

## **XII. Summary of Findings on Protestor's Factual Bases for Objection**

432. While discussion of the Protestors' grounds for objection to the Rules occurs throughout the previous Findings, it may be helpful to review the Court's conclusions with regard to some of the factual issues before addressing the legal conclusions reached. The Protestors' grounds for objection are contained in Protesters' Exhibit No. P-1. The Court summarizes some of the prior Findings of this opinion in this section.

433. The RGDSS Study as a whole, including the historical data on stream flows, groundwater levels, and artesian pressure fluctuations, established the need to require replacement of new or increased withdrawals from the Confined Aquifer System. The State Engineer utilized this knowledge in preparing the Rules and in his testimony before the Colorado General Assembly. The Court finds that the State Engineer used the results of the entire RGDSS Study, not simply the RGDSS groundwater model, to support the Rules.

434. The Court rejects the Protesters' claims that faulty technical data was supplied to the Colorado General Assembly when it enacted SB 04-222, and rejects the claim that there was no technical basis for the General Assembly's belief that unique geologic and hydrologic conditions and conjunctive-use practices prevail in Water Division No. 3. The evidence presented at trial demonstrated that the technical information provided to the General Assembly was substantially correct. While each water division in the state has unique features, there is ample technical evidence to support the claims that Water Division 3 contains unique geologic and hydrologic conditions and that unique conjunctive-use practices prevail in Water Division 3. This same evidence supports the State Engineer's finding in Rule 5.A.

435. While it is correct that there is no pump test data or meter data from wells to quantify the increase in groundwater pumping that occurred between 2000 and 2002, the record contains credible and reliable indirect evidence discussed earlier demonstrating that the estimates of increase in pumping for those years are reasonably accurate.

436. Proponents presented credible scientific evidence that there is a very real potential for aquitard compaction and material land subsidence as a result of the lowering of artesian pressures in the confined aquifer. While the exact extent of this potential has yet to be defined, the evidence strongly suggests that with uncontrolled withdrawals it could be as significant as that which has occurred under similar geologic conditions in California's San Joaquin Valley. Until this risk is much better understood, the only prudent course of conduct is to prevent any possibility of land subsidence.

437. The evidence establishes that  $ET_g$  by phreatophytes occurs in the unconfined aquifer. The only way that  $ET_g$  can be reduced is by lowering the water table in the unconfined aquifer to the point that these phreatophytes are unable to obtain as much, or any, groundwater. It requires lowering the water levels in the unconfined aquifer so as to deprive those native plant communities of all or a part of their water supply.

438. The Court finds that it is not physically possible for a confined aquifer well to withdraw only the amount of water conserved by reducing  $ET_g$  by phreatophytes. Any new or increased pumping from the confined aquifer will also take water from storage, from surface streams, from

flowing wells, and from the unconfined aquifer. Any new or increased withdrawals from the confined aquifer will cause further declines in artesian pressure and injury to vested water rights.

439. In addition, the General Assembly has established in section 37-92-305(6), C.R.S. that unappropriated water is not made available by the reduction of water consumption by nonirrigated native vegetation. The Court finds that the phreatophytic plant communities are part of the nonirrigated native vegetation in the San Luis Valley and accordingly, the groundwater used by those plant communities is not unappropriated water. Accordingly, reduced  $ET_g$  by phreatophytes is statutorily unavailable as a source of unappropriated water from the Confined Aquifer System.

440. The Protestors asserted that additional water can be appropriated and withdrawn from the confined aquifer without affecting the Rio Grande Compact. Protestors' Exhibit P-1, Professional Opinion No. 18. The Court has previously found that there is no unappropriated water in the confined aquifer. The Court also finds that new or increased withdrawals from the confined aquifer will cause depletions to the surface streams and unconfined aquifer. New or increased withdrawals from the Confined Aquifer System that reduce the flows of the Rio Grande, the Conejos River and their tributaries will increase the burden of compliance with the Compact. Thus, the Court finds that there is no competent evidence to support the Protestors' claim.

441. The Protestors also asserted that reducing artesian pressure in the confined aquifer does not result in the need for one-to-one augmentation. Protestors' Exhibit P-1, Professional Opinion No. 19. By this claim Protestors challenged the one-for-one replacement requirement of Rule 6. The standards for maintenance of artesian pressure in the confined aquifer are established by section 37-92-502(4)(a)(III). The Court finds that those artesian pressure requirements are necessary to maintain a sustainable water supply in the confined aquifer, to prevent injury to the vested water rights of others, and to prevent interference with the State's ability to fulfill its obligations under the Compact.

442. The remainder of Protestors' Experts' Professional Opinions and some of the other arguments advanced by the Protestors were directed to whether there is unappropriated water available from the confined aquifer, the standards for determination of the availability of unappropriated water, and their constitutional challenges. These are mixed questions of fact and law and are discussed in the following section.

### **XIII. Mixed Findings of Fact and Conclusions of Law**

#### **A. Legal Standards and Burden of Proof Governing Review of Rules and Regulations Adopted By the State Engineer**

443. The State Engineer and Division Engineers must “administer, distribute, and regulate the waters of the state” in accordance with the constitution of the State of Colorado, the 1969 Act, and other applicable laws and may adopt rules and regulations to assist in the performance of these duties. Section 37-92-501(1), C.R.S. (2005). Protests to proposed rules and regulations adopted by the State Engineer are subject to review by the water judge. Section 37-92-501(3). *Simpson v. Bijou Irr. Co.*, 69 P.3d 50, 65 (Colo. 2003); see also *Empire Lodge Homeowners’ Ass’n v. Moyer*, 39 P.3d 1139, 1153 n.17 (Colo. 2001) (“We also acknowledge the State Engineer’s administrative authority to regulate wells upon promulgation of rules for a river basin or aquifer, subject to a water court review proceeding, under section 37-92-501.”)

444. The proposed rules and regulations of the State Engineer are presumed to be valid until shown otherwise by a preponderance of the evidence. *Kuiper v. Well Owners Conservation Ass’n.*, 176 Colo. 119, 139, 490 P.2d 268, 277 (1971); *Thompson v. Consolidated Gas Utilities Corp.*, 300 U.S. 55, 57 S.Ct. 364, 81 L.Ed. 510 (1937). However, a court’s deference to policy determinations in rule-making proceedings does not “extend to questions of law such as the extent to which rules and regulations are supported by statutory authority.” *Alamosa-La Jara Water Users Protection Ass’n v. Gould*, 674 P.2d 914, 929 (Colo. 1984). “Those who insist that such a regulation is invalid must make its invalidity so manifest that the court has no choice except to hold that the Secretary has exceeded his authority and employed means that are not at all appropriate to the end specified in the act.” *Boske v. Comingore*, 177 U.S. 459, 20 S.Ct. 701, 44 L.Ed. 846 (1900). Quoted in *Kuiper v. Well Owners Conservation Ass’n.*, 176 Colo. 119, 139, 490 P.2d 268, 277 (1971) at 139.

445. The Protestors’ effort to distinguish the burden of proof in this proceeding on the basis that these Rules are not statewide is not supported by any authority or logic. Protestors also pointed out that it was the State that went first in presentation. This was required by the rule-making process and statutory framework cited above. The burden of going forward is not the same thing as the burden of proof. The Rules are entitled to a presumption of validity until shown otherwise by a preponderance of the evidence. This rule is subject to the greater burden set out below where the challenge is really to the constitutionality of the statutory language. The Court’s role in the review is described by the Supreme Court in *Colorado Ground Water Com’n v. Eagle Peak Farms, Ltd.* 919 P.2d 212, 220 (Colo.,1996) as follows:

As illustrated in *Alamosa-La Jara Water Users Protection Ass’n v. Gould*, 674 P.2d 914 (Colo.1983), the General Assembly expressly chose to vest the water courts with review of State Engineer rules and regulations pertaining to ground water withdrawals in relation to senior surface water priorities, in light of the differing hydrologic and priority administration issues prevailing among the seven water divisions. Such rules and regulations are subject to the statement of opposition process for water cases. See section 37-92- 501(3)(a), 15 C.R.S. (1990). (“Any person desiring to protest a proposed rule and regulation may do so

in the same manner as provided in section 37-92-304 for the protest of a ruling of a referee, and the water judge shall hear and dispose of the same as promptly as possible.") The court's role in conducting the review is to determine whether the rules "have a reasonable basis in law." *Alamosa-La Jara Water Users*, 674 P.2d at 925.

## **B. Presumption of the Constitutionality of a Statute and the Burden of Proof in Challenges to the Constitutionality of a Statute**

446. Many of the objections to the Rules are also challenges to the constitutionality of certain statutory findings and mandates. Article VI, section 1 of the Colorado Constitution charges the judicial branch with construing the meaning of the constitution. *Danielson v. Dennis*, 139 P.3d 688 (Colo. 2006); *Garhart v. Columbia/Healthone, L.L.C.*, 95 P.3d 571, 581 (Colo. 2004); *E-470 Pub. Highway Auth. v. Revenig*, 91 P.3d 1038, 1041 (Colo. 2004). Courts approach the potential invalidation of legislative acts cautiously. *Danielson v. Dennis*, 139 P.3d 688 (Colo. 2006); *People ex rel. Tucker v. Rucker*, 5 Colo. 455, 458 (1880).

447. "Statutes enacted by the General Assembly are presumed constitutional and a party asserting that a particular statute violates constitutional provisions assumes the burden of establishing such assertion beyond a reasonable doubt." *Central Colo. Water Conservancy Dist. v. Simpson*, 877 P.2d 335, 341 (Colo. 1994); see also *Kuiper v. Well Owners Conservation Ass'n*, 176 Colo. at 139, 490 P.2d at 278; *City of Greenwood Village v. Pet'rs for Proposed City of Centennial*, 3 P.3d 427, 440 (Colo. 2000) (courts "do not lightly declare a statute unconstitutional."); *Garhart v. Columbia/Healthone, L.L.C.*, 95 P.3d 571, 581 (Colo. 2004); *E-470 Pub. Highway Auth. v. Revenig*, 91 P.3d 1038, 1041 (Colo. 2004); *Danielson v. Dennis*, 139 P.3d 688 (Colo. 2006). Further, "[a] construction of statutory language that creates doubts as to the constitutional validity of the legislation should be assiduously avoided if an alternative construction consistent with legislative intent is available." *Perry Park Water & Sanitation Dist. v. Cordillera Corp.*, 818 P.2d 728, 732 (Colo. 1991); accord *City of Greenwood Village*, 3 P.3d at 440; *Colo. Ground Water Comm'n v. Eagle Peak Farms*, 919 P.2d 212, 221 (Colo. 1996) ("We are to avoid, if possible, a statutory construction which may result in constitutional invalidity.")

448. When reviewing a statute enacted by the General Assembly, the Court's "primary responsibility in any statutory analysis is to give effect to the legislative intent motivating the enactment of the statute." *Simpson v. Bijou Irrigation Co.*, 69 P.3d at 59 (citing *People v. Norton*, 63 P.3d 339, 343 (Colo. 2003)); accord *Colo. Water Conservation Board v. Upper Gunnison River Water Conservancy Dist.*, 109 P.3d 585, 593 (Colo. 2005); *Empire Lodge*, 39 P.3d at 1152. The Court "should give effect to each word and construe each provision in harmony with the overall statutory design, whenever possible." *Empire Lodge*, 39 P.3d at 1152. When the analysis involves a number of interrelated statutory provisions, the Court "must endeavor to give consistent, harmonious, and sensible effect to the statutory scheme as a whole." *Simpson v. Bijou Irrigation Co.*, 69 P.3d at 59. The Court should also consider "the General Assembly's course of action and intent when enacting, amending, and repealing statutes." *Empire Lodge*, 39 P.3d at 1152; *Simpson v. Bijou Irrigation Co.*, 69 P.3d at 70-71 ("[S]tatutory directives do not exist in a vacuum; instead, statutes – and the authority they convey – are as

interrelated to one another as the legislative objectives that motivated their enactment.”); see also *Double RL Co. v. Telluray Ranch Properties*, 54 P.3d 908, 910 (Colo. 2002) (“If the statute is ambiguous, unclear, or subject to alternative constructions, then the Court may turn to the legislative history for guidance.”)(citations omitted); *City of Thornton v. Bijou Irrigation Co*, 926 P.2d 1, 84 & n.76 (Colo. 1996) (where legislative history is available, it is relied upon as more reflective of the legislative intent).

449. The Supreme Court recently set out the standard for evaluation of a challenge to the constitutionality of a statute in *Danielson v. Dennis*, 139 P.3d 688, 690 (Colo. 2006):

In order to overcome this presumption, the person alleging a conflict between the legislative act and a constitutional provision must establish that “[t]he precise point of conflict between the statute and the constitution -- state or national -- ...appear[s] plain, palpable, and inevitable, or else the act of the general assembly must be held to prevail.” *Union Pac. Ry. Co. v. De Busk*, 12 Colo. 294, 303, 20 P. 752, 756 (1889); *Garhart*, 95 P.3d at 581 (“[U]nless the conflict between the constitution and the law is clear and unmistakable, we will not disturb the statute.”)

The party challenging the validity of a statute is required to prove it is unconstitutional beyond a reasonable doubt; a statute is facially unconstitutional only if no conceivable set of circumstances exists under which it may be applied in a permissible manner. *People v. M.B.*, 90 P.3d 880, 881 (Colo. 2004). In giving effect to a constitutional provision, we employ the same set of construction rules applicable to statutes; in giving effect to the intent of the constitution, we start with the words, give them their plain and common sense meaning, and read applicable provisions as a whole, harmonizing them if possible. *Bd. of County Comm'rs v. Vail Assocs., Inc.*, 19 P.3d 1263, 1273 (Colo.2001).

450. Protestors challenged the constitutionality of the Rules and the laws on which they are based, HB 98-1011 and SB 04-222, on three grounds: (1) the Rules, HB 98-1011, and SB 04-222 prohibit the right to appropriate the water of the state contrary to Article XVI, sections 5 and 6 of the Colorado Constitution; (2) the Rules, HB 98-1011, and SB 04-222 violate Equal Protection provisions under Article II, section 25 of the Colorado Constitution and the Fourteenth Amendment of the United States Constitution; and (3) the Rules, HB 98-1011, and SB 04-222 are unconstitutionally vague in violation of due process requirements of the Colorado and United States Constitutions.

### **C. Basic Principles: Constitutional, Judicial and Legislative Direction**

451. At times the Protestors suggested that the General Assembly and State Engineer have forgotten the fundamental principles of Colorado water law in enacting HB 98-1011, SB 04-222, and the Rules proposed to this Court. The Court does not believe that this is so. The particular objections of the Protestors are addressed below, but first it is appropriate to recall the context in which these Rules are before the Court.

452. There is no doubt in the Court’s mind that all the Proponents and the General Assembly are mindful of the fact that the Colorado Constitution provides that the “water of every natural stream” is subject to the prior appropriation doctrine and that priority of appropriation for beneficial use is the foundation upon which water rights depend.<sup>61</sup> Colo. Const. Art. XVI, section 6 states plainly that “The right to divert the unappropriated water of any natural stream to beneficial use shall never be denied.” The Rules proposed relate to the confined aquifer of the Rio Grande Basin, and there is no dispute that the confined aquifer of the San Luis Valley is tributary water. *American Water Development, Inc. v. City of Alamosa*, 874 P.2d 352,366, 372 (Colo. 1994) so held, and the evidence in this case is undisputed that this is so.

453. The Court has already reaffirmed the longstanding conclusion that the surface streams and the aquifers in the San Luis Valley of Colorado are overappropriated. See, *Alamosa-La Jara Water Users*, 674 P.2d at 918 (“By 1900, the natural flow of all surface streams in the [San Luis] valley was over-appropriated.”); see also *State Eng’r v. Bradley*, 53 P.3d 1165, 1167 (Colo. 2002) (upholding State Engineer’s denial of application to construct a well because an enlargement of the applicant’s right in the overappropriated Closed Basin and Rio Grande systems of the San Luis Valley “would necessarily be injurious to other vested rights.”); *High Plains A&M, LLC v. Southeastern Colorado Water Conservancy District*, 120 P.3d 710 (Colo. 2005) at 722 (“In view of the overappropriated status of three of its {Colorado}four major rivers....”)

454. Where surface water is overappropriated,<sup>62</sup> Colorado law presumes that depletions resulting from out-of-priority diversions of tributary groundwater in an overappropriated stream system will cause material injury to senior surface water rights. *City of Aurora v. State Eng’r*, 105 P.3d at 607, (“Where surface water is overappropriated, Colorado law presumes that groundwater depletions through well-pumping result in injury to senior appropriators absent a showing to the contrary.”); *Simpson v. Bijou Irrigation Co.*, 69 P.3d 50, 59 n.7 (Colo. 2003); *Alamosa-La Jara Water Users Prot. Ass’n v. Gould*, 674 P.2d 914, 931 (Colo. 1983).

455. The evidence before the Court has shown clearly that any depletion of groundwater from the confined aquifer will cause material injury to senior water users. The Rules are proposed for new withdrawals from the confined aquifer in an overappropriated basin which has experienced long-term declines in surface flow and where the aquifer is being mined by existing withdrawals.

456. These Rules are proposed as part of the response to these conditions and in accordance with the mandate to integrate the use and administration of tributary groundwater with surface water rights set forth in the Water Right Determination and Administration Act of 1969. The General Assembly declared in the 1969 Act its intent to “integrate the appropriation, use and administration of underground water tributary to a stream with the use of surface water, in such a way as to maximize the beneficial use of all of the waters of this state.”<sup>63</sup> In *Empire Lodge Homeowners’ Ass’n v. Moyer*, 39 P.3d 1139, 1148 (Colo. 2001), the Supreme Court describes

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<sup>61</sup> Colo. Const. Art. XVI, sections 5, 6. See also, *Coffin v. Left Hand Ditch Co.*, 6 Colo. 443, 447 (1882).

<sup>62</sup> Surface water is overappropriated when there is not enough water in the stream during the irrigation season or at other times of the year to satisfy all decreed appropriations.” *City of Aurora v. Simpson*, 105 P.3d at 595, 607 n.12 (citing *Hall v. Kuiper*, 181 Colo. 130, 132, 510 P.2d 329, 330 (1973))

<sup>63</sup> Water Right Determination and Administration Act of 1969, section 37-92-102(1)(a) C.R.S.

the water crisis on the Arkansas and Platte Rivers caused by wells depleting tributary groundwater and the dilemma this created as follows:

Strict application of the priority doctrine to overappropriated basins would restrict new water uses to changes of water rights. How to protect prior appropriation rights while also allowing new uses required a governmental response.

457. In 1968, the Supreme Court took one step to address this issue with its opinion in *Fellhauer v. People*, 167 Colo. 320, 447 P.2d 986 (1968). The Court's famous declaration that "the curtain is opening upon the new drama of *maximum utilization* and how constitutionally that doctrine can be integrated into the law of *vested rights*" reflects the long-held concern that management of the scarce water resources requires flexibility and creativity to promote multiple-use of a finite resource. *High Plains A&M, LLC v. Southeastern Colorado Water Conservancy District*, 120 P.3d 710, 719 (Colo. 2005); *Bd. of County Comm'rs v. Park County Sportsmen's Ranch, LLP*, 45 P.3d 693, 706 (Colo. 2002). As one commentator has noted:

Western prior appropriation water law is a property rights-based allocation and administration system, which promotes multiple use of a finite resource. The fundamental characteristics of this system guarantee security, assure reliability, and cultivate flexibility. Security resides in the system's ability to identify and obtain protection for the right of use. Reliability springs from the system's assurance that the right of use will continue to be recognized and enforced over time. Flexibility emanates from the fact that the right of use can be transferred to another, subject to the requirement that other appropriators not be injured by the change.<sup>64</sup>

458. *Fellhauer* initiated an exploration of how to optimize the utilization of water in an arid state that continues today. *Fellhauer* explicitly invited a legislative response to these issues and confessed there was much work to do to better understand the Arkansas Basin in which that case arose. Of particular note, the Supreme Court declined to address questions such as the "right to uplift" and whether there is a duty of a senior user to pump in order to satisfy his surface decree. *Fellhauer, supra* at 994. As the State Engineer has pointed out throughout this case, one of the actual holdings in *Fellhauer* was that regulation of wells must be in compliance with written rules and regulations.<sup>65</sup> The State Engineer relied upon *Fellhauer* to argue for the Rules and that it is not possible to effectively or constitutionally regulate the wells in the confined aquifer without rules in place.

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<sup>64</sup> Gregory J. Hobbs, *Colorado Water Law: An Historical Overview*, 1 U. Denv. Water L. Rev. 1 (1997)

<sup>65</sup> "Interpreting the constitutionality of that Act (Groundwater Management Act) in *Fellhauer v. People*, 167 Colo. 320, 447 P.2d 986 (1968), this Court held that any regulation of wells must: (1) be in compliance with written rules and regulations; (2) cause a reasonable lessening of material injury to seniors; and (3) provide for conditional use of wells if water can be withdrawn and put to beneficial use without injury to seniors. *Fellhauer*, 167 Colo. at 334, 447 P.2d at 993. The court also articulated the need for maximum utilization of both the surface and subsurface waters of the state, and the necessity of determining 'how constitutionally that doctrine can be integrated into the law of vested rights.' *Fellhauer*, 167 Colo. at 336, 447 P.2d at 994." *Simpson v. Bijou Irrigation Co.*, 69 P.3d 50, 59-60 (Colo. 2003)

459. The General Assembly responded to the invitation extended by *Fellhauer* with the enactment of the Water Right Determination and Administration Act of 1969.<sup>66</sup> The Supreme Court characterizes the Act as follows:

The purpose of the Act was “to integrate the appropriation, use and administration of underground water tributary to a stream with the use of surface water, in such a way as to maximize the beneficial use of all of the waters of this state.” *Id.*, § 148-21-2(1) at 1200 (currently codified at § 37-92-102(1)(a), 10 C.R.S. (2002)). The Act ushered in a host of changes to the state water law administrative scheme. It established the current system of water divisions and courts, *Id.* sections 148-21-8 through 148-21-11 at 1202-05 (currently codified at sections 37-92-201 through 37-92-204, 10 C.R.S. (2002)), and set forth detailed administrative duties of the State and Division Engineers, particularly with regard to the integration of groundwater into the water law system. *Id.* § 148-21-17 through 148-21-45 at 1205-19 (currently codified at §§ 37-92-301 through 37-92-504, 10 C.R.S. (2002)).

As a result of the Act's stated policy of conjunctive use,<sup>67</sup> wells were required to be integrated into the priority system, although unadjudicated wells in existence prior to 1969 were allowed to continue. See *Id.* § 148-21-2(2)(a) at 1200-01 (“Water rights and uses heretofore vested in any person by virtue of previous or existing laws, *including an appropriation from a well*, shall be protected subject to the provisions of this article.”) (emphasis added) (currently codified at § 37-92-102(2)(a), 10 C.R.S. (2002) in slightly modified form).<sup>FN9</sup> The Act, nevertheless, encouraged the adjudication of existing wells by allowing well owners who filed an application by July 1, 1971, to receive a water decree with a priority dating back to their original appropriation date. *Id.* § 148-21-22 at 1212.<sup>68</sup>

460. The 1969 Act provides in part, “It is the policy of the state to integrate the appropriation, use and administration of underground water tributary to a stream in such a way as to maximize the beneficial use of all of the waters of this state.” Section 37-92-102(1)(a), C.R.S. (2005). A general summary of its accomplishments states:

Major accomplishments of the 1969 Act include: (1) integration of surface water and tributary groundwater into a unitary adjudication and administration system; (2) specialized water court jurisdiction and engineer administration on a watershed basis; (3) resume notice procedure for obtaining jurisdiction for adjudication of rights; (4) case-by-case decrees and appeals in the context of an ongoing and comprehensive adjudication; (5) authorization of augmentation plans to enable otherwise out-of-priority water use through the provision of replacement water; (6) effective rulemaking and enforcement authority in the state and division engineer for the protection of state, federal, and interstate rights; and (7) explicit procedures for filing and pursuing applications and objections to

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<sup>66</sup> See ch. 373, sec. 1, sections 148-21-1 through 148-21-45, 1969 Colo. Sess. Laws 1200, 1200-1219.

<sup>67</sup> The term “conjunctive use” refers to the combined priority administration of ground and surface waters of the state. James N. Corbridge, Jr. & Teresa A. Rice, *Vranesh's Colorado Water Law* 16 (rev. ed.1999).

<sup>68</sup> *Simpson v. Bijou Irrigation Co.*, 69 P.3d 50, at 60 (Colo. 2003)

applications for water rights, conditional water rights, changes of water rights, and augmentation plans.<sup>69</sup>

461. Our Supreme Court has characterized the legislative response to *Fellhauer* as follows:

As administration of water approaches its second century, the General Assembly chose to implement a policy of maximum flexibility that also protected the constitutional doctrine of prior appropriation. Through the 1969 Act, the General Assembly created a new statutory authorization for water uses that, when decreed, are not subject to curtailment by priority administration. This statutory authorization is for out-of-priority diversions for beneficial use that operate under the terms of decreed augmentation plans. See Act of June 7, 1969, ch. 373, § 148-21-3(12) at 1202; § 148-21-18(1) at 1207; §148-21-20(6) at 1210; § 148-21-21(3) & (5) at 1211; § 148-21-23 at 1212, 1969 Colo. Sess. Laws. Plans for augmentation “were a creation of the 1969 Act.” David F. Jankowski, et al., 1969. *The Act's Contributions to Local Governmental Water Suppliers*, 3 U. Denv. Water L.Rev. 20, 29 (1999).<sup>70</sup>

462. In 1971, the General Assembly amended the 1969 Act to provide additional guidance to the State Engineer for the administration of groundwater rights and in adoption of rules and regulations. See 1971 Colo. Sess. Laws 1330, 1331-32 (now section 37-92-501(1)-(3)). The General Assembly directed, among other things, that:

(1) The state engineer and the division engineers shall administer, distribute, and regulate the waters of the state in accordance with the constitution of the state of Colorado, the provisions of this article and other applicable laws, and written instructions and orders of the state engineer, in conformity with such constitution and laws; and no other official, board, commission, department, or agency, except as provided in this article and article 8 of title 25, C.R.S.[1973], has jurisdiction and authority with respect to said administration, distribution, and regulation. *It is the legislative intent that the operation of this section shall not be used to allow ground water withdrawal which would deprive senior surface rights of the amount of water to which said surface rights would have been entitled in the absence of such ground water withdrawal and that ground water diversions shall not be curtailed nor required to replace water withdrawn, for the benefit of surface right priorities, even though such surface right priorities be senior in priority date, when, assuming the absence of ground water withdrawal by junior priorities, water would not have been*

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<sup>69</sup> Gregory J. Hobbs, Jr., *Colorado's 1969 Adjudication and Administration Act: Settling In*, 3 U. of Denv. Water L. Rev. 1, 18 (1999)

<sup>70</sup> *Empire Lodge Homeowners' Ass'n v. Moyer*, 39 P.3d 1139, at 1150 (Colo. 2001)

*available for diversion by such surface right under the priority system.* The state engineer may adopt rules and regulations to assist in, but not as a prerequisite to, the performance of the foregoing duties.

Section 37-92-501(1), C.R.S. (2005) (emphasis supplied). The General Assembly further directed that any such rules and regulations shall have as their objective the “optimum use” of water consistent with preservation of the priority system of water rights. Section 37-92-501(2)(e). The choice of the word “optimum” rather than “maximum” acknowledged there were yet to be defined limits on the *Fellhauer* opinion.

463. The 1969 Act and the 1971 amendment did not resolve the issues raised by *Fellhauer*, but the General Assembly established a framework for further legislation and judicial decisions. The Supreme Court has emphasized the common goals of its decision in *Fellhauer* and the General Assembly’s goal in the 1969 Act as follows:

Both responses centered on: (1) reinforcing the adjudication and administration of decreed water rights in order of their priority; and (2) maximizing the use of Colorado's limited water supply for as many decreed uses as possible consistent with meeting the state's interstate delivery obligations under United States Supreme Court equitable apportionment decrees and congressionally approved interstate compacts.

*People ex rel. Simpson v. Highland Irrigation Co.*, 917 P.2d 1242, 1248, 1252-53 (Colo. 1996).

464. Inevitably these tasks require a balancing of competing interests in order to formulate a “sound and flexible integrated use of all waters of the state.”<sup>71</sup> In *Colorado Springs v. Bender*, 148 Colo. 458, 366 P.2d 552 (1961), the Supreme Court held that a senior well owner is entitled to curtail a junior well owner in the same aquifer only if the senior has utilized a reasonable means of effectuating his diversion without receiving the water he is entitled to. This opinion adopted a principle recognized with respect to surface rights in *Schodde v. Twin Falls Land & Water Co.*, 224 U.S. 107, 119, 32 S.Ct. 470, 56 L.Ed. 686 (1912), and applied it to the neighboring wells.

At his own point of diversion on a natural water course, each diverter must establish some reasonable means of effectuating his diversion. He is not entitled to command the whole or a substantial flow of the stream merely to facilitate his taking the fraction of the whole flow to which he is entitled. *Schodde v. Twin Falls Land & Water Co.*, 224 U.S. 107, 119, 32 S.Ct. 470, 56 L.Ed. 686 (1912). This principle applied to diversion of underflow or underground water means that priority of appropriation does not give a right to an inefficient means of diversion, such as a well which reaches to such a shallow depth into the available water supply that a shortage would occur to such senior even though diversion by others

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<sup>71</sup> Section 37-92-102(2)

did not deplete the stream below where there would be an adequate supply for the senior's lawful demand.

*City of Colorado Springs v. Bender* 148 Colo. 458, at 462, 366 P.2d 552, at 555 (Colo.1961). *Schodde* involved a senior water user who utilized the river to operate a water wheel. Lowering his water wheel rather than closing all junior users was a sensible way to make the best or optimum use of the water in the stream. *Bender* is a reasonable extension of that concept and certainly anticipates the *Fellhauer* decision and its discussion of maximum utilization.

465. *Bender* recognized there would be limits on what senior users could reasonably be required to do. "Reasonable" includes a consideration of the economic effect and economic capability of the senior user. *Bender* resolved the dispute between two adjacent well owners by requiring the junior well owner to pay for the deepening of the senior's well. As between these two parties, this was a reasonable and straight-forward way to optimize use of the aquifer and protect the senior vested right. But broader application of this principle has proven much more difficult. As seen in the suggestion of AWDI that the Closed Basin Project be transformed into an appropriation from the confined aquifer as described in Part XI C at page 140, the limits of this doctrine remain uncertain. As this court said in its opinion in *Concerning the Application of American Water Development, Inc.*, 1986 CW 46, September 28, 1989, at 29.

While the principles of maximum utilization and reasonable-means of diversion are clearly a part of Colorado water law, in what proceedings such principles may or must be considered and how they should be applied remains to a large extent undetermined.

466. In *Kuiper v. Well Owners Conservation Association*, 176 Colo. 119, 490 P.2d 268, 283 (1971), the Supreme Court held: "[I]t is not the present state of the law that the State Engineer is required to compel a person with a senior surface priority to use his groundwater to apply on that priority before he makes a call." *Well Owners* limited the provision of section 37-92-502(2)<sup>72</sup> to those situations in which "the well water has become related to the surface decree under the approved plan of augmentation." The Supreme Court noted: "[W]e know of no other requirement compelling an owner of a surface decree to first apply his well water to that decree before making the call upon junior appropriators, be they surface or underground." *Id.* at 934.

467. *Well Owners* limited application of the state policy of "maximum utilization" of water first enunciated in *Fellhauer*, 447 P.2d at 994. The Supreme Court reconsidered and limited the ruling in *Well Owners* in *Alamosa-La Jara Water Users Assoc. v. Gould*, 674 P.2d 914 (Colo.1983) where the Supreme Court rejected the 1975 proposed rules in Water Division 3. The Court reviewed the development of water law from *Bender* to *Fellhauer* to the enactment of the Water Right and Adjudication Act of 1969. The Court reaffirmed prior rulings that "it may be presumed that each underground water diversion materially injures senior appropriators." *Alamosa-La Jara*, at 931. But the Court also remanded the rules for the State Engineer's

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<sup>72</sup>Section 37-92-502(2)(a), C.R.S., provides in part that:

"... [i]f a well has been approved as an alternate means of diversion for a water right for which a surface means of diversion is decreed, such well and such surface means must be utilized to the extent feasible and permissible under this article to satisfy said water right before diversions under junior water rights are ordered discontinued."

consideration of the policy of maximum utilization and the reasonable-means-of-diversion doctrine. *Id.* at 936.

468. The Supreme Court discussed but did not rule, in *Alamosa-La Jara*, on many of the issues now back before this Court in considering these Rules. The Court took note of the legislative reformulation of the *Fellhauer* opinion in the 1969 Act as a goal to have “optimum use of water consistent with preservation of the priority system of water rights.” In remanding to the water court for return to the State Engineer, the Court elaborated on the limits of this judicially created notion of “maximum” or “optimum” utilization, *Id.* at 935.

We note that the policy of maximum utilization does not require a single-minded endeavor to squeeze every drop of water from the Valley's aquifers. Section 37-92-501(2)(e) makes clear that the objective of “maximum use” administration is “optimum use.”<sup>FN36</sup> Optimum use can only be achieved with proper regard for all significant factors, including environmental and economic concerns. *See* section 37-92-102(3), C.R.S. (recognizing the need to correlate the activities of mankind with reasonable preservation of the natural environment); Harrison & Sandstrom, *supra*, at 14-15 (An increase of well diversions at the expense of maintenance of a surface flow would increase the efficiency of irrigation at the expense of other environmental and economic values.)

469. The Supreme Court acknowledged that the State Engineer would have to make policy choices in revisiting these issues. Importantly, the Court did not reject the State Engineer's choices in the proposed Rules and did not opine on issues such as the right to support for the rivers. The Court merely ruled that since the State Engineer had relied upon *Well Owners*, he had not given consideration in the rule-making process to the possible application of the reasonable-means-of-diversion doctrine.

470. Twenty-three years later, the stated desire to integrate surface and tributary groundwater has proven to be a formidable task in every water basin and particularly so in Water Division 3. The legislation and Rules before the Court here represent a continued effort by the State Engineer and the General Assembly to formulate a “sound and flexible integrated use of all waters of the state.”<sup>73</sup> Since the decision in *Alamosa-La Jara*, the water users and the State Engineer have taken many steps to manage the waters of this overappropriated basin, as detailed in Part IV of this opinion.<sup>74</sup> But as the evidence in this case indisputably shows, the steps taken

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<sup>73</sup> Section 37-92-102(2)

<sup>74</sup> The opinion in *Alamosa-La Jara* points out the effort to negotiate some of the issues was ongoing; and it documented some of the ideas that were being considered at the time, many of which came to fruition. They are found in Footnote 35 at page 935.

(1) Elimination of the wasteful practice of sub-irrigation; (2) encouragement of improved irrigation efficiency, such as increased use of sprinklers; (3) prohibit the wasteful practice of allowing diverted water to collect in barrow pits, potholes and other areas, only to evaporate; (4) promote the Closed Basin Project; (5) construct new wells and use existing wells to deliver both confined and unconfined water to help satisfy Compact obligations; (6) construct new drains and rehabilitate existing drains to salvage water presently lost to non-beneficial evapotranspiration; (7) initiate a channel rectification program to prevent the wasteful overflow losses on critical reaches on the river system in the Valley; (8) a systematic augmentation plan for direct flow rights and wells from the confined and unconfined aquifers, pursuant to ongoing research to determine the effect of such augmentation upon senior priority

have not been adequate to protect senior surface rights and well owners and meet the Rio Grande Compact obligation. The evidence shows the continuing decline in surface flows and underground storage and that the recent drought, especially during the year 2002, brought the Basin to a turning point.

471. The 1998 amendments to the 1969 Act in HB 98-1011 focused attention on the need to develop the RGDSS and a groundwater model as the foundation for new rules in Water Division 3. The 2004 amendments to the 1969 Act in SB 04-222 directly addressed some of the most problematic aspects of the Basin.

472. Protestors argued that the Rio Grande Basin is not really “unique” and that the same general rules should apply across the state. However, the history of water development in this state has always recognized that each basin is different in significant ways. Optimum utilization implicitly requires careful consideration of the special circumstances in each basin. The 1969 Act included this as a fundamental principle from the beginning. Section 37-92-501(2)(a) C.R.S. provides:

(2) In the adoption of such rules and regulations, the state engineer shall be guided by the...following:

(a) Recognition that each water basin is a separate entity; that aquifers are geologic entities; and different aquifers possess different hydraulic characteristics even though such aquifers be on the same river in the same division, and that rules applicable to one type of aquifer need not apply to another type.

The Supreme Court has confirmed this principle. See *Simpson v. Bijou Irrigation Co.*, 69 P.3d 50, 67 (Colo. 2003). It was in this context that the General Assembly declared in House Bill 98-1011, Ch. 231 (1998) that:

The hydrologic system in the Water Division 3 and in particular, the hydrology and geology of the shallow aquifer and Confined Aquifer Systems and their relationship to the surface streams in Water Division 3 are unique and are among the most complex in the state.

473. These declarations are fully supported by the evidence in this trial. The General Assembly went further in SB 04-222. While the statutory provisions were often discussed in isolation during the trial, in the briefs and even in the proposed orders submitted to this Court, the Court finds the goal of the General Assembly in this legislation is to provide specific guidance and clarification to the State Engineer and the Water Court with regard to the very issues that had stalemated water regulation and development since the rejection of the 1975 rules. “Colorado water law has taken shape in the interaction between the water users, their advocates, the judiciary, the legislature, and the water officials.”<sup>75</sup> The General Assembly was aware of events in the Arkansas and Platte Basins which continue to this day. The General

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rights; (9) development of reservoirs to store pre-Compact direct flow rights; (10) additional purchase of existing water rights and release of those waters to the streams.

<sup>75</sup> Gregory J. Hobbs, Jr., *Colorado’s 1969 Adjudication and Administration Act: Settling In*, 3 U. Denv. Water L.R. 1, at 11.

Assembly clearly wished to enable the State Engineer and water users in the Rio Grande Basin to cooperate to reach effective management of the limited water resources in new ways which minimized the kind of economic hardship witnessed on the Front Range. The use of augmentation<sup>76</sup> plans has been an extremely important and effective tool to permit new and flexible use of limited water resources (while protecting senior water users) since the enactment of the 1969 Act. That said, it is fully within the power of the General Assembly to add alternative ways to address material injury to senior water users and meet Compact obligations.

474. SB 04-222 provides such a series of interrelated principles of management of Water Division 3 based upon the best understanding of the hydrogeology of the Basin at this time. Part of the “understanding” of the aquifers is that we don’t fully understand the hydrogeology. The Rules for new withdrawals from the unconfined aquifer are one piece of the overall effort to comply with the goal of integration of surface and groundwater uses in priority. The General Assembly has set out a keystone to overall integration in its requirement that “the aquifers be regulated so as to maintain a sustainable water supply in each aquifer system.” This is a clear statement that optimum use of tributary waters in Water Division 3 can never permit mining of tributary aquifers. Restated, to be an “optimum utilization” of waters in the Basin, the withdrawals must be sustainable. Second, the General Assembly has established a baseline for artesian pressure in the Confined Aquifer System and requires the artesian pressure be maintained in the range which occurred during a period it viewed as stable and sustainable, 1978-2000. This legislation gives clear statutory guidance to the State Engineer for his Rules. The Rules follow these principles. Third, SB 04-222 and the Rules now provide that the State Engineer shall “not recognize the reduction of water consumption by phreatophytes as a source of replacement water for new water uses or to replace existing depletions, or as a means to prevent injury from new water uses.”<sup>77</sup> These sections have generally been discussed in isolation rather than as a whole during this proceeding, but it is important to see how interrelated they are and how they jointly serve the constitutional doctrine of prior appropriation and the principles set out in the Water Right Adjudication and Administration Act of 1969, including optimum utilization.

475. SB 04-222 begins with the affirmation by the General Assembly that the State Engineer has “wide discretion to permit the continued use of underground water consistent with preventing material injury.” See section 37-92-501(4)(a). In this regard, the General Assembly also directs the State Engineer to:

recognize contractual arrangements among water users, water user associations, water conservancy districts, ground water management subdistricts, and the Rio Grande Water Conservation District, pursuant to which:

(A) water is added to the stream system to assist in meeting the Rio Grande

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<sup>76</sup> Section 37-92-103(9) provides that a plan for augmentation is: a detailed program, which may be either temporary or perpetual in duration, to increase the supply of water available for beneficial use in a division or portion thereof by the development of new or alternate means or points of diversion, by a pooling of water resources, by water exchange projects, by providing substitute supplies of water, by the development of new sources of water, or by any other appropriate means.

<sup>77</sup> Section 37-92-501(4)(b)(3)

Compact delivery schedule or to replace depletions to stream flows resulting from the use of underground water; or

(B) subject to subparagraphs (I), (II), and (III) of paragraph (a) of this subsection (4), injury to senior surface water rights resulting from the use of underground water is remedied by means other than providing water to replace stream depletions.<sup>78</sup>

476. Finally, SB 04-222 promises water users who form a subdistrict a form of self-regulation. They have a window of opportunity to form subdistricts and to propose groundwater management plans to reduce water use and protect senior appropriators and the Rio Grande Compact obligation without the requirement for individual augmentation plans.<sup>79</sup> Under the statute, any proposal must be approved by the State Engineer and submitted to the water court for approval.<sup>80</sup> This may or may not prove to be feasible. That issue is not before this Court today.

477. The General Assembly has the power to statutorily authorize alternatives to an augmentation plan which accomplish the same constitutional objectives of protecting senior water rights in priority and optimizing the use of our scarce water resources. The Rules regarding new withdrawals from the confined aquifer are only one piece of the effort to integrate surface and groundwater uses in priority protecting senior water rights and the Compact obligation in a sustainable way.

478. HB 98-1011, SB 04-222 and the Rules extend logically the “policy of maximum flexibility that also protected the constitutional doctrine of prior appropriation.” *Empire Lodge Homeowners’ Ass’n v. Moyer*, 39 P.3d 1139, 1150 (Colo. 2001). SB 04-222 allows the State Engineer and water users to seek creative solutions to the problems of overappropriation in order to protect senior surface and groundwater rights and the Rio Grande Compact obligation.

479. Clearly these provisions seek to avoid the kind of economic hardship observed on the Front Range. Just as the Colorado Ground Water Management Act of 1965 was “designed to permit the full economic development of designated groundwater resources,”<sup>81</sup> SB 04-222 seeks to protect senior rights and allow the full economic development of the water resources in the Rio Grande Basin in a way that is sustainable for future generations. Concern for existing water users was one of the basic tenets announced in the 1969 Act. Section 37-92-102(2)(b) provides: “Water rights and uses vested prior to June 7, 1969, in any person by virtue of previous or existing laws, including an appropriation from a well, shall be protected subject to the provisions of this article.” The Rules proposed for new wells in the confined aquifer must be read together with the other steps taken and proposed for the existing wells in both the confined and unconfined aquifer which seek to further this goal of sustainable use protecting senior rights.

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<sup>78</sup> Section 37-92-501(4)(b)(1)

<sup>79</sup> Section 37-92-501(4)(c)

<sup>80</sup> This procedure acknowledges the primacy of water court review and adjudication as set out in *Simpson v. Bijou Irrigation Co.*, 69 P.3d 50, 67 (Colo. 2003)

<sup>81</sup> *Danielson v. Vickroy*, 627 P.2d 752, 756 (Colo. 1981)

480. This Court recognizes that the proposed Rules and their enabling legislation are incomplete and imperfect. The Findings in this case emphasize there is much yet to learn about the Basin and that the RGDSS and its groundwater model are both ongoing activities. The Supreme Court made similar observations about the state of knowledge of the Platte Basin in *Well Owners, supra.*, in 1971. When this opinion was begun, we all thought there were nine planets in our solar system. Now we are told that in reality there are only eight objects that meet the criteria for a “planet.” Our knowledge of our universe, our solar system and our aquifers is not fixed or stagnant. Our understanding of the Rio Grande Basin will expand by leaps and bounds in the next period of time thanks to the RGDSS, its groundwater model and the accumulation of new data. This, in turn, will likely change some of our understanding of how to optimize utilization of the aquifers in a sustainable way. Flexibility requires that we have an open mind to learn and adjust to our new understanding. In this context, we turn to specific objections to the Rules and statutes raised by the Protestors, beginning with a continuation of the discussion of optimum utilization.

**D. The Objective of “Maximum Use” Administration Is Optimum Use of Water, Which Requires Consideration of All Significant Factors, Including Environmental and Economic Concerns and Maintenance of a Sustainable Aquifer System**

481. The principle of optimum utilization is based on the recognition that the waters of Colorado are a scarce and valuable resource. *State Engineer v. Castle Meadows, Inc.*, 856 P.2d 496, 505 (Colo. 1993). The so-called “doctrine” of maximum utilization was first announced in *Fellhauer v. People*, 447 P.2d 986, 994 (Colo. 1968) as described previously. The *Fellhauer* court held that the Division Engineer in Division 2, in attempting to regulate tributary groundwater in accordance with the right of priority of appropriation under legislation passed in 1965, had wrongfully shut down 39 junior wells out of more than 1,600 large capacity wells existing in the Arkansas River Valley. *Id.* at 992-93. Anticipating that future regulation of junior diversions by wells would be necessary, the court set forth three requirements for such regulation, including that “[i]f by placing conditions upon the use of a well, or upon its owner, some or all of its water can be placed to a beneficial use by the owner without material injury to senior users, such conditions should be made.” *Id.* at 993. The court then explained the policy behind that rule: “It is implicit in [Article XVI, section 6 of the Colorado Constitution] that along with *vested rights*, there shall be *maximum utilization* of the water of this state.” *Id.* at 994 (emphasis by the court).

482. The principle of maximum utilization is not absolute and “our cases have always recognized that the sometimes countervailing interest of vested rights must be given effect.” *State Engineer v. Castle Meadows*, 856 P.2d 496(1993) at 505. As the Colorado Supreme Court has been confronted with new schemes, innovative and otherwise, to alter the existing environment in efforts to make new water supplies available, the principle of maximum utilization as announced in *Fellhauer* has been limited.

[A]lthough we continue to uphold the principle of maximum utilization, we have recognized in our more recent decisions that not only must that goal sometimes yield to protect vested rights, but that it must also be implemented so as to ensure that

water resources are utilized in harmony with the protection of other valuable state resources.

*State Engineer v. Castle Meadows*, 856 P.2d 496 (1993) at 505. And, in interpreting the objective of “optimum use of water consistent with preservation of the priority system of water rights,” section 37-92-501(2)(e), the Colorado Supreme Court held in *Alamosa-La Jara* that:

[T]he policy of maximum utilization does not require a single-minded endeavor to squeeze every drop of water from the Valley’s aquifers. Section 37-92-501(2)(e) makes clear that the objective of “maximum use” administration is “optimum use.” *Optimum use can only be achieved with proper regard for all significant factors, including environmental and economic concerns.*

*Alamosa-La Jara*, 674 P.2d at 935 (citations omitted) (emphasis supplied). Any optimum or maximum utilization must ensure delivery of Colorado’s Compact obligations. *Empire Lodge Homeowner’s Ass’n v. Moyer*, 39 P.3d 1139, 1150 (Colo. 2001); *People ex rel. Simpson v. Highland Irr. Co.*, 917 P.2d 1242, 1248, 1252-53 (Colo. 1996).

483. In *City of Thornton v. Bijou Irr. Co.*, 926 P.2d 1, 86 (Colo. 1996), the Colorado Supreme Court held that the impacts from change of water rights on the lands to be dried up had to be considered:

In addition to this dual focus on maximum beneficial use and the protection of water rights, water judges must give consideration to the potential impact of the utilization of water on other resources. Our decisions establish that the goal of maximum utilization must be “implemented so as to ensure that water resources are utilized in harmony with the protection of other valuable state resources.” *State Engineer v. Castle Meadows*, 856 P.2d 496 (1993) at 505. In *Southeastern Colorado Water Conservancy District v. Shelton Farms, Inc.*, 187 Colo. 181, 529 P.2d 1321 (1974), we recognized the potential dangers of adopting a water principle that would encourage the elimination of plant life to the detriment of land and other resources:

We are not unmindful that the statute speaks of the policy of maximum beneficial and integrated use of surface and subsurface water. But efficacious use does not mean uplifting one natural resource to the detriment of another. The waters of Colorado belong to the people, but so does the land. There must be a balancing effect, and the elements of water and land must be used in harmony to the maximum *feasible* use of both.

*Id.* at 191, 529 P.2d at 1327 (emphasis in original); *accord R.J.A., Inc. v. Water Users Ass'n of Dist. 6*, 690 P.2d 823, 828-29 (Colo.1984) (effects on other resources and preservation of the natural environment are proper considerations for the water court in implementing the beneficial use of water); *In re Rules & Regulations Governing the Use, Control, and Protection of Water Rights*, 674 P.2d 914, 935 (Colo.1983) ("Optimum use [of water] can only be achieved with proper regard for all significant factors, including environmental and economic concerns."); §§ 37-92-102(3), -103(4), 15 C.R.S. (1990) (recognizing the need for "reasonable" preservation of the natural environment and allowing minimum stream flow and natural lake surface level and volume appropriations on behalf of the people of the State of Colorado for that purpose). These provisions and precedents leave little doubt that the water court's ability to impose conditions to protect against injury to natural resources other than water existed prior to the passage of section 37-92-305(4.5). In the present case, Thornton seeks to change the use of certain of its water rights to municipal uses, with the concomitant result that numerous farms previously irrigated by the exercise of these rights will no longer receive water. In the absence of revegetation or other suitable reuse, these previously productive lands may revert to desert or suffer weed infestation that would threaten their future usefulness. Given these potentially deleterious effects on a significant quantity of land, we find the revegetation condition an acceptable and important tool to accomplish the goal of maximum feasible use of both land and water. Thus, we hold that imposition of the revegetation condition was within the trial court's authority, existing prior to the passage of section 37-92-305(4.5), to balance the beneficial use of water with the preservation of other natural resources, *see Shelton Farms*, 187 Colo. at 191, 529 P.2d at 1327; *R.J.A., Inc.*, 690 P.2d at 828-29, and we affirm the revegetation condition imposed by the trial court and the court's retention of jurisdiction to ensure the proper compliance with the terms of the condition.

*City of Thornton v. Bijou Irr. Co.*, 926 P.2d 1, 86 (Colo. 1996).

484. While the Colorado Supreme Court held that the water court had authority to require revegetation of lands to be dried up as the result of a change of water rights prior to and independent of the statute enacted by the General Assembly requiring revegetation, the Court also held that a water court could not impose conditions in excess of an appropriator's vested right for the purpose of waste dilution or assimilation contrary to specific legislative prohibitions on private instream flow rights and other policies. *Id.* at 91-95. The Court further held that the decision whether to further integrate the consideration and administration of water quality concerns into the prior appropriation doctrine was the province of the General Assembly or the electorate. *Id.* at 94-95.

485. In the present case, the General Assembly has expressly directed that in regulating an aquifer or system of aquifers in Division 3 and in adopting rules and regulations governing the use of underground water in Division 3, the State Engineer shall apply certain principles. Section 37-92-501(4)(a) C.R.S. These include that use of the confined and unconfined aquifers shall be regulated so as to maintain a sustainable water supply in each aquifer system and that fluctuations in the artesian pressure levels shall be allowed within certain ranges, while maintaining average levels similar to those that occurred in 1978 through 2000. Section 37-92-501(4)(a)(I) and (III), C.R.S. (2005). These requirements are intended to prevent mining of the confined and unconfined aquifers, to ensure a sustainable water supply in each aquifer system, to protect vested surface and groundwater rights, and to meet Colorado's interstate delivery obligations.

486. Just as the General Assembly has exercised its authority to allow mining of "designated" groundwater and nontributary groundwater to achieve full economic development, see *Upper Black Squirrel Creek Ground Water Management Dist. v. Goss*, 993 P.2d 1177, 1181-83 (Colo. 2000), the General Assembly can impose conditions on the withdrawal of tributary groundwater to prevent groundwater mining, to protect vested rights, to meet Colorado's delivery obligations, and to prevent adverse consequences to the state's other natural resources.

487. Other provisions in the Rules that the Protestors objected to are also based on express legislative direction and are also clearly within the General Assembly's authority. For example, the Protestors contended that the proposed Rules provide plants with a vested water right that must be augmented and that nonirrigated vegetation cannot be protected under the public trust doctrine, which Colorado has rejected (citing *People v. Emmert*, 597 P.2d 1025, 1028-29 (Colo. 1979)). Contrary to the Protestors' suggestion, the Rules do not require that nonirrigated native vegetation be "augmented," and the State Engineer does not invoke the public trust doctrine. The State Engineer has enacted Rules in accord with the direction they received from the General Assembly. See *Board of Cty. Commr's v. Colorado River Water Conservation Dist.*, 891 P.2d 952, 972 (Colo. 1995) ("We have consistently recognized that the General Assembly has acted to preserve the natural environment . . . and we will not intrude into an area where legislative prerogative governs.").

488. Colorado's rejection of the public trust doctrine does not strip the General Assembly of its authority to ensure that water resources are utilized in harmony with the protection of other valuable state resources. Concern for the environmental consequences if there were unlimited expansion of *Fellhauer* was expressed by the court in *Southeastern Colo. Water Conservancy Dist. v. Shelton Farms, Inc.* 187 Colo. 181, 529 P.2d 1321 (1974), at 191, where the court said:

the waters of Colorado belong to the people but so does the land. There must be a balancing effect, and the elements of water and land must be used in harmony to the maximum feasible use of both.

489. In 1984, Justice Lohr described the Supreme Court opinion in *Shelton Farms* as a recognition that "the general legislative policy of maximum beneficial and integrated use of surface and subsurface water must be implemented with a sensitivity to the effect on other resources." *R.J.A., Inc. v. Water Users Assoc.*, 690 P.2d 823 (1984) at 828. *R.J.A.* makes clear that whether to allow alterations of long existing physical characteristics of the land to obtain

water is a decision the General Assembly must make after balancing all of the public policy considerations. *R.J.A. at 828*.

490. In *Board of County Commissioners v. Colorado River Water Conservation District*, *supra*, the Colorado Supreme Court held that a water court's review of a water right application does not include evaluation of environmental factors. 891 P.2d at 971. The Court again emphasized that any change in the law in this regard was a legislative and not a judicial function: "Although environmental factors might provide a reasonable and sound basis for altering existing law, we have previously held '... it is a legislative and not a judicial function to make any needed change.'" *Id.* at 972. The Court also stressed that a water judge's consideration of environmental factors in granting or denying water rights would be inconsistent with the General Assembly's role to establish public policy: "[A] public interest theory is in conflict with the doctrine of prior appropriation because a water court cannot, *in the absence of statutory authority*, deny a legitimate appropriation based on public policy." *Id.* (emphasis supplied).

491. The General Assembly has the authority to direct that environmental concerns shall be considered in determining how optimum use should be achieved. *See Board of County Comm'rs v. Colo. River Water Conservation Dist.*, 891 P.2d 952, 972.(Colo. 1995); *People v. Emmert*, 198 Colo. 137, 141, 597 P.2d 1025, 1027 (1979); *R.J.A., Inc. v. Water Users Assoc.*, 690 P.2d 823 (1984). The legislative determinations to define a range of artesian pressure, preclude appropriation from reduction of water consumption by nonirrigated native vegetation and to require water uses be sustainable are supported by competent evidence and have a rational basis. The very words "maximum" and "optimum" suggest there is a limit to be reached. "Optimum" suggests the balancing which the cases since *Fellhauer* have suggested is a legislative role. The General Assembly has taken up that charge and established "sustainability" as a defining limitation on maximum or optimum utilization in this Basin.

492. If *Fellhauer v. People*, 167 Colo. 320, 447 P.2d 986 (1968) opened the curtain on "the new drama of *maximum utilization* and how constitutionally that doctrine can be integrated into the law of *vested rights*," the 1969 Water Rights and Determination Act represents the "second act" of administration and creative augmentation. SB 04-222 begins the "third act" with a guiding principle that an optimum or maximum use must be sustainable.

**E. The Artesian Pressure Conditions in the Rules and SB 04-222 are Reasonably Related to Protection of Senior Rights, the Rio Grande Compact Obligation and Sustainability of the Aquifers**

493. The Protestors asserted that SB 04-222 and the Rules improperly seek to maintain artesian pressure in a range and at an average that occurred during the years 1978 to 2000 without giving a valid legal basis for requiring that range or average to be maintained. The Protestors asserted that SB 04-222 and the Rules themselves are unlawful and unconstitutional. They asserted that the artesian pressure<sup>82</sup> in the confined aquifer represents a small fraction of

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<sup>82</sup> Artesian pressure is also referred to as hydrostatic pressure. For example, an "artesian well" is defined as "a well tapping an aquifer in which the static water level in the well rises above where it is first encountered in the aquifer, due to hydrostatic pressure." Section 37-90-103(3), C.R.S. (2005); see also *Danielson v. Castle Meadows, Inc.*, 791 P.2d 1106, 1111 n.5 (Colo. 1990) ("The hydrostatic pressure level of an aquifer at a particular location is the height to which water will rise in a well at that location. If the hydrostatic pressure level is at the top of the aquifer or

the water in the confined aquifer and that, given the Rules' limits on future withdrawals, the vast majority of the water in the confined aquifer can never be appropriated, in violation of the constitutional right to appropriation.

494. One of the objectives of the Rules is to implement the statutory mandate for maintenance of artesian pressure in the confined aquifer within the same ranges and at an average similar to those that occurred during the years 1978 through 2000. Rule 3.F. The Rules impose conditions on new withdrawals of groundwater from the Confined Aquifer System to meet this objective. Rule 6.B.4. These conditions were not independently established by the State Engineer in the Rules. The General Assembly specifically directed the State Engineer to apply those principles in regulating the Confined Aquifer System in Division 3:

4(a) . . . In regulating an aquifer or system of aquifers in Division 3, *the state engineer shall apply the following principles:*

\* \* \*

(III) . . . *Artesian pressures shall be allowed to increase in periods of greater water supply and shall be allowed to decline in periods of lower water supply in much the same manner and within the same ranges of fluctuation as occurred during the period of 1978 through 2000, while maintaining average levels similar to those that occurred in 1978 through 2000.*

Section 37-92-501(4)(a)(III) C.R.S. (emphasis supplied). Thus, the Protestors' challenge to the range and average artesian pressure conditions is a challenge to section 37-92-501(4)(a)(III) rather than to the Rules, since the Rules simply apply the artesian pressure conditions specified in the statute.

495. One of the purposes for maintaining the artesian pressure levels within a specific range and average is to maintain a sustainable water supply in the confined and unconfined aquifers. Sustainability of the Confined Aquifer System is a valid legal basis for the artesian pressure requirements in SB 04-222. Without maintenance of the artesian pressure there can be no sustainability of the aquifers. The Court has discussed the concept of sustainability at length in Part XI of this opinion. Under current conditions, there is a trend of declining artesian pressure levels. Mr. Simpson and Dr. Knox testified that maintaining artesian pressure levels is critical to assure sustainability of the confined and unconfined aquifers and that maintaining a sustainable water supply in each aquifer system requires maintenance of artesian pressures levels. The ongoing decline in artesian pressure levels is an indication that total usage exceeds recharge and, therefore, that the current and/or increased use of the confined and the unconfined aquifers is not sustainable. Maintaining average levels similar to those that occurred in 1978 through 2000 is intended to prevent injury to vested water rights, section 37-92-501(4)(a), maintain a sustainable water supply in the confined aquifer, section 37-92-501(4)(a)(I), and prevent underground water

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below, the aquifer is not under artesian conditions.”); *American Water Development, Inc. v. City of Alamosa*, 874 P.2d 352, 367 (Colo. 1994) (“The artesian condition results from a recharge of the confined aquifer by waters entering the aquifer at higher elevations at the edges of the Valley and the limited permeability of the blue clays separating the two aquifers [the unconfined and the confined aquifers].”) Of course, the term “artesian pressure” in a confined aquifer system is not the same thing as the water contained within the aquifer.

use from interfering with the state's ability to fulfill its obligations under the Rio Grande Compact, section 37-92-501(4)(a)(V). The period of 1978-2000 represents a period of time for which relatively better records are available and which includes a range of historical fluctuations in the artesian pressure. The period is noted for the stability in the artesian pressure with the ranges noted. The purpose of limiting allowable pressure fluctuations to this range is to prevent any long-term and continuing decline in artesian pressures and thus to maintain a sustainable water supply in the confined and the unconfined aquifers.

496. As testified to by Eric Harmon and State Engineer Hal Simpson, the artesian pressure conditions are also intended and necessary to prevent aquitard compaction and resulting land subsidence. Prevention of land subsidence is a valid legal basis for the artesian pressure conditions in SB 04-222 and is within the General Assembly's authority. See *Chatfield East Well Co. v. Chatfield East Property Owners Ass'n*, 956 P.2d 1260, 1272 (Colo. 1998) ("Like the other standards and requirements applicable to use rights for Denver Basin water, this legislative prescription functions to maintain surface supply to prior appropriators as depletions occur.... This decision is within the legislature's plenary power."); *State Engineer v. Castle Meadows*, 856 P.2d 496 (1993) at 505-06 (allowing the applicants to take credit for urban runoff from land surfaces that had been made impermeable would undermine countervailing interests that the legislature sought to protect).

497. The Protestors admitted that absent replacement to the aquifer, new withdrawals will cause a lowering of artesian pressure levels, but they asserted that these pressure level declines will dampen out and a new, lower equilibrium level will be reached. This argument is discussed at length in Part XI. Even if it were true that the effect of a particular well will dampen out and stabilize over time, since artesian pressure levels in the entire Confined Aquifer System are continuing to decline, the effect of the new well will be to exacerbate that decline. To achieve sustainability there can be no unreplaced new or increased uses. Second, the "dampening" effect that the Protestors asserted would occur is the result of a reduction in water consumption by nonirrigated native vegetation and the use of that groundwater as part of the supply for the new well. But the statutes previously cited are clear that unappropriated water is not made available and injury is not prevented as the result of a reduction in water consumption by nonirrigated native vegetation.

498. The Court finds that there is a rational basis for the provisions of the statute and Rules which seek to maintain artesian pressures in a range and at an average that occurred during the years 1978 to 2000. Further, the Court finds that the Rules do not interpret SB 04-222 in a way that is unlawful, unconstitutional, or arbitrary and capricious. The Court finds that SB 04-222 (section 37-92-501(4)(a)) itself is lawful and constitutional. The Protestors have failed to carry their burden to establish the unconstitutionality of the provisions of SB 04-222 beyond a reasonable doubt.

**F. The General Assembly’s Determination Not to Permit “Appropriation” of ET is Constitutional**

499. The Protestors asserted that as a result of SB 04-222 and the Rules, a new appropriation of water from the confined aquifer will be prohibited even if the only effect of such diversions would be to reduce water consumption by nonirrigated native vegetation. The Court notes, to begin with, that this hypothetical circumstance is not physically possible as the extensive testimony concerning the RGDSS Groundwater Model Water Budget and the RGDSS in general showed.

500. Rule 6.A.2 provides that “unappropriated water is not made available and injury is not prevented as a result of the reduction of water consumption by nonirrigated native vegetation.” Rule 6.B.7 repeats that provision, and adds, “reduction of consumption by nonirrigated native vegetation may not be used. . . (b) as a source of unappropriated water available for new ground water withdrawals. . . .” SB 04-222 contains the following language:

(b) In adopting rules pursuant to paragraph (a) of this subsection (4), the state engineer shall:

(III) not recognize the reduction of water consumption by phreatophytes as a source of replacement water for new water users to replace existing depletions, or as a means to prevent injury from new water uses; and that unappropriated water is not made available and injury is not prevented as a result of the reduction of water consumption by nonirrigated native vegetation. Section 37-92-501(4)(b)(III), C.R.S.

501. The Protestors asserted that such a rule is unconstitutional as the use of water by nonirrigated native vegetation is not a vested water right under Colorado law, but rather simply a part of the natural hydrologic balance in the San Luis Valley. See Protestors’ Exhibit No. P-1, Professional Opinion No. 22.

502. Protestors acknowledged that the reduction or elimination of naturally occurring consumptive use resulting from artificial drainage projects or the eradication of phreatophytes, has been specifically disapproved by both the Supreme Court and the legislature as a source of augmentation. See Colo. Rev. Stat. section 37-92-103(9) (1997); *Giffen v. State*, 690 P.2d 1244 (Colo. 1984); *R.J.A., Inc. v. Water Users Ass’n of Dist. No. 6*, 690 P.2d 823 (Colo. 1984); *Southeastern Colorado Water Conservancy Dist. v. Shelton Farms, Inc.*, 529 P.2d 1321 (Colo. 1974); *City of Aurora v. Colorado State Engineer*, 105 P.3d 595, 608 (Colo. 2005).

503. Consistent with sections 37-90-137(12)(a), 37-90-137(12)(b)(I), and 37-92-305(6)(c), the Rules recognize that “unappropriated water is not made available and injury is not prevented as a result of the reduction of water consumption by nonirrigated native vegetation.” The General Assembly has directed that a reduction in consumption by nonirrigated native vegetation may not be claimed as a source of unappropriated water or to prevent injury. This is clearly within the General Assembly’s authority as discussed above in Section D of this Part XIII. As the Supreme Court has stated:

The water rights sought here are based upon alterations of long existing physical characteristics of the land. Alteration of natural conditions and vegetation in order to save water carries with it the potential for adverse effects on soil and bank stabilization, soil productivity, wildlife habitat, fisheries production, water quality, watershed protection and the hydrologic cycle. See Harrison and Sandstrom, *The Groundwater-Surface Water Conflict and Recent Colorado Water Legislation*, 43 U.Colo.L.Rev. 1, 2 (1971); F. Trelease, *Water Law: Resource Use and Environmental Protection* 59 (2d ed. 1974). Whether to recognize such rights, and thus to encourage innovative ways of reducing historical consumptive uses by modifying conditions found in nature, is a question fraught with important public policy considerations. As such, the question is especially suited for resolution through the legislative process.

*R.J.A., Inc. v. Water Users Ass'n of Dist. No. 6*, 690 P.2d 823, 828 (Colo. 1984); see also *Giffen v. State*, 690 P.2d 1244 (Colo. 1984). The General Assembly has resolved the issue of recognizing rights to unappropriated water and preventing injury as a result of the reduction of water consumption by nonirrigated native vegetation by directing that the State Engineer shall recognize that unappropriated water is not made available and injury is not prevented as a result of such reductions. This is clearly within the authority of the General Assembly. See also *City of Aurora v. Simpson*, 105 P.3d at 608 ("An applicant may not claim credit for salvaged water in a plan for augmentation. This rule applies to all native vegetation, whether or not it is classified as phreatophytic." (Internal citations omitted.)

504. Dr. Knox explained in his testimony that if artesian pressure levels are maintained in accordance with section 37-92-501(4)(a)(I) and (III), and any new withdrawals from the Confined Aquifer System are required to replace effects to artesian pressure, there will be no reduction in ET<sub>g</sub> by phreatophytes.

505. The Protestors argued that while the Supreme Court has rejected the public trust doctrine, Rule 6.A.2 is an attempt to impose the public trust doctrine with respect to Water Division No. 3. In *People v. Emmert*, 198 Colo. 137, 597 P.2d 1025, 1028-29 (1979), the Supreme Court read the provisions of section 5 of Article XVI of the Colorado Constitution to provide for a right of appropriation of water and not a broader public right of access for recreational purposes. The opinion relied on existing precedent and noted:

"If a change in long established judicial precedent is desirable, it is a legislative and not a judicial function to make any needed change." We specifically note that it is within the competence of the General Assembly to modify rules of common law within constitutional parameters.

506. Protestors acknowledged that the General Assembly has provided for the public to appropriate water for in-stream purposes through appropriation and adjudication by the Colorado Water Conservation Board. Section 37-92-102(3), C.R.S.; see also *Board of County Comm'rs of Arapahoe County v. United States*, 891 P.2d 952, 971-72 (Colo. 1995). In doing so, the 1973 addition to the Water Right Determination and Adjudication Act of 1969 deleted the diversion

requirements from the definition of an appropriation and at the same time in SB 73-97 enacted:

For the benefit and enjoyment of present and future generations, 'beneficial use' shall also include the appropriation by the State of Colorado in the manner prescribed by law of such minimum flows between specific points or levels for and on natural streams and lakes as are required to preserve the natural environment to a reasonable degree. Section 37-92-102(3), C.R.S.

507. *Emmert* acknowledges the authority of the General Assembly to legislate to protect the environment. While the Supreme Court rejected the public trust doctrine, "Colorado law nevertheless imposes a constitutionally based public duty on state officials to maintain the availability and suitability of the waters of the natural stream for appropriation and use by state citizens."<sup>83</sup>

508. Rule 6.A.2 is not an attempt to impose the public trust doctrine with respect to Water Division No. 3. It is founded in the relationship between the hydrostatic pressure and the protection of senior water rights and the ability to meet the Rio Grande Compact obligation as required by the "public duty" describe by *Hobbs & Raley* above. The Supreme Court signaled the General Assembly that it could and should define the limitations of optimum utilization. SB 04-222 does so by requiring sustainability, maintaining hydrostatic pressure and prohibiting the "appropriation" of ET. Moreover, environmental and economic concerns are proper factors for determination of the limits of optimum utilization. See discussion of a sustainable aquifer above in section D.

509. It is conceded that a plan of augmentation that did not replace ET would adversely affect artesian pressure. The evidence shows overwhelmingly that this would injure senior water rights and the ability to meet the Rio Grande Compact obligation. The General Assembly may consider environmental and economic concerns in seeking a sustainable optimum use. There are clearly rational bases for the General Assembly's decisions to manage artesian pressure, to preclude appropriation of ET and more generally to establish the principle of sustainability in the sense already discussed.

#### **G. The Protestors' Challenge Based on the Right to Appropriate Guaranteed by the Colorado Constitution**

510. The Protestors asserted that SB 04-222 is unconstitutional because it attempts to proscribe the right to appropriate available water guaranteed by the Colorado Constitution. They assert that the artesian pressure in the confined aquifer represents a small fraction of the water in the confined aquifer and that, given the Rules' limits on future withdrawals, the vast majority of the water in the confined aquifer can never be appropriated, in violation of the constitutional right to appropriation. The arguments put forth by the Protestors relating to their right to appropriate unappropriated water repeat the arguments fully addressed in the previous sections C, D, E and F of this Part XIII.

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<sup>83</sup>Gregory J. Hobbs, Jr. and Bennett W. Raley, *Water Rights Protection in Water Quality Law*, 60 U. Colo. L. Rev. 841, 882

511. Protestors argued that the General Assembly cannot require that artesian pressure levels in the Confined Aquifer System be maintained at average historical levels to prevent material injury because it cannot prohibit the right to divert unappropriated water. Joint Resp. at 10. Protestors cited *Cache La Poudre Water Users' Ass'n v. Glacier View Meadows*, 191 Colo. 53, 61, 550 P.2d 288, 294 (1976), for the proposition that even in an overappropriated basin, water is available for appropriation when the diversion therefrom does not injure holders of vested rights. Protestors argued that this is consistent with the principle that “if by placing conditions upon the use of a well, or upon its owner, some or all of its water can be placed to a beneficial use by the owner without material injury to senior users, such conditions should be made.” *Id.* (quoting *Fellhauer v. People*, 167 Colo. 320, 334, 447 P.2d 986, 993 (1968)). Therefore, Protestors contended that, absent a showing of material injury, the right to make a new appropriation is protected by the constitution, and neither the legislature nor the State Engineer can preclude such appropriation. *Id.* (citing *City of Aurora v. State Eng’r*, 105 P.3d at 607); *Park County Sportsmen’s Ranch LLP v. Bargas*, 986 P.2d 262, 275 (Colo. 1999).

512. During trial, the Protestors’ expert, Bruce Lytle, P.E., recognized that withdrawals in excess of the rate of recharge results in groundwater mining. He went on to testify that additional water could be withdrawn from the confined aquifer if depletions to surface water rights caused by such withdrawals were replaced and the impacts on artesian pressure and nonirrigated native vegetation were ignored. Mr. Lytle rejected the suggestion that there is any relationship between artesian pressure and material injury and thus rejected in its entirety the statute and Rules requiring the maintenance of hydrostatic pressure and requiring 100% replacement of withdrawals. The Court has addressed this argument previously.

513. It is undisputed that by 1900, all streams in the San Luis Valley were overappropriated. Rule 5.F asserts the Rio Grande Basin in Colorado, including the unconfined aquifer and the Confined Aquifer System is overappropriated. This Court has confirmed this finding in this case and this Court and the Supreme Court have previously denied an application to construct a new well because an enlargement of the applicant’s right “in the overappropriated systems of the San Luis Valley would necessarily be injurious to other vested rights.” *State Engineer v. Bradley*, 53 P.3d 1165, 1171 (Colo. 2002).

514. The Court restates its Finding that under current conditions the withdrawals from the confined aquifer and unconfined aquifer exceed the long-term inflow to those aquifers and as a result both aquifers are in an overdraft or mining condition. State’s Exhibit 11, *John Allen Calvert Davey C.R.C.P. 26(a)(2) Disclosure* at p. 1 – 3; State’s Exhibit 13, *Colo. R. Civ. P. 26(a)(2) Disclosure of Dr. Kenneth W. Knox, Ph.D., P.E.*, at p. 3; State’s Exhibit 16, *Colo. R. Civ. P. 26(a)(2) Disclosure of Hal D. Simpson, P.E.*, at p. 3; State’s Exhibit 19, *Colo. R. Civ. P. 26(a)(2) Disclosure of Steven E. Vandiver, P.E.*, at p. 3 – 4.

515. The Rules also contain a finding that “[u]nless properly augmented, new withdrawals of groundwater within the scope of these rules that will affect the rate or direction of movement of water in the Confined Aquifer System will materially injure vested water rights and increase the burden of Colorado’s scheduled deliveries under the Rio Grande Compact.” Rule 5.F. *City of Aurora v. Simpson*, 105 P.3d at 607 held that: “Where surface water is overappropriated, Colorado law presumes that ground water depletions through well-pumping result in injury to

senior appropriators absent a showing to the contrary.” (citations omitted); *Alamosa-La Jara Water Users*, 674 P.2d at 928. The evidence admitted at trial also overwhelmingly supports this finding.

516. The Protestors did not contest these findings in the Rules and agreed that depletions to surface streams from new withdrawals affecting the Confined Aquifer System must be replaced.

517. We see that the arguments put forward to support the assertion that the Rules deny the right to appropriate unappropriated water restate the arguments already addressed in previous sections. At most, the principle of maximum use gives Protestors a right to prove that diversions can be made from the confined aquifer without injury to other vested water rights.

518. Yet, as *City of Aurora v. State Eng’r*, 105 P.3d 595 (2005) makes clear, the General Assembly has the authority to regulate the factors that may be considered in determining the absence of injury. The Supreme Court noted:

Although we continue to uphold the principle of maximum utilization, we have recognized in our more recent decisions that not only must that goal sometimes yield to protect vested rights, but that it must also be implemented so as to ensure that water resources are utilized in harmony with the protection of other valuable state resources.

519. In Section D of this Part XIII, the Court has quoted similar language from *City of Thornton v. Bijou Irrigation Co.*, 926 P.2d 1, 94-95 (Colo. 1996), *State Engineer v. Castle Meadows*, 856 P.2d 496 (1993) at 505, *Southeastern Colo. Water Conservancy Dist. v. Shelton Farms, Inc.*, 187 Colo. 181, 191, 529 P.2d 1321, 1327 (Colo. 1974), *R.J.A., Inc. v. Water Users Ass’n of Dist. 6*, 690 P.2d 823 (Colo.1984), and *Alamosa-La Jara Water Users Assoc. v. Gould*, 674 P.2d 914 (Colo.1983).

520. Thus, where the withdrawal of groundwater would cause material injury, the General Assembly has the authority to direct that artesian pressure levels shall be maintained in the Confined Aquifer System to protect vested rights and to ensure water resources are used in harmony with the protection of other valuable resources.

521. SB 04-222 does not proscribe the right to appropriate water guaranteed by the Colorado Constitution. The Colorado Supreme Court has held that the right guaranteed by the Colorado Constitution is the right to divert the *unappropriated* waters of any natural stream, not a right to appropriate waters that have already been appropriated. *Empire Lodge Homeowners’ Ass’n v. Moyer*, 39 P.3d 1139, 1147 (Colo. 2001). Where adjudicated priorities are not being filled as a result of pumping, groundwater is not unappropriated. *Kuiper v. Well Owners Conservation Ass’n*, 176 Colo. at 143, 490 P.2d at 280. Thus, where withdrawals of groundwater would cause material injury to other users, the groundwater is not unappropriated and there is no constitutional right to appropriate such water. *Id. Empire Lodge*, 39 P.3d at 1147; see *State Eng’r v. Bradley*, 53 P.3d at 1167 & n.2 (upholding the State Engineer’s denial of an application for a well permit to change the location of a well because he was unable to find that unappropriated water was available for the proposed well or that the vested rights of other

appropriators would not be materially injured). Therefore, SB 04-222 does not proscribe the right to appropriate unappropriated waters guaranteed by the Colorado Constitution.

#### **H. There is a Rational Basis to Adopt Rules for New Withdrawals Prior to Further Regulation of Existing Withdrawals**

522. Protestors objected to the selective regulation of new withdrawals from the confined aquifer and asserted that regulation of both new uses in the unconfined aquifer and existing uses in the confined and unconfined aquifers are necessary to achieve sustainability. Since 1972, the State Engineer has imposed a moratorium on new appropriations of groundwater (except exempt wells) in the unconfined aquifer outside of the Closed Basin and in 1981 imposed the same condition on new appropriations from the unconfined aquifer within the Closed Basin. However, the Protestors asserted that since the Rules address only new uses from the confined aquifer, they could not be promulgated separately from rules regulating all existing groundwater uses. This does not follow. As Mr. Simpson and Dr. Knox testified, the intent of the State Engineer is to pursue regulation of the confined and unconfined aquifers in order to maintain a sustainable water supply in a step-wise process. The State Engineer first adopted these Rules to govern new withdrawals affecting the Confined Aquifer System based on the General Assembly's direction. Second, rules requiring measurement of groundwater withdrawals were pending in this Court during the trial and have since been approved by this Court.<sup>84</sup> Third, the formation of groundwater management subdistricts to address existing uses in both aquifers is underway with one subdistrict formed as of the date of this order.<sup>85</sup> And, rules governing existing uses will be adopted in the future if the subdistricts are not formed and/or fail to implement a water management plan that meets the standards of section 37-92-501(4), C.R.S.

523. There is no legal requirement that all the parts of the management scheme must be included in a single regulatory enactment. The management and regulation of existing uses of groundwater involve additional considerations that rules for new uses from the confined aquifer do not and are, therefore, appropriately treated separately. Thus, there is a rational basis for adoption of the Rules before the State Engineer addresses regulation of existing uses of groundwater from the confined and unconfined aquifers.

524. Moreover, the Rules were adopted in compliance with the General Assembly's mandate to promulgate rules and regulations for *new withdrawals of groundwater affecting the Confined Aquifer System* based on specific study of the Confined Aquifer System prior to a specified date. Section 37-90-137(12) (b)(1).

525. With respect to existing groundwater uses, in SB 04-222 the General Assembly provided that the State Engineer "shall have wide discretion to permit continued use of underground water consistent with preventing material injury to senior surface water rights." Section 37-92-501(4)(a). It directed that any reduction in existing underground water use shall be the minimum amount necessary to meet the standards of section 37-92-501(4). Further, the General Assembly set forth additional criteria for adopting rules and regulations to reduce existing underground water use, including recognizing contractual agreements among water users and the Rio Grande

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<sup>84</sup> See order entered in Water Div. 3, 2005 CW 12.

<sup>85</sup> See order entered July 6, 2006, in 2006 CV 64.

Water Conservation District. Legislation is not unconstitutional because the General Assembly directed the State Engineer to address new withdrawals separately from existing uses, and the Rules are not unconstitutional because the State Engineer chose to adopt rules for new withdrawals first.

526. The General Assembly establishes its priorities in many ways. It chose to fund a decision support system on the Colorado River first. It chose to fund the decision support system on the Rio Grande next. The General Assembly chose to require well regulations for new wells in the confined aquifer as one of several steps designed to bring about the integrated regulation of surface and groundwater as envisioned in the 1969 Act and to necessarily protect senior water users and comply with the obligations under the Rio Grande Compact. The General Assembly also added a new word, “sustainability,” to the vocabulary and principles governing administration of water law in Division 3. The Protestors objection to this regulation in steps is not well-founded. The logic supporting the provisions of SB 04-222 was fully presented in the legislation and is supported by overwhelming testimony at trial.

527. The regulation of water has almost always proceeded in a piecemeal manner. The Adjudication Acts of 1879<sup>86</sup> and 1881<sup>87</sup> only provided for the identification of irrigation rights by priority and quantity through judicial proceedings.<sup>88</sup> It was not until 1903 that adjudication of water rights for municipal and other purposes was provided.<sup>89</sup>

528. “Colorado water law has taken shape in the interaction between the water users, their advocates, the judiciary, the legislature, and the water officials.”<sup>90</sup> Each has acted cautiously given the importance of water to the state. When federal money became available for construction of water storage and distribution, the agricultural interests in this state took advantage of it with the encouragement and assistance of state legislation.<sup>91</sup> The 1902 Reclamation Act led to the formation of the various water conservation districts, water conservancy districts and irrigation districts which the legislature empowered to take advantage of the new funding for reservoirs and canals. While the General Assembly recodified the adjudication law in 1943, including provision for supplemental adjudication and transfers of water rights to changed uses, the General Assembly made no provision for adjudication of rights to groundwater.

529. As Justice Hobbs writes concerning this interplay in water law:

Opinions of the Colorado Supreme Court often planted the seed. How to address tributary groundwater in the absence of legislative direction, for example, became a groundbreaking question. In 1951, the court established a presumption that all groundwater which finds “its way to the stream in the watershed of which it lies,

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<sup>86</sup> 1879 Colo. Sess. Laws 99-100

<sup>87</sup> 1881 Colo. Sess. Laws 142

<sup>88</sup> See generally, Hobbs, Gregory J. *Colorado Water Law: An Historical Overview*, 1 U.Denv. Water L. Rev. 1

<sup>89</sup> 1903 Colo. Sess. Laws 298

<sup>90</sup> Hobbs, Gregory J., *1969 Water Adjudication Act, Settling In*, 3 U. Denv. Water L. Rev. 1, 11

<sup>91</sup> Reclamation Act, ch. 1093, 32 Stat. 388 (1902)

is tributary thereto, and subject to appropriation as part of the waters of the stream.”<sup>92</sup>

530. The General Assembly created a Groundwater Commission and required registration of wells in 1957, but it focused attention on the depletion of groundwater in the Eastern High Plains.<sup>93</sup> This Act left unanswered the relationship of surface and tributary groundwater. The Supreme Court spoke to this issue in one of the cases frequently cited during this trial. In *City of Colorado Springs v. Bender*, 366 P.2d 552, at 555 (Colo. 1961), the Supreme Court asserted a judicial responsibility to protect “relative priorities” of waters of the natural stream “whether visible or not” and “even though they have never been made the subject of a statutory adjudication.” The case goes on to discuss the effect of a junior well upon the flow in a senior well nearby.

531. In 1965 the General Assembly responded to the *Bender* decision in part and enacted the Groundwater Management Act which did grant the State Engineer power to permit, condition or deny permits for new wells. It directed the State Engineer to “execute and administer the laws of the state relative to the distribution of the surface waters of the state including the underground waters tributary thereto in accordance with the right of priority of appropriation.”<sup>94</sup> Further, the Act authorized the State Engineer to “adopt such rules and regulations and issue such orders as are necessary for the performance of the foregoing duties.”<sup>95</sup>

532. Still, the focus of that Act was the management of designated groundwater basins where the water was defined by statute as non-tributary. This narrow focus reflected the enormous growth taking place on the Front Range and the need to provide water for that growth. But, with many farmers now using both wells and surface water conjunctively, and the pressure from neighboring states to guarantee delivery of water under the various interstate compacts to which Colorado is a party, the need to administer tributary groundwater was well recognized and water users were looking for greater certainty regarding the relationships of these water rights.

533. It is only and finally the enactment of the Water Right Determination and Administration Act of 1969,<sup>96</sup> that established the intent to administer surface and groundwater rights in an integrated manner. Until the 1969 Act, all efforts at water administration were piecemeal. The legislative directives in SB 04-222 provide for the enactment of rules in stages leading to integrated administration of all the waters of the Basin. This step-wise process is supported by historical precedent as well as the inherent logic for doing so.

534. At trial, the Protestors also suggested that the State Engineer could regulate existing wells to require augmentation of out-of-priority depletions to surface streams by issuing curtailment orders to existing well owners. However, as State Engineer Hal Simpson explained, the regulation of existing wells to require augmentation of surface streams is not simply a matter of sending out orders to existing well owners. The State Engineer’s prior effort to regulate existing withdrawals of underground water in Division 3 demonstrates that the regulation of existing

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<sup>92</sup> *Safranek v. Town of Limon*, 228 P.2d 975, 977 (Colo. 1951), cited in Hobbs, *supra* at 12.

<sup>93</sup> Act of May 1, 1957, ch. 289, sections 3, 5, 1957 Colo. Sess. Laws 863, 863-69.

<sup>94</sup> Act of May 3, 1965, ch. 318, § 1, 1965 Colo. Sess. Laws 1244, 1244.

<sup>95</sup> *Id.*

<sup>96</sup> See ch. 373, sec. 1, sections 148-21-1 through 148-21-45, 1969 Colo. Sess. Laws 1200, 1200-1219.

withdrawals requires a consideration of many factors. *Alamosa-La Jara Water Users*, 674 P.2d at 934; see also *Fellhauer v. People*, 167 Colo. at 334, 447 P.2d at 993. Indeed, *Fellhauer* contains the following language:

Regulation of wells in the Arkansas Valley as contemplated by the 1965 Act, in order to be valid and constitutional, must comply with the following three requirements:

- (1) The regulation must be under and in compliance with reasonable rules, regulations, standards and a plan established by the state engineer prior to the issuance of the regulative orders.
- (2) Reasonable lessening of material injury to senior rights must be accomplished by the regulation of the wells.
- (3) If by placing conditions upon the use of a well, or upon its owner, some or all of its water can be placed to a beneficial use by the owner without material injury to senior users, such conditions should be made. *Fellhauer v. People*, 167 Colo. 320, at 334, 447 P.2d 986, at 993 (Colo. 1968)

535. In 1975, the State Engineer promulgated proposed rules and regulations for Division 3, that, among other things, provided for the phasing out of existing underground water diversions from the confined aquifer unless the underground water user submitted proof that the user's well was operating under a decreed plan for augmentation or had a decree as an alternate point of diversion or that the underground water appropriation could occur without impairing the right of a senior appropriator. *Alamosa-La Jara Water Users*, 674 P.2d at 919. The Colorado Supreme Court upheld the presumption of material injury to senior rights from groundwater withdrawals based on the finding of material injury on a Valley-wide basis, *Id.* at 931, but remanded the rules and regulations for consideration of the policy of "maximum-optimum utilization" and the "reasonable-means-of-diversion" doctrine. *Id.* at 931-36.

536. The State Engineer did not re-promulgate the rules and regulations following the remand because, at least in part, the major water users in the San Luis Valley agreed to a division of the yield of the Closed Basin Project to avoid further litigation. While their wells were not "dry," their pocketbooks were. The water users looked for alternative ways to protect senior water rights and meet the obligations of the Rio Grande Compact. Those efforts have been recited in depth elsewhere in this opinion. The understaffed division engineer has been criticized for not moving forward to propose new rules or otherwise administering the wells in priority. The completion of the Closed Basin Project, the Exchange decrees, the use of recharge pits and more efficient sprinklers are some of the steps outlined previously that were undertaken to protect the aquifers, meet the Compact obligation and allow the economy of the San Luis Valley to operate. The Basin enjoyed a period of better-than-average moisture which made the status quo appear better than the alternatives. However, as outlined already, no water interest in the Valley believed that these steps by themselves would be sufficient and thus almost all interests joined to support the development of the Rio Grande Decision Support System and the development of the groundwater model.

537. However, during the recent severe and extended drought, water levels in the unconfined aquifer and the artesian pressure in the confined aquifer declined significantly and the yield of the Closed Basin Project has declined as well. The State Engineer recognizes that regulation of

existing withdrawals in some manner is necessary, but the State Engineer must consider many factors, including those in SB 04-222, before proceeding with the regulation of existing uses. The Rules are not unconstitutional because the State Engineer adopted rules to govern new withdrawals before proceeding with the regulation of existing uses. The State Engineer is following the direction given by the General Assembly and proceeding in reasonable steps to regulate the Rio Grande Basin in accordance with fundamental principles of Colorado water law as well as the specific provisions for this Basin.

538. The Protestors returned throughout the trial to an argument asserting that since the existing irrigation wells do not have augmentation plans they are all pumping “out-of-priority” implying that this pumping has been illegal. This pumping has occurred lawfully pursuant to vested rights. There were no rules and regulations in effect that required curtailment of diversions by those wells. When the 1975 Rules were rejected, well owners were left free to pump their fully adjudicated wells in accordance with their decrees, but the well owners in the San Luis Valley did not simply go on as they had in the past. They understood then as they have in their arguments to this Court, that the surface and groundwater in the Basin are overappropriated and that steps needed to be taken to protect the aquifers. Those steps are fully detailed in depth elsewhere.

539. Protestors also contended that the artesian pressure level conditions in the Rules would not be necessary if the State Engineer regulated existing withdrawals of groundwater in priority. The Protestors offered no facts to support this claim. They simply implied that if augmentation were required, existing pumping would be substantially reduced. The State and other Proponents have demonstrated that the aquifers are being mined. The Court thus concurs that the legislatively determined goal of sustainability cannot be achieved without a reduction in withdrawals from the aquifers by existing adjudicated water rights. While the General Assembly might have chosen to leave the moratorium on new wells in place to prevent any new withdrawals from the confined aquifer until the State Engineer put in place rules for existing adjudicated wells to bring the Basin into a sustainable state, the legislative choice in this matter is supported by a rational basis.

540. In a prior section of this opinion, the Court has determined that the RGDSS groundwater model is useful for the evaluation of proposed new withdrawals from the confined or unconfined aquifers. This Court has also suggested that as the State Engineer accumulates real data on the pumping from existing wells, the model will become more accurate. The RGDSS groundwater model will also give a much more accurate picture of the impact of the existing adjudicated wells on the surface streams and artesian pressure. Obviously, if the State Engineer determines that individual plans of augmentation for existing wells will be required, the RGDSS groundwater model will be an important tool in measuring material injury and evaluating a proposed plan of augmentation. To the extent that Protestors suggested that the State Engineer needs to focus on the existing wells, the Court agrees that learning more about the existing withdrawals is an important and necessary task for the water division. This Court has ordered measuring devices to accomplish this task. But that need does not negate the logic of the priority set by the General Assembly. When we know that all sources of water in the Basin are overappropriated and that the storage is in decline and that this decline is threatening the rights of the senior surface rights and the ability to meet the Rio Grande Compact obligation, the first step is to ensure no further damage is done. The Proponents used the expression “stop the drilling.” The State Engineer

knew this to be true years ago, and the moratorium in place represents this long-held viewpoint. The proposed Rules allow new wells but require 100% replacement of the withdrawal from the confined aquifer. That requirement is fully supported by the present state of the science reflected in the evidence presented to this Court.

541. The Protestors also implied that the RGDSS groundwater model should have used lower estimates of pumping to account for the asserted “out-of-priority” pumping by existing wells. This would not have been appropriate. The model must be based on the best estimates of actual historical conditions to provide the best possible calibration and reliability. Then one can pose hypothetical problems to the model. But even when the model is used to make future projections to determine the impacts of pumping from existing wells, the Protestors’ contention is flawed. Rules and regulations requiring augmentation of out-of-priority depletions to surface streams would not necessarily reduce well pumping substantially. Augmentation of out-of-priority depletions to senior surface rights in accordance with rules and regulations that meet the requirements that the Colorado Supreme Court announced in *Alamosa-La Jara Water Users* would allow continued well pumping to occur and would avoid curtailment.<sup>97</sup>

542. The State Engineer testified that the aquifer will not be sustainable under current levels of pumping even if surface augmentation is required. Clearly, the replacement of injury to users on the surface streams is necessary but alone is not sufficient to attain sustainable aquifer management. The General Assembly has mandated certain steps. The State Engineer has proposed rules to carry out that mandate. It is reasonable to start with rules for new withdrawals from the confined aquifer; measurement of actual pumping in all aquifers; and a window of opportunity for the water users to propose, by way of new subdistricts, plans for reduction in water use that brings the aquifers into a sustainable state. There should be no doubt in anyone’s mind that if these steps do not bring the aquifer into a sustainable state, the State Engineer will follow the steps previously authorized in the Water Right Determination and Adjudication Act of 1969 and require a plan of augmentation for individual wells on a basin-wide scale. With the RGDSS groundwater model as a tool, this would be a feasible but expensive and time-consuming task. The statutory provisions of SB 04-222 and HB 98-1011 make distinctions and impose requirements that are supported by a rational basis in the evidence before the Court.

### **I. The Protestors’ Vagueness Challenges**

543. Protestors asserted that the Rules are vague, arbitrary and capricious. Protestors offered little evidence at trial to try to demonstrate that SB 04-222 is unconstitutionally vague or that the Rules are vague, arbitrary, or capricious, although these arguments were addressed in substantial pretrial argument and briefs.

544. A statute or regulation can be impermissibly vague for two reasons: (1) “if it fails to provide people of ordinary intelligence a reasonable opportunity to understand what conduct it prohibits,” or (2) “if it authorizes or even encourages arbitrary and discriminatory enforcement.” *Hill v. Colorado*, 530 U.S. 703, 732 (2000) (citing *Chicago v. Morales*, 527 U.S. 41, 56-57

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<sup>97</sup> See section 37-92-102(2)(a), C.R.S., which provides: Water rights and uses vested prior to June 7, 1969, in any person by virtue of previous or existing laws, including an appropriation from a well, shall be protected subject to the provisions of this article.

(1999)); *see also City of Colorado Springs v. Board of County Comm'rs of Eagle County*, 895 P.2d 1105, 1114 (Colo. App. 1994) (applying the same standard to regulations). Under this standard, a statute or regulation is impermissibly vague if “persons of common intelligence are required to guess at the law’s meaning.” *Board of Educ. of Jefferson County. Sch. Dist. R-1 v. Wilder*, 960 P.2d 695, 703 (Colo. 1998); *see also Village of Hoffman Estates, Inc. v. Flipside*, 455 U.S. 489, 501 (1982); *Wilder*, 960 P.2d at 703; *Coates v. City of Cincinnati*, 402 U.S. 611, 614 (1971). Moreover, the General Assembly need not define terms with such precision as would be “impracticable under the circumstances.” *Colo. River Water Conservation Dist. v. Colo. Water Conservation Board*, 594 P.2d 570, 577 (Colo. 1979). A statute can also be unconstitutionally vague if it fails to provide fair notice of the prohibited conduct such that the law “invite[s] arbitrary and discriminatory enforcement.” *Wilder*, 960 P.2d at 703. The fact that a statute gives some degree of discretion to the enforcement authority, however, does not make it unconstitutionally vague. *Hill*, 530 U.S. at 733. As long as the statute provides the enforcement authority with “sufficiently definite standards to ensure uniform, non-discriminatory enforcement,” the statute will be upheld. *Loonan v. Woodley*, 882 P.2d 1380, 1389 (Colo. 1994) (citation omitted). Moreover, “[i]t is well settled that when reviewing a statute upon a challenge of unconstitutionality due to vagueness, the duty of the reviewing court is to construe the statute so as to uphold its constitutionality whenever a reasonable and practicable construction may be applied to the statute.” *Loonan*, 882 P.2d at 1389 (internal quotation marks removed and citations omitted). Also, “the degree of vagueness tolerated by the Constitution depends on the nature of the enactment being challenged.” *Wilder*, 960 P.2d at 704. When a regulation does not involve constitutionally protected speech or criminal penalties, a greater degree of vagueness is tolerated. *Id. Flipside*, 455 U.S. at 498-99 (“The Court has also expressed greater tolerance of enactments with civil rather than criminal penalties because the consequences of imprecision are qualitatively less severe.”)

545. The Protestors asserted that the Rules are vague, arbitrary, and capricious because they reference an “effect [on] the rate and direction of movement of water” which is not defined; and, they asserted, the Rules further make an unexplained assumption that this “effect” will “materially injure vested water rights” and Rio Grande Compact deliveries. *See e.g. SLV Water Co. Protest* at paragraphs 4, 17.A.

546. Rule 3.A. states that the Rules apply to any new withdrawal of groundwater from the Confined Aquifer System in Water Division 3 “that will affect the rate or direction of movement of water in the Confined Aquifer System, including a well permit application for a new, increased, or additional supply of groundwater from the Confined Aquifer System...” Rule 3.A. (emphasis supplied). The emphasized language is identical to the language in section 37-90-137(12)(b)(I), which required a judicially approved plan for augmentation for any well permit application in Water Division 3 that involved a new groundwater withdrawal “that will affect the rate or direction of movement in the Confined Aquifer System,” which is subject to the requirements of rules for the withdrawal of such groundwater within Water Division 3 promulgated by the State Engineer. Section 37-90-137(12)(b)(I). *See also* sections 37-90-137(12)(a) and 37-92-305(6)(c), C.R.S. (2005), which contain the same language.

547. In the absence of a specific definition by the governmental authority promulgating the challenged term, it will be given its commonly accepted definition. *Price v. City of Lakewood*, 818 P.2d 763, 766 (Colo. 1991); *Sellon v. City of Manitou Springs*, 745 P.2d 229, 233 (Colo.

1987). The word “affect” is defined as “to produce an effect upon.” *Webster’s Third New International Dictionary* 35 (1976). A synonym for “affect” is “influence.” *Id.* The phrase “influence the rate or direction of movement of water” is a familiar one. “Underground water” in the 1969 Act is defined as “water in the unconsolidated alluvial aquifer of sand, gravel, and other sedimentary materials and all other waters hydraulically connected thereto which can influence the rate or direction of movement of the water in that alluvial aquifer or natural stream.” Section 37-92-103(11), C.R.S. (2005) (emphasis added). That language has been used for 37 years in the 1969 Act to define “underground water” for the purposes of the Act, see Ch. 373, sec. 1, section 148-21-3(4), 1969 Colo. Sess. Laws 1200, 1201 (currently codified at section 37-92-103(11), C.R.S. (2005)), and has been interpreted in a number of cases. *Dist. 10 Water Users Ass’n v. Barnett*, 198 Colo. 291, 599 P.2d 894 (Colo. 1979); *Wadsworth v. Kuiper*, 193 Colo. 95, 562 P.2d 1114 (Colo. 1977); *Kuiper v. Lundvall*, 187 Colo. 40, 529 P.2d 1328 (Colo. 1974), *cert. denied*, 421 U.S. 996 (1975).

548. Language must be sufficiently precise to permit persons of ordinary intelligence to understand its meaning. See e.g. *Walker v. Jim Fuoco Motor Co.*, 942 P.2d 1390, 1392-93 (Colo. App. 1997) (The phrase “loss of use of any member” is sufficiently precise to permit persons of common intelligence to understand its meaning); *Allstate Products Co. v. Colo. Dept. of Labor & Employment*, 782 P.2d 880, 882 (Colo. 1989) (The term “customarily engaged in” is sufficiently specific to withstand a constitutional vagueness challenge). A standard is not unconstitutionally vague if it can be implemented by an agency having specific expertise in this area. *Colo. River Water Conservation Dist.*, 594 P.2d at 576 (While standards set forth called for evaluations by biologists, standards could be implemented by agencies having specific expertise; and term “natural environment” was not unconstitutionally vague); *Sellon v. City of Manitou Springs*, 745 P.2d at 233 (“Due process of law requires neither scientific nor mathematical exactitude in legislative draftsmanship.”) The Court finds that the phrase “affect the rate and direction of movement of water” is sufficiently precise for persons of ordinary intelligence to understand its meaning and for the State Engineer to implement the standard. In fact, the experts were all able to understand this term and apply it to show that every withdrawal hypothetically posed to the RGDSS groundwater model affected the rate and direction of movement of water.

549. The Protestors also challenged the Rules on vagueness grounds because the average and range of artesian pressure between 1978 and 2000 is undefined, nor is the location of measurement, and also because the Rules do not define whether this limitation is intended to be applied locally or regionally and does not specify how the two artesian pressure limits (average and range) would be applied. A law is only unconstitutionally vague in the sense that no standard is specified at all. *Wilder*, 960 P.2d at 703. Rules are not unconstitutionally vague simply because the application of the Rules requires judgment on the part of an official as to how they will be applied. See *Price v. City of Lakewood*, 818 P.2d at 767 (“[T]here necessarily must be some degree of latitude remaining in the municipal zoning authorities to construe and to apply the ordinance.”); *Colo. River Water Conservation Dist.*, 594 P.2d at 576 (factual determinations should be delegated to an administrative agency which may avail itself of expert scientific opinion).

550. The Court finds that this language is not unconstitutionally vague. The evidence presented at trial explained how the average and range of artesian pressures between 1978 and 2000 would be determined. Moreover, the relationship between sustainability and artesian

pressure has been discussed at length. In that context, the explanation of the State Engineer regarding the methodology for determining the artesian pressure range is reasonable and is not vague. The vagueness arguments put forth in this proceeding mirror the objections to section 37-92-102(3) put forth in *Colo. River Water Conservation Dist. v. Colo. Water Conservation Board*, 594 P.2d 570, 577 (Colo. 1979), where it was argued that the directive and delegation to the Colorado Water Board to appropriate water was improper and that the General Assembly did not define the phrase “natural environment” nor what it meant by requiring “such minimum flows ...as are required to preserve the natural environment.” The Supreme Court rejected the challenge to that statute finding the term “natural environment” was not so vague that it did not convey the task which the General Assembly intended the Colorado Water Board to accomplish. *Colo. River Water Conservation Dist., supra* at 577. The legislative history of SB 04-222 reflects the understanding of the General Assembly and the context in which it knew the RGDSS and groundwater model would soon provide a greatly increased and comprehensive understanding of the aquifers. It chose a reasonable benchmark period for the State Engineer to use in evaluation. This is a reasonable delegation. The General Assembly has established the job to be done with sufficient clarity. It has also made clear who must do the job and the limits of their authority. *Swisher v. Brown*, 157 Colo. 378, 402 P.2d 621 (1965); *People v. Giordano*, 173 Colo. 567, 481 P.2d 415 (1971); *Colo. River Water Conservation Dist. v. Colo. Water Conservation Board*, 594 P.2d 570, 577 (Colo. 1979).

551. The Protestors also asserted that the Rules do not adequately define or document the extent or parameters of the Confined Aquifer System that is intended to be regulated, including “those areas in Water Division 3...which provide inflow to the confined aquifer.” See e.g. *SLV Water Co. Protest* at paragraphs 4, 17.C. The general extent and parameters of the Confined Aquifer System are defined in the Rules. Rule 4.A.1 defines the “confined aquifer” as follows:

“Confined aquifer” means the formations, groups of formations, or parts of formations underlying portions of Water Division 3 consisting in part of unconsolidated clays, silts, sands, gravels, and interbedded volcanic rock and containing saturated permeable material that yields water under artesian pressure that is or may be extracted and applied to a beneficial use. The confined aquifer includes any formation, group of formations, or part of a formation containing saturated permeable material that yielded water under artesian pressure during the period 1978-2000, whether or not the water level in the formation, group of formations, or part of a formation is under artesian pressure conditions at the time of the proposed new withdrawal of ground water.

552. Rule 4.A.2 defines “Confined Aquifer System” to mean “the confined aquifer and those areas in Water Division 3 not overlying a confining layer, but which provide inflow to the confined aquifer” (emphasis supplied). An example of areas not overlying a confining layer, but which provide inflow to the confined aquifer is the so-called “recharge” or “transition” zone depicted on State’s Exhibit 121 and also described by both Mr. Lytle and Mr. Harmon in their testimony. While it may require a trained expert to determine whether an area provides inflow to the confined aquifer, the legal issue is whether the definition is sufficiently specific to be

comprehensible to persons of ordinary intelligence. See e.g. *Price v. City of Lakewood*, 818 P.2d at 767 (a nuisance ordinance, while required to give fair warning by specifying the conduct prohibited, also must be sufficiently general to address the essential problem under varied circumstances); *Colo. River Water Conservation Dist.*, 594 P.2d at 576 (factual determinations should be delegated to an administrative agency which may avail itself of scientific opinion). The Protestors presented no evidence at trial to suggest that the extent or parameters of the Confined Aquifer System to be regulated, including the areas in Division 3 which provide inflow to the confined aquifer, were not sufficiently specific to be comprehensible by a person of ordinary intelligence.

553. The Rules also state that the “RGDSS provides a basis for understanding the relationship between surface streams and the Confined Aquifer System...” Rule 5.E. “RGDSS” is defined to mean “the Rio Grande Decision Support System, including the RGDSS groundwater model, developed by the Colorado Water Conservation Board and the Colorado Division of Water Resources.” Rule 4.A.6. Information about the extent and parameters of the Confined Aquifer System is available from the RGDSS and the RGDSS groundwater model and is relevant to the vagueness issue. See *Loonan*, 882 P.2d at 1390 (designation of “the laws governing the circulation of petitions” was not unconstitutionally vague because the election laws are codified and available to the general public, and the Secretary of State distributes manuals which provide the procedural requirements for the initiative process, including the rules for circulating petitions); *Colorado Dog Fanciers, Inc. v. City and County of Denver*, 820 P.2d 644, 651-52 & n.5 (Colo. 1991) (“pit bull” ordinance was not vague because characteristics could be readily ascertained by referring to official standards which were available in the office of the city and county clerk and recorder); *C.F. Robertson v. City and County of Denver*, 874 P.2d 325, 335 (Colo. 1994) (section of ordinance defining assault weapon to include semi-automatic pistols that are modifications of rifles held to be vague because the section did not provide sufficient information to determine whether a pistol was covered and, “[u]nlike the ordinance at issue in *Colorado Dog Fanciers*, the assault weapon ordinance does not specify any source which would aid in defining what an assault pistol is.”) Moreover, the Rules do not have to include a detailed description of the extent or parameters of the Confined Aquifer System that would be impractical under the circumstances. *Colo. River Water Conservation Dist.*, 594 P.2d at 577. The Court finds that the extent and parameters of the confined aquifer are sufficiently described in the Rules. And, even if the extent and parameters of the confined aquifer were not adequately described in Rules 4.A.1 and 4.A.2, the parameters could be ascertained from the RGDSS Study.

## **J. Equal Protection**

554. Protestors argued that SB 04-222 and the Rules deny similarly situated parties equal protection under the law in violation of Article II, section 25 of the Colorado Constitution and the Fourteenth Amendment of the U.S. Constitution. With respect to water rights, equal protection claims are subject to the rational basis standard. If the statute in question is devoid of a rational relationship to a legitimate state objective, it is unconstitutional. See *Central Colo. Water Conservancy Dist. v. Simpson*, 877 P.2d 335, 340, 341 (Colo. 1994).

555. Protestors argued that these Rules do not apply to the unconfined aquifer nor do they apply to existing wells in the confined aquifer even though both aquifers are interconnected and overappropriated. Thus they asserted that SB 04-222 and the Rules violate equal protection

under the law by treating similarly situated persons – those drawing groundwater from the unconfined aquifer and those drawing groundwater from the confined aquifer – differently without a rational basis for doing so. Protestors asserted that both aquifer systems are similar in that: (1) they are hydraulically connected; (2) they are both tributary sources under the law; and (3) movants allege they are overappropriated. *Id.* Protestors argued that if the unconfined aquifer remains unregulated, the conditions set forth in the Rules concerning artesian pressure will be violated naturally without any further appropriations.

556. Protestors also argued that SB 04-222 and the Rules arbitrarily treat tributary groundwater users in the confined aquifer of Water Division 3 differently than tributary groundwater users in all other areas of Colorado, without a rational basis for doing so. Finally, Protestors argued that SB 04-222 and the Rules establish a different standard for existing surface water users in Water Division 3 with respect to reasonable means of diversion by allowing existing surface water users in Water Division 3 to maintain inefficient surface diversions, thereby violating the doctrine of maximum utilization.

557. These arguments are without merit. Protestors have failed to demonstrate that persons who are similarly situated are treated differently. Persons who seek to make new withdrawals from the confined aquifer and persons who seek to make new withdrawals from the unconfined aquifer are not similarly situated simply because both aquifers are hydraulically connected, both are tributary, and both are overappropriated. The confined aquifer and the unconfined aquifer systems are separate aquifer systems, and one is under artesian pressure and the other is not. This is a valid reason for addressing new withdrawals from the Confined Aquifer System separately from new withdrawals from the unconfined aquifer, and the testimony received in this trial amply illustrates the differences between the aquifers and why they must be viewed jointly and individually to achieve a sustainable water basin. As this Court stated in the *AWDI* case:

The unconfined aquifer and the confined aquifer, although hydraulically connected at various points, have different hydrologic properties and generally act as two separate hydrologic units. They have long been treated as separate units by the Colorado State Engineer when granting or denying well permits. The water rights within these aquifers have been separately administered by State water officials for at least 30 years. The Applicant's effort to treat the two aquifers as a single aquifer is not based in fact and will not be adopted by the Court.

See Findings of Fact, Conclusions of Law, Judgment and Decree dated February 10, 1992, *In re Application of American Water Development, Inc.*, Case No. 86-CW-46, at paragraph 58.

558. Second, even if persons seeking to make new withdrawals from both aquifers are similarly situated in some respects, the General Assembly directed the State Engineer to adopt rules and regulations for withdrawals from the Confined Aquifer System and could have reasonably concluded that the problems the Rules were meant to address – including land subsidence and preventing reliance on water “salvaged” from non-irrigated native vegetation and/or phreatophytes – were more acute than in the case of withdrawals from the unconfined aquifer because of the impacts from further declines in artesian pressure in the confined aquifer. *Bowen v. Owens*, 476 U.S. 340, 347 (1986) (The Court has consistently recognized that in

addressing complex problems a legislature may take one step at a time, addressing itself to the phase of the problem which seems most acute to the legislative mind); *Califano v. Jobst*, 434 U.S. 47, 57-58 (1977) (same); *Williamson v. Lee Optical Co.*, 348 U.S. 483, 489 (1955) (same).

559. Moreover, the General Assembly had previously concluded that the hydrologic system in Water Division 3 and, in particular, the hydrology and geology of the shallow aquifer and the Confined Aquifer Systems and their relationships to surface streams in Water Division 3 are unique and among the most complex in the State and that, unless properly augmented, new withdrawals of groundwater affecting the Confined Aquifer System can materially injure vested rights and increase the burden of Colorado's scheduled deliveries under the Rio Grande Compact. Ch. 231, sec. 1, section 37-90-102(3)(a), 1998 Colo. Sess. Laws 852. (repealed by Ch. 231, sec. 2, section 37-90-102(3)(b), 2003 Colo. Sess. Laws 1595, 1596 (Exhibit F), eff. July 1, 2004). There is a legitimate reason for adopting separate legislation and Rules to govern new withdrawals from the Confined Aquifer System in Water Division 3 that do not apply to tributary groundwater users in all other areas of Colorado. Not all new withdrawals are from complex aquifers under artesian pressure, and new withdrawals from aquifers in other areas of the State would not increase the burden of Colorado's scheduled deliveries under the Rio Grande Compact.

560. With respect to Protestors' argument that SB 04-222 and the Rules established a different standard for existing surface water users in Water Division 3 with respect to reasonable means of diversion, this argument must also fail on equal protection grounds. The Rio Grande Compact and Colorado's scheduled deliveries under the Compact were based on the physical conditions peculiar to the territory drained and served thereby and the development thereof. See Rio Grande Compact, Art. XV, codified at section 37-66-101, C.R.S. (2005). Therefore, the General Assembly could reasonably have concluded that further declines in artesian pressure would unreasonably interfere with Colorado's obligations under the Rio Grande Compact, which were based on the physical conditions and development in the Rio Grande Basin, justifying a different standard for surface water users in Water Division 3. While it is not apparent that SB 04-222 and the Rules establish a different standard for existing surface users in Water Division 3 with respect to reasonable means of diversion, there would be a rational basis to do so. See *Bowen v. Owens*, *supra*; *Califano v. Jobst*, *supra*; and *Williamson v. Lee Optical Co.*, *supra*.

561. Finally, as emphasized many times, the Court sees the interrelationship of these Rules, the other aspects of SB 04-222, and other steps taken and yet to be taken by the State Engineer, as directly intended to "integrate the appropriation, use, and administration of underground water tributary to a stream with the use of surface water in such a way as to maximize the beneficial use of all the waters of the state." Section 37-92-102(1)(a), C.R.S.

#### **K. Water Court Review of Rules and Regulations Adopted by the State Engineer**

562. Two-thirds of the way through the trial in this matter, Protestors raised for the first time a challenge to the way in which the State Engineer proceeded in proposing the Rules.<sup>98</sup> The

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<sup>98</sup> This matter was first raised orally following the testimony of the State Engineer. The Court requested a written motion, and the Protestors then filed a written motion and memorandum on this issue on March 23, 2006.

Protestors argued that the Rules are void because the State Engineer did not submit them for formal oversight review pursuant to section 24-4-103(8), C.R.S. This issue came as a surprise since the State Engineer proceeded in regard to these Rules as he and his predecessors have in the past with regard to other rulemaking and in accordance with the direction of the Supreme Court in *Kuiper v. Well Owners Conservation Ass'n*, 176 Colo. 119, 490 P.2d 268 (1971); *Kuiper v. Gould*, 196 Colo. 197, 583 P.2d 910, 913 (Colo. 1978).<sup>99</sup>

563. The State Engineer and division engineers must “administer, distribute, and regulate the waters of the state” in accordance with the constitution of the State of Colorado, the 1969 Act, and other applicable laws and may adopt rules and regulations to assist in the performance of these duties. Section 37-92-501(1), C.R.S. (2005). This is generally referred to as the “water rule power” of the State Engineer. See, *Kuiper v. Gould*, 196 Colo. 197, 583 P.2d 910, 913 (Colo. 1978); *Simpson v. Bijou Irr. Co.*, 69 P.3d 50, 65 (Colo. 2003). The State Engineer has the additional basis for adoption of rules and regulations necessary to enforce interstate compacts pursuant to section 37-80-104, C.R.S. This is referred to as the “compact rule power.” *Kuiper v. Gould*, 196 Colo. 197, 583 P.2d 910, 913 (Colo. 1978); *Simpson v. Bijou Irr. Co.*, 69 P.3d 50, 65 (Colo. 2003). Rules and regulations promulgated by the State Engineer are presumed to be valid until shown otherwise by a preponderance of the evidence. *Kuiper v. Well Owners Conservation Ass'n*, 176 Colo. 119, 139, 490 P.2d at 268, 277.

564. Determining the validity of rules and regulations of the State Engineer is a “water matter” within the exclusive jurisdiction of the state’s specially appointed water judges. *Kuiper v. Well Owners Conservation Ass'n*, 176 Colo. 119 at 130-31, 490 P.2d 268 at 273-74 (1971). In *Kuiper v. Well Owners Conservation Association*, the Supreme Court found that the 1969 Act granted exclusive jurisdiction over challenges to rules and regulations of the State Engineer to water judges, as “[i]t would be illogical – in fact nearly unthinkable – for the General Assembly to set up a system for the determination of ‘water matters’ and to provide for the selection of judges skilled in this field of law to preside as water judges, and then turn the determination to a non-water judge of a subject that goes to the very heart of the administration of water.” *Id.* It is the province of the appropriate water judge to hear challenges to rules and regulations adopted by the State Engineer, and it is the water judge’s duty to determine whether the rules have a “reasonable basis in law.” *Colorado Ground Water Comm’n v. Eagle Peak Farms, Ltd.*, 919 P.2d 212, 220 (Colo. 1996).

565. Accordingly, the provisions of the State Administrative Procedure Act, such as those requiring that an agency promulgating rules must first submit them to the Attorney General for a determination of constitutionality and legality, do not apply to rules and regulations adopted to assist in the State Engineer’s duty to “administer, distribute and regulate the water of the state” under section 37-92-501(1). See section 24-4-107 (provisions of the State APA do not apply where a specific statutory provision controls). As the Supreme Court said in discussing the rule-making authority of the State Engineer in *Kuiper v. Gould*, 196 Colo. 197, 202, 583 P.2d 910, 913 (Colo. 1978):

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<sup>99</sup> Indeed, the Court cited essentially the same cases and principles in the pretrial order dated November 14, 2005, addressing the jurisdiction of the water court.

It is crystal clear that, in order to promulgate and enforce rules for compliance with Compact commitments, the State Engineer must promulgate and enforce appropriate rules for the administration of water rights. The latter rules must of necessity be under the authority of the “water rule power.” Any achievement under the “compact rule power” will be dependent upon and inextricably commingled with rules under the “water rule power.” Promulgation, adoption and approval or disapproval of the proposed rules under both sets of procedures would be analogous to driving a wagon with teams hitched to each end pulling in opposite directions.

The General Assembly adopted the Water Right Determination and Administration Act of 1969 following intensive and extensive debate and study. It is inconceivable that it would at that time, with its perspective of the subjects involved, remove the “compact rule power” from the last mentioned Act and place it under the State Administrative Procedure Act. It was obviously the legislative intent that rule making be accomplished under the “compact rule power” in a proceeding conducted in accordance with the Water Right Determination and Administration Act of 1969; and we so hold.

566. The Court finds that the Protestors have failed to carry their burden of proof to establish the invalidity of the Rules and that the Rules conform to the applicable requirements of law and should be approved as promulgated by the State Engineer.

**XIV. Judgment and Decree.**

567. The foregoing Findings of Fact and Mixed Findings of Fact and Conclusions of Law are incorporated into this judgment and decree. WHEREFORE based upon the foregoing Findings of Fact and Mixed Findings of Fact and Conclusions of Law, the Court hereby denies the protests filed to the Rules and ORDERS that the Rules Governing New Withdrawals of Ground Water in Water Division 3 Affecting the Rate or Direction of Movement of Water in the Confined Aquifer System are hereby APPROVED as promulgated and filed with this Court on June 30, 2004, in Case No. 2004 CW 24, and shall become effective upon entry of this decree.

DATED this 9th day of November, 2006.

BY THE COURT  


HON. O. JOHN KUENHOLD,  
WATER JUDGE  
WATER DIVISION NO. 3