIEW

The Parties in Interest acknowledge that the State Engineer's Rulings are *prima facie* correct and that both the District Court and this Court are to review those Rulings only to determine whether those decisions are supported by "substantial, worthy evidence in the record." *Nassiri v. Chiropractic Physicians' Bd.*, 130 Nev., ___, 327 P.3d 487 (Adv. Op. 27, April 3, 2014) ; *Elizondo v. Hood Mach. Inc.*, 129 Nev. ___, ___, 312 P.3d 479, 482 (Adv. Op. 84, Nov. 7, 2013). Nonetheless, in two important respects, the Parties in Interest implicitly ask this Court to apply a less deferential standard of review.

First, the Parties in Interest assert that the Petition has overstated "the degree of judicial deference owed to the State Engineer's administrative decision-making." WPC Brief at p. 50. The Parties in Interest appear to assert that the Petition does not accurately define the limits of substantial evidence review, but rather urges the court to "adopt a denuded form of review." *Id.* However, the Parties in Interest fail to identify any instance in which either the State Engineer's Petition misstates the law, nor do they identify an instance in which the State Engineer improperly applied the substantial review standard. While the Parties in Interest insinuate that the State Engineer is seeking greater deference than appropriate under substantial evidence review, they fail to demonstrate that claim. By asserting that the legal authority cited by the State Engineer amounts to an

"attempt to avoid . . . meaningful judicial review," (WPC Brief at p. 50) but not providing legal authority to support that statement, the Parties in Interest subtly invite this Court to scrutinize the Rulings of the State Engineer to a greater degree than is allowed under the substantial evidence standard.

Second, the Parties in Interest acknowledge that this Court is not to "reweigh the evidence." WPC Brief at p. 51; *see Revert v. Ray*, 95 Nev. 782, 786, 603 P.2d 262, 264 (1979). Nonetheless, in a number of instances, the Parties in Interest invite the Court to do precisely that—reweigh the evidence. WPC argues that "the weight of the evidence presented clearly demonstrates that SNWA's proposed groundwater project would constitute groundwater mining . . . ." WPC Brief at p. 35. Similarly, WPC asserts that the State Engineer "disregard[ed] the weight of evidence in the record." *Id*. at p. 37. By arguing that the *weight* of the evidence supports their position, the Parties in Interest invite this Court to embark on an analysis of the evidence well beyond that provided for under the substantial evidence standard contained in NRS 533.450.

The State Engineer respectfully submits that this Court should decline the request to expand the scope of substantial evidence review. Instead, this Court should limit its review of the record to an analysis of whether the State Engineer's Rulings were supported by evidence which "a reasonable mind might accept as adequate to support a conclusion." *Bacher v. State Engineer*, 122 Nev. 1110, 146 P.3d 793, 800 (2006).

IV. ADDITIONAL FACTUAL BACKGROUND

A. Additional Facts Related to Spring Valley Appropriations

The State Engineer determined that the perennial yield of Spring Valley was 84,000 afa based on substantial evidence, including data from direct ET measurements using state-of-the-art Eddy Covariance Towers in Spring Valley, Snake Valley and White River Valley, and five years of satellite data to characterize vegetation health and density. SE App. B, Vol. 1 at SE000083. The State Engineer also compared the data to various hydrologic and other studies. *Id*. at SE000081–101. The perennial yield calculation includes the amount of ET throughout the basin, which has been the method consistently utilized by the State Engineer for decades in basins where ET exists. *Id*. at SE000115. The State Engineer has never limited perennial yield to the amount of ET actually captured. In addition, the State Engineer found that existing appropriations made up 14,080 afa, and then reserved 4,793 afa to protect springs in the valley floor and an additional 4,000 afa for future growth. *Id*. at SE000127, SE000239–241. Thus, the State Engineer concluded that 61,127 afa was available for appropriation in Spring Valley. *Id*. at SE000241.

Then, the State Engineer concluded based on substantial evidence that permitting SNWA to withdraw 61,127 afa of water from Spring Valley would not conflict with existing rights or prove detrimental to the public interest. SE App. B, Vol. 1 at SE000240–241. In addition, the State Engineer found that SNWA proved

a good faith intention and financial ability to construct the project, the need to import the water, that an effective conservation plan is in place and that the project would not unduly limit development in Spring Valley and is environmentally sound. *Id*. However, because models involve predictions and are not guaranteed to match real world effects of pumping, the State Engineer concluded that "[s]taged development, in conjunction with an updated and more comprehensive Management Plan is also necessary to assure the Applications will not conflict with existing rights or domestic wells, and to assure pumping is environmentally sound." *Id*. at SE000176.

The evidence showed that over seventy-five years, the groundwater table would lower by less than fifty feet in most areas with less than 15% reduction in spring flow, and lower over fifty feet in some concentrated areas. *Id*. at SE000154–160, SE000209–212. The State Engineer determined that the lowering would not create conflicts with existing rights and that it was reasonable under NRS 534.110(4), particularly in light of the management and mitigation measures available. *Id*.

B. Additional Facts Related to 3M Plans

The comprehensive hydrological and biological 3M Plans upon which SNWA's permits are conditioned were developed in cooperation with the State Engineer, BLM, National Park Service, Bureau of Indian Affairs, U.S. Fish and Wildlife Service and Southern Nevada Water Authority. App. B, Vol. 1 at

SE000128, SE000204. They were designed to ensure the protection of *both federal and non-federal* existing water rights and natural resources. *Id*. While the State Engineer is not a party to the *stipulations* from which the 3M Plans were initially borne, the State Engineer was heavily involved in the cooperative effort in creating the 3M Plans and ultimately approved the Plans as part of the Rulings. *Id.* at SE000128–130, SE000242. Further, a representative of the State Engineer's Office is a member of the Technical Review Panel (TRP) and Biological Work Group (BWG), panels of experts established by the 3M Plans, who will make initial determinations regarding monitoring, management and mitigation, if necessary, over all of which the State Engineer maintains ultimate authority. *Id*. at SE000129–130, SE App. I, Vol. 4 at SE001077. Thus, the State Engineer is intimately involved in the 3M Plans and the decisions made under the 3M Plans.

Under the hydrological 3M Plan, dozens of groundwater monitoring wells and piezometers and surface water devices have been installed throughout the groundwater basins and surrounding areas to measure groundwater levels and surface water flows. SE App. B, Vol. 1 at SE000128–141. In addition, under the biological 3M Plan, monitoring of dozens of plant and animal species is required for the collection of important biological baseline data. *Id*. at SE000204–207. The data collected as part of the 3M Plans is analyzed and interpreted by technical teams established by the 3M Plans (again, of which a representative from the State Engineer's Office is a member) and reported to the State Engineer on at least an

annual basis. *Id*. at SE000129–130, SE000204–207. The technical teams will use the monitoring information to determine the range of natural variation of hydrological and biological conditions in order to determine the threshold at which each criteria may be harmed. *Id*.; SE App. I, Vol. 4 at SE001016–1017. The teams will develop these triggers—or thresholds—pursuant to the framework set forth in the 3M Plans, which strives for consensus, but does not hold up decisions in the event consensus is not met. *Id*. Therefore, monitoring provides critical information that will be used to set triggers that otherwise would be arbitrary if set before the appropriate information is available. The monitoring also allows for detection of early warning signs of impacts as pumping begins, so that unreasonable adverse impacts can be avoided through proper management. SE App. B, Vol. 1 at SE000128–141, SE000204–207. If necessary, the information will also be used to implement specific and effective mitigation measures to protect existing water rights and natural resources, including reduction or cessation of pumping. *Id*. at SE000142–145.

C. Additional Facts Related to Effects of Appropriations on the Natural Resources

The Parties in Interest grossly exaggerate the evidence when they assert that the natural resources in the basins will disappear.[7] The evidence showed instead

[7] The Tribes' repeated assertions that "every remaining spring, wetland, and all current forms of plant life" will "disappear" as a result of pumping in Spring Valley is a gross misrepresentation of the evidence. *See, e.g.,* Tribes' Brief at p. 14.

that the natural resources would largely remain unaffected. The evidence showed that many springs, streams and wetlands in Spring Valley are supported by surface water diversions or precipitation, and that these would not be affected by lowering of the groundwater table. SE App. B, Vol. 1 at SE000212–216. Conservatively, the State Engineer withheld an additional 4,793 afa of water from appropriation in Spring Valley for the preservation of springs. *Id*. at SE000127. Therefore, the State Engineer found that "existing rights, springs and streams, which are sources upon which wildlife exists" would be protected, particularly in light of the additional protections of staged development and the 3M Plans. *Id.* at SE000185. The phreatophytic communities that may be affected will either adapt over time and remain or be replaced by less water dependent species. *Id*. at SE000209–215. The State Engineer determined that impacts will not result in animal habitat or population reductions throughout Spring Valley. *Id*. at SE000215. Mr. Marshall testified extensively regarding the projected impacts on the environmental resources in Spring Valley, including aquatic ecosystems, amphibians, birds, mammals, reptiles, fish, invertebrates, vegetation, cactus and yucca, weeds and phreatophytic vegetation. *Id*. at SE000200–202, SE000215. The evidence showed an ability to effectively avoid, minimize or mitigate against any impacts in order to protect the natural resources. *Id*. at SE000209–217.

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D. Additional Facts Related to Perennial Yield and Appropriations in the CDD Valleys

Finally, the evidence showed that the appropriations in the CDD Valleys would not conflict with existing rights in the CDD Valleys or in downgradient basins. SE App. E, Vol. 2 at SE000628. The State Engineer relied on testimony regarding the groundwater flow model submitted by SNWA as part of its Environmental Impact Statement. *Id*. The model showed that after 200 years of withdrawal in the CDD Valleys, springs and other water sources downgradient were virtually unaffected. *Id*. Based on this undisputed evidence, the State Engineer determined that granting the Permits for the CDD Valleys would not conflict with existing rights in the CDD Valley or in downgradient valleys in the White River Flow System. *Id.*

The State Engineer considered Protestant's "one-river" flow argument in considering whether or not it was appropriate to alter his methodology for calculating the amount of water available for appropriation in a given basin. SE App. E, Vol. 2 at SE000627–628. The State Engineer concluded that: "comparing a groundwater flow system to a river is flawed by ignoring the time frames and geological uncertainties involved. Up-stream use of a river will affect down-stream supply in days to weeks. In this groundwater flow system, up-gradient use will not, if at all, measurably affect down-gradient supply for hundreds of years." *Id*.

The State Engineer noted that the "one-river" method of calculating perennial yield advanced by WPC and ordered by the District Court deviates from the State Engineer's longstanding practice:

> Historically, State Engineers have not managed Nevada's water resources in the above described manner, and in following Nevada water law, have found that there was groundwater available for appropriation in each basin, and the amount available is related to the annual supply of the basin, i.e., the perennial yield.

Id. at SE000628.

V. LEGAL ANALYSIS

A. Writ Relief Is Appropriate

1. No Plain, Speedy and Adequate Legal Remedy Is Available

The Parties in Interest assert that writ review is inappropriate because the District Court's order is appealable and therefore the State Engineer has a "plain, speedy and adequate" legal remedy. WPC Brief at p. 48 (the issues in the State Engineer's Petition "are merely the same alleged errors that serve as the grounds for the ordinary appeals . . ."); CPB Brief at p. 9; Tribes' Brief at p. 20. However, CPB has filed a motion to dismiss the State Engineer's Appeal, which is currently pending before this Court. If this Court determines that it lacks jurisdiction over the State Engineer's Appeal because of lack of finality of judgment, the State Engineer will not have a plain, speedy and adequate legal remedy. *See* NRS 34.170 (stating that a writ of mandamus may be issued when no adequate and speedy

remedy exists); *cf. Pan v. Eight Judicial Dist. Court ex rel. County of Clark*, 120 Nev. 222, 88 P.3d 840 (2004) (finding that an order to dismiss for forum non conveniens was a final appealable judgment and therefore a writ petition was not appropriate).

If the State Engineer is required to follow the remand instructions from the District Court before this Court has had an opportunity to review the issues, the State Engineer will be forced to apply new and novel legal requirements set by the District Court and then issue new rulings incorporating those requirements. Further, once issued, the State Engineer will then be required to seek judicial review of his own revised rulings in order to allow further judicial review of the new legal requirements. Finally, the State Engineer will be required to appeal any district court decision upholding the rulings in order for this Court to eventually review the issues several years down the road. Because this process would require the State Engineer to seek reversal of his own rulings and waste a tremendous amount of resources and time, it is anything but a plain, speedy and adequate legal remedy.

Thus, the arguments of the Parties in Interest simply ignore the grounds for the writ that the State Engineer set forth: that mandamus is appropriate because (1) the District Court's decision constitutes a manifest abuse of discretion, (2) there is no plain, speedy, and adequate remedy at law, and (3) the legal issues presented should be resolved as a matter of judicial economy. Petition at pp. 19–22. Not only

have the Parties in Interest in large part ignored these arguments by the State Engineer, at least WPC has tacitly conceded that mandamus is appropriate by themselves requesting mandamus relief in its Answer. WPC Brief at pp. 7, 96–97. Writ review is appropriate.

2. The District Court's Decision Conflicts With Another Decision in the Seventh Judicial District

Moreover, the District Court's Decision conflicts with the May 17, 2013 decision of Seventh Judicial District Court Judge J. Charles Thompson on appeal in the case of *Eureka County et al. v. State Engineer*, Supreme Court Case No. 63258 (consolidated with Supreme Court Case No. 61324). In that case, Judge Thompson rejected arguments by Petitioners that the 3M Plan ordered by the State Engineer was too vague because it did not include triggers or thresholds before water rights were granted. SE App. M, Vol. 5 at SE001577–1579. Thus, the Decision by Judge Estes at issue in this case directly conflicts with the decision by Judge Thompson, creating a division within the Seventh Judicial District that must be settled before the State Engineer should be required to conduct further proceedings.

Any differences between the 3M plan for Mt. Hope and the 3M Plans for SNWA's project do not change the fact that two courts in the Seventh Judicial District disagree about whether or not specific triggers or thresholds must be included in a 3M plan in order for it to be effective and not be arbitrary and

capricious. In any case, the Parties in Interest misunderstand the 3M Plans and misstate the alleged differences between the 3M Plans for the SNWA Project to deliver water for municipal needs in southern Nevada (the "Project") and the Mt. Hope Mining Project.

First, the amount of water appropriated is irrelevant for purposes of determining whether or not specific triggers are required for mitigation before a permit is granted. The reason that triggers are not established in advance of a permit being issued is because baseline information must be developed before triggers can be set, and baseline information is obtained through monitoring pursuant to a permit. The substantial monitoring necessary to develop baseline information is equally—if not more—important for appropriations of large quantities of water as it is for smaller quantities.

Second, like the Mt. Hope 3M Plan, SNWA's 3M Plans allow local stakeholder participation, including from scientific experts such as Nevada Division of Wildlife and the Utah Division of Wildlife Resources, Great Basin Bird Observatory, KS2 Ecological Field Services and BIO-WEST. SE App. I, Vol. 4 at SE000914. In addition, peer review is required at three separate stages of the Project, including after the collection of baseline data, one year prior to pumping, and then periodically during pumping. *Id.* at SE000933. Further, the Plan allows any interested party to attend meetings, review monitoring information and provide comments regarding the Plan, including providing input regarding whether or not a

trigger is met to any technical team member who may initiate consultation regarding the issue. SE App. L, Vol. 5 at SE0001562. Therefore, stakeholder participation is not only invited, but an integral part of the 3M Plans.

Third, the State Engineer's robust oversight of the 3M Plans for SNWA is the same as that for Mt. Hope. The State Engineer has ultimate authority over any actions taken by the technical and management teams under the 3M Plans, and has authority to take actions above and beyond any actions initiated under the 3M Plans. SE App. B, Vol. 1 at SE000129–130, SE App. I, Vol. 4 at SE001077. The State Engineer is also a member of the technical teams and has participated as a member since the inception of the teams.

Fourth, the 3M Plans lay out a clear path to resolving issues that arise. For example, where a team member believes an issue must be addressed, the member may initiate a consultation, which requires a meeting within 21 days. SE App. B, Vol. 1 at SE000130, SE000208–209; SE App. L, Vol. 5 at SE001562–1565. Following consultation, if disagreement still exists, the technical team submits the issue to the Executive Committee to decide. *Id*. If disagreement continues, the issue may be referred to the State Engineer. *Id*. At any time, the State Engineer can overrule any decision under the 3M Plans. SE App. B, Vol. 1 at SE000129–130, SE App. I, Vol. 4 at SE001077.

Finally, the arguments by the Parties in Interest regarding the alleged differences between the 3M Plans only highlights that the State Engineer is in the

best position to determine whether or not the 3M Plan is sufficient to be effective, based on his expertise in the area of water management. Substantial evidence supports the State Engineer's determination that the 3M Plans would effectively protect existing rights and natural resources. The State Engineer approved the 3M Plans after close evaluation and involvement in their development. To allow the Court to determine the sufficiency of a 3M plan based on comparisons to other plans undermines the management authority of the State Engineer over the water resources, and effectively burdens the Court with evaluating the effectiveness of every 3M plan that is proposed by water rights applicants. With all due respect, the Court lacks the resources and expertise to make such a determination.

Therefore, the alleged differences—which are not wholly accurate—do not change the fact that two decisions within the Seventh Judicial District conflict as to whether or not triggers are required to be identified in a 3M plan before a water permit conditioned on a 3M plan is issued.

B. The Permits Granted For Spring Valley Under Ruling 6164 Do Not Allow Groundwater Mining and Meet the Statutory Requirement for Appropriation

The Parties in Interest repeatedly and erroneously assert that the State Engineer has permitted SNWA to conduct "unlawful" groundwater mining. WPC Brief at pp. 35, 61–65; CPB Brief at pp. 12–25; Tribes' Brief at pp. 2–3. The Parties in Interest confuse groundwater mining (where the amount of water granted under a permit exceeds the perennial yield) with a reasonable lowering of the

groundwater level until a new equilibrium is reached. The latter is explicitly permitted under Nevada's water law and cannot be a basis for finding the State Engineer erred in granting SNWA's permits in Spring Valley. For this reason, the District Court's Decision reversing the State Engineer's Ruling on these grounds was manifest error and should be remedied by this Court through this Writ Petition.

1. Groundwater Mining Occurs When the Amount of Water Permitted Exceeds the Perennial Yield

The State Engineer explained groundwater mining as follows:

> The perennial yield of a groundwater 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. 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. If the perennial yield is exceeded, groundwater levels will decline and steady state conditions will not be achieved, a situation commonly referred to as groundwater mining.

SE App. B, Vol. 1 at SE000081; *Pyramid Lake Paiute Tribe v. Ricci*, 126 Nev. ___, ___, 245 P.3d 1146, 1147 (Adv. Op. 48, Dec. 16, 2010). Thus, groundwater mining occurs when the amount of water permitted to be withdrawn exceeds the perennial yield. As a result of groundwater mining, the groundwater table will continue to be depleted and will never reach equilibrium. *See Griffin v. Westergard*, 96 Nev. 627, 631, 615 P. 2d 235, 237 (1980) (affirming the State

Engineer's denial of applications because the issuance of permits would deplete the underground reservoir). *Id*. at 630. This is **not** the case with the SNWA permits.

The State Engineer's calculation of perennial yield for Spring Valley is premised on the fact that the discharge for the basin is almost entirely based on ET. SE App. B, Vol. 1 at SE000081–82. That is that water is lost from the basin when phreatophytic plants draw water from the aquifer and discharge it as vapor into the atmosphere. Over time, as water is withdrawn from the basin by pumping and placed to beneficial use, the water table drops below the root systems of these phreatophytes. *Id*. As the phreatophyte communities adapt to become less groundwater dependent or diminish, less and less groundwater is discharged into the air and the water that was being used by phreatophytes may be appropriated for beneficial use. *Id*. The process of ET capture cannot begin unless the water table is first drawn down enough to cause the phreatophyte population to adapt or diminish. Thus, where the perennial yield of a basin is based on capturing ET, the static water table must be drawn down significantly before the basin reaches equilibrium. For some period of time, water will be lost from the aquifer both through withdrawals for beneficial use and through loss through ET.

The Parties in Interest do not directly contest the principal that perennial yield can be based on ET, but argue that perennial yield should be limited to only the amount of ET actually captured. This method of calculating perennial yield has never been the practice of the State Engineer and is not warranted here. The Parties

in Interest argue that the Permits for Spring Valley allow impermissible water mining because it will take a substantial amount of time to reach equilibrium. By definition, until the basin reaches equilibrium, the amount pumped out will exceed the amount of ET capture. By asserting that this transitional period results in water mining, the Parties in Interest are essentially asserting that there can be no groundwater appropriations in basins where the perennial yield is based on the volume of ET.

For Spring Valley, the perennial yield exceeds the amount of water permitted to SNWA—the perennial yield is 84,000 afa and the amount of water permitted to SNWA is 61,127 afa (reserving water for existing appropriations and future growth). SE App. B, Vol. 1 at SE000081, SE000101. Because the perennial yield exceeds the amount of water permitted, over time the groundwater basin will eventually reach equilibrium and no groundwater mining exists.[8] *Id*.

The District Court and the Parties in Interest urge this Court to make new law that requires an applicant to show exactly when equilibrium will be reached

[8] The Parties in Interest assert that the evidence shows that the basin will never reach equilibrium. This misstates the nature of the evidence adduced at the hearing and relied on by the State Engineer. The evidence showed that for as long as reliable predictions could be made, the system would trend toward equilibrium. However, because of (1) the size of the aquifer, (2) the staged development plan, and (3) the conservative amount the state engineer allowed SNWA to pump from Spring Valley, relative to the perennial yield, it will take a long time to reach equilibrium but it clearly trended toward equilibrium reaching 84% of equilibrium after two hundred years.

and that the State Engineer determine whether that timeframe is "reasonable." SE App. A, Vol. 1 at SE000024 ("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").[9] However, there is no requirement under existing law that an applicant show when equilibrium of a groundwater basin will be reached. As the State Engineer recognized:

> The State Engineer finds that there is no provision in Nevada water law that addresses time to capture, and no State Engineer has required that ET be captured within a specified period of time. It will often take a long time to reach near-equilibrium in large basins and flow systems, and this is no reason to deny water right applications. The estimated time a pumping project takes to reach a new equilibrium does not affect the perennial yield of a basin.

[9] Ironically, when the Parties in Interest argue for a shorter time period to reach equilibrium, they are actually supporting an approach that is harmful to the environment. The State Engineer could require SNWA to ensure the basin will reach equilibrium sooner by ordering SNWA to immediately pump the entire amount of water permitted instead of ordering staged development. This would cause the phreatophyte population to die quickly. However, the cost of reaching equilibrium sooner is that the environment in Spring Valley would not have sufficient time to adjust to the lowered water table, possibly inhibiting plant succession. The evidence at the hearing shows that if the phreatophyte population is reduced gradually, over time, then the environment as a whole will have a better opportunity to adjust. SE App. B, Vol. 1 at SE000212**.** As such, the fact that the system will take an extended period of time to reach equilibrium is a beneficial feature of the manner in which the project is to be built.

SE App. B, Vol. 1 at SE000115. Therefore, requiring the State Engineer to establish when equilibrium will be reached, and then to determine whether or not that is a "reasonable" amount of time is an abuse of discretion. The Legislature has condoned water development so long as it is environmentally sound regardless of the timeframe in which equilibrium will be met. NRS 533.370(3).

2. Nevada Water Law Explicitly Allows for a Lowering of the Groundwater Table

Under the theory asserted by the Parties in Interest, no amount of water would be available for appropriation in Spring Valley since any amount pumped will lower the water table and therefore fit the untenable definition of "groundwater mining" as posited by the Parties in Interest. This is true even though Nevada water law expressly allows a reasonable lowering of the water table.

Recognizing that it takes time for a groundwater basin to reach a new equilibrium, Nevada law explicitly allows for a lowering of the groundwater table at the point of diversion. NRS 534.110 provides:

> 4. It is a condition of each appropriation of groundwater acquired under this chapter that the right of the appropriator relates to a specific quantity of water and that the right ***must allow for a reasonable lowering of the static water level at the appropriator's point of diversion.*** In determining a reasonable lowering of the static water level in a particular area, the State Engineer shall consider the economics of pumping water for the general type of crops growing and may also consider the effect of using water on the economy of the area in general.

> 5. This section does not prevent the granting of permits to applicants later in time on the ground that the diversions under the proposed later appropriations ***may cause the water level to be lowered at the point of diversion*** of a prior appropriator, so long as any protectable interests in existing domestic wells as set forth in NRS 533.024 and the rights of holders of existing appropriations can be satisfied under such express conditions. . . .

NRS 534.110(4)–(5). Nowhere in NRS 534.110 does it explicitly or impliedly require that equilibrium be reached within a particular timeframe.[10] Thus, the legislature determined that the groundwater table could be lowered as a result of an appropriation so long as existing rights are satisfied. Here, the evidence showed that the appropriations would not create conflicts. Although CPB asserts that its expert determined that conflicts with CPB water rights may result (CPB Brief at p. 19 fn. 9),[11] the State Engineer determined that the local model proffered by CPB to show conflicts was not accurate and therefore could not be relied on to prevent the

[10] The Tribes' reference to Senate Bill 362 (2011) is misplaced. SB 362 did not propose to limit the time in which a groundwater basin must reach equilibrium, as posited by the Tribes. Tribes' Brief at p. 31 fn. 6. Rather, SB 362 sought to provide the State Engineer with greater discretion in extending the time to prevent forfeiture of water rights in designated basins where withdrawals of groundwater continually exceed perennial yield, including extending the period of non-use for between 5–20 years before forfeiture would apply. *See* Senate Bill 362 (2011). SB 362 plainly does not support that the legislature intended to place a timeframe on when a groundwater basin must reach equilibrium. In any case, SB362 did not pass and no bill limiting the time of the groundwater table to reach equilibrium has passed.

[11] The State Engineer denied four of SNWA's applications after finding that those water rights would conflict with CPB's existing water rights. *Id.* at SE000241.

appropriations. SE App. B, Vol. 1 at SE000157 ("However, because the model does not accurately represent local-scale geologic and hydrogeologic features that influence drawdown, numeric drawdown predictions are not precise.").

The Parties in Interest cannot show a lack of evidence to support the State Engineer's Rulings. Instead, they merely point to the evidence which they adduced at the hearing that is supportive of their position, and argue that the State Engineer ought to have relied on this evidence rather than on the evidence adduced by SNWA. This does not show that the State Engineer's ruling was not supported by substantial evidence; it merely shows that evidence supporting multiple perspectives was adduced at the hearing. Upon considering all of the evidence adduced at trial, evidence at length, the State Engineer based his ruling on the evidence he found the most reliable and probative.

Accordingly, the State Engineer's Rulings meet all of the statutory requirements for granting permits and the State Engineer has not permitted groundwater mining. The District Court abused its discretion in ordering the State Engineer to apply requirements regarding a timeframe for reaching equilibrium when considering water rights applications.

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C. The 3M Plans Provide Additional Safeguards to Prevent Conflicts and Unreasonable Adverse Effects From Pumping and Do Not Require Triggers at the Time the Permits Are Issued in Order to Be Effective

The State Engineer next asks this Court to address whether a 3M plan must include specific triggers and thresholds at the time of granting a water right, as ordered by the District Court, instead of waiting to establish those triggers when the baseline information necessary to do so is available. The Parties in Interest assert that the 3M Plans do not provide sufficient details regarding mitigation criteria to ensure that the plans will be effective to protect the public interest and environment. WPC Brief at pp. 77–78; CPB Brief at pp. 50–51; Tribes' Brief at pp. 5–7. However, the overwhelming evidence supports that the Plans will effectively safeguard against conflicts with existing rights and unreasonable adverse impacts to the natural resources—not just the federal water rights and resources as asserted by the Parties in Interest. This Court should rely on the expertise of the State Engineer and his staff, along with the other members of technical teams under the 3M Plans, who carefully and cooperatively developed the Plans to effectively protect the natural resources.

More importantly however, no legal requirement exists to force the 3M Plans to contain triggers in advance of issuing a permit. Although the Parties in Interest assert that the 3M Plans are insufficient as a matter of law, they do not provide legal authority to support that assertion (indeed—none exists), nor do they demonstrate that the State Engineer's Rulings were not supported by substantial

evidence. Given the expertise of the State Engineer and his staff, the State Engineer is in the best position to determine, based on the evidence, whether or not a 3M plan will be effective. The District Court's Decision is an abuse of discretion because it ignored the evidence and the standard of review in ordering the State Engineer to include triggers in the 3M Plans before the water right can be issued.

1. The 3M Plans Are Not Legally Required to Contain Triggers

The District Court ordered the State Engineer to "[d]efine standards, thresholds or triggers so that mitigation of unreasonable effects from pumping of water are [sic] neither arbitrary nor capricious in Spring Valley, Cave Valley, Dry Lake Valley and Delamar Valley." SE App. A, Vol. 1 at SE000023. The District Court's Decision erroneously establishes a new requirement for the permitting of water rights, namely that 3M Plans implemented in connection with those water rights must include triggers—specific quantitative criteria or thresholds—for when potential mitigation efforts should begin. Moreover, the Decision demands that those triggers be set *before* the State Engineer grants the water permits, instead of waiting for technical teams established under the 3M Plans to cooperatively develop those triggers, with State Engineer oversight, after monitoring has established appropriate baseline data and the tangible effects of pumping are known. This Decision violates the statutory standards for the appropriation of water under Nevada water law. It also conflicts with the weight of the scientific evidence supporting that robust monitoring combined with an adaptive

management approach is the best method for effectively safeguarding resources against any adverse impacts due to groundwater withdrawals.

Because the 3M Plans provide additional safeguards over the long term above and beyond that required by the law, any alleged deficiencies of the 3M Plans cannot be a basis for the District Court to find that the State Engineer's Rulings are arbitrary and capricious. The District Court's Decision improperly applies a new standard for the appropriation of water beyond that found in Nevada's water law and is therefore manifest abuse.

WPC further asserts that the 3M Plans are legally deficient based on a handful of federal court decisions relating to mitigation plans promulgated under the National Environmental Policy Act ("NEPA"). *See, e.g. Western Land Exchange Project v. BLM*, 315 F. Supp. 2d 1068, 1095–96 (D. Nev. 2006). This case law is simply inapplicable.[12] First, the statutory framework created by NEPA is entirely different from Nevada's water statute. As such, these cases are of only tangential relevance. Moreover, the cases WPC cites are factually distinguishable. For example, in *Western Land*, the court held that the BLM could not properly determine that an environmental assessment was adequate (rather than a full blown environmental impact statement) based on the adoption of a 3M plan, where the 3M plan "does not exist, is not supported by any data, and cannot be analyzed

[12] In Ruling 6164, the State Engineer explained that the "environmental soundness" analysis under Nevada's water law is separate and apart from the federal NEPA process. SE App. B, Vol. 1 at SE000202.

meaningfully." *Id.* In the present case, in contrast to *Western Land*, the 3M plan was drafted as a result of a lengthy collaborative process between the State Engineer, SNWA and interested federal parties and was ultimately approved by the State Engineer at the time of issuing the permits. Accordingly, *Western Land* is not relevant to the present case.

The 3M Plans at issue here were not only based on substantial evidence, they represent carefully considered and thoroughly crafted tools to protect the water resources at issue, the rights of other water users, and the environmental resources in the affected area. Accordingly, the District Court erred in determining that the 3M Plans were legally inadequate based on an absence of mitigation triggers.

2. The Evidence Shows That Setting Triggers at the Time of Issuing a Permit is Scientifically Unsound

The Parties in Interest argue that the proponents of the project must identify "in advance what they consider to be harms, and how they propose to mitigate them." Tribes' Brief at p. 16; WPC at p. 78; CPB Brief at p. 50. But the 3M Plans are not designed to operate based solely on what SNWA believes are unreasonable adverse effects—rather it is designed to be a cooperative effort among interested parties based on scientific evidence of changes from baseline information. In order to identify an unreasonable adverse effect, baseline information must be collected to identify natural variations. SE App. B, Vol. 1 at SE000207-208; SE App. I, Vol.

4 at SE001016–1017. The 3M Plans require exactly that—the collection of valuable baseline information through expansive monitoring wells throughout the basins. Without baseline information, experts cannot identify when variation is outside the natural range and therefore no specific quantitative triggers can be established. *Id*. Once baseline information has been collected, impacts from groundwater pumping can then be measured and identified against those baseline conditions. Without issuing a permit, groundwater pumping cannot occur. Therefore, the State Engineer must be able to permit groundwater rights subject to a 3M plan that requires triggers to be developed, as the 3M Plans at issue here do.

While the State Engineer can predict effects of pumping based on substantial modeling evidence, modeling is no substitute for the actual effects of pumping. To require specific management and mitigation actions for every possible effect of pumping would render the 3M Plans meaningless and full of guesswork. Actions would be based on prediction and may result in action (or inaction) that is unnecessary or even harmful to existing water rights. For example, an action criteria set now, before pumping occurs, may be set too high, such that waiting for that action criteria may in fact allow existing water rights to be adversely impacted. The more exacting and effective approach is that prepared by SNWA, the State Engineer and other interested parties which is to provide a framework for management and mitigation such that effective measures can be implemented as

the best information becomes available when pumping occurs. This approach is effective and prudent management.

3. The Evidence Supports That the 3M Plans Will Be Effective

The 3M Plans are robust plans that will, among other goals, manage the development of groundwater to protect *not just* federal water rights and resources as asserted by CPB (CPB Brief at pp. 33, 38), but to protect any of the resources within the basin areas from unreasonable adverse effects. SE App. F, Vol. 3 at SE000758 (A goal of the 3M Plans is to "avoid unreasonable adverse effects to wetlands, wet meadow complexes, springs, streams and riparian and phreatophytic communities and to maintain biological integrity and ecological health of the Area in interest.").

a. The 3M Plans Provide a Sound and Flexible Framework for Protecting the Resources

The Plans establish a step-by-step process for evaluating the potential effects of pumping on the hydrological and biological resources in the area, with abundant checks and balances built in through the establishment of technical and management teams consisting of interested parties. Because decisions regarding monitoring, management and mitigation must be made on a case by case and site specific basis, the Plans incorporate flexibility with respect to appropriate measures. SE App. B, Vol. 1 at SE000205–207. But this deserves commending, not criticizing.

Based on the evidence and his expert opinion, the State Engineer determined that the 3M Plans provided a sound framework from which decisions regarding the effects of pumping could be made. *Id*. He determined that the flexibility of the 3M Plans was necessary in order to respond to specific effects to any given species before that effect is fully realized. *Id*. He also determined that this flexible framework has proven successful for other projects. *Id*. Other than bald assertions predicting failure, the Parties in Interest fail to present any reliable evidence that Plans will not be effective.

Further, if any unreasonable adverse effects are predicted, then measures must be taken to mitigate, including cessation of pumping if necessary. *Id*. at SE000143. The State Engineer confirmed that he has authority under Nevada law to order mitigation measures for the Project independent of whether or not a description of mitigation measures is included in the Plan. *Id*. at SE000145. Thus, while the evidence showed that it was impossible to fully anticipate specific mitigation measures at this time, a case-by-case analysis on a site specific basis was scientifically the preferred approach. *Id*. at SE000205–207. Because the evidence supports that the Plans will effectively use the best science available to predict and avoid adverse effects, the State Engineer's finding that the Plans are protective of the natural resources is sound.

b. The Evidence Wholly Contradicts the Assertion That "Every Spring, Stream and Wetland Will Disappear In Spring Valley"

The Parties in Interest assert that the 3M Plans will not effectively protect the natural resources and that instead the project will result in a parade of environmental disasters. WPC Brief at pp. 68–74; CPB Brief at pp. 50–52; Tribes' Brief at pp. 3, 9. Most dramatically, the Tribes assert that "[i]f SNWA is able to remove the ET from Spring Valley as authorized by the State Engineer, **everything** upon which Goshute people have relied for millennia for spiritual sustenance and subsistence in Spring Valley will disappear with the water." Tribes' Brief at p. 9. The Tribes charge that the State Engineer "blithely" dispensed of the Tribes' concerns regarding the natural resources. Tribes' Brief at p. 10. However, the record simply does not support these overreaching and surprising assertions.

First, the State Engineer thoroughly and thoughtfully considered the testimony from the Tribes' witnesses regarding the cultural and spiritual connection between the Tribes and the natural resources. SE App. B, Vol. 1 at SE000167–169. There is no dispute that the natural resources serve an important part of the Tribes' practices and the State Engineer has never made light of that fact. Rather, the State Engineer recognized the importance of protecting the natural resources and concluded that those interests were most appropriately addressed by the State Engineer under the public interest analysis required under NRS 533.370(2) and the environmental soundness analysis under NRS 533.370(3). The

State Engineer did exactly that when he included in the Rulings extensive discussion of the Tribes' arguments and evidence. *Id*. The Tribes' own expert, Dr. Myer, agreed that the applications would have virtually no impact on the Tribes' reservation lands, including no impact to the Tribes' alleged reserved water rights. *Id*. at SE000168.

Second, the State Engineer concluded based on substantial evidence that the appropriations would not prove detrimental to the public interest and were environmentally sound. SE App. B, Vol. 1 at SE000177–190, SE000198–206. SNWA's experts testified that many springs, streams and wetlands in Spring Valley are supported by surface water diversions or precipitation, and that these would not be affected by declines in DTW [depth to water]. *Id*. at SE000185, SE000212–216. Conservatively, the State Engineer withheld an additional 5,000 afa of water from the perennial yield calculation in Spring Valley for the preservation of springs. *Id*. at SE000127. Therefore, the State Engineer found that "existing rights, springs and streams, which are sources upon which wildlife exists" would be protected, particularly in light of the additional protections of staged development and the 3M Plans. *Id*. at SE000185. The State Engineer determined that impacts will not result in habitat or population reductions throughout Spring Valley. *Id*. at SE000212–216. Mr. Marshall testified extensively regarding the projected impacts on the environmental resources in Spring Valley, including aquatic ecosystems, amphibians, birds, mammals, reptiles, fish,

invertebrates, vegetation, cactus and yucca, weeds and phreatophytic vegetation. *Id*. The evidence showed an ability to effectively avoid, minimize or mitigate against any impacts in order to protect the natural resources. *Id*. at SE000200–202, SE000215.

Third, the Parties in Interest's unsupported predictions that every spring, stream and wetland in Spring Valley will disappear is not only incorrect for the important reason that many of the springs, streams and wetlands in Spring Valley are supported by surface water runoff and precipitation and therefore not dependent on the groundwater, but the prediction entirely contradicts the assertion that SNWA's permits will result in groundwater mining. The Parties in Interest complain that SNWA's wells cannot pump enough water to capture sufficient ET in order to avoid a lowering of the groundwater table. Essentially, the Parties in Interest complain that SNWA's pumping will **NOT** kill off the phreatophytes (plants that are dependent on groundwater) and therefore those plants will be drawing groundwater at the same time that SNWA will pump groundwater. Tribes' Brief at p. 11 ("But SNWA's proposed 19 wells will not recover all that ET, i.e. will not dry up every spring and wetland and will not kill all present life forms in the Valley"); *see also* CPB Brief at p. 18 fn. 8 ("[T]he well field proposed by SNWA eliminates ET only in a small portion of the basin."). The Parties in Interest cannot have it both ways. If the phreatophytes disappear, then that means that 100% of ET is captured and equilibrium will be reached and no groundwater

mining occurs. The Parties in Interest do not—and cannot—explain how both all springs, streams and wetlands will disappear, and equilibrium will never be reached.

Because the evidence shows that many springs, streams and wetlands in Spring Valley do not rely on groundwater, it is clear that they will not disappear even as the groundwater basin approaches equilibrium. Moreover, while some changes are predicted to occur to the water dependent ecosystem, those changes do not prove detrimental to the public interest and can be managed through staged development and the 3M Plans. *See Pyramid Lake Paiute Tribe of Indians v. Washoe County*, 112 Nev. 743, 752, 918 P.2d 697, 702 (1996) (finding that public interest was not compromised where some species of plants would replace another). The slower the lowering of the water table—accomplished through staged development—allows time for plants and other biological criteria to slowly adjust to the lowering of the water table—known as plant succession—a management tool that has proven to be effective for other projects. *Id.* at SE000212 ("If there is a transition, it would be a gradual transition in the species composition of shrub communities, which still support terrestrial wildlife, bird and bat populations, and big game so that the ecosystem continues to functioning and healthy.") Further, initially limiting pumping allows time for the State Engineer and other interested parties to review the effects of pumping based on substantial monitoring data pursuant to the 3M Plans, and to take appropriate action to manage

and, if necessary, institute mitigation measures before conflicts or unreasonable adverse effects occur. Thus, the State Engineer's findings regarding public interest and environmental soundness are supported by substantial evidence.

4. The 3M Plans Enforcement Process Is Not at Issue in This Petition

The Parties in Interest argue that the 3M Plans provide no meaningful process for their input. Again, this issue is not before the Court because it was not included in the State Engineer's Petition and does not affect whether or not the 3M Plans require triggers to be effective. However, in short, the Parties in Interest—and any other party—have easy access to the technical teams under the 3M Plans. Those teams required to evaluate the data and consider technical expertise from outside parties. For example, Nevada Division of Wildlife and the Utah Division of Wildlife Resources have been participating in the 3M Plans and have provided useful expertise. SE App. I, Vol. 4 at SE000914. Other entities invited to participate in order to provide additional expertise include Great Basin Bird Observatory, KS2 Ecological Field Services and BIO-WEST. *Id*. In addition, peer review is required at three separate stages of the Project, including after the collection of baseline data, one year prior to pumping, and then periodically during pumping. *Id.* at SE000933. Therefore, any notion that the technical teams are

closing themselves off to input from valuable information from top experts is easily dismissed.

Further, any comments regarding the 3M Plans from the public may be submitted to the technical teams for consideration, and the public may attend meetings held by the teams and review monitoring data. Finally, under the consultation requirements of the 3M Plans "[a]ny party may initiate a TRP or BRT consultation when that Party is concerned that there may be an injury." SE App. L, Vol. 5 at SE001562. Therefore, any issue brought by a member of the public to a technical team may be cause to initiate the consultation process, which requires a meeting between the technical team within 21 days. *Id*.

D. The Perennial Yield Calculation in the CDD Valleys Is Supported by Substantial Evidence and the Appropriations Do Not Conflict With Existing Rights

WPC asserts that the State Engineer's method of calculating perennial yield in the CDD Valleys was a "radical departure" and "sharp deviation" from his previous methodology and cites to other State Engineer rulings, including rulings relating to other basins within the White River Flow System ("WRFS"). WPC Brief at pp. 88, 91. WPC is patently incorrect and ignores critical geological differences between the CDD Valley basins and the basins at issue in the other rulings cited. WPC's advocating for a method of calculation of perennial yield without addressing these critical geological differences highlights that the State Engineer and his expert staff are the best suited for determining how to calculate

perennial yield as part of his overall authority and duty to manage water across the state.

1. The State Engineer's Method of Calculating Perennial Yield for the CDD Valleys Was Consistent Practice

First, WPC implies that the State Engineer used a different method to calculate perennial yield for the CDD Valleys in these 2011 Rulings than he did in his previous ruling on the same SNWA applications, Ruling 5875 issued in 2008.[13] WPC Brief at p. 81. WPC's assertion is incorrect for at least two of the basins. In Ruling 5875, the State Engineer referenced an older method of calculating perennial yield in basins where outflow could not be reliably calculated or captured.[14] Ruling 5875 at pp. 8–9. The State Engineer ***did not*** use that method for calculating perennial yield in Ruling 5875 for Cave Valley and Dry Lake Valley where more reliable modeling evidence was available. Instead, the State Engineer relied on evidence of recharge and discharge in each of the separate basins and excluded the inflow from other basins in the perennial yield calculations. *Id*. at pp. 17–18. This is the same method he used in the 2011 Rulings for the CDD Valleys. While the State Engineer did use the older method of calculating perennial yield in Delamar Valley in the 2008 Ruling, better modeling evidence was available and

[13] Ruling 5875 can be found on DWR's website at the following link: http://images.water.nv.gov/images/rulings/5875r.pdf

[14] The method was used in older rulings issued by the State Engineer, including those cited by WPC, but has largely been replaced where greater information about the basins is available.

incorporated in the 2011 Ruling. The State Engineer's reliance on the best science to calculate perennial yield is not only a sound and reasonable approach, but it is required under NRS 534.024. As modeling improves, methods for calculating perennial yield also improve. The State Engineer must incorporate this more reliable evidence into his decisions.

Next, WPC points out that in a 2002 Order issued by the State Engineer, Order 1169, the State Engineer noted that a number of basins within the White River Flow System (WRFS) were hydrologically related through a carbonate rock aquifer. WPC Brief at pp. 83–90. At the time Order 1169 was issued, the State Engineer suspected that carbonate rock aquifers were so transmissive as to allow adjoining carbonate rock basins to function as a single, hydrologically connected basin. *See* Order 1169.[15] Accordingly, the State Engineer ordered further study and a pump test to determine whether pumping in one carbonate rock basin would affect the aquifer in adjoining basins. *Id*. Order 1169 explicitly included a number of basins with carbonate rock aquifers: Coyote Springs Basin, Black Mountain Area, Garnet Valley, Hidden Valley, Muddy Springs Area a.k.a. Upper Moapa Valley, and Lower Moapa Valley. *See* Ruling 6255 at p.14.[16] Upon further testing, the State Engineer concluded, in Ruling 6255 issued in 2014, that these basins were indeed so closely hydrologically connected that pumping in one of the basins

[15] http://images.water.nv.gov/images/orders/1169o.pdf

[16] http://images.water.nv.gov/images/rulings/6255r.pdf

would affect all of the basins, and therefore the basins effectively operated as a single basin. *Id*. The State Engineer denied the applications at issue in Ruling 6255 on that basis. *Id*. at pp. 27–30.

However, the relevant carbonate rock basins included in Order 1169 and Ruling 6255 ***did not*** include Cave Valley, Dry Lake, or Delamar Valley. Thus, WPC's reliance on this ruling is misplaced. The CDD Valley basins are not hydrologically connected to the WRFS through a continuous carbonate rock aquifer, and the State Engineer made clear that the geologic basis for Ruling 6255 —the existence of a carbonate rock aquifer—did not apply to other basins: "The vast majority of the scientific literature supports the premise that, unlike other separate and distinct basins in Nevada that do not feature carbonate-rock aquifers, all of the Order 1169 basins share virtually the same supply of water." Ruling 6255 at 26.

In fact, the State Engineer noted in Ruling 6255 the important geological differences of the CDD Valley basins from those addressed in Ruling 6255 that must be taken into consideration in calculating perennial yield. The State Engineer stated:

> Recent rulings by the State Engineer for groundwater applications in other basins within the White River Flow System allowed for the appropriation of additional water. These basins, Cave Valley, Dry Lake Valley, and Delamar Valley Hydrographic Basins, lie 40 to 100 miles north of the Muddy River Springs. Groundwater from both Dry Lake Valley and Delamar Valley is believed to

> contribute to discharge from the springs. Water rights were granted in the Cave Valley, Dry Lake valley and Delamar Valley basins based on two critical points that do not exist in the basins in Order 1169. First, the groundwater appropriated in the Cave Valley, Dry Lake Valley and Delamar Valley basins is recharged within the basins. Water is available at the source and can be developed without depleting the supply. Second, the water can be developed without conflicting with any existing rights for hundreds of years. In contrast, neither of these conditions is met in the Order 1169 basins. Recharge in each of the Order 1169 basins is already appropriated. Subsurface inflow is appropriated as well. Development of additional water will conflict with existing rights in months to years. The State Engineer find the basin of Order 1169 fail on both statutory grounds.

Ruling 6255 at p. 27.[17]

WPC essentially asserts that the State Engineer's factual findings in Order 1169 and Ruling 6255 are legally inconsistent with his conclusion in the present case and that the State Engineer is carelessly granting water rights because the studies ordered in 1169 are not complete. This argument is founded on a complete misunderstanding of the factual basis for those rulings. Ruling 6255 is factually distinguishable with the Rulings in this case because the subject areas are geologically distinguishable. Because the CDD Valley basins do not feature carbonate rock aquifers, Order 1169 and Ruling 6255 have no application to the State Engineer's ruling in the present case.

[17] http://images.water.nv.gov/images/rulings/6255r.pdf

2. The Appropriations Will Not Create Conflicts With Existing Rights

No evidence supports that the appropriations will create conflicts with existing rights and WPC cannot point to any such evidence. To the contrary, evidence from the groundwater models showed that after 200 years of pumping, downgradient basins were "virtually unaffected." SE App. E, Vol. 2 at SE000628. The District Court erred when he based his decision on the false assumption that conflicts would inevitably result based on the unsound logic of the "one-river" flow argument for the CDD Valleys. For these reasons, and the reasons set forth in the State Engineer's Writ Petition, substantial evidence supports the State Engineer's calculation of the perennial yield for the CDD Valleys.

E. The State Engineer Does Not Dispute Inclusion of the Counties in the 3M Plans

As addressed briefly in the Petition, the State Engineer does not oppose including the Utah side of the Snake Valley hydrographic basin to the mitigation portion of the Spring Valley 3M Plans, such that hydrological and biological adverse effects, if any, that may occur on the Utah side of Snake Valley hydrographic basin shall be addressed pursuant to the framework contained in the Spring Valley 3M Plans. The State Engineer agrees that the effects on the Utah side of Snake Valley shall be based on data gathered from one or more of the Utah Geological Survey monitoring wells 15, 23, 2 and 28 existing on the Utah side of Snake Valley, which the State Engineer specifically ordered be included in the data

reported under the 3M Plans as part of Ruling 6164. SE App. B, Vol. 1 at SE000140.

F. The Assertion That the Due Process Rights of the Parties in Interest Were Violated Because of Staged Development Is Incorrect and Misplaced

Though it is not properly before this Court on this Petition, CPB and the Tribes argue that their due process rights were violated because the State Engineer ordered staged development. CPB Brief at pp. 53–60; Tribes' Brief at p.15 fn. 2. As addressed in the State Engineer's Answer to CPB's Petition for Writ, no due process was violated because the Applications were re-published in 2011, providing a full and fair opportunity for protest by any affected party. The State Engineer held a hearing on the Applications, during which the protestants, including CPB and the Tribes, participated by providing evidence and witness testimony. The Parties in Interest had an opportunity to address staged development during that hearing, knowing that NRS 533.3705 had been enacted several years earlier and therefore was potentially applicable *upon approval* of the SNWA Applications.

Further, because the State Engineer previously ordered staged development on the SNWA Permits when he issued Ruling 5726 in 2007, the Parties in Interest were well aware that staged development was a condition the State Engineer contemplated for the Project. They had a full and fair opportunity to be heard on that issue during the six week hearing on the Applications.

G. The State Engineer Did Not Improperly Apply the Staged Development Statute

CPB again raises the issue of retroactive application of NRS 533.3705. CPB Brief at pp. 33–39. This is not properly before this Court and is fully addressed as part of CPB's Petition for Writ. In short, no retroactive application exists because, as the District Court found, NRS 533.3705 was enacted in 2007 and only applied to the SNWA Applications upon *approval* by the State Engineer in March 2012 by Ruling 6164. SE App. A, Vol. 1 at SE000009.

This Court's decision in *Great Basin II* does not support a conclusion that NRS 533.3705 was retroactively or improperly applied. CPB's argues that staged development allowed the State Engineer to delay a final resolution of the parties' waters rights for years, even decades, through staged approvals. CPB's Brief at pp. 33–36. CPB's retroactive application argument hangs entirely on the false premise that the State Engineer failed to make the necessary findings under NRS 533.370(2) to grant the full 61,127 afa. This is a critical flaw in CPB's argument.

Ruling 6164 includes complete findings by the State Engineer for each and every criteria required under the water statutes to grant an application. SE App. B, Vol. 1 at SE000026–243. The State Engineer found that there was sufficient unappropriated water in the basin to grant 61,12**7** afa, and that granting 61,127 afa would not create conflicts with existing rights or prove detrimental to the public interest. *Id.* at SE000239–240; NRS 533.370(2). The State Engineer also made the necessary findings for an interbasin transfer, including a finding of environmental

soundness. *Id*. at SE000241. Thus, the State Engineer has not delayed any decision on the Applications as asserted by CPB. Rather, the State Engineer has made the necessary findings to grant the full amount of water under the permits. The condition of staged development does not alter these findings—instead it cautiously and thoughtfully provides additional protections for the environment and existing water rights holders, such as CPB and other Parties in Interest.

VI. CONCLUSION

The Parties in Interest do not demonstrate that the State Engineers Rulings are unsupported by substantial evidence. Instead, they invite this Court to do exactly what the District Court did—to reweigh the evidence in this case and come to a different conclusion than the one arrived at by the State Engineer. For the foregoing reasons, the State Engineer respectfully requests that this Court issue a

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writ of mandamus vacating the District Court's remand instructions and ordering the District Court to affirm State Engineer Ruling Nos. 6164, 6165, 6166 and 6167.

RESPECTFULLY SUBMITTED this 30th day of October, 2014.

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CERTIFICATE OF COMPLIANCE

1. I hereby certify that this brief has been prepared in proportionally spaced typeface using Microsoft Word 2010 with 14-point, double spaced complies with the formatting requirements of NRAP 32(a)(4), the typeface requirements of NRAP 32(a)(5) and the type style requirements of NRAP 32(a)(6).

2. I further certify that this brief complies with the page-or type-volume limitations of NRAP 32(a)(7) because, excluding parts of the brief exempted by NRAP 32(a)(7)(c), it is proportionately spaced, has a typeface of 14 points or more and contains 12,067 words.

I hereby certify that I have read this brief, and to the best of my knowledge, information and belief, it is not frivolous or interposed for any improper purpose. I further certify that this brief complies with all applicable portions of the Nevada Rules of Appellate Procedure.

I understand I may be subject to sanctions in the event the brief does not conform with the requirement of the Nevada Rules of Civil Procedure.

Dated this 30th day of October, 2014.

By: /s/ *Cassandra P. Joseph*
Cassandra P. Joseph

CERTIFICATE OF MAILING

I hereby certify that I am an employee of the Office of the Attorney General, State of Nevada, and that on this 30th day of October, 2014, the foregoing, **REPLY TO WHITE PINE COUNTY ET AL.'s, CORPORATION OF THE PRESIDING BISHOP'S, THE CONFEDERATED TRIBES OF THE GOSHUTE RESERVATION'S, THE ELY AND DUCKWATER SHOSHONE TRIBES' AND THE UTAH COUNTIES' ANSWERS TO THE STATE ENGINEER'S PETITION FOR WRIT OF MANDAMUS** was filed electronically with the Nevada Supreme Court. Electronic Service of the foregoing document shall be made in accordance with the Master Service List as follows:

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