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ADVANCE SHEET HEADNOTE  
November 2, 2009

MODIFIED AND PETITION FOR REHEARING DENIED  
November 23, 2009

**No. 08SA354, Pagosa Area Water and Sanitation District and San Juan Water Conservancy District v. Trout Unlimited. Conditional Water Right - Maximum Utilization - Optimum Use - Amount of Water Reasonably Necessary to Meet Districts' Reasonably Anticipated Needs for 2055 Planning Period Above Current Water Supply - Non-speculative Intent to Appropriate and Can and Will Test - § 37-92-103(3) - § 37-92-305(9)(b) - Unsupported Inclusion in Conditional Decree of Water for Hypothetical Recreational In-Channel Diversion, Instream, and/or Bypass Flows**

On remand from the Supreme Court's decision in Pagosa I, the District Court for Water Division No. 7 entered a conditional decree for the Pagosa Area Water and Sanitation District and the San Juan Water Conservancy District based upon a planning period extending to the year 2055. In this appeal, Trout Unlimited contends that the planning period should extend only to the year 2040. The Supreme Court upholds the Water Court's finding that the 2055 planning period is reasonable, but agrees with Trout Unlimited that current evidence in the record does not support the conditionally-decreed amounts of water. The Supreme Court returns the case to the Water Court for additional evidence regarding specified decree provisions and a

determination of water amounts reasonably necessary to serve the Districts' reasonably anticipated needs in the 2055 period, above its current water supply.

<p>SUPREME COURT, STATE OF COLORADO Two East 14<sup>th</sup> Avenue Denver, Colorado 80203</p> <p>Appeal from the District Court Water Division 7, Case No. 04CW085 Honorable Gregory G. Lyman, Judge</p>	<p>Case No. 08SA354</p>
<p>Concerning the Application for Water Rights of the Pagosa Area Water and Sanitation District and the San Juan Water Conservancy District in the San Juan River and its Tributaries in Archuleta County.</p> <p><b>Applicants-Appellees:</b></p> <p>Pagosa Area Water and Sanitation District and San Juan Water Conservancy District,</p> <p>v.</p> <p><b>Opposer-Appellant:</b></p> <p>Trout Unlimited,</p> <p>and</p> <p><b>Appellees pursuant to C.A.R. 1(e):</b></p> <p>Dick Wolfe, State Engineer and Rege Leach, Division 7 Water Engineer.</p>	
<p>JUDGMENT REVERSED EN BANC November 2, 2009</p> <p><b>Opinion modified, and as modified, Petition for Rehearing DENIED, EN BANC.</b></p> <p><b>November 23, 2009</b></p>	

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JUSTICE HOBBS delivered the Opinion of the Court.

In this appeal, we review the conditional water right judgment and decree the District Court for Water Division No. 7 entered on remand from our decision in Pagosa Area Water & Sanitation District v. Trout Unlimited ("Pagosa I"), 170 P.3d 307 (Colo. 2007). Trout Unlimited contends that the applicant districts, Pagosa Area Water and Sanitation District and the San Juan Water Conservancy District (collectively "Districts"), have failed to meet their burden of demonstrating that the conditionally-decreed amounts of water in the remand decree are reasonably necessary to serve their reasonably anticipated needs for a reasonable water supply planning period.<sup>1</sup>

The remand decree provides for a planning period of 50 years, through the year 2055, with an appropriation date of December 20, 2004, for San Juan River diversions at the Dry

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<sup>1</sup> Trout Unlimited states the issues for review as follows:

- A. Whether Applicants demonstrated the 50-year water rights planning horizon adopted by the water court to be reasonable;
- B. Whether Applicants substantiated population projections, based on a normal rate of growth, for the 50-year planning period;
- C. Whether Applicants demonstrated that the decreed amounts of water are reasonably necessary to serve projected population through the planning period.

The Districts correctly point out that Trout Unlimited's issue C does not reflect the language of our modified decision on rehearing in Pagosa I, and should read:

- C. Whether the Applicants demonstrated that the decreed amounts of water are reasonably necessary to serve the reasonably anticipated needs of the governmental agency for the planning period, above its current water supply.

Gulch Pumping Station in the following amounts: a direct flow right of 100 cubic feet per second ("cfs") into storage at the Dry Gulch Reservoir; a maximum annual storage of 25,300 acre-feet of water in the reservoir; and an independent direct flow right of 50 cfs directly into the Districts' water system for use anywhere in their service area.

Trout Unlimited contends that the Water Court should have adopted a water supply planning period extending to the year 2040. We disagree. We uphold the Water Court's determination that a 50-year water supply planning period to the year 2055 is reasonable. However, in light of the standards we set forth in Pagosa I, we hold that the evidence currently in the record does not support the amounts of water contained in the remand conditional decree. The essential function of the water court in a conditional decree proceeding is to determine the amount of available unappropriated water for which the applicant has established a need, a future intent, the ability to actually use, and, under the "can and will" test, a substantial probability that its intended appropriation will reach fruition. Pagosa I, 170 P.3d at 317. Section 37-92-305(9)(b), C.R.S. (2009), addressing the "can and will" test provides that

[n]o claim for a conditional water right may be recognized or a decree therefor granted except to the extent that it is established that the waters can be and will be diverted, stored, or otherwise captured, possessed, and controlled and will be beneficially

used and that the project can and will be completed with diligence and within a reasonable time.

In particular, the existing record in this case lacks sufficient evidentiary support for the following conditional decree provisions: (1) provision no. 11.1.6, which provides for water releases to benefit hypothetical recreational in-channel rights, instream flow rights decreed to the Colorado Water Conservation Board, and/or bypass flow requirements of any federal permits obtained for development of the Dry Gulch Reservoir; (2) provision no. 31, which provides for a direct flow diversion right into Dry Gulch storage of 100 cfs to account for the uncertainty of federal bypass flow requirements; (3) provision no. 43, which provides for a direct flow diversion right of 50 cfs into the Districts' water system for use anywhere in the Districts' service area; and (4) provision no. 44, which provides for a storage right of 25,300 acre-feet of water annually in Dry Gulch Reservoir.

We had expected our remand order in Pagosa I to result in the Districts' introduction of additional evidence to support their reasonably justified water supply needs, in light of our conclusion that the conditional decree we reviewed there contained "a planning horizon, diversion rates, and a total volumetric annual consumption amount for stored water far in excess of what the districts initially considered to be

reasonable for water supply planning purposes.” Pagosa I, 170 P.3d at 318. Thus, we returned the case to the Water Court for further proceedings consistent with the standards set forth in our opinion and with leave for the Water Court to take additional evidence in the exercise of its discretion. Trout Unlimited contends that the standards we set forth in Pagosa I required the Districts to introduce additional evidence to support a planning period greater than the year 2040. We agree, but, in light of the Water Court’s remand finding that the year 2055 and not a longer period is a reasonable planning period in this case, a finding we uphold, we also determine that the Districts should be allowed an additional opportunity to introduce evidence demonstrating the conditionally-decreed amounts of water reasonably necessary to serve their reasonably anticipated needs for the 2055 planning period.

Accordingly, we reverse the decree of the Water Court and remand this case for further proceedings consistent with this opinion.

#### I.

On remand from Pagosa I, the Water Court asked the parties whether it should take additional evidence in light of our opinion in the case. Trout Unlimited contended that the Water Court should take additional evidence on the Districts’ planning

period, future population, per capita water usage, current water supplies, future demand for the Districts' water system, and water rights necessary.<sup>2</sup> The Districts contended that the existing record was sufficient to meet their burden of proof under the standards we set forth in Pagosa I. Instead of taking advantage of the opportunity to introduce additional evidence, the Districts tendered a proposed decree with an appropriation date of December 20, 2004, for a 70-year planning period through 2075 to include: (1) a conditional storage right in the amount of 29,000 acre-feet per year for the off-channel Dry Gulch Reservoir; (2) a direct diversion flow right of 100 cfs from the San Juan River at the Dry Gulch Pumping Station and inflow from Dry Gulch into storage at the Dry Gulch Reservoir; and (3) a separate direct diversion flow right from the San Juan River of

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<sup>2</sup> In its brief to the Water Court on remand, Trout Unlimited stated:

TU now respectfully urges the Court to make findings of fact on the Districts' planning period, future population, per capita water usage, current water supplies and future demand for Dry Gulch system water. If the Court finds that there will be demand for Dry Gulch project water in the planning period, TU urges the Court to admit additional evidence regarding the water rights necessary to serve that demand.

(Br. to the Water Court on Remand 469).

50 cfs for use anywhere in the Districts' water supply system.<sup>3</sup>

The decree we reversed in Pagosa I was for a 100-year planning period for a right to store 29,000 acre-feet in Dry Gulch Reservoir along with the right to fill and refill the reservoir continuously in order to achieve a total annual storage volume of 64,000 acre-feet; a 100 cfs direct flow right at the Dry Gulch Pumping Station into storage; and a separate 80 cfs direct flow right at the Dry Gulch Pumping Station for use anywhere in the Districts' water system. Id. at 312.

On remand from Pagosa I, the Water Court accepted most, but not all, of the Districts' proposed remand decree provisions. The remand decree we now review provides for: (1) a conditional storage right in the amount of 19,000 acre-feet, in addition to the 6,300 acre-feet previously decreed, with the right to fill and refill the reservoir continuously in order to accumulate a

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<sup>3</sup> The Districts hold a previous conditional Dry Gulch Reservoir storage decree for 6,300 acre-feet with an appropriation date of July 22, 1967. Pagosa I, 170 P.3d at 310. A 2003 report (Districts' Ex. 75) prepared and submitted to the boards of directors of both Districts documented a water storage need of approximately 12,000 acre-feet in the Dry Gulch Reservoir to meet the 2040 annual demand of the Districts' users; this total amount included a one year "safety supply" in the event of extreme drought. Id. at 310-11. The Districts' boards passed resolutions stating their intent to make new appropriations to achieve the total 12,000 acre-feet storage amount. However, when the Districts filed their initial conditional water rights application, they greatly expanded their claims to include a 100-year water supply planning period in order to fill the capacity of the storage site.

total annual storage volume of 25,300 acre-feet in Dry Gulch Reservoir; (2) a direct diversion flow right of 100 cfs from the San Juan River at the Dry Gulch Pumping Station and inflow from Dry Gulch into storage at the Dry Gulch Reservoir; and (3) a separate direct diversion flow right from the San Juan River at the Dry Gulch Pumping Station of 50 cfs for use anywhere in the Districts' water supply system.

Thus, the Water Court has reduced the Districts' remand storage proposal by 4,000 acre-feet and the separate direct flow diversion into their water supply system from the originally proposed 80 cfs to 50 cfs. It has approved a remand planning period extending to 2055 instead of the Districts' proposed remand planning period extending to 2075. The Water Court has included "reality checks" for review and possible adjustment of the conditionally decreed amounts of water in future six-year diligence periods. These "reality checks" include evaluating (1) actual population growth in the Districts and changes in population growth trends to 2055; (2) actual per capita water usage and conservation effects on water usage to 2055; (3) diversion rates necessary to meet the projected water use and storage demands in 2055, taking into account any imposed federal bypass requirements; and (4) any beneficial or adverse effects of climate change on water system yields and the need for the claimed storage.

In this appeal, Trout Unlimited asserts that the Districts failed to establish on remand from Pagosa I that the water amounts contained in the remand decree are reasonably necessary to meet their reasonably anticipated water supply needs, above the Districts' current water supply, for a reasonable water supply planning period. It argues that the Districts' water supply planning period should not extend beyond the year 2040. Alternatively, Trout Unlimited argues that if the 2055 planning period is justified, the Water Court erred in failing to take additional evidence and make findings of fact applying the standards we set forth in Pagosa I.

The Districts counter that the existing record is sufficient to justify the remand decree under our opinion in Pagosa I. We disagree.

## II.

We uphold the Water Court's determination that a 50-year water supply planning period to the year 2055 is reasonable. However, in light of the standards we set forth in Pagosa I, we hold that the evidence currently in the record does not support the amounts of water contained in the remand conditional decree. The essential function of the water court in a conditional decree proceeding is to determine the amount of available unappropriated water for which the applicant has established a need, a future intent, the ability to actually use, and, under

the "can and will" test, a substantial probability that its intended appropriation will reach fruition. Pagosa I, 170 P.3d at 317. Section 37-92-305(9)(b), C.R.S. (2009), addressing the "can and will" test provides that

[n]o claim for a conditional water right may be recognized or a decree therefor granted except to the extent that it is established that the waters can be and will be diverted, stored, or otherwise captured, possessed, and controlled and will be beneficially used and that the project can and will be completed with diligence and within a reasonable time.

In particular, the existing record in this case lacks sufficient evidentiary support for the following conditional decree provisions: (1) provision no. 11.1.6, which provides for water releases to benefit hypothetical recreational in-channel rights, instream flow rights decreed to the Colorado Water Conservation Board, and bypass flow requirements of any federal permits obtained for development of the Dry Gulch Reservoir; (2) provision no. 31, which provides for a direct flow diversion right into Dry Gulch storage of 100 cfs to account for the uncertainty of federal bypass flow requirements; (3) provision no. 43, which provides for a direct flow diversion right of 50 cfs into the Districts' water system for use anywhere in the Districts' service area; and (4) provision no. 44, which provides for a storage right of 25,300 acre-feet of water annually in Dry Gulch Reservoir.

#### **A. Standard of Review**

Whether an applicant has met the legal standards for a conditional appropriation presents mixed questions of law and fact that we review de novo. City of Thornton v. Bijou Irrigation Co., 926 P.2d 1, 40 (Colo. 1996). We defer to the water court's findings of fact unless the evidence is wholly insufficient to support those determinations. Id. This is a highly deferential standard that properly recognizes the water court's unique ability to evaluate the evidence and make factual determinations in complex water allocation decisions. Id. Nevertheless, the applicant bears the burden of supporting its claims. Id. at 31-32.

Under section 37-92-103(3)(a), C.R.S. (2009), governmental water supply entities have a limited exception from the anti-speculation and beneficial use standards applicable to non-governmental conditional water right appropriators. Pagosa I, 170 P.3d at 315. The conditional appropriation must be consistent with the governmental agency's reasonably anticipated water use requirements based on substantiated projections of future growth within its service area and only a reasonable planning period is allowed. Id. In addition to demonstrating non-speculative intent, a governmental agency must satisfy the "can and will" requirement in order to obtain a conditional decree in accordance with section 37-92-305(9)(b). Id. at 316.

In reliance on Colorado statutory requirements and prior case law, we held in Pagosa I that the limited governmental agency exception to the anti-speculation doctrine should be narrowly construed in order to meet the state's maximum utilization and optimum use goals that work to extend the public's water resource to as many beneficial uses as the available supply will allow. Id. The essential function of the water court in a conditional decree proceeding is to determine the amount of available water for which the applicant has established a need, a future intent, the ability to actually use, and, under the "can and will" test, a substantial probability that its intended appropriation will reach fruition. Id. at 317. The water court should closely scrutinize a governmental agency's claim for a planning period that exceeds fifty years. Id.

The ultimate factual and legal issue in a governmental agency conditional appropriation case involves how much water should be conditionally decreed to the applicant above its currently available water supply. Id. A governmental entity has the burden of demonstrating three elements in regard to its intent to make a non-speculative conditional appropriation of unappropriated water: (1) what is a reasonable water supply planning period; (2) what are the substantiated population projections based on a normal rate of growth for that period;

and (3) what amount of available unappropriated water is reasonably necessary to serve the reasonably anticipated needs of the governmental agency for the planning period above its current water supply. Id. at 313.

In the water court's application of the third element, we articulated four non-exclusive considerations relevant to determining the amount of the conditional water right: (1) implementation of reasonable water conservation measures during the planning period; (2) reasonably expected land use mixes during the planning period; (3) reasonably attainable per capita usage projections for indoor and outdoor use based on the land use mixes during the planning period; and (4) the amount of consumptive use reasonably necessary to serve the increased population. Id. at 317-18.

We disapproved, as speculative in nature, provisions in the Pagosa I conditional decree approving appropriations based upon future hypothetical U.S. Forest Service bypass flow requirements, instream flow water rights of the Colorado Water Conservation Board, and/or recreational in-channel diversion water rights by some other governmental entity, for example, the City of Pagosa Springs. Id. at 318 n.11, 319 n.13.

## **B. Application to this Appeal**

### **1. Sufficient Evidence for 2055 Water Supply Planning Period**

In the remand decree's provisions nos. 13 through 17, the Water Court found that a water supply planning period to the year 2055 for the Districts is reasonable. Trout Unlimited contends that a planning period extending only to the year 2040 is reasonable. We disagree.

The year 2055 planning period is supported by evidence in the existing record and comports with statutory requirements and our decisions in Bijou, 926 P.2d at 40, and Pagosa I, 170 P.3d at 317. On remand from Pagosa I, the Water Court found that the Dry Gulch Reservoir will likely not be ready for use until about 2025, in light of the lengthy lead time necessary for land acquisition, environmental field studies, design and engineering work, obtaining the required permits, and financing, constructing, and filling the reservoir. The Water Court further found that the Dry Gulch Reservoir involves a site chosen because of its uniquely favorable economic, engineering, and environmental characteristics. It concluded that the 50-year planning period approved in Bijou is appropriate for the Districts' conditional water rights application.

We disagree with Trout Unlimited regarding the water supply planning period. In doing so, we observe that Trout Unlimited's expert, John Gerstle, relied on a 2004 State Water Supply Initiative study conducted by the Colorado Water Conservation Board. That study included population and water demand

projections statewide for the year 2030 and for Archuleta County, the service area of the Districts in this case. In 2005, prior to the Water Court's entry of the initial decree, the Colorado General Assembly formalized a statewide water supply planning process incorporating and extending the State Water Supply Initiative. See Colorado Water for the 21st Century Act, §§ 37-75-101 to -107, C.R.S. (2009). As part of this process, the Colorado Water Conservation Board 2004 study has since been expanded to the year 2050.

The year 2055 planning period for the Districts, which the Water Court found to be reasonable in this case on remand from Pagosa I, corresponds well to the current 2050 statewide planning period. Nine regional roundtables and a central Inter-Basin Compact Committee created by the General Assembly are currently addressing the state's 2050 projected population, water supply, and anticipated consumptive and non-consumptive needs, including the San Juan Basin as a whole and Archuleta County therein. See Colorado Water Conservation Board, State of Colorado 2050 Municipal and Industrial Water Use Projections (draft, June 2009), <http://cwcb.state.co.us/NR/rdonlyres/C28C7E0F-0374-4982-8B0E-138C8851BD2F/0/2050MIDemands2050DraftReportFull.pdf>; see also Colorado's Water Supply Future, Cooperation vs. Competition: Coloradans In Search of Common Ground and Workable Solutions 26-

27 (Headwaters, Colorado Foundation for Water Education, Spring 2009).

We now turn to whether the evidence currently in the record supports the Districts' conditional water rights claims allowed in the remand decree.

## **2. Insufficient Evidence for Recreational In-Channel Diversion, Instream Flow, and/or Bypass Flow Claims**

The remand decree approves conditional water appropriations for recreational in-channel rights, instream flow rights, and/or federal bypass flow requirements.<sup>4</sup> Provision no. 11.1.6 authorizes water uses to include "releases to benefit decreed recreational in-channel rights" and "releases to benefit instream flow rights decreed to the Colorado Water Conservation Board." This provision also contains a comprehensive endorsement of the Districts' appropriation and use of water to meet possible federal bypass flow requirements:

In addition to all of the uses described herein, prior to storage, water derived by the exercise of the Subject Water Rights at the described points of diversion may be used by relinquishing a portion thereof to the stream to satisfy bypass flow requirements of any federal permits obtained for development of the Dry Gulch Project.

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<sup>4</sup> A bypass flow condition of a federal permit allows diversion from the stream only if there is a specified flow amount remaining in the stream at the point of diversion.

However, the evidence currently of record in this case does not support the inclusion of such instream and bypass flow water amounts for such uses. The Districts' expert, Steve Harris, testified that the Colorado Water Conservation Board had already appropriated an instream flow water right in the reach of the San Juan River affected by the Dry Gulch Pumping Station. He agreed that the Districts would be required to honor that preexisting senior right and he knew of no instance where the federal government had required a bypass flow in addition to the state's instream flow:

Mr. Peternell: Okay. Are you aware of any instance in which a federal permitting agency has imposed a bypass flow larger than the amount of an existing CWCB instream flow right?

Mr. Harris: No. I'm aware of places where a bypass was imposed, but those places did not have a CWCB instream flow right.

Mr. Peternell: Is it your understanding of the CWCB in-stream flow program that it exists to protect the natural environment?

Mr. Harris: To a reasonable degree.

(Trial Tr. vol. 2, 415, May 4, 2006).

Thus, this evidence demonstrates no basis for the instream flow and bypass provisions of the remand decree. It also illustrates that decree provision no. 30 is purely hypothetical in nature. Remand decree provision no. 30 recites as follows:

Further, Mr. Harris testified that inherent in his flow rate calculations is an assumption that

environmental permits issued by federal agencies for the proposed project will require that a bypass of flow in the San Juan River be made at any time the Districts' water rights are diverted for this project. Ms. Campbell testified that the U.S. Forest Service had imposed a bypass requirement on a recent PAWSD pipeline diversion. Mr. Harris estimates that for this project, the bypass may be twice the instream flow water right that has been adjudicated by the Colorado Water Conservation Board. Mr. Harris stated that his model took into consideration the adjudicated senior instream flow water rights as well as a hypothetical federal permit bypass. Mr. Harris testified that there is a direct relationship between the necessary diversion rates and the size of the flow bypass that is required, because a higher bypass creates a restrictive limit upon the periods of time that water may be diverted. With fewer opportunities to divert, the higher diversion rate will allow a quicker fill during higher streamflow periods. On cross-examination, Mr. Gerstle agreed with this principle.

(Emphasis added).

The existing record is wholly devoid of evidence explaining the factual circumstances justifying imposition of a bypass flow on the Districts' previous pipeline project. It contains no evidence that the Districts have contacted the U.S. Forest Service to determine whether that agency might be considering a bypass flow permit condition in connection with the project in this case. Instead, Mr. Harris simply conjectured that the U.S. Forest Service might require a bypass flow and that it could be twice as much as the Colorado Water Conservation Board's adjudicated prior instream flow water right.

The speculative nature of the Districts' claims for appropriation of water to counter hypothetical recreational in-channel diversion, instream flow, and/or bypass flows is highly significant. On a number of occasions, we have referred and deferred to the General Assembly the issue of how water rights for the environment and recreation should be integrated into the prior appropriation system. See, e.g., Bd. of County Comm'rs v. United States, 891 P.2d 952, 972 (Colo. 1995).<sup>5</sup> In recent decades, the General Assembly has carefully crafted statutory provisions to integrate instream flow and recreational in-channel water rights into the prior appropriation system that first recognized only the development of consumptive use for agricultural, municipal, commercial, and manufacturing water rights. Most notably, the legislature has authorized the Colorado Water Conservation Board to appropriate instream flow

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<sup>5</sup> There we stated:

We have consistently recognized that the General Assembly has acted to preserve the natural environment by giving authority to the Colorado Water Conservation Board to appropriate water to maintain the natural environment, and we will not intrude into an area where legislative prerogative governs. The degree of protection afforded the environment and the mechanism to address state appropriation of water for the good of the public is the province of the General Assembly and the electorate.

Bd. of County Comm'rs, 891 P.2d at 972.

water rights, section 37-92-102(3)-(4), C.R.S. (2009), and local governmental entities to appropriate recreational in-channel diversion water rights, sections 37-92-102(5), 37-92-103(10.3), 37-92-305(13), C.R.S. (2009).

In addition, recognizing that federal agencies -- in particular the Department of Agriculture's U.S. Forest Service and the Department of the Interior's Bureau of Land Management -- have been concerned with maintaining flow levels in streams to meet federal environmental and land use objectives, the General Assembly has explicitly called upon these agencies to work with the Colorado Water Conservation Board for its appropriation of instream flows that will serve both state and federal environmental objectives. § 37-92-102(3). The legislature has also authorized the board to acquire additional water and water rights to increase instream flows within the prior appropriation administration system by means of leases, donations, grants, and/or purchases. Id.

The General Assembly has made such changes to Colorado water law, at least in part, for the purpose of averting federal and state conflict that could result from the exercise of federal regulatory and permitting authority that might include bypass flow conditions attached to special use permits. See Trout Unlimited v. U.S. Dep't of Agric., 320 F. Supp. 2d 1090,

1106 (D. Colo. 2004), appeal dismissed, 441 F.3d 1214, 1219 (10th Cir. 2006).<sup>6</sup>

To avoid unnecessary conflict between state water rights law and the exercise of federal permitting authority, the U.S. Forest Service has recently renewed a memorandum of understanding with the State of Colorado referred to in oral argument before us in this case. See Memorandum of Understanding Between State of Colorado Department of Natural Resources and United States Department of Agriculture Forest Service, U.S. Forest Service, Rocky Mountain Region, Agreement No. 09-MU-11020000-058 (July 10, 2009). This agreement provides for a number of measures intended to reconcile the operation of water diversion and storage facilities on federal lands with Colorado prior appropriation water rights. The agreement includes provisions that the "CWCB and the Forest Service will seek ways to achieve instream flow protection in high priority

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<sup>6</sup> The federal district court stated that

on the rare occasions when bypass flows are required as a condition to the use of federal lands, they neither reflect nor establish a water right; rather, they merely address the nature of the use to which a water right might be put once the right is obtained from the State.

Trout Unlimited, 320 F. Supp. 2d at 1106. The Tenth Circuit dismissed the appeal on jurisdictional grounds because there was no final agency decision in the case appropriate for judicial review.

stream reaches through innovative measures consistent with state and federal law," id. at 3, and "[w]hen conflicts do arise, we agree that they should be resolved by federal and state authorities working together in cooperation with water right holders and where appropriate tribal and local governments and other interested parties," id. at 2.

In Pagosa I, 170 P.3d at 318 n.11, we observed that the Districts' appropriation and use of water amounts for recreational in-channel diversion flow, instream flow, and/or bypass flow were too speculative in nature to be included in the conditional decree. On remand from Pagosa I, the Districts introduced no new evidence to support such amounts, yet the remand decree includes water amounts for these purposes in both of the decreed direct flow diversions for the Dry Gulch Pumping Station at the San Juan River and in the off-channel storage right for the Dry Gulch Reservoir.

In contrast to the present claims for such water amounts, unsupported by the existing record in this case, there could be factual circumstances in which the applicant for a conditional decree has established a substantial probability for the need of such appropriations for use within the water supply planning period. Our prior cases establish that a prerequisite to obtaining a conditional decree is that the applicant must prove a "nonspeculative intent to put the water to beneficial use and,

under the 'can and will' test, a substantial probability that the intended appropriation will reach fruition." Id. at 317.

Thus, an applicant might obtain a conditional water right to benefit Colorado Water Conservation Board instream flow rights, to benefit in-channel diversion rights of another governmental entity, and/or to meet federal bypass flow requirements, if it demonstrates a substantial probability that it will use such amounts during the water supply planning period, thereby justifying the decree award. See Bd. of County Comm'rs v. Upper Gunnison River Water Conservancy Dist., 838 P.2d 840, 849-50 (Colo. 1992) (approving storage and release of water to benefit stream reach for fishery and boating purposes); see also Colo. Water Conservation Bd. v. City of Central, 125 P.3d 424, 438 (Colo. 2005) (holding that instream flow appropriations are a beneficial use of water).

Thus far, these are not the facts in the case before us. The record contains no evidence that the Colorado Water Conservation Board intends to increase its existing instream flow appropriation in a way that might impact the Districts' use of water in their municipal system for the 2055 planning period. In addition, although authorized by the recreational in-channel diversion statute to make in-channel diversion appropriations of their own, the Districts have not chosen to do so. Instead, they have attempted to appropriate water quantities they may not

need within their service system in order to obtain a priority over a potential City of Pagosa Springs kayak course. Moreover, conjecturing that the U.S. Forest Service might require bypass flows in addition to the existing adjudicated Colorado Water Conservation Board instream flow water right, the Districts claim appropriation amounts they wish to divert and then release back to the stream. The result is that the remand decree contains substantial amounts of water for the two Dry Gulch Pumping Plant direct flow diversion rights and the Dry Gulch Reservoir storage right over and above amounts that are otherwise justified to meet their reasonably anticipated water supply needs for the 2055 planning period.

We had expected our remand order in Pagosa I to result in the Districts' introduction of additional evidence to support their reasonably justified water supply needs, in light of our conclusion that the conditional decree we reviewed there contained "a planning horizon, diversion rates, and a total volumetric annual consumption amount for stored water far in excess of what the districts initially considered to be reasonable for water supply planning purposes." Pagosa I, 170 P.3d at 318. Thus, we returned the case to the Water Court for further proceedings consistent with the standards set forth in our opinion and with leave for the Water Court to take additional evidence in the exercise of its discretion. Trout

Unlimited contends that the standards we set forth in Pagosa I required the Districts to introduce additional evidence to support a planning period greater than the year 2040. We agree, but, in light of the Water Court's remand finding that the year 2055 and not a longer period is a reasonable planning period in this case, a finding we uphold, we also determine that the Districts should be allowed an additional opportunity to introduce evidence demonstrating the conditionally-decreed amounts of water reasonably necessary to serve their reasonably anticipated needs for the 2055 planning period.

If on remand from our decision in this case, the Districts do not demonstrate a substantial probability that they can use specified amounts of water in the 2055 planning period for recreational in-channel, instream flow, and/or bypass flow purposes, the Water Court shall disallow such uses and not include such amounts in the decree.

### **3. Insufficient Evidence for 50 cfs Direct Flow Claim**

Remand decree provision nos. 11.2.4, 11.2.5, 29, and 43 authorize an independent 50 cfs direct flow diversion at the Dry Gulch Pumping Station on the San Juan River for use anywhere in the Districts' system in the future, including in unspecified and undecreed future reservoirs. Although provision no. 29 refers to this 50 cfs diversion as necessary to meet seasonal peak demand in the Districts' service area, provision no. 43

authorizing this diversion right contains no volumetric cap and allows water from this diversion to be used in the open-ended future beyond the 2055 planning period.

Remand decree provisions nos. 11.2.4 and 11.2.5 incorporate provision no. 11.1.6, which authorizes appropriation and use for recreational in-channel flow, instream flow, and/or bypass flow. On remand, in the absence of additional evidence justifying otherwise, the Water Court shall limit this independent direct flow right to the amount of water reasonably necessary for the 2055 planning period to meet seasonal peak demand and address potential outages impeding Dry Gulch Reservoir deliveries into the Districts' water system.

The remand decree contains contradictory provisions regarding use of the 50 cfs diversion. Remand decree provision no. 44 contains a limitation of 25,300 acre-feet of water annually in the Dry Gulch Reservoir. This provision appears to place an overall storage constraint perhaps intended to apply to both the 100 cfs and 50 cfs direct flow diversions. However, remand decree provision no. 11.2.4 pertaining to the 50 cfs direct flow diversion allows water from this diversion to be utilized "for storage in reservoirs owned or controlled by the Co-Applicants." This may include hypothetical future reservoirs in addition to the Dry Gulch Reservoir, in order to meet demand

beyond the year 2055. The Water Court shall address this contradiction on remand from our decision in this case.

**4. Insufficient Evidence for 100 cfs Direct Flow Diversion and 25,300 acre-foot Dry Gulch Reservoir Storage Claims**

A governmental entity has the burden of demonstrating three elements in regard to its intent to make a non-speculative conditional appropriation of unappropriated water: (1) what is a reasonable water supply planning period; (2) what are the substantiated population projections based on a normal rate of growth for that period; and (3) what amount of available unappropriated water is reasonably necessary to serve the reasonably anticipated needs of the governmental agency for the planning period above its current water supply. Pagosa I, 170 P.3d at 313.

In a water court's application of the third element, we articulated four non-exclusive considerations relevant to determining the amount of the conditional water right: (1) implementation of reasonable water conservation measures during the planning period; (2) reasonably expected land use mixes during the planning period; (3) reasonably attainable per capita usage projections for indoor and outdoor use based on the land use mixes during the planning period; and (4) the amount of consumptive use reasonably necessary to serve the increased population. Id. at 317-18.

The evidence currently of record does not demonstrate that the Districts have carried their burden of proving a non-speculative intent to put the water amounts contained in the remand decree to beneficial use and, under the "can and will" test, a substantial probability that the intended appropriations will reach fruition. §§ 37-92-103(3), -305(9)(b); Pagosa I, 170 P.3d at 317. The Water Court allowed the 100 cfs direct flow diversion and the 25,300 acre-feet storage amounts in the remand decree based on speculative claims, at least in part. Remand decree provision no. 31 recites that "the 100 cfs diversion [from the San Juan River into the Dry Gulch Reservoir] strictly for storage shall not be reduced because of the uncertainty of additional bypass requirements associated with federal environmental permits." In addition, some amount of the 100 cfs direct flow diversion may be bypassed back to the stream because provision no. 44 provides that the annual storage amount of 25,300 acre-feet to storage shall not apply to water that the Districts "voluntarily or involuntarily bypassed." Remand decree provision no. 44 allows storage of 25,300 acre-feet of water in the Dry Gulch Reservoir by means of a 100 cfs direct flow diversion right. Some amount of this water, not specified by the Water Court, is allowed to be stored for release to hypothetical instream flow or recreational in-channel diversion rights.

The existing record contains evidence supporting the 2055 water supply planning period and the 200 gallons per capita usage number the Water Court found to be reasonable in the near term. The existing record also supports the proposition that carry over storage may be necessary to meet the Districts' reasonably anticipated 2055 water needs, including recreation and fishing in and on the reservoir, Pagosa I, 170 P.3d at 319, for the reasons stated in remand decree provision no. 26.<sup>7</sup> However, the remand decree does not address the projected land use mix of either the City of Pagosa Springs or Archuleta County for the 2055 planning period. As we said in Pagosa I, assessing a reasonable projection of the mixture of uses and their consumptive amounts will yield monthly and annual consumptive

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<sup>7</sup> Remand decree provision no. 26 states

Mr. Schmidt, Ms. Wessells, Ms. Campbell and Mr. Harris provided testimony on the PAWSD policy of providing for reserve storage equal to the water system annual demand, herein described as the One-year Safety Supply Margin. The Court finds by a preponderance of the evidence that the One-year Safety Supply Margin is reasonably necessary to ensure a reliable water supply for the Co-Applicants' water system, and to provide for the mix of beneficial uses for which the appropriation was made. Mr. Harris included carryover storage equal to the Safety Supply Margin in his modeling. Mr. Gerstle's models assumed reliance upon and use of the entire storage capacity of the reservoir in the driest year modeled, scenarios that would leave no water in the reservoir for the Co-Applicants' Safety Supply Margin nor for the claimed recreation, piscatorial and wildlife uses of the reservoir.

use figures for the water applied to beneficial use. 170 P.3d at 319 n.12. The record confirms the absence of the projected land use mix, which affects per capita water usage in the longer term and, in turn, the calculation of the reasonable amounts of water necessary for the Districts in the 2055 planning period:

Mr. Peternell: And like your per capita usage estimates, your land use -- I'm sorry, your population projections also don't take account of land use issues; is that right?

Mr. Harris: No, we considered them but didn't feel that the land use issues were going to be -- we did not consider them.

Mr. Peternell: Did not consider land use issues. And you also, in projecting population, did not account for the fact that 65 percent of the land in Archuleta County is either public or tribal, did you?

Mr. Harris: . . . No, I didn't look at 65 percent being federal or tribal.

Mr. Peternell: So you did not consider the possibility that -- you didn't take account of the maximum build-out numbers for Archuleta County?

Mr. Harris: Did not attempt to do a maximum build-out for Archuleta County.

(Trial Tr. vol. 2, 431-32, May 4, 2006).

Emphasizing the need for such analysis, because future land uses and water demand and supply are intertwined, the General Assembly has adopted legislation addressing local government water supply decision-making in connection with new development permit applications. See §§ 29-20-301 to -306, C.R.S. (2009). Section 29-20-304 addresses such factors as: an estimate of the

water supply requirements for the proposed development through build-out conditions, section 29-20-304(1)(a); a description of the physical source of water supply that will be used to serve the proposed development, section 29-20-304(1)(b); an estimate of the amount of water yield projected from the proposed water supply under various hydrologic conditions, section 29-20-304(1)(c); water conservation measures, if any, that may be implemented within the development, section 29-20-304(1)(d); water demand management measures, if any, that may be implemented within the development to account for hydrologic variability, section 29-20-304(1)(e); and such other information as may be required by the local government, section 29-20-304(1)(f). In lieu of such demonstrations, the applicant may submit a letter prepared by a water supply entity's engineer or expert addressing the same factors. See § 29-20-304(2)(a)-(f).

In the alternative, an applicant for new development approval shall not be required to make such demonstrations or obtain such a letter, if the water supply entity committing to serve the proposed development has a water supply plan that has been reviewed and updated within the previous ten years by its governing body; has a minimum twenty-year planning horizon; lists the water conservation measures, if any, that may be implemented within the service area; lists the water demand

management measures, if any, that may be implemented within the development; includes a general description of the water supply entity's water obligations; includes a general description of the water supply entity's water supplies; and the plan is on file with the local government. § 29-20-304(3)(a)-(g).

These water supply planning provisions appear in the local government land use statutes. They complement and parallel, in significant respects, the three elements and four considerations we identified in Pagosa I as applicable to a governmental water supply entity's non-speculative conditional appropriation to meet its reasonably anticipated needs for a reasonable water supply planning period.

On remand from Pagosa I, the Water Court refused Trout Unlimited's request to present additional evidence concerning a substantiated population projection taking into account a "normal increase in population" and other evidence bearing on the reasonably anticipated water use needs of the Districts for the 2055 planning period. See Pagosa I, 170 P.3d at 314. As we have pointed out above, while this case has been pending in the Water Court and before us, the General Assembly has formalized a statewide planning process that includes population and water demand projections to the year 2050 now available for consideration in determining the Districts' reasonably anticipated water supply needs.

There is a wide divergence between the Districts' 2055 projected population of 62,906 persons in Archuleta County (Districts' Ex. 60) and figures contained in the General Assembly-authorized statewide study, which includes population projections for the year 2050 in Archuleta County ranging from 34,517 persons to 41,532 persons. Preparing population projections involves economic, employment, birth and migration rates, tourist visitation, and other demographic assumptions. Because the state demographer's projections currently exist only through the year 2035, the Colorado Water Conservation Board commissioned a study by outside expert consultants of population and water demand projections for the year 2050 by county. The study gives a range of population projections for Archuleta County, the Districts' service area: a low range of 34,517; a middle range of 37,914; and a high range of 41,532. See Colorado Water Conservation Board, Colorado's Water Supply Future, Appendix B: 2050 Population Projections for the State of Colorado Municipal and Industrial Water Use Projections 53 (draft, June 2009), <http://cwc.state.co.us/NR/rdonlyres/0D482DB5-4B1C-4F8F-996A-DBA36B6C333C/0/MIAppB.pdf>. The board study projects a water demand for Archuleta County of 8,200 acre-feet for the low

range; 9,000 acre-feet for the medium range; and 9,900 acre-feet for the high range.<sup>8</sup> Colorado Water Conservation Board, Municipal and Industrial Water Use 3-5 tbl.3-1 (draft, June 2009), <http://cwcb.state.co.us/NR/rdonlyres/6EDA55C5-8484-44B4-BAD5-EC4022DBB857/0/MISec3ForecastMeth.pdf>.

The ultimate question in a governmental entity water supply conditional appropriation case is what amount of unappropriated water should be conditionally decreed in the public's water resource to meet reasonably anticipated needs of the agency above its current water supply. Pagosa I, 170 P.3d at 317. The existing record documents an existing water supply available to the Districts in the amount of at least 7,000 acre-feet annually to the year 2025.<sup>9</sup> (Trial Tr. vol. 2, 330, 422, May 4, 2006). In addition, the Districts hold an existing conditional decree for Dry Gulch Reservoir storage in the amount of 6,300 acre-feet with an appropriation date of July 22, 1967. The Districts' 2003 planning report for the year 2040 (Districts' Ex. 75) projected a need only for 18.5 cfs of new diversion capacity from the San Juan River into the Dry Gulch Reservoir for a total of 12,500 acre-feet of storage, which includes a one-year safety

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<sup>8</sup> The Districts' exhibit 60 projects an annual total demand of 14,093 acre-feet for the year 2055.

<sup>9</sup> Trout Unlimited contends that the Districts possess existing water rights that yield approximately 8,500 acre-feet of water annually during dry years. (Br. to the Water Court on Remand 472).

margin in the event of extraordinary drought. The parties agree that the period between 2000 and 2004, a period of severe drought in the San Juan Basin and throughout Colorado, is an appropriate reference for calculating water availability in the San Juan River and its tributaries, the yield from the Districts' existing water rights during that period, and the Districts' need for additional water rights to meet their future needs.<sup>10</sup>

Yet, the claims the remand decree authorizes for the 2055 planning period -- a period which is only 15 years beyond the Districts' report projecting much lesser 2040 diversion and storage needs -- stand at a much expanded 100 cfs San Juan River diversion into storage and a total storage amount of 25,300 acre-feet. In contrast, the Districts' 2003 report (Districts' Ex. 60) projects a system demand of 14,093 acre-feet for the year 2055. At least 7,000 acre-feet of this demand can apparently be met by dry year yield from the Districts' existing water rights. The Districts' system demand is based on their assumed population of 62,906 persons, a population of at least 21,374 persons more than the Colorado Water Conservation Board study projects.

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<sup>10</sup> As mentioned in the existing record in this case, the Colorado River Basin experienced one of the worst droughts ever based on gauge records and tree ring studies during the 2000-2004 period.

At least a part of the remand decree amount is ascribable to the speculative recreational in-channel diversion, instream flow, and/or bypass flow amounts we have discussed above. On remand from this decision, the Water Court should take additional evidence and determine what amounts of water for storage and direct flow diversions are necessary to meet the Districts' reasonably anticipated needs for the 2055 planning period above the existing baseline water rights the Districts currently hold. The remand decree does not contain a finding regarding the amount of annual dry year yield available from the Districts' existing water rights. We recognize that the Colorado Water Conservation Board has only recently released its draft 2050 study of population and its water demand projections for Archuleta County. Yet, the newer study is the next iteration of the 2004 Statewide Water Supply Institute study Trout Unlimited introduced into evidence at trial in this case. If this study is introduced into evidence on remand from our decision in this case, the Water Court has authority to address its methodology and results, along with all other evidence of population projections and water supply needs, in determining what conditional water rights should be decreed to the Districts

for the 2055 planning period.<sup>11</sup>

We agree that the "reality checks" the Water Court has included in the remand decree are appropriate for upcoming diligence determinations. But the "reality checks" are not a substitute for the Districts' burden of proving the need for the amounts of water they claim should be conditionally decreed.

Finally, we reject the position of the Districts and amici municipal water suppliers that they act in a legislative capacity when they make conditional water appropriations; thus, they argue that the courts owe deference to the claimed amounts of water the suppliers deem reasonably necessary for their future use. To the contrary, the Colorado statutes and case law we have cited in Pagosa I and in this opinion provide that both public and private appropriators must carry the burden of proving their claims for a conditional decree. While the General Assembly has made an accommodation to governmental water

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<sup>11</sup> Remand decree provision 45.7 prohibits reuse of San Juan River water that would otherwise return to that river. We did not intend our reuse discussion in Pagosa I, 170 P.3d at 319, to prohibit reuse that optimizes use of the water the Districts initially divert and store from the San Juan River in priority and not to the injury of senior water rights. Rather, our discussion focused on the excessive reuse claims allowed in the initial decree, which had the effect of providing much more water than the Districts needed to meet their service area demands in a reasonable planning period. On remand from this opinion, reuse that optimizes the Districts' water use and serves to leave water in the San Juan River for future appropriation should be considered.

suppliers by allowing their conditional appropriations to be made and decreed for a future reasonable water supply period in reasonably anticipated amounts, it has assigned to the courts the responsibility to conduct the necessary proceedings for these determinations under a de novo standard of review, pursuant to sections 37-92-302, -304, and -305, C.R.S. (2009). The Districts and amici municipal water suppliers cite our decision in Bennett Bear Creek Farm Water & Sanitation District v. City & County of Denver, 928 P.2d 1254 (Colo. 1996), for the proposition that governmental entities make their claims for conditional appropriations in a quasi-legislative capacity and are entitled to deference in the amounts they choose. But that case is inapposite as Bennett relied on statutes expressly authorizing governmental entities to set rates for their water service in the exercise of legislative authority. See § 31-35-402(1)(f), C.R.S. (2009).

### III.

Accordingly, we reverse the judgment and decree of the Water Court and remand this case for further proceedings consistent with this opinion.

Opinions of the Colorado Supreme Court are available to the public and can be accessed through the Court's homepage at <http://www.courts.state.co.us/supct/supct.htm> Opinions are also posted on the Colorado Bar Association homepage at [www.cobar.org](http://www.cobar.org).

ADVANCE SHEET HEADNOTE  
November 2, 2009

MODIFIED AND PETITION FOR REHEARING DENIED  
November 23, 2009

**No. 08SA354, Pagosa Area Water and Sanitation District and San Juan Water Conservancy District v. Trout Unlimited. Conditional Water Right - Maximum Utilization - Optimum Use - Amount of Water Reasonably Necessary to Meet Districts' Reasonably Anticipated Needs for 2055 Planning Period Above Current Water Supply - Non-speculative Intent to Appropriate and Can and Will Test - § 37-92-103(3) - § 37-92-305(9)(b) - Unsupported Inclusion in Conditional Decree of Water for Hypothetical Recreational In-Channel Diversion, Instream, and/or Bypass Flows**

On remand from the Supreme Court's decision in Pagosa I, the District Court for Water Division No. 7 entered a conditional decree for the Pagosa Area Water and Sanitation District and the San Juan Water Conservancy District based upon a planning period extending to the year 2055. In this appeal, Trout Unlimited contends that the planning period should extend only to the year 2040. The Supreme Court upholds the Water Court's finding that the 2055 planning period is reasonable, but agrees with Trout Unlimited that current evidence in the record does not support the conditionally-decreed amounts of water. The Supreme Court returns the case to the Water Court for additional evidence regarding specified decree provisions and a

determination of water amounts reasonably necessary to serve the Districts' reasonably anticipated needs in the 2055 period, above its current water supply.

<p>SUPREME COURT, STATE OF COLORADO Two East 14<sup>th</sup> Avenue Denver, Colorado 80203</p> <p>Appeal from the District Court Water Division 7, Case No. 04CW085 Honorable Gregory G. Lyman, Judge</p>	<p>Case No. 08SA354</p>
<p>Concerning the Application for Water Rights of the Pagosa Area Water and Sanitation District and the San Juan Water Conservancy District in the San Juan River and its Tributaries in Archuleta County.</p> <p><b>Applicants-Appellees:</b></p> <p>Pagosa Area Water and Sanitation District and San Juan Water Conservancy District,</p> <p>v.</p> <p><b>Opposer-Appellant:</b></p> <p>Trout Unlimited,</p> <p>and</p> <p><b>Appellees pursuant to C.A.R. 1(e):</b></p> <p>Dick Wolfe, State Engineer and Rege Leach, Division 7 Water Engineer.</p>	
<p>JUDGMENT REVERSED EN BANC November 2, 2009</p> <p><u><a href="#">Modified Opinion. Marked revisions shown.</a></u></p>	

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JUSTICE HOBBS delivered the Opinion of the Court.

In this appeal, we review the conditional water right judgment and decree the District Court for Water Division No. 7 entered on remand from our decision in Pagosa Area Water & Sanitation District v. Trout Unlimited ("Pagosa I"), 170 P.3d 307 (Colo. 2007). Trout Unlimited contends that the applicant districts, Pagosa Area Water and Sanitation District and the San Juan Water Conservancy District (collectively "Districts"), have failed to meet their burden of demonstrating that the conditionally-decreed amounts of water in the remand decree are reasonably necessary to serve their reasonably anticipated needs for a reasonable water supply planning period.<sup>1</sup>

The remand decree provides for a planning period of 50 years, through the year 2055, with an appropriation date of December 20, 2004, for San Juan River diversions at the Dry

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<sup>1</sup> Trout Unlimited states the issues for review as follows:

- A. Whether Applicants demonstrated the 50-year water rights planning horizon adopted by the water court to be reasonable;
- B. Whether Applicants substantiated population projections, based on a normal rate of growth, for the 50-year planning period;
- C. Whether Applicants demonstrated that the decreed amounts of water are reasonably necessary to serve projected population through the planning period.

The Districts correctly point out that Trout Unlimited's issue C does not reflect the language of our modified decision on rehearing in Pagosa I, and should read:

- D. Whether the Applicants demonstrated that the decreed amounts of water are reasonably necessary to serve the reasonably anticipated needs of the governmental agency for the planning period, above its current water supply.

Gulch Pumping Station in the following amounts: a direct flow right of 100 cubic feet per second ("cfs") into storage at the Dry Gulch Reservoir; a maximum annual storage of 25,300 acre-feet of water in the reservoir; and an independent direct flow right of 50 cfs directly into the Districts' water system for use anywhere in their service area.

Trout Unlimited contends that the Water Court should have adopted a water supply planning period extending to the year 2040. We disagree. We uphold the Water Court's determination that a 50-year water supply planning period to the year 2055 is reasonable. However, in light of the standards we set forth in Pagosa I, we hold that the evidence currently in the record does not support the amounts of water contained in the remand conditional decree. The essential function of the water court in a conditional decree proceeding is to determine the amount of available unappropriated water for which the applicant has established a need, a future intent, the ability to actually use, and, under the "can and will" test, a substantial probability that its intended appropriation will reach fruition. Pagosa I, 170 P.3d at 317. Section 37-92-305(9)(b), C.R.S. (2009), addressing the "can and will" test provides that

[n]o claim for a conditional water right may be recognized or a decree therefor granted except to the extent that it is established that the waters can be and will be diverted, stored, or otherwise captured, possessed, and controlled and will be beneficially

used and that the project can and will be completed with diligence and within a reasonable time.

In particular, the existing record in this case lacks sufficient evidentiary support for the following conditional decree provisions: (1) provision no. 11.1.6, which provides for water releases to benefit hypothetical recreational in-channel rights, instream flow rights decreed to the Colorado Water Conservation Board, and/or bypass flow requirements of any federal permits obtained for development of the Dry Gulch Reservoir; (2) provision no. 31, which provides for a direct flow diversion right into Dry Gulch storage of 100 cfs to account for the uncertainty of federal bypass flow requirements; (3) provision no. 43, which provides for a direct flow diversion right of 50 cfs into the Districts' water system for use anywhere in the Districts' service area; and (4) provision no. 44, which provides for a storage right of 25,300 acre-feet of water annually in Dry Gulch Reservoir.

We had expected our remand order in Pagosa I to result in the Districts' introduction of additional evidence to support their reasonably justified water supply needs, in light of our conclusion that the conditional decree we reviewed there contained "a planning horizon, diversion rates, and a total volumetric annual consumption amount for stored water far in excess of what the districts initially considered to be

reasonable for water supply planning purposes.” Pagosa I, 170 P.3d at 318. Thus, we returned the case to the Water Court for further proceedings consistent with the standards set forth in our opinion and with leave for the Water Court to take additional evidence in the exercise of its discretion. Trout Unlimited contends that the standards we set forth in Pagosa I required the Districts to introduce additional evidence to support a planning period greater than the year 2040. We agree, but, in light of the Water Court’s remand finding that the year 2055 and not a longer period is a reasonable planning period in this case, a finding we uphold, we also determine that the Districts should be allowed an additional opportunity to introduce evidence demonstrating the conditionally-decreed amounts of water reasonably necessary to serve their reasonably anticipated needs for the 2055 planning period.

Accordingly, we reverse the decree of the Water Court and remand this case for further proceedings consistent with this opinion.

#### I.

On remand from Pagosa I, the Water Court asked the parties whether it should take additional evidence in light of our opinion in the case. Trout Unlimited contended that the Water Court should take additional evidence on the Districts’ planning

period, future population, per capita water usage, current water supplies, future demand for the Districts' water system, and water rights necessary.<sup>2</sup> The Districts contended that the existing record was sufficient to meet their burden of proof under the standards we set forth in Pagosa I. Instead of taking advantage of the opportunity to introduce additional evidence, the Districts tendered a proposed decree with an appropriation date of December 20, 2004, for a 70-year planning period through 2075 to include: (1) a conditional storage right in the amount of 29,000 acre-feet per year for the off-channel Dry Gulch Reservoir; (2) a direct diversion flow right of 100 cfs from the San Juan River at the Dry Gulch Pumping Station and inflow from Dry Gulch into storage at the Dry Gulch Reservoir; and (3) a separate direct diversion flow right from the San Juan River of

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<sup>2</sup> In its brief to the Water Court on remand, Trout Unlimited stated:

TU now respectfully urges the Court to make findings of fact on the Districts' planning period, future population, per capita water usage, current water supplies and future demand for Dry Gulch system water. If the Court finds that there will be demand for Dry Gulch project water in the planning period, TU urges the Court to admit additional evidence regarding the water rights necessary to serve that demand.

(Br. to the Water Court on Remand 469).

50 cfs for use anywhere in the Districts' water supply system.<sup>3</sup>

The decree we reversed in Pagosa I was for a 100-year planning period for a right to store 29,000 acre-feet in Dry Gulch Reservoir along with the right to fill and refill the reservoir continuously in order to achieve a total annual storage volume of 64,000 acre-feet; a 100 cfs direct flow right at the Dry Gulch Pumping Station into storage; and a separate 80 cfs direct flow right at the Dry Gulch Pumping Station for use anywhere in the Districts' water system. Id. at 312.

On remand from Pagosa I, the Water Court accepted most, but not all, of the Districts' proposed remand decree provisions. The remand decree we now review provides for: (1) a conditional storage right in the amount of 19,000 acre-feet, in addition to the 6,300 acre-feet previously decreed, with the right to fill and refill the reservoir continuously in order to accumulate a

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<sup>3</sup> The Districts hold a previous conditional Dry Gulch Reservoir storage decree for 6,300 acre-feet with an appropriation date of July 22, 1967. Pagosa I, 170 P.3d at 310. A 2003 report (Districts' Ex. 75) prepared and submitted to the boards of directors of both Districts documented a water storage need of approximately 12,000 acre-feet in the Dry Gulch Reservoir to meet the 2040 annual demand of the Districts' users; this total amount included a one year "safety supply" in the event of extreme drought. Id. at 310-11. The Districts' boards passed resolutions stating their intent to make new appropriations to achieve the total 12,000 acre-feet storage amount. However, when the Districts filed their initial conditional water rights application, they greatly expanded their claims to include a 100-year water supply planning period in order to fill the capacity of the storage site.

total annual storage volume of 25,300 acre-feet in Dry Gulch Reservoir; (2) a direct diversion flow right of 100 cfs from the San Juan River at the Dry Gulch Pumping Station and inflow from Dry Gulch into storage at the Dry Gulch Reservoir; and (3) a separate direct diversion flow right from the San Juan River at the Dry Gulch Pumping Station of 50 cfs for use anywhere in the Districts' water supply system.

Thus, the Water Court has reduced the Districts' remand storage proposal by 4,000 acre-feet and the separate direct flow diversion into their water supply system from [the originally proposed 80 cfs](#) to 50 cfs. It has approved a remand planning period extending to 2055 instead of the Districts' proposed remand planning period extending to 2075. The Water Court has included "reality checks" for review and possible adjustment of the conditionally decreed amounts of water in future six-year diligence periods. These "reality checks" include evaluating (1) actual population growth in the Districts and changes in population growth trends to 2055; (2) actual per capita water usage and conservation effects on water usage to 2055; (3) diversion rates necessary to meet the projected water use and storage demands in 2055, taking into account any imposed federal bypass requirements; and (4) any beneficial or adverse effects of climate change on water system yields and the need for the claimed storage.

In this appeal, Trout Unlimited asserts that the Districts failed to establish on remand from Pagosa I that the water amounts contained in the remand decree are reasonably necessary to meet their reasonably anticipated water supply needs, above the Districts' current water supply, for a reasonable water supply planning period. It argues that the Districts' water supply planning period should not extend beyond the year 2040. Alternatively, Trout Unlimited argues that if the 2055 planning period is justified, the Water Court erred in failing to take additional evidence and make findings of fact applying the standards we set forth in Pagosa I.

The Districts counter that the existing record is sufficient to justify the remand decree under our opinion in Pagosa I. We disagree.

## II.

We uphold the Water Court's determination that a 50-year water supply planning period to the year 2055 is reasonable. However, in light of the standards we set forth in Pagosa I, we hold that the evidence currently in the record does not support the amounts of water contained in the remand conditional decree. The essential function of the water court in a conditional decree proceeding is to determine the amount of available unappropriated water for which the applicant has established a need, a future intent, the ability to actually use, and, under

the "can and will" test, a substantial probability that its intended appropriation will reach fruition. Pagosa I, 170 P.3d at 317. Section 37-92-305(9)(b), C.R.S. (2009), addressing the "can and will" test provides that

[n]o claim for a conditional water right may be recognized or a decree therefor granted except to the extent that it is established that the waters can be and will be diverted, stored, or otherwise captured, possessed, and controlled and will be beneficially used and that the project can and will be completed with diligence and within a reasonable time.

In particular, the existing record in this case lacks sufficient evidentiary support for the following conditional decree provisions: (1) provision no. 11.1.6, which provides for water releases to benefit hypothetical recreational in-channel rights, instream flow rights decreed to the Colorado Water Conservation Board, and bypass flow requirements of any federal permits obtained for development of the Dry Gulch Reservoir; (2) provision no. 31, which provides for a direct flow diversion right into Dry Gulch storage of 100 cfs to account for the uncertainty of federal bypass flow requirements; (3) provision no. 43, which provides for a direct flow diversion right of 50 cfs into the Districts' water system for use anywhere in the Districts' service area; and (4) provision no. 44, which provides for a storage right of 25,300 acre-feet of water annually in Dry Gulch Reservoir.

#### **A. Standard of Review**

Whether an applicant has met the legal standards for a conditional appropriation presents mixed questions of law and fact that we review de novo. City of Thornton v. Bijou Irrigation Co., 926 P.2d 1, 40 (Colo. 1996). We defer to the water court's findings of fact unless the evidence is wholly insufficient to support those determinations. Id. This is a highly deferential standard that properly recognizes the water court's unique ability to evaluate the evidence and make factual determinations in complex water allocation decisions. Id. Nevertheless, the applicant bears the burden of supporting its claims. Id. at 31-32.

Under section 37-92-103(3)(a), C.R.S. (2009), governmental water supply entities have a limited exception from the anti-speculation and beneficial use standards applicable to non-governmental conditional water right appropriators. Pagosa I, 170 P.3d at 315. The conditional appropriation must be consistent with the governmental agency's reasonably anticipated water use requirements based on substantiated projections of future growth within its service area and only a reasonable planning period is allowed. Id. In addition to demonstrating non-speculative intent, a governmental agency must satisfy the "can and will" requirement in order to obtain a conditional decree in accordance with section 37-92-305(9)(b). Id. at 316.

In reliance on Colorado statutory requirements and prior case law, we held in Pagosa I that the limited governmental agency exception to the anti-speculation doctrine should be narrowly construed in order to meet the state's maximum utilization and optimum use goals that work to extend the public's water resource to as many beneficial uses as the available supply will allow. Id. The essential function of the water court in a conditional decree proceeding is to determine the amount of available water for which the applicant has established a need, a future intent, the ability to actually use, and, under the "can and will" test, a substantial probability that its intended appropriation will reach fruition. Id. at 317. The water court should closely scrutinize a governmental agency's claim for a planning period that exceeds fifty years. Id.

The ultimate factual and legal issue in a governmental agency conditional appropriation case involves how much water should be conditionally decreed to the applicant above its currently available water supply. Id. A governmental entity has the burden of demonstrating three elements in regard to its intent to make a non-speculative conditional appropriation of unappropriated water: (1) what is a reasonable water supply planning period; (2) what are the substantiated population projections based on a normal rate of growth for that period;

and (3) what amount of available unappropriated water is reasonably necessary to serve the reasonably anticipated needs of the governmental agency for the planning period above its current water supply. Id. at 313.

In the water court's application of the third element, we articulated four non-exclusive considerations relevant to determining the amount of the conditional water right: (1) implementation of reasonable water conservation measures during the planning period; (2) reasonably expected land use mixes during the planning period; (3) reasonably attainable per capita usage projections for indoor and outdoor use based on the land use mixes during the planning period; and (4) the amount of consumptive use reasonably necessary to serve the increased population. Id. at 317-18.

We disapproved, as speculative in nature, provisions in the Pagosa I conditional decree approving appropriations based upon future hypothetical U.S. Forest Service bypass flow requirements, instream flow water rights of the Colorado Water Conservation Board, and/or recreational in-channel diversion water rights by some other governmental entity, for example, the City of Pagosa Springs. Id. at 318 n.11, 319 n.13.

## **B. Application to this Appeal**

### **1. Sufficient Evidence for 2055 Water Supply Planning Period**

In the remand decree's provisions nos. 13 through 17, the Water Court found that a water supply planning period to the year 2055 for the Districts is reasonable. Trout Unlimited contends that a planning period extending only to the year 2040 is reasonable. We disagree.

The year 2055 planning period is supported by evidence in the existing record and comports with statutory requirements and our decisions in Bijou, 926 P.2d at 40, and Pagosa I, 170 P.3d at 317. On remand from Pagosa I, the Water Court found that the Dry Gulch Reservoir will likely not be ready for use until about 2025, in light of the lengthy lead time necessary for land acquisition, environmental field studies, design and engineering work, obtaining the required permits, and financing, constructing, and filling the reservoir. The Water Court further found that the Dry Gulch Reservoir involves a site chosen because of its uniquely favorable economic, engineering, and environmental characteristics. It concluded that the 50-year planning period approved in Bijou is appropriate for the Districts' conditional water rights application.

We disagree with Trout Unlimited regarding the water supply planning period. In doing so, we observe that Trout Unlimited's expert, John Gerstle, relied on a 2004 State Water Supply Initiative study conducted by the Colorado Water Conservation Board. That study included population and water demand

projections statewide for the year 2030 and for Archuleta County, the service area of the Districts in this case. In 2005, prior to the Water Court's entry of the initial decree, the Colorado General Assembly formalized a statewide water supply planning process incorporating and extending the State Water Supply Initiative. See Colorado Water for the 21st Century Act, §§ 37-75-101 to -107, C.R.S. (2009). As part of this process, the Colorado Water Conservation Board 2004 study has since been expanded to the year 2050.

The year 2055 planning period for the Districts, which the Water Court found to be reasonable in this case on remand from Pagosa I, corresponds well to the current 2050 statewide planning period. Nine regional roundtables and a central Inter-Basin Compact Committee created by the General Assembly are currently addressing the state's 2050 projected population, water supply, and anticipated consumptive and non-consumptive needs, including the San Juan Basin as a whole and Archuleta County therein. See Colorado Water Conservation Board, State of Colorado 2050 Municipal and Industrial Water Use Projections (draft, June 2009), <http://cwcb.state.co.us/NR/rdonlyres/C28C7E0F-0374-4982-8B0E-138C8851BD2F/0/2050MIDemands2050DraftReportFull.pdf>; see also Colorado's Water Supply Future, Cooperation vs. Competition: Coloradans In Search of Common Ground and Workable Solutions 26-

27 (Headwaters, Colorado Foundation for Water Education, Spring 2009).

We now turn to whether the evidence currently in the record supports the Districts' conditional water rights claims allowed in the remand decree.

**5. Insufficient Evidence for Recreational In-Channel Diversion, Instream Flow, and/or Bypass Flow Claims**

The remand decree approves conditional water appropriations for recreational in-channel rights, instream flow rights, and/or federal bypass flow requirements.<sup>4</sup> Provision no. 11.1.6 authorizes water uses to include "releases to benefit decreed recreational in-channel rights" and "releases to benefit instream flow rights decreed to the Colorado Water Conservation Board." This provision also contains a comprehensive endorsement of the Districts' appropriation and use of water to meet possible federal bypass flow requirements:

In addition to all of the uses described herein, prior to storage, water derived by the exercise of the Subject Water Rights at the described points of diversion may be used by relinquishing a portion thereof to the stream to satisfy bypass flow requirements of any federal permits obtained for development of the Dry Gulch Project.

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<sup>4</sup> A bypass flow condition of a federal permit allows diversion from the stream only if there is a specified flow amount remaining in the stream at the point of diversion.

However, the evidence currently of record in this case does not support the inclusion of such instream and bypass flow water amounts for such uses. The Districts' expert, Steve Harris, testified that the Colorado Water Conservation Board had already appropriated an instream flow water right in the reach of the San Juan River affected by the Dry Gulch Pumping Station. He agreed that the Districts would be required to honor that preexisting senior right and he knew of no instance where the federal government had required a bypass flow in addition to the state's instream flow:

Mr. Peternell: Okay. Are you aware of any instance in which a federal permitting agency has imposed a bypass flow larger than the amount of an existing CWCB instream flow right?

Mr. Harris: No. I'm aware of places where a bypass was imposed, but those places did not have a CWCB instream flow right.

Mr. Peternell: Is it your understanding of the CWCB in-stream flow program that it exists to protect the natural environment?

Mr. Harris: To a reasonable degree.

(Trial Tr. vol. 2, 415, May 4, 2006).

Thus, this evidence demonstrates no basis for the instream flow and bypass provisions of the remand decree. It also illustrates that decree provision no. 30 is purely hypothetical in nature. Remand decree provision no. 30 recites as follows:

Further, Mr. Harris testified that inherent in his flow rate calculations is an assumption that

environmental permits issued by federal agencies for the proposed project will require that a bypass of flow in the San Juan River be made at any time the Districts' water rights are diverted for this project. Ms. Campbell testified that the U.S. Forest Service had imposed a bypass requirement on a recent PAWSD pipeline diversion. Mr. Harris estimates that for this project, the bypass may be twice the instream flow water right that has been adjudicated by the Colorado Water Conservation Board. Mr. Harris stated that his model took into consideration the adjudicated senior instream flow water rights as well as a hypothetical federal permit bypass. Mr. Harris testified that there is a direct relationship between the necessary diversion rates and the size of the flow bypass that is required, because a higher bypass creates a restrictive limit upon the periods of time that water may be diverted. With fewer opportunities to divert, the higher diversion rate will allow a quicker fill during higher streamflow periods. On cross-examination, Mr. Gerstle agreed with this principle.

(Emphasis added).

The existing record is wholly devoid of evidence explaining the factual circumstances justifying imposition of a bypass flow on the Districts' previous pipeline project. It contains no evidence that the Districts have contacted the U.S. Forest Service to determine whether that agency might be considering a bypass flow permit condition in connection with the project in this case. Instead, Mr. Harris simply conjectured that the U.S. Forest Service might require a bypass flow and that it could be twice as much as the Colorado Water Conservation Board's adjudicated prior instream flow water right.

The speculative nature of the Districts' claims for appropriation of water to counter hypothetical recreational in-channel diversion, instream flow, and/or bypass flows is highly significant. On a number of occasions, we have referred and deferred to the General Assembly the issue of how water rights for the environment and recreation should be integrated into the prior appropriation system. See, e.g., Bd. of County Comm'rs v. United States, 891 P.2d 952, 972 (Colo. 1995).<sup>5</sup> In recent decades, the General Assembly has carefully crafted statutory provisions to integrate instream flow and recreational in-channel water rights into the prior appropriation system that first recognized only the development of consumptive use for agricultural, municipal, commercial, and manufacturing water rights. Most notably, the legislature has authorized the Colorado Water Conservation Board to appropriate instream flow

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<sup>5</sup> There we stated:

We have consistently recognized that the General Assembly has acted to preserve the natural environment by giving authority to the Colorado Water Conservation Board to appropriate water to maintain the natural environment, and we will not intrude into an area where legislative prerogative governs. The degree of protection afforded the environment and the mechanism to address state appropriation of water for the good of the public is the province of the General Assembly and the electorate.

Bd. of County Comm'rs, 891 P.2d at 972.

water rights, section 37-92-102(3)-(4), C.R.S. (2009), and local governmental entities to appropriate recreational in-channel diversion water rights, sections 37-92-102(5), 37-92-103(10.3), 37-92-305(13), C.R.S. (2009).

In addition, recognizing that federal agencies -- in particular the Department of Agriculture's U.S. Forest Service and the Department of the Interior's Bureau of Land Management -- have been concerned with maintaining flow levels in streams to meet federal environmental and land use objectives, the General Assembly has explicitly called upon these agencies to work with the Colorado Water Conservation Board for its appropriation of instream flows that will serve both state and federal environmental objectives. § 37-92-102(3). The legislature has also authorized the board to acquire additional water and water rights to increase instream flows within the prior appropriation administration system by means of leases, donations, grants, and/or purchases. Id.

The General Assembly has made such changes to Colorado water law, at least in part, for the purpose of averting federal and state conflict ~~between~~ that could result from the exercise of federal regulatory and permitting authority that might include bypass flow conditions attached to special use permits. See Trout Unlimited v. U.S. Dep't of Agric., 320 F. Supp. 2d

1090, 1106 (D. Colo. 2004), appeal dismissed, 441 F.3d 1214, 1219 (10th Cir. 2006).<sup>6</sup>

To avoid unnecessary conflict between state water rights law and the exercise of federal permitting authority, the U.S. Forest Service has recently renewed a memorandum of understanding with the State of Colorado referred to in oral argument before us in this case. See Memorandum of Understanding Between State of Colorado Department of Natural Resources and United States Department of Agriculture Forest Service, U.S. Forest Service, Rocky Mountain Region, Agreement No. 09-MU-11020000-058 (July 10, 2009). This agreement provides for a number of measures intended to reconcile the operation of water diversion and storage facilities on federal lands with Colorado prior appropriation water rights. The agreement includes provisions that the "CWCB and the Forest Service will seek ways to achieve instream flow protection in high priority

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<sup>6</sup> The federal district court stated that

on the rare occasions when bypass flows are required as a condition to the use of federal lands, they neither reflect nor establish a water right; rather, they merely address the nature of the use to which a water right might be put once the right is obtained from the State.

Trout Unlimited, 320 F. Supp. 2d at 1106. The Tenth Circuit dismissed the appeal on jurisdictional grounds because there was no final agency decision in the case appropriate for judicial review.

stream reaches through innovative measures consistent with state and federal law," id. at 3, and "[w]hen conflicts do arise, we agree that they should be resolved by federal and state authorities working together in cooperation with water right holders and where appropriate tribal and local governments and other interested parties," id. at 2.

In Pagosa I, 170 P.3d at 318 n.11, we observed that the Districts' appropriation and use of water amounts for recreational in-channel diversion flow, instream flow, and/or bypass flow were too speculative in nature to be included in the conditional decree. On remand from Pagosa I, the Districts introduced no new evidence to support such amounts, yet the remand decree includes water amounts for these purposes in both of the decreed direct flow diversions for the Dry Gulch Pumping Station at the San Juan River and in the off-channel storage right for the Dry Gulch Reservoir.

In contrast to the present claims for such water amounts, unsupported by the existing record in this case, there could be factual circumstances in which the applicant for a conditional decree has established a substantial probability for the need of such appropriations for use within the water supply planning period. Our prior cases establish that a prerequisite to obtaining a conditional decree is that the applicant must prove a "nonspeculative intent to put the water to beneficial use and,

under the 'can and will' test, a substantial probability that the intended appropriation will reach fruition." Id. at 317.

Thus, an applicant might obtain a conditional water right to benefit Colorado Water Conservation Board instream flow rights, to benefit in-channel diversion rights of another governmental entity, and/or to meet federal bypass flow requirements, if it demonstrates a substantial probability that it will use such amounts during the water supply planning period, thereby justifying the decree award. See Bd. of County Comm'rs v. Upper Gunnison River Water Conservancy Dist., 838 P.2d 840, 849-50 (Colo. 1992) (approving storage and release of water to benefit stream reach for fishery and boating purposes); see also Colo. Water Conservation Bd. v. City of Central, 125 P.3d 424, 438 (Colo. 2005) (holding that instream flow appropriations are a beneficial use of water).

Thus far, these are not the facts in the case before us. The record contains no evidence that the Colorado Water Conservation Board intends to increase its existing instream flow appropriation in a way that might impact the Districts' use of water in their municipal system for the 2055 planning period. In addition, although authorized by the recreational in-channel diversion statute to make in-channel diversion appropriations of their own, the Districts have not chosen to do so. Instead, they have attempted to appropriate water quantities they may not

need within their service system in order to obtain a priority over a potential City of Pagosa Springs kayak course. Moreover, conjecturing that the U.S. Forest Service might require bypass flows in addition to the existing adjudicated Colorado Water Conservation Board instream flow water right, the Districts claim appropriation amounts they wish to divert and then release back to the stream. The result is that the remand decree contains substantial amounts of water for the two Dry Gulch Pumping Plant direct flow diversion rights and the Dry Gulch Reservoir storage right over and above amounts that are otherwise justified to meet their reasonably anticipated water supply needs for the 2055 planning period.

We had expected our remand order in Pagosa I to result in the Districts' introduction of additional evidence to support their reasonably justified water supply needs, in light of our conclusion that the conditional decree we reviewed there contained "a planning horizon, diversion rates, and a total volumetric annual consumption amount for stored water far in excess of what the districts initially considered to be reasonable for water supply planning purposes." Pagosa I, 170 P.3d at 318. Thus, we returned the case to the Water Court for further proceedings consistent with the standards set forth in our opinion and with leave for the Water Court to take additional evidence in the exercise of its discretion. Trout

Unlimited contends that the standards we set forth in Pagosa I required the Districts to introduce additional evidence to support a planning period greater than the year 2040. We agree, but, in light of the Water Court's remand finding that the year 2055 and not a longer period is a reasonable planning period in this case, a finding we uphold, we also determine that the Districts should be allowed an additional opportunity to introduce evidence demonstrating the conditionally-decreed amounts of water reasonably necessary to serve their reasonably anticipated needs for the 2055 planning period.

If on remand from our decision in this case, the Districts do not demonstrate a substantial probability that they can use specified amounts of water in the 2055 planning period for recreational in-channel, instream flow, and/or bypass flow purposes, the Water Court shall disallow such uses and not include such amounts in the decree.

**6. Insufficient Evidence for 50 cfs Direct Flow Claim**

Remand decree provision nos. 11.2.4, 11.2.5, 29, and 43 authorize an independent 50 cfs direct flow diversion at the Dry Gulch Pumping Station on the San Juan River for use anywhere in the Districts' system in the future, including in unspecified and undecreed future reservoirs. Although provision no. 29 refers to this 50 cfs diversion as necessary to meet seasonal peak demand in the Districts' service area, provision no. 43

authorizing this diversion right contains no volumetric cap and allows water from this diversion to be used in the open-ended future beyond the 2055 planning period.

Remand decree provisions nos. 11.2.4 and 11.2.5 incorporate provision no. 11.1.6, which authorizes appropriation and use for recreational in-channel flow, instream flow, and/or bypass flow. On remand, in the absence of additional evidence justifying otherwise, the Water Court shall limit this independent direct flow right to the amount of water reasonably necessary for the 2055 planning period to meet seasonal peak demand and address potential outages impeding Dry Gulch Reservoir deliveries into the Districts' water system.

The remand decree contains contradictory provisions regarding use of the 50 cfs diversion. Remand decree provision no. 44 contains a limitation of 25,300 acre-feet of water annually in the Dry Gulch Reservoir. This provision appears to place an overall storage constraint perhaps intended to apply to both the 100 cfs and 50 cfs direct flow diversions. However, remand decree provision no. 11.2.4 pertaining to the 50 cfs direct flow diversion allows water from this diversion to be utilized "for storage in reservoirs owned or controlled by the Co-Applicants." This may include hypothetical future reservoirs in addition to the Dry Gulch Reservoir, in order to meet demand

beyond the year 2055. The Water Court shall address this contradiction on remand from our decision in this case.

**7. Insufficient Evidence for 100 cfs Direct Flow Diversion and 25,300 acre-foot Dry Gulch Reservoir Storage Claims**

A governmental entity has the burden of demonstrating three elements in regard to its intent to make a non-speculative conditional appropriation of unappropriated water: (1) what is a reasonable water supply planning period; (2) what are the substantiated population projections based on a normal rate of growth for that period; and (3) what amount of available unappropriated water is reasonably necessary to serve the reasonably anticipated needs of the governmental agency for the planning period above its current water supply. Pagosa I, 170 P.3d at 313.

In a water court's application of the third element, we articulated four non-exclusive considerations relevant to determining the amount of the conditional water right: (1) implementation of reasonable water conservation measures during the planning period; (2) reasonably expected land use mixes during the planning period; (3) reasonably attainable per capita usage projections for indoor and outdoor use based on the land use mixes during the planning period; and (4) the amount of consumptive use reasonably necessary to serve the increased population. Id. at 317-18.

The evidence currently of record does not demonstrate that the Districts have carried their burden of proving a non-speculative intent to put the water amounts contained in the remand decree to beneficial use and, under the "can and will" test, a substantial probability that the intended appropriations will reach fruition. §§ 37-92-103(3), -305(9)(b); Pagosa I, 170 P.3d at 317. The Water Court allowed the 100 cfs direct flow diversion and the 25,300 acre-feet storage amounts in the remand decree based on speculative claims, at least in part. Remand decree provision no. 31 recites that "the 100 cfs diversion [from the San Juan River into the Dry Gulch Reservoir] strictly for storage shall not be reduced because of the uncertainty of additional bypass requirements associated with federal environmental permits." In addition, some amount of the 100 cfs direct flow diversion may be bypassed back to the stream because provision no. 44 provides that the annual storage amount of 25,300 acre-feet to storage shall not apply to water that the Districts "voluntarily or involuntarily bypassed." Remand decree provision no. 44 allows storage of 25,300 acre-feet of water in the Dry Gulch Reservoir by means of a 100 cfs direct flow diversion right. Some amount of this water, not specified by the Water Court, is allowed to be stored for release to hypothetical instream flow or recreational in-channel diversion rights.

The existing record contains evidence supporting the 2055 water supply planning period and the 200 gallons per capita usage number the Water Court found to be reasonable in the near term. The existing record also supports the proposition that carry over storage may be necessary to meet the Districts' reasonably anticipated 2055 water needs, including recreation and fishing in and on the reservoir, Pagosa I, 170 P.3d at 319, ~~a one year storage reserve equal to the water system annual demand is appropriate~~ for the reasons stated in remand decree provision no. 26.<sup>7</sup> However, the remand decree does not address the projected land use mix of either the City of Pagosa Springs or Archuleta County for the 2055 planning period. As we said in Pagosa I, assessing a reasonable projection of the mixture of

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<sup>7</sup> Remand decree provision no. 26 states

Mr. Schmidt, Ms. Wessells, Ms. Campbell and Mr. Harris provided testimony on the PAWSD policy of providing for reserve storage equal to the water system annual demand, herein described as the One-year Safety Supply Margin. The Court finds by a preponderance of the evidence that the One-year Safety Supply Margin is reasonably necessary to ensure a reliable water supply for the Co-Applicants' water system, and to provide for the mix of beneficial uses for which the appropriation was made. ~~\_\_\_\_\_~~ Mr. Harris included carryover storage equal to the Safety Supply Margin in his modeling. Mr. Gerstle's models assumed reliance upon and use of the entire storage capacity of the reservoir in the driest year modeled, scenarios that would leave no water in the reservoir for the Co-Applicants' Safety Supply Margin nor for the claimed recreation, piscatorial and wildlife uses of the reservoir.

uses and their consumptive amounts will yield monthly and annual consumptive use figures for the water applied to beneficial use. 170 P.3d at 319 n.12. The record confirms the absence of the projected land use mix, which affects per capita water usage in the longer term and, in turn, the calculation of the reasonable amounts of water necessary for the Districts in the 2055 planning period:

Mr. Peternell: And like your per capita usage estimates, your land use -- I'm sorry, your population projections also don't take account of land use issues; is that right?

Mr. Harris: No, we considered them but didn't feel that the land use issues were going to be -- we did not consider them.

Mr. Peternell: Did not consider land use issues. And you also, in projecting population, did not account for the fact that 65 percent of the land in Archuleta County is either public or tribal, did you?

Mr. Harris: . . . No, I didn't look at 65 percent being federal or tribal.

Mr. Peternell: So you did not consider the possibility that -- you didn't take account of the maximum build-out numbers for Archuleta County?

Mr. Harris: Did not attempt to do a maximum build-out for Archuleta County.

(Trial Tr. vol. 2, 431-32, May 4, 2006).

Emphasizing the need for such analysis, because future land uses and water demand and supply are intertwined, the General Assembly has adopted legislation addressing local government water supply decision-making in connection with new development

permit applications. See §§ 29-20-301 to -306, C.R.S. (2009). Section 29-20-304 addresses such factors as: an estimate of the water supply requirements for the proposed development through build-out conditions, section 29-20-304(1)(a); a description of the physical source of water supply that will be used to serve the proposed development, section 29-20-304(1)(b); an estimate of the amount of water yield projected from the proposed water supply under various hydrologic conditions, section 29-20-304(1)(c); water conservation measures, if any, that may be implemented within the development, section 29-20-304(1)(d); water demand management measures, if any, that may be implemented within the development to account for hydrologic variability, section 29-20-304(1)(e); and such other information as may be required by the local government, section 29-20-304(1)(f). In lieu of such demonstrations, the applicant may submit a letter prepared by a water supply entity's engineer or expert addressing the same factors. See § 29-20-304(2)(a)-(f).

In the alternative, an applicant for new development approval shall not be required to make such demonstrations or obtain such a letter, if the water supply entity committing to serve the proposed development has a water supply plan that has been reviewed and updated within the previous ten years by its governing body; has a minimum twenty-year planning horizon;

lists the water conservation measures, if any, that may be implemented within the service area; lists the water demand management measures, if any, that may be implemented within the development; includes a general description of the water supply entity's water obligations; includes a general description of the water supply entity's water supplies; and the plan is on file with the local government. § 29-20-304(3)(a)-(g).

These water supply planning provisions appear in the local government land use statutes. They complement and parallel, in significant respects, the three elements and four considerations we identified in Pagosa I as applicable to a governmental water supply entity's non-speculative conditional appropriation to meet its reasonably anticipated needs for a reasonable water supply planning period.

On remand from Pagosa I, the Water Court refused Trout Unlimited's request to present additional evidence concerning a substantiated population projection taking into account a "normal increase in population" and other evidence bearing on the reasonably anticipated water use needs of the Districts for the 2055 planning period. See Pagosa I, 170 P.3d at 314. As we have pointed out above, while this case has been pending in the Water Court and before us, the General Assembly has formalized a statewide planning process that includes population and water demand projections to the year 2050 now available for

consideration in determining the Districts' reasonably anticipated water supply needs.

There is a wide divergence between the Districts' 2055 projected population of 62,906 persons in Archuleta County (Districts' Ex. 60) and figures contained in the General Assembly-authorized statewide study, which includes population projections for the year 2050 in Archuleta County ranging from 34,517 persons to 41,532 persons. Preparing population projections involves economic, employment, birth and migration rates, tourist visitation, and other demographic assumptions. Because the state demographer's projections currently exist only through the year 2035, the Colorado Water Conservation Board commissioned a study by outside expert consultants of population and water demand projections for the year 2050 by county. The study gives a range of population projections for Archuleta County, the Districts' service area: a low range of 34,517; a middle range of 37,914; and a high range of 41,532. See Colorado Water Conservation Board, Colorado's Water Supply Future, Appendix B: 2050 Population Projections for the State of Colorado Municipal and Industrial Water Use Projections 53 (draft, June 2009), <http://cwcb.state.co.us/NR/rdonlyres/0D482DB5-4B1C-4F8F-996A-DBA36B6C333C/0/MIAppB.pdf>. The board study projects a water demand for Archuleta County of 8,200 acre-feet for the low

range; 9,000 acre-feet for the medium range; and 9,900 acre-feet for the high range.<sup>8</sup> Colorado Water Conservation Board, Municipal and Industrial Water Use 3-5 tbl.3-1 (draft, June 2009), <http://cwcb.state.co.us/NR/rdonlyres/6EDA55C5-8484-44B4-BAD5-EC4022DBB857/0/MISec3ForecastMeth.pdf>.

The ultimate question in a governmental entity water supply conditional appropriation case is what amount of unappropriated water should be conditionally decreed in the public's water resource to meet reasonably anticipated needs of the agency above its current water supply. Pagosa I, 170 P.3d at 317. The existing record documents an existing water supply available to the Districts in the amount of at least 7,000 acre-feet annually to the year 2025.<sup>9</sup> (Trial Tr. vol. 2, 330, 422, May 4, 2006). In addition, the Districts hold an existing conditional decree for Dry Gulch Reservoir storage in the amount of 6,300 acre-feet with an appropriation date of July 22, 1967. The Districts' 2003 planning report for the year 2040 (Districts' Ex. 75) projected a need only for 18.5 cfs of new diversion capacity from the San Juan River into the Dry Gulch Reservoir for a total of 12,500 acre-feet of storage, which includes a one-year safety

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<sup>8</sup> The Districts' exhibit 60 projects an annual total demand of 14,093 acre-feet for the year 2055.

<sup>9</sup> Trout Unlimited contends that the Districts possess existing water rights that yield approximately 8,500 acre-feet of water annually during dry years. (Br. to the Water Court on Remand 472).

margin in the event of extraordinary drought. The parties agree that the period between 2000 and 2004, a period of severe drought in the San Juan Basin and throughout Colorado, is an appropriate reference for calculating water availability in the San Juan River and its tributaries, the yield from the Districts' existing water rights during that period, and the Districts' need for additional water rights to meet their future needs.<sup>10</sup>

Yet, the claims the remand decree authorizes for the 2055 planning period -- a period which is only 15 years beyond the Districts' report projecting much lesser 2040 diversion and storage needs -- stand at a much expanded 100 cfs San Juan River diversion into storage and a total storage amount of 25,300 acre-feet. In contrast, the Districts' 2003 report (Districts' Ex. 60) projects a system demand of 14,093 acre-feet for the year 2055. At least 7,000 acre-feet of this demand can apparently be met by dry year yield from the Districts' existing water rights. The Districts' system demand is based on their assumed population of 62,906 persons, a population of at least 21,374 persons more than the Colorado Water Conservation Board study projects.

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<sup>10</sup> As mentioned in the existing record in this case, the Colorado River Basin experienced one of the worst droughts ever based on gauge records and tree ring studies during the 2000-2004 period.

At least a part of the remand decree amount is ascribable to the speculative recreational in-channel diversion, instream flow, and/or bypass flow amounts we have discussed above. On remand from this decision, the Water Court should take additional evidence and determine what amounts of water for storage and direct flow diversions are necessary to meet the Districts' reasonably anticipated needs for the 2055 planning period above the existing baseline water rights the Districts currently hold. The remand decree does not contain a finding regarding the amount of annual dry year yield available from the Districts' existing water rights. We recognize that the Colorado Water Conservation Board has only recently released its draft 2050 study of population and its water demand projections for Archuleta County. Yet, the newer study is the next iteration of the 2004 Statewide Water Supply Institute study Trout Unlimited introduced into evidence at trial in this case. If this study is introduced into evidence on remand from our decision in this case, the Water Court has authority to address its methodology and results, along with all other evidence of population projections and water supply needs, in determining what conditional water rights should be decreed to the Districts

for the 2055 planning period.<sup>11</sup>

We agree that the "reality checks" the Water Court has included in the remand decree are appropriate for upcoming diligence determinations. But the "reality checks" are not a substitute for the Districts' burden of proving the need for the amounts of water they claim should be conditionally decreed.

Finally, we reject the position of the Districts and amici municipal water suppliers that they act in a legislative capacity when they make conditional water appropriations; thus, they argue that the courts owe deference to the claimed amounts of water the suppliers deem reasonably necessary for their future use. To the contrary, the Colorado statutes and case law we have cited in Pagosa I and in this opinion provide that both public and private appropriators must carry the burden of proving their claims for a conditional decree. While the General Assembly has made an accommodation to governmental water

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<sup>11</sup> Remand decree provision 45.7 prohibits reuse of San Juan River water that would otherwise return to that river. We did not intend our reuse discussion in Pagosa I, 170 P.3d at 319, to prohibit reuse that optimizes use of the water the Districts initially divert and store from the San Juan River in priority and not to the injury of senior water rights. Rather, our discussion focused on the excessive reuse claims allowed in the initial decree, which had the effect of providing much more water than the Districts needed to meet their service area demands in a reasonable planning period. On remand from this opinion, reuse that optimizes the Districts' water use and serves to leave water in the San Juan River for future appropriation should be considered.

suppliers by allowing their conditional appropriations to be made and decreed for a future reasonable water supply period in reasonably anticipated amounts, it has assigned to the courts the responsibility to conduct the necessary proceedings for these determinations under a de novo standard of review, pursuant to sections 37-92-302, -304, and -305, C.R.S. (2009). The Districts and amici municipal water suppliers cite our decision in Bennett Bear Creek Farm Water & Sanitation District v. City & County of Denver, 928 P.2d 1254 (Colo. 1996), for the proposition that governmental entities make their claims for conditional appropriations in a quasi-legislative capacity and are entitled to deference in the amounts they choose. But that case is inapposite as Bennett relied on statutes expressly authorizing governmental entities to set rates for their water service in the exercise of legislative authority. See § 31-35-402(1)(f), C.R.S. (2009).

### III.

Accordingly, we reverse the judgment and decree of the Water Court and remand this case for further proceedings consistent with this opinion.