



Fourth Court of Appeals
San Antonio, Texas

OPINION

No. 04-11-00018-CV

THE EDWARDS AQUIFER AUTHORITY, and
Roland Ruiz in his official capacity as General Manager of the Edwards Aquifer Authority,
Appellants/Cross Appellees

v.

Glenn and JoLynn **BRAGG**,
Appellees/Cross Appellants

From the 38th Judicial District Court, Medina County, Texas
Trial Court No. 06-11-18170
Honorable Thomas F. Lee, Judge Presiding

Opinion by: Sandee Bryan Marion, Justice

Sitting: Catherine Stone, Chief Justice
Sandee Bryan Marion, Justice
Rebeca C. Martinez, Justice

Delivered and Filed: August 28, 2013

REVERSED AND REMANDED

This appeal presents numerous issues regarding the regulation and permitting of the limited water resources within the Edwards Aquifer region of South Texas. Appellants Glenn and JoLynn Bragg are commercial pecan growers who were denied a water permit for one of their pecan orchards and granted a limited permit for another of their pecan orchards. The Braggs successfully sued Edwards Aquifer Authority (“the Authority”) and Roland Ruiz in his official capacity as General Manager of the Authority for an alleged taking of their property and obtained a judgment awarding them damages.

The Authority and Ruiz now appeal asserting: (1) the Braggs sued the wrong party because the State's mandate of the Authority's actions precludes a takings claim against the Authority; (2) the Braggs' claims are barred by the statute of limitations; (3) no compensation is owed for any taking of the Braggs' Home Place Orchard; (4) the trial court incorrectly determined the amount of compensation owed for any taking of the Braggs' D'Hanis Orchard; (5) the Authority's permitting decision did not cause a taking of the Home Place Orchard or the D'Hanis Orchard; and (6) if it prevails, it is entitled to attorney's fees. In their cross-appeal, the Braggs contend the trial court erred (1) in calculating the compensation owed to them on both takings claims and (2) by concluding the Authority's denial of their permit applications did not amount to per se or categorical taking. We conclude the trial court properly determined the implementation of the Act resulted in a takings of the Braggs' property. However, because the trial court erred in quantifying the compensation owed to the Braggs, we reverse and remand.

BACKGROUND

The Braggs own two properties that are located over the Edwards Aquifer. In 1979, the Braggs purchased the sixty-acre Home Place Orchard, which is their homestead and a commercial pecan orchard. Soon after purchasing the property, the Braggs cleared the land and planted 1,820 pecan seedlings. In 1980, the Braggs drilled an Edwards Aquifer well and installed an irrigation system on the Home Place property. In 1983, the Braggs purchased the forty-two-acre D'Hanis Orchard, which since 1979 had been planted with 1,500 pecan trees and is a commercial pecan orchard. Initially, the D'Hanis trees were adequately irrigated from shallow, non-Edwards Aquifer wells on neighboring property. Eventually this water source became inadequate and the Braggs obtained a permit to drill an Edwards Aquifer well from the only regulatory authority in existence at the time, the Medina County Groundwater Conservation District. The Braggs completed this well on the D'Hanis property in 1995.

In 1993, the Texas Legislature enacted the Edwards Aquifer Act (the “Act”) to manage the aquifer and to sustain the diverse economic and social interests dependent on the aquifer. Act §§ 1.01, 1.06;¹ *Barshop v. Medina Cnty. Underground Water Conservation Dist.*, 925 S.W.2d 618, 623-24 (Tex. 1996). To carry out its conservation mandate in the face of anticipated increases in withdrawal of water from the aquifer and the potentially devastating effects of a drought, the Legislature created the Edwards Aquifer Authority. *See* Act § 1.02; *Barshop*, 925 S.W.2d at 623-24; *see also Edwards Aquifer Auth. v. Chemical Lime, Ltd.*, 291 S.W.3d 392, 394 (Tex. 2009). The Authority is a conservation and reclamation district authorized by Texas Constitution article XVI, section 59, and is “a governmental agency and a body politic and corporate,” and a “conservation and reclamation” district and a political subdivision of the State of Texas. *Barshop*, 925 S.W.2d at 624; *see* Act § 1.02. The Act empowers the Authority to implement a comprehensive regulatory scheme to control and manage the use of the Edwards Aquifer, and regulate groundwater withdrawals from the aquifer. *See* Act §§ 1.11, 1.14; *Barshop*, 925 S.W.2d at 624. The Legislature also directed the Authority to manage groundwater withdrawals from the aquifer by a permit system.² Act § 1.15. The Authority is responsible not only for permitting

¹ Act of May 30, 1993, 73d Leg., R.S., ch. 626, 1993 Tex. Gen. Laws 2350, amended by Act of May 16, 1995, 74th Leg., R.S., ch. 524, 1995 Tex. Gen. Laws 3280; Act of May 29, 1995, 74th Leg., R.S., ch. 261, 1995 Tex. Gen. Laws 2505; Act of May 6, 1999, 76th Leg., R.S., ch. 163, 1999 Tex. Gen. Laws 634; Act of May 25, 2001, 77th Leg., R.S., ch. 1192, 2001 Tex. Gen. Laws 2696; Act of May 28, 2001, 77th Leg., R.S., ch. 966, §§ 2.60–.62 and 6.01–.05, 2001 Tex. Gen. Laws 1991, 2021–2022, 2075–2076; Act of May 25, 2001, 77th Leg., R.S., ch. 1192, 2001 Tex. Gen. Laws 2696; Act of June 1, 2003, 78th Leg., R.S., ch. 1112, § 6.01(4), 2003 Tex. Gen. Laws 3188, 3193; Act of May 23, 2007, 80th Leg., R.S., ch. 510, 2007 Tex. Gen. Laws 900; Act of May 28, 2007, 80th Leg., R.S., ch. 1351, §§ 2.01–2.12, 2007 Tex. Gen. Laws 4612, 4627–4634; Act of May 28, 2007, 80th Leg. R.S., ch. 1430, §§ 12.01–12.12, 2007 Tex. Gen. Laws 5848, 5901–5909; Act of May 21, 2009, 81st Leg., R.S., ch. 1080, 2009 Tex. Gen. Laws 2818 [hereinafter “the Act”]. Citations are to the Act’s current sections, without separate references to amending enactments. The Act remains uncodified, but an unofficial compilation can be found on the Authority’s website, at <http://www.edwardsaquifer.org/files/EAAact.pdf>.

² After considering and rejecting numerous facial constitutional challenges to the Act, the Texas Supreme Court concluded the Act “is a valid exercise of the police power necessary to safeguard the public safety and welfare.” *Barshop*, 925 S.W.2d at 635. Following the *Barshop* opinion, the Authority promulgated rules governing the permitting process, as required by section 1.11 of the Act, outlining when and in what amounts permits would be issued. *See* Edwards Aquifer Auth. Rules §§ 705.67(e)-(i), 705.77; *see* Act § 1.11.

groundwater use but for “protect[ing] terrestrial and aquatic life,” specifically, “species that are designated as threatened or endangered under applicable federal or state law.” *Id.* §§ 1.01, 1.14(a)(7).

In the Act, the Legislature established an aquifer-wide cap on water withdrawals by nonexempt wells of 450,000 acre-feet of water per year through 2007 and 400,000 acre-feet per year thereafter. *Id.* § 1.14(b), (c). It authorized the Authority to review and increase the cap if after appropriate study, implementation of water management and drought planning strategies, and consultation with state and federal agencies, the Authority determines that additional water is safely available from the aquifer. *Id.* § 1.14(d); *see Barshop*, 925 S.W.2d at 624. The permit system established by the Legislature gives preference to “existing users,” which the Act defines as people who have withdrawn and beneficially used underground water from the aquifer on or before June 1, 1993. Act § 1.03(10); *Barshop*, 925 S.W.2d at 624. Under the Act, the Authority may grant initial regular permits (“IRPs”) only to existing users who properly file a “declaration of historical use,” and who can establish, by “convincing evidence,” beneficial use of underground water withdrawn between June 1, 1972, and May 31, 1993. Act §§ 1.16(a), (b), (d).

The Act entitles an existing user to a permit allowing the user to withdraw an amount of water equal to the user’s maximum beneficial use of water without waste during any one calendar year of the historical period, unless the aggregate total of such use throughout the aquifer exceeds the 450,000 acre-foot cap.³ *Id.* § 1.16(e). If this occurs, the Legislature has directed that the Authority proportionately adjust the amount of water authorized for withdrawal under the permits to meet the cap. *Id.* This downward adjustment is limited in two circumstances: (1) an existing

³ “An acre-foot is the amount of water that would cover an acre of land to one foot, approximately 325,850 gallons. The aquifer-wide cap of 450,000 acre-feet converts to approximately 147 billion gallons of water.” *Barshop*, 925 S.W.2d at 624 n.1.

irrigation user must receive a permit of not less than two acre-feet a year for each acre of land the user actually irrigated in any one calendar year during the historical period; and (2) an existing user who operated a well for three or more years during the historical period must receive a permit for at least the average amount of water withdrawn annually during the historical period. *Id.* Subject to certain restrictions, permitted water rights may also be sold or leased. *Id.* §§ 1.22, 1.34.

Although legislatively decreed to become effective on September 1, 1993, due to several lawsuits, the Act did not become effective until 1996. *See Chemical Lime, Ltd.*, 291 S.W.3d at 393 (“As it happened, the Authority began operations the day we issued our opinion [in *Barshop*] and thus became effective.”). The Act allows existing users to “apply for an initial regular permit by filing a declaration of historical use of underground water withdrawn from the aquifer during the historical period from June 1, 1972, through May 31, 1993.” *See* Act § 1.16(a). The application requires applicants to “[s]tate the amount of Edwards Aquifer water that you claim as your maximum beneficial use without waste during any one calendar year of the historical period (June 1, 1972 through May 31, 1993) in acre-feet” The Braggs applied for IRPs for their Home Place and D’Hanis orchards in which they specified their use of groundwater for 1996; a period well after the end of the historical period. For the Home Place Orchard, the Braggs claimed as their maximum beneficial use 228.85 acre-feet of water, and they stated in the application the following: “Well also supplies water for house use. Irrigation water is used to water the pecan orchard and the Historical Use should not be applicable because trees require more water each year as they reach maturity.” For the D’Hanis Orchard, the Braggs claimed as their maximum beneficial use 193.12 acre-feet of water.

As a result of their use of water during the historical period of 1972 through 1993 on the Home Place Orchard, the Braggs were granted a permit for 120.2-acre feet of Edwards Aquifer water per year. Because the Braggs had no historical use on the D’Hanis Orchard, that permit

application was denied. On November 21, 2006, the Braggs sued the Authority for an alleged taking of their property and for violation of their federal civil rights. The suit was removed to federal court, where the federal court dismissed the Braggs' civil rights claims and remanded the takings claims back to state court.

In state court, the Braggs moved for a partial summary judgment on liability for the takings claims. The Authority also moved for a partial summary judgment on various legal issues. The trial court denied the Authority's motion and granted the Braggs' motion, concluding the Authority's actions resulted in a regulatory taking. A bench trial was then held on the issue of compensation due to the Braggs, which involved a determination of the amount of water they were entitled to and the value of that water. In its final judgment, the trial court ruled that (1) the Braggs did not suffer a physical, or a per se or categorical taking of their property and the property still had value; (2) the Authority's denial of the permit application for the D'Hanis Orchard amounted to a regulatory taking for which they are entitled to \$134,918.40 in compensation; (3) the Authority's granting of the permit application on the Home Place Orchard for an amount less than requested by the Braggs amounted to a regulatory taking for which they are entitled to \$597,575.00 in compensation; and (4) limitations did not bar the Braggs' claims. Both parties filed notices of appeal.

**IS THE STATE OF TEXAS, RATHER THAN THE AUTHORITY,
THE PARTY LIABLE FOR ANY TAKINGS RESULTING FROM
IMPLEMENTATION OF THE EDWARDS AQUIFER AUTHORITY ACT**

In its conclusions of law, the trial court concluded the Authority "acted solely as mandated by the Act and without discretion in denying the D'Hanis Application and in granting a permit on the Home Place Property for 120.2 acre-feet of annual Edwards Aquifer water withdrawals." In its first issue on appeal, the Authority argues that as a result of this conclusion, any liability for a taking resulting from the Authority's non-discretionary implementation of the Act lies with the

State of Texas and not with the Authority. Therefore, according to the Authority, the Braggs should have sued the State on their takings claims. The Braggs counter that the Authority was the governmental actor whose actions resulted in a taking of their rights in their groundwater, and, regardless of whether the State might also be a proper defendant, the Authority bears liability for justly compensating them. This issue appears to be a case of first impression in Texas.⁴

The Texas Constitution expressly provides that “[n]o person’s property shall be taken, damaged or destroyed or applied to public use without adequate compensation being made” TEX. CONST. art. I, § 17. Here, the Act expressly provides that the Legislature “intends that just compensation be paid if implementation of [the Act] causes a taking of private property or the impairment of a contract in contravention of the Texas or federal constitution.” Act § 1.07. “Based on this provision in the Act, we must assume that the Legislature intends to compensate Plaintiffs for any taking that occurs.” *Barshop*, 925 S.W.2d at 631.

The Authority relies on *Barshop*, in part, for its argument that the State is the governmental actor with regard to Edwards Aquifer regulation and should provide compensation if a takings results from the Act’s application. We believe the Authority reads *Barshop* too broadly. The Supreme Court stated “the State still can take the property for a public use as long as adequate compensation is provided.” *Id.* at 630. And, as stated above, the Court noted “the Legislature” intended compensation for any taking that occurs. *Id.* at 631. However, the Court also noted “the Authority may constitutionally take property as long as *it* provides adequate compensation.” *Id.* at 628 (emphasis added). We do not believe any language in the opinion should be read as a

⁴ In *Edwards Aquifer Authority v. Day*, the State argued that only the Authority, an independent political subdivision, could be liable to Day on his takings claim, and therefore the State was immune from the Authority’s third-party suit. The Authority responded that it was required by state law to act as it did and that it was the Act itself, rather than the Authority’s actions under it, that resulted in any takings liability. 369 S.W.3d 814, 821, n.24 (Tex. 2012). However, because the issue was not developed below and not fully briefed on appeal, the Supreme Court declined to address it.

recognition by the Supreme Court that only the State or only the Authority is liable for any takings under the Act. Neither liability nor what entity pays if liable was an issue considered by the *Barshop* Court and could not have been the issue because, as that Court noted, the Authority at the time was not yet operating due to delays arising from litigation. Therefore, we believe the issue of which entity must provide compensation for a takings claim—the State or the Authority—was not decided by the *Barshop* Court.

The Authority also relies on various cases for the proposition that where a subordinate level of government merely enforces a state statute and, in doing so, violates the constitution, the state and not the subordinate level of government is the liable party.

In *Echols v. Parker*, Echols and four other plaintiffs participated in the peaceful boycott and picketing of a Sunflower, Mississippi pharmacy. 909 F.2d 795, 797 (5th Cir. 1990). The owner of the pharmacy, Parker, was Sunflower's mayor. Parker contacted the county attorney for Sunflower County, Ben Saucier, to ask if the picketers could be prosecuted for their activities. Saucier discussed the problem with the district attorney, Frank Carlton, and then instituted criminal proceedings against Echols in Sunflower County Justice Court under Mississippi's anti-boycott statute. The plaintiffs were arrested, and subsequently brought a civil action under 42 U.S.C. § 1983 against Parker, Carlton, Saucier, the Justice Court Judge, and Sunflower County seeking a declaratory judgment that the statute was unconstitutional. The district court determined the statute was unconstitutional and awarded attorney's fees. The court also directed the State of Mississippi, although not a named party to the suit, to pay the plaintiffs their attorney's fees because the local officials involved had been sued in their official capacity for enforcing an unconstitutional State policy. The district court reserved determination of the amount of attorney's fees. No appeal was taken from this judgment. Eleven months later, the district court entered an order awarding plaintiffs their attorney's fees in the amount of \$11,773.36 to be paid by the State.

The State appealed contending the district court erred in ordering it to pay Echols' attorney's fees. The State did not argue Echols was not entitled to attorney's fees; instead, the State asserted it was not liable for those fees. *Id.* at 799.

The Fifth Circuit concluded the officials involved were acting as State agents when they enforced the Mississippi anti-boycott statute. *Id.* at 800. The court noted that “[t]he actions taken by the county officials in Echols’ case are more comparable to ‘the duty of a county sheriff in enforcing a state law’ than to any county administrative decision or policy implementation.” *Id.*

The court held as follows:

Thus, the State cannot dissociate itself from actions taken under its laws by labeling those it commands to act as local officials. A county official pursues his duties as a state agent when he is enforcing state law or policy. He acts as a county agent when he is enforcing county law or policy. It may be possible for the officer to wear both state and county hats at the same time, . . . but when a state statute directs the actions of an official, as here, the officer, be he state or local, is acting as a state official. Thus, the district court correctly ordered the State of Mississippi to pay Echols’ . . . attorney’s fees.

Id. at 801.

In reaching its decision, the *Echols* court relied on its reasoning in *Familias Unidas v. Briscoe*, 619 F.2d 391 (5th Cir. 1980), where a local Texas school board petitioned a Medina County judge to order a citizen’s group to disclose its membership list. Texas Education Code section 4.28 granted the judge this authority. The judge granted the petition, whereupon the citizens group sued the judge and the school board for injunctive and declaratory relief. The Fifth Circuit ruled the statute violated the First Amendment and one of the plaintiffs was entitled to attorney’s fees. *Id.* at 402. The court then turned to the question of who should pay the fees.

As to the claims against the defendants in their official capacity, the court stated that “[a]ctions for damages against a party in his official capacity are, in essence, actions against the governmental entity of which the officer is an agent.” *Id.* “Thus, damages may be awarded against

a defendant in his official capacity if they would be available against the governmental entity, itself.” *Id.* The court relied on the U.S. Supreme Court’s decision in *Monell v. Department of Social Services*, which held that school districts and local governments are “persons” subject to suit under section 1983, “where, as here, the action that is alleged to be unconstitutional implements or executes a . . . decision officially adopted and promulgated by that body’s officers.” 436 U.S. 658, 690 (1978). The Fifth Circuit concluded that the request for implementation of section 4.28, voted by the Board of Trustees, represented the official policy of the Hondo Independent School District, and, therefore, the district was liable to one of the plaintiffs for nominal damages based on the implementation of that policy. *Briscoe*, 619 F.2d at 404.

The court, however, did not believe the county judge’s compliance with the school board request, by his issuance of the statutory disclosure demands, similarly represented the official policy of Medina County, stating:

. . . Because of the unique structure of county government in Texas, the judge like other elected county officials, such as the sheriff and treasurer holds virtually absolute sway over the particular tasks or areas of responsibility entrusted to him by state statute and is accountable to no one other than the voters for his conduct therein. Thus, at least in those areas in which he, alone, is the final authority or ultimate repository of county power, his official conduct and decisions must necessarily be considered those of one “whose edicts or acts may fairly be said to represent official policy” for which the county may be held responsible under section 1983. The narrow authority delegated to the county judge in section 4.28, however, bears no relation to his traditional role in the administration of county government or to the discretionary powers delegated to him by state statute in aid of that role. Instead, his duty in implementing section 4.28, much like that of a county sheriff in enforcing a state law, may more fairly be characterized as the effectuation of the policy of the State of Texas embodied in that statute, for which the citizens of a particular county should not bear singular responsibility. Accordingly, under the standards set forth in *Monell* we hold that Medina County is not susceptible to liability under section 1983 for [the judge’s] issuance of the disclosure demands.

Id. (citations omitted). The court also stated: “the [State] statute obviously represents the official policy of the State.” *Id.* As to the award of attorney’s fees, the court concluded that “the Hondo

Independent School District and the State of Texas will actually be responsible for plaintiff's attorney's fees. However, because the court held Medina County was not susceptible to this section 1983 suit under *Monell* because [the judge's] actions did not implement or constitute an official county policy the county would share no responsibility for plaintiffs' fees and costs." *Id.*

Finally, in *Hearts Bluff Game Ranch, Inc. v. State*, Hearts Bluff sued the State and the United States Army Corps of Engineers after the Corps denied its application for a permit based on the State's designating Hearts Bluff's land as part of a potential reservoir. The Texas Supreme Court concluded Hearts Bluff did not have a takings claim because the State did not have any authority to issue a federal permit. The Court held as follows:

Causation is intrinsic to a takings claim. The governmental entity sued must have taken direct governmental action, or have been the proximate cause, of the harm. Here, neither [the Texas Water Development Board] nor the State of Texas satisfied that requirement. Instead, that characterization fits the Corps, as the only body with regulatory authority to grant or deny [the] . . . permits.

381 S.W.3d 468, 484 (Tex. 2012).

These cases appear to support the Authority's argument that when an actor has no discretion but to enforce a state law that may be characterized as the effectuation of the policy of the State of Texas embodied in that statute, it is the State that is liable for any injury proximately caused by the implementation of the state law. Here, there is no dispute the Authority's actions were dictated by the Act. But, even if the Authority may have had no discretion to rule other than it did on the Braggs' applications, there is a distinction between the cases relied on by the Authority and this case. In those cases, the issue was whether a county or county employee should be held liable for the enforcement of a state law. Here, we have a State of Texas actor (the Authority) enforcing a State of Texas law. *See* Act §§ 1.02, 1.14, 1.15 (Authority is "a governmental agency and a body politic and corporate" charged with regulating groundwater withdrawals from the aquifer by a permit system).

Also, neither party cites to the Texas Water Code under this argument, but we believe it is relevant that the Water Code specifically allows for suits against water districts. “A person, firm, corporation, or association of persons affected by and dissatisfied with any provision or with any rule or order made by a district is entitled to file a suit against the district or its directors to challenge the validity of the law, rule, or order. The suit shall be filed in a court of competent jurisdiction in any county in which the district or any part of the district is located. The suit may only be filed after all administrative appeals to the district are final.” TEX. WATER CODE ANN. § 36.251 (West 2008). “A district may sue and be sued in the courts of this state in the name of the district by and through its board. All courts shall take judicial notice of the creation of the district and of its boundaries.” *Id.* § 36.066(a). “Any court in the state rendering judgment for debt against a district may order the board to levy, assess, and collect taxes or assessments to pay the judgment.” *Id.* § 36.066(b). The word “district” includes an authority created under section 59, Article XVI, of the Texas Constitution. *Id.* § 36.001(1). The Authority was created under section 59. Act § 1.02(b).

The Authority also argues whose “purse” will be used to pay for any taking is important in determining who is liable for the taking. The Authority contends the State acts for all the people of Texas and derives its revenue from everyone in the state. On the other hand, the Authority has jurisdiction only within its boundaries, and its funds come from fees paid by permit holders. Therefore, the Authority argues that if the State mandates a taking, liability for that taking should fall on the State, and not just on permit holders. The issue of the sufficiency of funds to compensate claimants who successfully establish a takings claim has been raised twice in the Texas Supreme Court, but not resolved. In *Barshop*, the claimants asserted the Authority would not possess sufficient funds to compensate them for the taking of their property. 925 S.W.2d at 631. The Supreme Court considered this argument “entirely speculative.” *Id.* “If an individual landowner’s

property is taken and no compensation is provided, that landowner may then bring a challenge to the Act as it is applied or pursue other possible remedies.” *Id.* “It will be the landowner’s burden to establish a vested property right in the underground water which the Authority eviscerated. The landowner will also have to prove damages and the failure to receive adequate compensation from the State.” *Id.* “If a landowner establishes such a case, then the Act may be held unconstitutional ‘as applied.’”

In *Edwards Aquifer Authority v. Day*, the Authority asserted that if its groundwater regulation could result in a compensable taking, the consequences would “be nothing short of disastrous.” 369 S.W.3d 814, 843 (Tex. 2012). The Authority contended a great majority of landowners in its area could not show the historical use necessary for a permit, and therefore the potential number of takings claims was enormous. *Id.* “The Authority worrie[d] that the financial burden of such claims could make regulation impossible, or at least call into question the validity of existing permits. Regulatory takings litigation is especially burdensome, the Authority note[d], because of the uncertainties in applying the law that increase the expense and risk of liability.” *Id.* The Authority argued “the uncertainties are worse with groundwater regulation . . . because there is no sure basis for determining permit amounts other than historical use.” *Id.* The *Day* Court noted that the Authority had identified only three takings claims filed in the more than fifteen years that it had been in operation. *Id.* Although the Court acknowledged it could not know the extent to which the Authority’s fears might materialize in the future, the Court stated, “the expense of such litigation cannot be denied,” and “the burden of the Takings Clause on government is no reason to excuse its applicability.” *Id.* at 843-44.

We believe the Legislature understood the potential financial impact involved when it expressly provided in the Act that “just compensation be paid if implementation of [the Act] causes a taking of private property” Act § 1.07. But, the answer to the question of who must pay is

not determinative of whether the Authority is a proper defendant in takings cases brought pursuant to the Act. Although the Authority's actions in this case may not have been discretionary and even if the State might be a proper party, we conclude the Authority also is a proper party to a takings lawsuit instituted under the Act.

STATUTE OF LIMITATIONS

One of the issues on which the Authority moved for summary judgment was whether the Braggs' claims were barred by the ten-year statute of limitations. In its order ruling on the parties' motions for summary judgment, the trial court stated (1) there was no dispute that the D'Hanis permit application was denied on September 21, 2004 and the Home Place permit application was partially denied on February 8, 2005; (2) the Braggs filed suit on November 21, 2006; and (3) the filing date was more than ten years after the original effective date of the Act (June 28, 1996) but within ten years of the date of the action on the permit applications. The court concluded the Authority's regulatory scheme tolled the ten-year limitations period and, thus, the Braggs' takings claims were not time-barred.

On appeal, the Authority asserts it was the enactment of the Act, and not its application, that injured the Braggs' property values or usefulness and started the running of the statute of limitations. Therefore, the Authority argues the Braggs' takings claims are time-barred because their claims accrued in June 1996 and the ten-year statute of limitations had expired by the time they filed suit in November 2006. The Braggs counter that (1) because the Authority previously argued in federal court that their claims accrued when the IRP applications were denied, thereby securing dismissal of their related due-process claims, the Authority is judicially estopped from now asserting that their claims accrued on a different date; and (2) their cause of action did not accrue until their permit applications were denied in 2004 and 2005, well within the limitations period.

A. Judicial Estoppel

The Braggs contend the Authority successfully argued in the federal court proceeding that their claims accrued when the Authority denied the IRP applications; therefore, the Authority is estopped from taking a contrary position in this proceeding. The doctrine of judicial estoppel precludes a party who successfully maintains a position in one proceeding from afterwards adopting a clearly inconsistent position in another proceeding to obtain an unfair advantage. *Ferguson v. Bldg. Materials Corp. of Am.*, 295 S.W.3d 642, 643 (Tex. 2009).

On appeal, the parties do not raise the issue of whether Texas judicial estoppel or federal judicial estoppel applies. However, Texas courts tend to apply federal judicial estoppel law when the prior proceeding was in federal court. Several factors are typically considered when deciding whether to apply the doctrine in a particular case. *Zedner v. United States*, 547 U.S. 489, 504 (2006). “First a party’s later position must be clearly inconsistent with its earlier position.” *Id.* “Second, courts regularly inquire whether the party has succeeded in persuading a court to accept that party’s earlier position.” *Id.* Third, a court may consider “whether the party seeking to assert an inconsistent position would derive an unfair advantage or impose an unfair detriment on the opposing party if not estopped.” *Id.* “Additional considerations may inform the doctrine’s application in specific factual contexts.” *New Hampshire v. Maine*, 532 U.S. 742, 751 (2001).

On November 21, 2006, the Braggs filed suit against the Authority, pleading takings claims under the Texas Constitution and equal protection and due process claims under 42 U.S.C. § 1983. After the Authority removed the case to federal court on the grounds of federal question jurisdiction, the Braggs filed an amended complaint raising additional section 1983 claims.

In their federal complaint, the Braggs stated the Authority denied its D’Hanis application on September 21, 2004, and partially granted its Home Place application on February 8, 2005. The Braggs contended that the denials, in whole or in part, of their IRP applications violated their due

process and equal protection rights.⁵ In its motion to dismiss the Braggs' section 1983 claims associated with the D'Hanis Orchard, the Authority stated "from the face of the [complaint], it is clear that by September 21, 2004 (the date of the Authority's decision on the D'Hanis Application), *at the very latest*, [the Braggs'] cause of action for the alleged injury to their property interests related to the D'Hanis Decision began to accrue—an injury the [Braggs] now claim entitled them to relief under 42 U.S.C. § 1983." [Emphasis added.] The Authority alleged a two-year statute of limitations applied. The Authority then argued, "[The Braggs] initiated this lawsuit on November 21, 2006—two months after the *latest possible date* that their D'Hanis Decision due process and equal protection claims became time-barred." [Emphasis added.]

In its order, the federal court held "current law requires § 1983 claims to be brought within the two year statute of limitations window." *Bragg v. Edwards Aquifer Auth.*, No. Civ.A.SA-06-CV1129XR, 2007 WL 2491834, at *3 (W.D. Tex. Aug. 31, 2007), *aff'd*, 342 F. App'x 43 (5th Cir. 2009). The court also held that for purposes of the Federal Rule of Civil Procedure 12b(6) motion to dismiss, the court "must accept the facts alleged in the complaint as true and construe the allegations in the light most favorable to the" Braggs. *Id.* at *2. The court held that, because the standard governing the accrual of a cause of action under section 1983 is determined by federal law and that standard provides that the time for accrual is when the plaintiff knows or has reason to know of the injury which is the basis of the action, the two-year statute of limitations applied. *Id.* at *4. The court then considered the issue of when the claim accrued. The court held the claim on the D'Hanis Orchard began to accrue on September 21, 2004 because this was the date on which the Authority gave the Braggs notice of its final order completely denying the D'Hanis permit;

⁵ The Braggs' section 1983 claim related to the Home Place Orchard involved claims arising from settlement negotiations. Their section 1983 claim related to the D'Hanis Orchard involved the denial of their IRP application. Therefore, only the federal court proceeding as to the D'Hanis Orchard is relevant to our discussion.

therefore, the Braggs knew or had reason to know of their due process and equal protection injuries on that date. *Id.*

We conclude the Authority's argument in federal court on the Braggs' section 1983 claims does not preclude the Authority from asserting a different accrual date in the underlying lawsuit on the takings claims. The Authority's position in federal court that the Braggs' section 1983 claim for the D'Hanis Orchard accrued *at the latest* on September 21, 2004 for the purpose of a two-year statute of limitations period is not "clearly inconsistent" with its position here that the claims accrued *at an earlier date*. Although the Authority succeeded in persuading the federal court to accept its position that a two-year statute of limitations applied, its position was taken in the context of a section 1983 claim and through the procedural device of a federal 12b(6) motion to dismiss. We do not believe the Authority derives an unfair advantage or imposes an unfair detriment on the Braggs if not estopped because, again, the dispute here is a takings claim and not a section 1983 claim, and here the limitations issue was raised in the context of a traditional summary judgment proceeding. Finally, as an additional consideration, we note that in federal court the Authority did not unequivocally state the Braggs' 1983 claim accrued on September 21, 2004. Instead, the Authority merely asserted—for the purpose of a two-year statute of limitations period—that the claim accrued "at the latest" on that date. Therefore, we conclude the Authority is not estopped from taking the position that the Braggs' takings claims accrued in June 1996.

B. Limitations Period

On appeal, both the Authority and the Braggs base their limitations arguments on the application of the ten-year statute of limitations. In an amicus brief filed by the City of San Antonio By and Through the San Antonio Water System ("SAWS"), SAWS argues that because the restrictions on the use of groundwater are not a physical taking, either the four-year residual limitations period should apply or, alternatively, where the claim is for injury to property, the two-

year limitations period should apply. We disagree and, as explained below, conclude the ten-year statute of limitations applies.

The Texas Supreme Court has yet to decide which limitations period applies to a regulatory takings claim. *See Hallco Tex. Inc. v. McMullen Cnty.*, 221 S.W.3d 50, 74 (Tex. 2006) (Hecht, J. dissenting) (“It is not entirely clear what statute of limitations applies to such claims”). However, a regulatory taking is a type of inverse condemnation.⁶ *See Mayhew v. Town of Sunnyvale*, 964 S.W.2d 922, 933 (Tex. 1998). Therefore, we look to case law discussing the statute of limitations for inverse condemnation claims.

There is no statutory provision specifically providing a limitations period for inverse condemnation actions. Texas courts agree, however, that a plaintiff’s cause of action for inverse condemnation is barred after the expiration of the ten-year period of limitations to acquire land by adverse possession, which is found in Texas Civil Practice and Remedies Code section 16.026. *See Brazos River Auth. v. City of Graham*, 163 Tex. 167, 354 S.W.2d 99, 110 (1961) (holding ten-year limitations period applied while rejecting claim that two-year limitations barred action for taking that occurred when operation of dam and formation of lake caused flooding of sewage disposal plant); *Waddy v. City of Houston*, 834 S.W.2d 97, 102 (Tex. App.—Houston [1st Dist.] 1992, writ denied) (affirming summary judgment where city established that sewer pipe’s installation seventy years before suit was filed was significantly more than ten-year limitations period for inverse condemnation); *Hudson v. Arkansas Louisiana Gas Co.*, 626 S.W.2d 561, 563

⁶ Generally, in a statutory condemnation proceeding, the government compensates the owner before appropriating property, either by paying a mutually agreed price or by paying the value as determined. *See* TEX. PROP. CODE § 21.042. If, however, the government appropriates property without paying adequate compensation, the owner may recover the resulting damages in an “inverse condemnation” suit. *See, e.g., City of Austin v. Teague*, 570 S.W.2d 389 (Tex. 1978); *City of Abilene v. Burk Royalty Co.*, 470 S.W.2d 643 (Tex. 1971). The claim is denominated “inverse” because the property owner asserts the claim. *City of Houston v. Texan Land & Cattle Co.*, 138 S.W.3d 382, 387 (Tex. App.—Houston [14th Dist.] 2004, no pet.).

(Tex. App.—Texarkana 1981, writ ref'd n.r.e.) (reversing summary judgment where trial court failed to apply ten-year limitations period to inverse condemnation claim); *Hubler v. City of Corpus Christi*, 564 S.W.2d 816, 823 (Tex. Civ. App.—Corpus Christi 1978, writ ref'd n.r.e.) (distinguishing ten-year limitations period for “taking” from two-year period for “damaging” of property).

We agree with these cases and conclude that where, as here, a regulatory taking results from an unreasonable interference with the landowner’s right to use and enjoy the property—such as by restricting access or denying a permit for development—the ten-year statute of limitations applies.

C. Accrual Date

We next must determine when the Braggs’ takings claims accrued: on the enactment date of the Act or on the dates the permit applications were granted/denied in 2004 and 2005.

We begin by noting there are several distinctions between physical takings and regulatory takings. The former “are relatively rare, easily identified, and usually represent a greater affront to individual property rights,” while the latter “are ubiquitous and most of them impact property values in some tangential way.” *Tahoe–Sierra Pres. Council, Inc. v. Tahoe Reg’l Planning Agency*, 535 U.S. 302, 324 (2002). As a result, it is often inappropriate to treat cases involving one as controlling precedents for the other. *Id.* at 323-24. The distinction between physical and regulatory takings also leads to a different accrual date for limitations. Generally, a cause of action accrues when a wrong produces an injury. *Lowenberg v. City of Dallas*, 168 S.W.3d 800, 802 (Tex. 2005). A physical taking causes injury when the property itself is taken. *Id.* However, “[w]hen, as here, there has been no ‘entry’ on land, but rather an interference with the right to use the property, limitations must begin when that interference first occurs.” *Trail Enters., Inc. v. City of Houston*, 957 S.W.2d 625, 631 (Tex. App.—Houston [14th Dist.] 1997, writ denied). Generally,

a cause of action accrues for limitations purposes when facts come into existence authorizing a claimant to seek a judicial remedy. *Murray v. San Jacinto Agency, Inc.*, 800 S.W.2d 826, 828 (Tex. 1990).

Because a cause of action accrues for limitations purposes when facts come into existence authorizing a claimant to seek a judicial remedy, an examination of “the underpinnings of the ripeness requirement in takings litigation” is helpful. *Hallco Tex., Inc.*, 221 S.W.3d at 59. “A regulatory-takings claim may challenge a land-use restriction on its face or as applied to particular property.” *Id.* at 62. “A facial challenge is ripe when the restriction is imposed, but an as-applied claim is not ripe until the regulatory authority has made a final decision regarding the application of the regulation to the property.” *Id.* 62-63. A “final decision” usually requires the denial of a variance from the controlling regulation unless a request for variance would be futile. *Id.* at 63. “In a regulatory-takings case, the dispute must be sufficiently focused for the court to determine exactly how far a general land-use restriction extends in specific circumstances.” *Id.* at 71. “General restrictions almost always have exceptions. The final-decision requirement allows regulators full discretion in adjusting restrictions to particular property before a constitutional obligation to compensate a landowner can be triggered.” *Id.* at 71-72.

Also, “[i]n an as-applied challenge, requiring a claimant to pursue a variance or otherwise test the regulation’s application in order to ripen the claim allows the factfinder to measure the extent of the regulation’s economic impact so that the takings claim may be adequately assessed.” *Id.* at 59. Thus, in cases in which a general zoning or land-use restriction is subject to discretionary application or variance, “assessment of the regulations’ economic impact depend[s] upon determining the optimum use that the commission would ultimately allow after considering the developer’s proposals to meet the commission’s concerns.” *Id.* In such cases, the impact on a particular property may not be ripe until a variance is finally denied. *Id.* On the other hand, where

an ordinance prohibits precisely the use a land-owner intends to make of the property, and nothing in the ordinance suggests any exceptions would be made, the taking claim is ripe upon enactment because at that moment the “permissible uses of the property [were] known to a reasonable degree of certainty.” *Id.* (quoting *Palazzolo v. Rhode Island*, 533 U.S. 606, 620 (2001)).

In *Barshop*, the Supreme Court considered the plaintiffs’ facial challenge to the Act. The Court noted that “[t]he issue of when a particular regulation becomes an invasion of property rights in underground water is complex and multi-faceted. The problem is further complicated in this case because Plaintiffs have brought this challenge to the Act before the Authority has even had an opportunity to begin regulating the aquifer.” 925 S.W.2d at 626. Because the Court concluded the plaintiffs did not establish the Act was unconstitutional on its face, the Court declined to resolve “the clash between property rights in water and regulation of water.” *Id.* Before reaching this conclusion, the Court first turned to the question of whether the plaintiffs had standing to bring the lawsuit, the first element of which is whether they would suffer some actual or threatened injury under the Act. *Id.*

The State argued the plaintiffs could not establish an actual or threatened injury because they were merely speculating that they would be deprived of property rights under the Act. The State argued the plaintiffs had to be actually deprived of their property before they could maintain a challenge to the Act. The Court stated this argument misconstrued the nature of the plaintiffs’ challenge and held as follows:

Plaintiffs do not—and cannot—assert that the Act is unconstitutional “as applied” because the Act has never been applied to anyone. Instead, Plaintiffs claim only that the Act is unconstitutional on its face. To sustain a facial challenge, the challenging party must establish that the statute, by its terms, always operates unconstitutionally. Thus, through this challenge, Plaintiffs are arguing that the Act will, under all circumstances, deprive them of their property rights in underground water. We therefore conclude that Plaintiffs have properly alleged an actual or threatened injury under the Act.

Id. at 626-27.

After determining the plaintiffs had standing to bring their lawsuit, the Court next addressed the plaintiffs' argument that the Act was facially unconstitutional as a taking without just compensation. *Id.* at 628. The Court ultimately decided any violation of the constitution was hypothetical and, therefore, the plaintiffs could not establish that, under all circumstances, the Act would deprive them of their property. *Id.* at 631.

The U.S. Supreme Court has noted that, in determining whether a regulatory taking occurred, "[t]he posture of the case is critical because we have recognized an important distinction between a claim that the mere enactment of a statute constitutes a taking and a claim that the particular impact of government action on a specific piece of property requires the payment of just compensation." *Keystone Bituminous Coal Ass'n v. DeBenedictis*, 480 U.S. 470, 494 (1987). The Court stated that "the constitutionality of statutes ought not be decided except in an actual factual setting that makes such a decision necessary." *Id.* "Adherence to this rule is particularly important in cases raising allegations of an unconstitutional taking of private property." *Id.* The Court acknowledged it "has generally 'been unable to develop any 'set formula' for determining when 'justice and fairness' require that economic injuries caused by public action be compensated by the government, rather than remain disproportionately concentrated on a few persons.'" *Id.* (citations omitted). Rather, the Court has analyzed "taking" claims by engaging in essentially ad hoc, factual inquiries that must be conducted with respect to specific property, and the particular estimates of economic impact and ultimate valuation relevant in the unique circumstances." *Id.*

The conclusion we draw from *Barshop* and *Keystone* is that any "as applied" challenge brought in either 1993 or 1996 would not be ripe because, at that time, the Authority had not yet had an opportunity to begin regulating the aquifer and the Act had not yet been applied to anyone. Therefore, we conclude the Braggs' takings claims did not become ripe, and therefore did not

accrue, until the Authority made its final decisions regarding the application of the Act to the Braggs' permit applications. We do not disagree that the Authority may have had no discretion with respect to its decision or that the Braggs knew all there was to know about the Act when it was enacted. However, significant to our conclusion is that the Legislature expressly required just compensation be paid if "implementation" of the Act resulted in a taking. *See* Act § 1.07. The Act does not define "implementation"; therefore, we give it its common meaning. *See* TEX. GOV'T CODE ANN. § 311.011(a) (West 2005) (terms not specifically defined by statute are construed according to rules of grammar and common usage). Dictionaries determine a word's common use, and, "implement" means "1: CARRY OUT, ACCOMPLISH *esp.*: to give practical effect to and ensure of actual fulfillment by concrete measures" WEBSTER'S NINTH COLLEGIATE DICTIONARY 604 (1983). As to the Braggs, the provisions of the Act were not implemented or applied until 2004 and 2005. Therefore, the Braggs' claims are not time-barred.

TAKING OF HOME PLACE ORCHARD AND D'HANIS ORCHARD

In its fifth and sixth issues, the Authority asserts the trial court erred in finding a regulatory taking of the orchards because the regulatory impact on the Braggs caused by the Act did not unreasonably interfere with the Braggs' use and enjoyment of the orchards such that the orchards were rendered unsuitable for their intended purpose. The Authority contends the value of the orchards increased; therefore, there was no taking. The premise of the Authority's argument is that the Braggs actually benefited from the regulation because (1) the impact of the Act included conserving and preserving water in the aquifer so that they could continue to rely on and use the water to irrigate their trees; (2) the impact of the Act included the benefit of preserving the Braggs' ability to withdraw water from the Edwards Aquifer for irrigation at the nominal cost associated with their permit on the Home Place Orchard or with the expense to buy or lease water for the D'Hanis Orchard; (3) the adoption of the permit scheme created a market for buying and leasing

water rights associated with a permit; (4) the permit scheme gave the Braggs additional value associated with their ability to sell or lease a portion of the permit they received for the Home Place Orchard; and, as to both orchards; and (5) the permit scheme gave the Braggs the ability to lease permit rights, which allows them to use all the aquifer water they need to irrigate their trees. According to the Authority the only negative impact on the Braggs was an increase in their irrigation cost at both orchards. We believe this argument misconstrues the nature of the takings claims asserted here and the analysis of whether a taking has occurred.

In *Day*, the Texas Supreme Court held that a landowner has absolute title in severalty to the water in place beneath his land. 369 S.W.3d at 831. The only qualification of that rule of ownership is that it must be considered in connection with the law of capture and is subject to police regulations. *Id.* at 832. The water beneath the soil is considered a part of the realty, and each owner of land “owns separately, distinctly, and exclusively all the water under his land.” *Id.* The Authority’s argument—that the Act gave the Braggs something they did not previously own (permits) and, therefore, there is no taking—ignores this holding. *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419, 439 (1982) (“government does not have unlimited power to redefine property rights”). The issue here is not whether the Braggs’ ability to sell or lease water has been interfered with. The issue is whether the Act goes so far in restricting the Braggs’ use of their water beneath their land that the restriction amounts to a taking and “in all fairness and justice,” the burden of that restriction should be borne by the public. In this case, the “use” of water is not the ability to sell or lease water under a permit. Rather, the “use” of water is the Braggs’ ability to operate and irrigate a pecan orchard, which the trial court found to be the highest and best use of the properties, for the purpose of producing a sustainable commercial pecan crop in Medina County. *See* Act § 1.03(4) (defining “beneficial use” as “the use of the amount of water that is economically necessary for a purpose authorized by law, when reasonable intelligence and

reasonable diligence are used in applying the water to that purpose”); *see also* TEX. WATER CODE § 11.002(4) (“‘Beneficial use’ means use of the amount of water which is economically necessary for a purpose authorized by this chapter, when reasonable intelligence and reasonable diligence are used in applying the water to that purpose and shall include conserved water.”). Therefore, we consider whether the Act’s impact on the Braggs’ “use” of the water beneath their land rose to the level of a compensable taking. Because the parties’ arguments relative to both orchards are substantially similar, and because much of the evidence presented applies to both orchards, we analyze whether there was a taking of one or both orchards together, noting differences as necessary.

The Act states “[t]he legislature intends that just compensation be paid if implementation of this article causes a taking of private property or the impairment of a contract in contravention of the Texas or federal constitution.” Act § 1.07. There are two categories of regulatory action that generally will be deemed *per se* takings without a case-specific inquiry. The first occurs when a regulation “compel[s] the property owner to suffer a physical ‘invasion’ of his property.” *See Loretto*, 458 U.S. at 421 (state law requiring landlords to permit cable companies to install cable facilities in apartment buildings effected a taking). The direct, physical effect on property, although short of government possession, makes the regulation categorically a taking. *Id.* The second is “where regulation denies all economically beneficial or productive use of land.” *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1015-16 (1992). “To deprive an owner of all economically beneficial use of land is tantamount to depriving him of the land itself.” *Id.* But this is “limited to ‘the extraordinary circumstance when no productive or economically beneficial use of land is permitted’” and “the landowner is left with a token interest.” *Id.*; *see City of San Antonio v. El Dorado Amusement Co.*, 195 S.W.3d 238, 245 (Tex. App.—San Antonio 2006, pet. denied). Outside these two relatively narrow categories, regulatory takings challenges require an essentially

ad hoc, factual inquiry and are governed by the standards set forth by the U.S. Supreme Court in *Penn Central Transportation Co. v. New York City*, 438 U.S. 104 (1978).

In *Penn Central*, the U.S. Supreme Court identified “several factors that have particular significance” in evaluating regulatory takings. 438 U.S. at 124. Primary among those factors are “[t]he economic impact of the regulation on the claimant and, particularly, the extent to which the regulation has interfered with distinct investment-backed expectations.” *Id.* In addition, the “character of the governmental action”—for instance whether it amounts to a physical invasion or instead merely affects property interests through “some public program adjusting the benefits and burdens of economic life to promote the common good”—may be relevant in discerning whether a taking has occurred. *Id.* “The *Penn Central* factors—though each has given rise to vexing subsidiary questions—have served as the principal guidelines for resolving regulatory takings claims that do not fall within the physical takings or *Lucas* rules.” *Day*, 369 S.W.3d at 839.

However, “*Penn Central* does not supply mathematically precise variables, but instead provides important guideposts that lead to the ultimate determination whether just compensation is required.” *Palazzolo*, 533 U.S. at 634 (O’Connor, J., concurring). “The temptation to adopt what amount to per se rules in either direction must be resisted.” *Id.* “Thus, for example, the economic impact of a regulation may indicate a taking even if the landowner has not been deprived of all economically beneficial use of his property.” *Hallco Tex., Inc.*, 221 S.W.3d at 75. “Nor are the three *Penn Central* factors the only ones relevant in determining whether the burden of regulation ought ‘in all fairness and justice’ to be borne by the public.” *Id.* No single *Penn Central* factor is determinative; all three must be evaluated together, as well as any other relevant considerations. *Day*, 369 S.W.3d at 840. Whether a regulatory taking has occurred “‘depend[s] on a complex of factors including’ the three set out in *Penn Central*.” *Hallco Texas, Inc.*, 221 S.W.3d at 75. “The analysis ‘necessarily requires a weighing of private and public interests’ and

a ‘careful examination and weighing of all the relevant circumstances in this context.’” *Id.* The Texas Supreme Court has held in “regulatory-takings issues, we consider all of the surrounding circumstances” in applying “a fact-sensitive test of reasonableness.” *Id.* While we depend on the trial court to resolve disputed facts regarding the extent of the governmental intrusion on the property, the ultimate determination of whether the facts are sufficient to constitute a taking is a question of law. *Day*, 369 S.W.3d at 839; *Mayhew*, 964 S.W.2d at 933.

A. Economic Impact

With respect to the first of the three *Penn Central* factors—the economic impact on the Braggs—the proper inquiry considers the diminution in the value of their properties brought on by the regulation in question. *See Sheffield Dev. Co. v. City of Glenn Heights*, 140 S.W.3d 660, 677 (Tex. 2004); *see also Mayhew*, 964 S.W.2d at 935-36 (economic impact “merely compares that value that has been taken from the property with the value that remains in the property.”).⁷ However, diminution in property value, standing alone, cannot establish a taking. *Penn Central*, 438 U.S. at 131. This is so because all property is held subject to a valid exercise of police power. *Sheffield Dev.*, 140 S.W.3d at 669-70. Also, the economic impact must be substantial. *See Mayhew*, 964 S.W.2d at 937. The mere fact that a regulation has destroyed the most profitable use of property does not establish a compensable taking. *See Taub v. City of Deer Park*, 882 S.W.2d 824, 826 (Tex. 1994). However, lost profits “are clearly one relevant factor to consider in assessing the value of the property and the severity of the economic impact . . . on the landowner.” *Sheffield*, 140 S.W.3d at 677.

Here, the trial court found that the highest and best use of both properties was as pecan orchards, and that the cost associated with converting either orchard to irrigated farmland,

⁷ “Determining whether all economically viable use of a property has been denied entails a relatively simple analysis of whether value remains in the property after governmental action.” *Mayhew*, 964 S.W.2d at 935.

including tearing out the pecan trees and roots and removal of irrigation systems, would be economically prohibitive. The Braggs testified they purchased the Home Place Orchard in 1979 as raw land at a cost of \$60,000.00. That same year, they drilled their Edwards Aquifer well, installed irrigation systems, built a barn, and planted over 1,800 pecan trees. Over the years, they built an additional barn, and upgraded the irrigation system and sprinklers. They also purchased equipment that serviced both orchards.

Mr. Bragg testified that to better utilize the equipment they were purchasing for use on the Home Place Orchard, they decided to purchase another orchard, the forty-two acre D'Hanis Orchard, in 1983, for \$210,800.00. The D'Hanis Orchard already had a drip irrigation system and pecan trees, but, over the years, the Braggs upgraded the irrigation system. After they could no longer use the water from the Edwards Aquifer well, the cost to lease water for one year in 2007 was \$4,200.00; in 2008, water cost \$6,000.00; in 2009, water cost \$6,000.00, and in 2010, water cost \$3,450.00.

The Braggs believe they need 600 acre-feet of water for both orchards. Mr. Bragg testified a properly-watered, mature orchard would produce about 1,000 pounds per acre of pecans a year. Mrs. Bragg testified they needed about 600 pounds per acre of good quality pecans to break even. She said they have not produced that amount or had a profitable crop since 2005 at the Home Place Orchard when they were granted only 120.2 acre-feet of water, and since 2004 at the D'Hanis Orchard when their permit application was denied. Mrs. Bragg agreed plenty of water was available to irrigate, but they have had difficulty finding water to lease at an amount they would want to pay. She admitted the only change since 1993 was that they paid more in irrigation costs because they had to either buy or lease the rights to the water. She also agreed it would be "possible," but not "financially practical," that if they had the money to lease all the water they

needed, their crops' needs would be satisfied. She stated they would abandon both orchards if they are not awarded any compensation.

Mrs. Bragg explained that the numbers reflected on their permit application for the Home Place Orchard were actually less than the minimum 120.2-acre feet, but that was because the trees were small during the historical period and, therefore, required less water. Mr. Bragg testified that the numbers on the permit applications increased with each year as the trees continued to mature.

Mr. Bragg explained the difference between the water needs of a year-round crop, such as pecan trees, and the water needs of row crops, such as, for example, corn. He explained that if corn is planted in March, most growers will turn off the water in early July when the corn reaches maturity. Pecan growers, however, must still irrigate through October, although a small amount of water is always necessary year-round, even during the dormant season, to keep the roots viable. He said two acre-feet of water per acre⁸ is not adequate to grow pecans because with that amount, a grower must reduce the trees' water consumption, which results in crop reduction. He said he attempted to reduce water consumption on the Home Place Orchard by cutting off tree limbs and tree tops to reduce the canopy to lower the evapotranspiration rate,⁹ thinning trees by fifty percent to reduce the number of trees, which results in only a partial crop, and controlling the amount of water he used early "to size pecans down." He said they were "in what you call survival mode." He explained that if he had merely spread the available water over the 1,800 trees, he would have had complete crop loss.

⁸ The permit on the Home Place Orchard allows for 120.2 acre-feet of water, which is the equivalent of approximately two acre-feet of water per acre for the sixty-acre orchard.

⁹ Evapotranspiration is "the loss of water from the soil both by evaporation and by transpiration from plants growing thereon." WEBSTER'S NINTH COLLEGIATE DICTIONARY 429 (1983).

At the D'Hanis Orchard, Mr. Bragg stated they had to reduce the number of trees by about thirty percent after their permit application was denied. He said he also attempted to reduce water consumption by cutting off tree limbs and tree tops to reduce the canopy to lower the evapotranspiration rate. In order to reduce the size of the pecan, which would require less water and reduce production and yield, he reduced the amount of water used in the spring to save the water to apply when the pecans were filling out in July and August. He said they would not have changed their irrigation practice at either orchard if the Act had not gone into effect.

The Authority counters that the economic impact on the Braggs was merely an increase in their irrigation costs in an amount of less than ten percent. The evidence establishes the Braggs invested more than \$2 million in land, equipment, and labor over the twenty-plus years they have owned both orchards. The evidence also showed an increased irrigation cost of as low as three percent and as high as ten percent of the Braggs' total investment to date. The Authority argues that even at ten percent, the increased cost is not severe, significant, or substantial enough to support a taking of either orchard. However, "*Penn Central* does not supply mathematically precise variables, but instead provides important guideposts that lead to the ultimate determination whether just compensation is required," and we must avoid the temptation to "adopt what amount to per se rules in either direction." *Palazzolo*, 533 U.S. at 634 (O'Connor, J., concurring). Thus, while the increased irrigation cost is relevant, we believe other considerations must be examined in determining the degree of the economic impact.

To reduce their water consumption, the Braggs reduced the number of trees by thirty to fifty percent and reduced the watering of the remaining trees. This, in turn, resulted in the Braggs' inability to raise a commercially viable crop on their properties, unless they purchased or leased water under the permit scheme. Despite what might amount to only a ten percent increase in their irrigation expense, we do not consider this merely an incidental diminution in value. The result of

the regulation forces the Braggs to purchase or lease what they had prior to the regulation—an unrestricted right to the use of the water beneath their land. *See Day*, 369 S.W.3d at 840 (“By making it much more expensive, if not impossible, to raise crops and graze cattle, the denial of Day’s application certainly appears to have had a significant, negative economic impact on him, though it may be doubted whether it has denied him all economically beneficial use of his property.”).¹⁰ Thus, we conclude this factor weighs heavily in favor of a finding of a compensable taking of both orchards.

B. Investment-Backed Expectations

“The second *Penn Central* factor—the interference with investment-backed expectations—is somewhat difficult to apply to groundwater regulation under the [Act].” *Day*, 369 S.W.3d at 840. The existing and permitted uses of the property constitute the “primary expectation” of the landowner that is affected by the regulation. *Mayhew*, 964 S.W.2d at 936; *see also Esposito v. S.C. Coastal Council*, 939 F.2d 165, 170 (4th Cir.1991), *cert. denied*, 505 U.S. 1219 (1992) (“Courts have traditionally looked to the existing use of property as a basis for determining the extent of interference with the owner’s ‘primary expectation concerning the use of the parcel.’”). “Historical uses of the property are critically important when determining the reasonable investment-backed expectation of the landowner.” *Mayhew*, 964 S.W.2d at 937. Existing property regulations at the time property is purchased should be considered in determining whether the regulation interferes with investment-backed expectations. *Id.* at 938. Knowledge of existing regulations “is to be considered in determining whether the regulation interferes with investment-backed expectations.” *Id.* at 936.

¹⁰ In *Day*, Day had requested 700 acre-feet of water, but was granted a permit for only fourteen acre-feet.

In *Day*, the Supreme Court noted as follows:

Presumably, Day knew before he bought the property that the Act had passed the year before and could have determined from the same investigation he made later that he could not prove much historical use of groundwater to obtain a permit. Had all this information demonstrated that his investment in the property was not justified, one could argue that he had no reasonable expectation with which the [Act] could interfere. But the government cannot immunize itself from its constitutional duty to provide adequate compensation for property taken through a regulatory scheme merely by discouraging investment. While Day should certainly have understood that the Edwards Aquifer could not supply landowners' unlimited demands for water, we cannot say that he should necessarily have expected that his access to groundwater would be severely restricted. We underscore "necessarily" because there is little in the record to illuminate what his expectations were or reasonably should have been.

Id. at 840.

The purpose of the investment-backed expectation requirement is to assess whether the landowner has taken legitimate risks with the reasonable expectation of being able to use the property, which, in fairness and justice, would entitle him or her to compensation. *See, e.g., Sheffield Dev.*, 140 S.W.3d at 677-78 (downplaying significance of plaintiff's investment because it was "minimal" and "speculative").

Here, there is no dispute the Braggs purchased the Home Place Orchard in 1979 with the intention of living on the property and developing the property as a pecan orchard, and they invested time, money, and effort in planting, maintaining, and operating the orchard. There also is no dispute that they bought the property relying on its location over the Edwards Aquifer, and they expected to use as much groundwater as they wanted to irrigate their pecan trees. Mr. Bragg testified they believed, when they bought the property, that they owned the water beneath their land and they would have enough water to grow their trees for however long they needed and they would have as much water as they needed. He said their ability to draw water from the aquifer was an important factor in purchasing the Home Place Orchard because having an adequate water

supply was “absolutely necessary before you even consider planting a pecan tree.” When they purchased the property and drilled the well in 1979, the Act was not in existence.

Mr. Bragg testified the first water pump they used at the Home Place Orchard was a five horsepower submergible that was capable of watering all the trees. Now, twenty years later, because the trees have grown and need more water, they have a seventy-five horsepower pump. He said that when they bought the Home Place Orchard they knew they would need more water as time passed and the trees matured. He said they planted in 1979, and it takes a minimum of five years for the trees to mature. Their trees reached maturity in about seven years. Before he was restricted by the Authority, the well on the Home Place Orchard was capable of producing all the water he needed to irrigate his trees.

There also is no dispute the Braggs purchased the D’Hanis Orchard in 1983, before the Act, with the intention of continuing the property’s use as a pecan orchard, which already had about 1,500 pecan trees planted. They bought the property relying on its location over the Edwards Aquifer and their understanding that they owned the water beneath the property. At the time of their purchase of the D’Hanis Orchard, they intended to drill an Edwards Aquifer well to water the pecan trees as they matured because the trees were initially irrigated using drip irrigation from a well on the property of the previous owner and this drip system was not adequate during dry summers and would not be adequate to irrigate mature trees. They invested time, money, and effort in maintaining and operating the orchard and the irrigation system. They expected to use as much groundwater as they wanted to irrigate their pecan trees; and the availability of using the Edward Aquifer water was an important consideration in their decision to buy the property. Mr. Bragg stated they would not have purchased the property if they had known they would not be able to drill and use an Edwards Aquifer well. Before the Braggs began drilling this well, which was completed in February 1995, they knew about the Act.

“[T]he regulatory regime in place at the time the claimant acquires the property at issue helps to shape the reasonableness of” a claimant’s investment-backed expectations. *Palazzolo*, 533 U.S. at 634 (O’Connor, J., concurring). When the Braggs purchased the orchards, the water underlying their properties was not regulated by the Act. Although the Braggs had no reasonable investment-backed expectation that there would *never* be a regulatory scheme in place that might govern their use of the water beneath their land, the lack of such regulations when they purchased both orchards shaped their expectation that they would have unrestricted use of their water to supply the needs of their pecan trees. *See Sipriano v. Great Spring Waters of Am., Inc.*, 1 S.W.3d 75, 75-76 (Tex. 1999) (“For over ninety years, this Court has adhered to the common-law rule of capture[, which] essentially allows, with some limited exceptions, a landowner to pump as much groundwater as the landowner chooses, without liability to neighbors who claim that the pumping has depleted their wells.”).

We also must consider whether the Braggs’ expectations were reasonable. Mr. Bragg has a bachelor’s degree and master’s degree in agricultural economics. He has worked as an agriculture extension agent; he is a licensed irrigator; and he has been involved in pecan cultivation as either an advisor to other growers or as a grower himself for almost forty years. As a county extension agent, he assisted growers on the amount of water they would need to grow pecan trees, the economics of growing pecans, and a variety of other production issues. During this time, his interest in pecans grew and, after studying the economics of the crop, he decided pecans were a crop that would show a profit and “pay its way in the field of agriculture.” After resigning as an extension agent, he and his wife bought the Home Place Orchard in 1979 for the purpose building their home and planting pecan trees. He said before they planted any trees they drilled the Edwards Aquifer well in 1979 because an adequate water supply was necessary “before you even consider planting a pecan tree.” They understood that the water beneath the land belonged to the landowner

and that they would have enough water to grow their trees for as long as they needed. We conclude the Braggs' investment-backed expectations as to the Home Place Orchard were reasonable because Mr. Bragg had an extensive understanding of pecan crops, no permit was required when they drilled their well, they correctly understood that they owned the water under the land, and no regulatory entity existed that governed the use of their water. *See Appolo Fuels, Inc. v. United States*, 381 F.3d 1338, 1349 (5th Cir. 2004) (three factors relevant to determination of party's reasonable expectations are (1) whether the plaintiff operated in a "highly regulated industry;" (2) whether the plaintiff was aware of the problem that spawned the regulation at the time it purchased the allegedly taken property; and (3) whether the plaintiff could have "reasonably anticipated" the possibility of such regulation in light of the "regulatory environment" at the time of purchase (citation omitted)).

We also conclude the Braggs' investment-backed expectations as to the D'Hanis Orchard were reasonable. When they purchased the orchard in 1983, they intended to drill a well because they knew the available drip well was inadequate for maturing trees, but for financial reasons could not do so until 1995. Although the Act had been enacted prior to the completion of the well, the property itself was purchased as an existing pecan orchard almost ten years before the enactment date. And, of relevance to the Braggs' expectations, although they were aware of the Act before drilling the well, the Act was not implemented until 1996. *Id.* at 1348-49 (noting that *Palazzolo* rejected theory that "a person who purchases property after the date of the regulation may *never* challenge the regulation." (citation omitted)); *see also Day*, 369 S.W.3d at 840 ("government cannot immunize itself from its constitutional duty to provide adequate compensation for property taken through a regulatory scheme merely by discouraging investment"). Again, considering Mr. Bragg's extensive understanding of pecan crops, the Braggs' understanding that they owned the water under their land, and that no regulatory entity existed that governed the use of their water

when they purchased the property as an existing pecan orchard, we conclude the Braggs' investment-backed expectations as to the D'Hanis Orchard were reasonable.

For these reasons, we conclude this factor weighs heavily in favor of a finding of a compensable taking of both orchards.

C. Nature of Regulation

“The third *Penn Central* factor focuses on the nature of the regulation and is not as factually dependent as the other two.” *Day*, 369 S.W.3d at 840. “Unquestionably, the State is empowered to regulate groundwater production.” *Id.* “In many areas of the state, and certainly in the Edwards Aquifer, demand exceeds supply. Regulation is essential to its conservation and use.” *Id.* One purpose of groundwater regulation is to afford each owner of water in a common, subsurface reservoir a fair share of the water. *Id.* Regulation that affords an owner a fair share of subsurface water must take into account factors other than surface area.¹¹ *Id.* For example, aquifers are often recharged by rainfall, drainage, or other surface water; any volume of water associated with the surface is constantly changing because the amount of groundwater beneath the surface may increase or decrease; and groundwater's many beneficial uses—for drinking, agriculture, industry, and recreation—often do not involve a sale of water. *Id.* at 841. “Its value is realized not only in personal consumption but through crops, products, and diversion. Groundwater may be used entirely on the land from which it is pumped, or it may be transported for use or sale elsewhere.” *Id.*

Here, the express purpose of the Act is as follows:

The legislature finds that the Edwards Aquifer is a unique and complex hydrological system, with diverse economic and social interests dependent on the

¹¹ “Because a reservoir's supply of oil or gas cannot generally be replenished, and because oil and gas production is most commonly used solely as a commodity for sale, land surface area is an important metric in determining an owner's fair share. Reasonable regulation aims at allowing an owner to withdraw the volume beneath his property and sell it. Groundwater is different.” *Day*, 369 S.W.3d at 841.

aquifer for water supply. In keeping with that finding, the Edwards Aquifer is declared to be a distinctive natural resource in this state, a unique aquifer, and not an underground stream. To sustain these diverse interests and that natural resource, a special regional management district is required for the effective control of the resource to protect terrestrial and aquatic life, domestic and municipal water supplies, the operation of existing industries, and the economic development of the state. Use of water in the district for beneficial purposes requires that all reasonable measures be taken to be conservative in water use.

Act § 1.01.

Given the importance of “protect[ing] terrestrial and aquatic life, domestic and municipal water supplies, the operation of existing industries, and the economic development of the state,” we conclude this factor weighs heavily against a finding of a compensable taking. *See City of Houston v. Trail Enters., Inc.*, 377 S.W.3d 873, 880 (Tex. App.—Houston [14th Dist.] 2012, pet. filed) (holding same where express purpose of ordinance in question was to protect City’s public water supply).

D. Other Considerations

Courts applying the *Penn Central* factors are to consider “surrounding circumstances” and other “relevant circumstances,” but little light is cast on what these circumstances may be. We believe courts may also consider the nature of the plaintiff’s business beyond the financial considerations analyzed under the economic impact factor. In this case, the Braggs’ business is agricultural and therefore heavily dependent on water. The particular crop cultivated by the Braggs, pecans, needs water year-round. The Braggs’ source of water is either sub-surface or rain. Rain, at least in drought-ridden Texas, is inconsistent and unpredictable. *See Day*, 274 S.W.3d at 747 (“As the ‘primary source of water for residents of the south central part of this state,’ [the Edwards Aquifer] is vital to Texas’s economy and welfare.”) (quoting *Barshop*, 925 S.W.2d at 623). This is especially so in semi-arid Medina County, Texas. Mr. Bragg’s testimony established that a lack of sufficient water not only effects the yield of the current crop but also the quality and

size of the pecans in a future crop. No expert disputed that rain alone could not provide a sufficient source of water. Therefore, we conclude the Act's restrictions on the amount of water the Braggs could draw from their own wells weighs in favor of a compensable taking.

E. Conclusion

We conclude the record supports the conclusion that the permitting system imposed under the Act resulted in a regulatory taking of both the Home Place Orchard and the D'Hanis Orchard.

ADEQUATE COMPENSATION

The trial court concluded the "water should be valued as part of the land, and the value of the land of each of the Properties is much less valuable now than they were before the [Act]." However, rather than value the water as part of the land, the trial court calculated the compensation owed for the taking of the Home Place Orchard based upon the difference between the market value of the permitted water rights requested by the Braggs and the permitted rights actually received. The court found that "[a]t the time of trial, the water rights associated with the two orchards had a market value of \$5,500.00 per acre-feet." The court concluded that "[b]ecause the Home Place Orchard is an irrigated farm the diminution in value must be determined by using the value of the lost water. The Braggs asked for 228.85 acre-feet of water, but received a permit for only 120.2 acre-feet; therefore, at a reasonable value of \$5,500.00 per acre-feet of water, the Braggs' loss is \$597,575.00 ($\$5,500 \times 108.65$ acre-feet)."

The trial court, however, took a different approach with respect to the D'Hanis Orchard. The court first found that a "farm without irrigation rights in Medina County is less valuable than a farm with irrigation rights. Farm land without irrigation rights in Medina County sells for approximately \$1,800.00 per acre. Irrigated farm land in Medina County sells for approximately \$5,000.00 per acre." The court then determined "the proper method for calculating compensation is the difference between the market value price per acre for a dry land farm, one without water

rights, in Medina County and the market price per acre for irrigated farm land. In relation to the 42.162-acre D'Hanis Orchard that difference is \$134,918.40 ($\$5,000 - \$1,800 \times 42.162$)."

The calculation of the correct amount of compensation awarded for any takings of the Home Place Orchard and the D'Hanis Orchard presents two issues. First, we address the proper time at which the property taken is to be valued: the date the Act was enacted, the date the Act was implemented, or the date of trial. Second, we address the proper method by which compensation should be calculated.

A. What is the Proper Time for Determining the Value of the Property Taken?

The Authority complains the trial court incorrectly determined compensation for the regulatory taking of the orchards by calculating the difference between the market value at the time of trial of the permit rights the Braggs requested in their application and the permitted rights actually received. The Authority argues that in a regulatory takings claim where the property is not actually appropriated by the government but restrictions interfere with its use and enjoyment, the proper measure of adequate compensation is the difference between the value of the orchard immediately before and after the date of the regulation that caused the taking.

According to the Authority, any taking occurred on either May 30, 1993 when the Act was enacted, or on June 28, 1996 when the Act became effective following the various legal challenges. The Authority contends the Braggs presented no evidence of the before and after value of their property on those dates; therefore, there is no evidence from which the trial court could determine adequate compensation for a taking on either of those dates. The Braggs, on the other hand, assert the Authority's final action on their permit applications is the date of the taking. However, the Braggs argue that the value of the property taken should be calculated at the time of trial and not at the time of the taking. As discussed above in our analysis of the statute of limitations issue, we agree with the Braggs that the takings occurred when the provisions of the Act were implemented

or applied in 2004 for the D'Hanis Orchard and in 2005 for the Home Place Orchard. However, we do not agree with the Braggs that valuation should be determined at the time of trial. For the reasons set forth below, we conclude valuation should be determined at the time of the takings.

As support for their argument that groundwater rights should be valued at the time of trial, the Braggs point to Property Code section 21.0421, which provides that in a condemnation proceeding initiated by a political subdivision

(c) If the special commissioners or court finds that the real property may be used by the political subdivision to develop or use the rights to groundwater for a public purpose, the special commissioners or court may assess damages to the property owner based on:

- (1) the local market value of the real property, excluding the value of the groundwater in place, *at the time of the hearing*; and
- (2) the market value of the groundwater rights as property apart from the land *at the time of the hearing*.

TEX. PROP. CODE ANN. § 21.0421(c) (West Supp. 2013) (emphasis added).

However, takings claims fall into two distinct categories and occur at different times depending on whether the taking arises in the context of a statutory condemnation context or arises in an inverse condemnation context. *See Kopplow Dev., Inc. v. City of San Antonio*, 399 S.W.3d 532, 536 (Tex. 2013). In a statutory condemnation proceeding under Property Code section 21.042, generally, the government compensates the owner before appropriating property, either by paying a mutually agreed price or by paying the value as determined at the statutory proceeding. *Westgate, Ltd. v. State*, 843 S.W.2d 448, 452 (Tex. 1992). Property Code Chapter 21 governs condemnation proceedings when “an entity with eminent domain authority wants to acquire real property for public use but is unable to agree with the owner of the property on the amount of damages” TEX. PROP. CODE § 21.012(a) (“[T]he entity may begin a condemnation proceeding by filing a petition in the proper court.”). A condemnation proceeding may be commenced to condemn real property or to acquire water rights. *See id.* §§ 21.0111-.0121. The assessment of

damages when a portion of or an entire tract or parcel of real property is condemned is made “according to evidence presented at the [condemnation] hearing.” *Id.* § 21.042. These assessments are made at the time of trial because that is the time at which the government’s authority to condemn is determined. *See id.* § 21.003 (“A district court may determine all issues, including the authority to condemn property and the assessment of damages, in any suit”); *see also Danforth v. United States*, 308 U.S. 271, 283-84 (1939) (in a condemnation proceeding, a taking does not occur until compensation is determined and paid); *City of Fort Worth v. Corbin*, 504 S.W.2d 828, 830 (Tex. 1974) (compensation for land taken by eminent domain is measured by market value of land at time of taking because “[t]his is the date upon which the condemnor lawfully takes actual possession or, as in the present case, takes constructively by a deposit of the special commissioners’ award”).

On the other hand, if the government appropriates property without paying adequate compensation, the owner may recover the resulting damages in an “inverse condemnation” suit. *Westgate, Ltd.*, 843 S.W.2d at 452; *City of Houston v. Texan Land & Cattle Co.*, 138 S.W.3d 382, 387 (Tex. App.—Houston [14th Dist.] 2004, no pet.) (noting proceeding is denominated “inverse” because property owner brings suit rather than the State in a condemnation proceeding). “An inverse condemnation may occur when the government physically appropriates or invades the property, or when it unreasonably interferes with the landowner’s right to use and enjoy the property, such as by restricting access or denying a permit for development.” *Westgate, Ltd.*, 843 S.W.2d at 452. Chapter 21 does not govern inverse condemnation claims brought by landowners. *State v. Momin Prop., Inc.*, No. 01-12-00854-CV, 2013 WL 2445076, *7 (Tex. App.—Houston [1st Dist.] June 6, 2013, pet. filed). The assessment of damages in an inverse condemnation case that arises from a regulatory taking is made, depending on the circumstances, either when the regulation is enacted or, as here, when the regulation was implemented or applied.

Here, the Authority did not file a condemnation suit to acquire property; rather, this suit is an inverse condemnation case arising from a regulatory taking. As such, we do not believe Property Code section 21.0421 applies. The takings occurred when the provisions of the Act were implemented or applied to the Home Place Orchard in 2005 and to the D'Hanis Orchard in 2004. Therefore, the proper time of valuation is at the time of each taking in 2004 and 2005.

B. How to Value the Property Taken?

For the Home Place Orchard, the trial court calculated the compensation owed as the difference between the market value of the 228.85 acre-feet of water the Braggs requested and the market value of the 120.2 acre-feet of water they actually received. For the D'Hanis Orchard, the trial court calculated the compensation owed as the difference between the per acre market value price of farm land with no water rights and the per acre market value price of farm land with water rights.

The Authority asserts the trial court correctly concluded the water should be valued as a part of the land because, when determining whether a regulatory takings has occurred and whether compensation is required, “courts are generally required to apply the ‘parcel as a whole’ rule, comparing ‘the value that has been taken from the property with the value that remains in the property.’” In *Penn Central*, the U.S. Supreme Court held that “[i]n deciding whether a particular governmental action has effected a taking, th[e] Court focuses . . . both on the character of the action and on the nature and extent of the interference with rights in the parcel as a whole” 438 U.S. at 130-31. The “parcel-as-a-whole” rule can be explained to mean that “‘where an owner possesses a full “bundle” of property rights, the destruction of one “strand” of the bundle is not a taking.’” *Tahoe–Sierra Pres. Council, Inc. v. Tahoe Reg’l Planning Agency*, 535 U.S. 302, 327 (2002) (citation omitted).

The Braggs counter that the Authority did not take their land, but instead, took their right to access and withdraw groundwater they owned in place beneath their land. Therefore, the Braggs argue the correct valuation method is to multiply the volume of water rights taken by the prevailing market value for those rights. The heart of the Braggs' argument is that water rights should be valued separate from the land. As support for their argument that groundwater rights should be valued as property apart from the land at the time of the hearing, the Braggs again point to Property Code section 21.0421, which provides as follows:

(a) In a condemnation proceeding initiated by a political subdivision under this chapter, the special commissioners or court shall admit *evidence relating to the market value of groundwater rights as property apart from the land* in addition to the local market value of the real property *if*:

- (1) the political subdivision proposes to condemn the fee title of real property; and
- (2) the special commissioners or court finds, based on evidence submitted at the hearing, that the real property may be used by the political subdivision to develop or use the rights to groundwater for a public purpose.

(b) The evidence submitted under Subsection (a) on *the market value of the groundwater rights as property apart from the land* shall be based on generally accepted appraisal methods and techniques, including the methods of appraisal under Subchapter A, Chapter 23, Tax Code.

(c) If the special commissioners or court finds that the *real property may be used by the political subdivision to develop or use the rights to groundwater for a public purpose*, the special commissioners or court may assess damages to the property owner based on:

- (1) *the local market value of the real property, excluding the value of the groundwater in place, at the time of the hearing; and*
- (2) *the market value of the groundwater rights as property apart from the land at the time of the hearing.*

....

TEX. PROP. CODE § 21.0421(a)-(c) (emphasis added).

The Braggs rely on a Bill Analysis¹² of section 21.0421 to contend this section empowers courts to review evidence of the market value of groundwater rights separate from the land and specifically authorizes courts to award compensation based on “the market value of the groundwater rights as property apart from the land at the time of the hearing” in addition to the value of any real property seized. The Authority argues section 21.0421 does not apply because that section only (1) governs condemnation proceedings brought by a political subdivision, in which the government proposes to (2) condemn the fee title of real property, and (3) the real property may be used by the government to develop or use the groundwater rights. To the extent section 21.0421 applies, the Authority points to subsection (c) to support its argument that the value of groundwater rights is one, but not the only, part of valuing the parcel as a whole.

The Braggs also rely on oil and gas cases in which the courts have held that the proper measure of damages should be based on the property *actually taken*, in other words, the value of the minerals “taken” separate from the value of the land. *See Maguire Oil Co. v. City of Houston*, 69 S.W.3d 350, 364 (Tex. App.—Texarkana 2002, pet. denied) (oil company brought action against city seeking damages for inverse condemnation following revocation of permit allowing company to drill gas well; court agreed “evidence of comparable sales of mineral interests would provide a superior measure of market value” because existence of recoverable gas was unproven); *Lomax v. Henderson*, 559 S.W.2d 466, 467 (Tex. Civ. App.—Waco 1977, writ ref’d n.r.e.) (mineral estate owners’ right of use of the surface of the land in question was taken from them; court held “proper measure of this loss . . . was the diminution of value of their mineral estate [caused] by the taking [of the surface]”).

¹² See Texas Senate Research Center, Bill Analysis, Tex. H.B. 803, 78th Leg., R.S. (2003), available at www.capitol.state.tx.us/tlodocs/78R/analysis/pdf/HB00803S.pdf#navpanes=0. (allowing “property owner to submit evidence or to be compensated for the local market value of the groundwater rights in addition to the local market value of the real property”).

Neither the Authority nor the Braggs dispute, and we agree, that a property owner should be compensated for property actually taken. The difficulty here is defining the “property” actually taken. Valuation cases involving sub-surface estates, such as oil, gas, and other interests, typically fall into two categories. The first category involves land taken in a condemnation/eminent domain case and the court must value the sub-surface estate as an aid to determining the value of the land taken. *See United States v. 339.77 Acres of Land, More or Less, in Johnson and Logan Counties, Ark.*, 420 F.2d 324, 326 (8th Circ. 1970) (taking of land by United States for lake and dam project reserved mineral rights to coal in landowner, but subordinated such ownership to the right of the United States to flood the land; evidence showed taking, for all practical purposes, destroyed the landowner’s use of reserved mineral rights; court held landowner entitled to fair market value of land as it was enhanced by mineral rights actually deprived, as well as by the improvements (fixtures) thereon); *State v. Angerman*, 664 S.W.2d 794, 796 (Tex. App.—Waco 1984, writ ref’d n.r.e.) (State condemned 11.107 acres of appellee’s 61.2-acre tract for highway purposes; land contained sub-surface gravel deposits; court held expert could testify about amount and value of gravel in place as an element of his opinion as to value of realty because gravel was taken as part of the land condemned and had little value separate from land); *Coastal Indus. Water Auth. v. Trinity Portland Cement Div., Gen. Portland Cement Co.*, 523 S.W.2d 462, 466-67 (Tex. Civ. App.—Houston [1st Dist.] 1975, writ ref’d n.r.e.) (water authority condemned property belonging to cement manufacturing business that continually used clay from a tract of condemned land; court held land taken should be valued as land, with value of mineral deposits as component of land); *Brazos River Auth. v. Gilliam*, 429 S.W.2d 949, 952 (Tex. Civ. App.—Fort Worth 1968, writ ref’d n.r.e.) (although no gravel operation had ever been conducted to extract gravel prior to condemnation, nor would any gravel operation be conducted within immediate future or within

reasonable time, land with 916,000 cubic yards of gravel and sand underlying it was properly valued as “gravel land” for condemnation purposes).

The second category involves taking of the sub-surface estate itself or a taking that interferes with the sub-surface estate and the court must value the sub-surface estate as property separate from the land. *See United States v. 4.105 Acres of Land in Pleasanton*, 68 F. Supp. 279, 291-92 (N.D. Cal. 1946) (government took possession of land for purpose of expanding water facilities and compensated owners; City and County of San Francisco appeared claiming interest in subterranean water as an appurtenant to other land they owned (the Pleasanton Supply System) overlying the water basin; City and County asserted government’s tapping of subterranean water supply resulted in an invasion of their property rights to such water; court held the extent to which market value of aggregate subterranean water rights of Pleasanton System in water basin may have been damaged or diminished by taking was proper basis for compensation, and not the damage, if any, to the entire San Francisco water system); *Lomax*, 559 S.W.2d at 467 (surface of land condemned for purpose of constructing, operating, and maintaining dam and lake; Brazos River Authority allowed owners to retain all oil, gas, and other minerals but forbade any surface operations to recover minerals; owners of undivided one-fourth mineral interest argued that although minerals not expressly condemned and they retained ownership in minerals, taking of surface easement rendered their mineral estate valueless and they were entitled to compensation for this damage; court held: “Without question, appellants’ right of use of the surface of the land in question was taken from them. The proper measure of this loss, and the one sought to be shown by appellants on the trial, was the diminution of value of their mineral estate by the taking.”).

However, neither category is identical to the takings in this appeal. But, the common thread in these cases is that the sub-surface estate consisted of “property” or a “commodity” that comprised the business of the plaintiffs. *See 4.105 Acres of Land*, 68 F. Supp. at 286 (City used

Pleasanton System as emergency stand-by source of water for domestic and irrigation purposes); *Lomax*, 559 S.W.2d at 466 (owner of undivided one-fourth mineral interest unable to use surface to recover minerals). Here, the water beneath the Braggs' land is not the source of their business—they do not buy, sell, or lease water as a commodity. *See Day*, 369 S.W.3d at 841 (noting “groundwater may be used entirely on the land from which it is pumped, or it may be transported for use or sale elsewhere”). Instead, the Braggs' water is used to benefit the business in which they are engaged—running commercially viable pecan orchards. *See id.* at 831 (“Groundwater is different [from oil and gas] in both its source and uses, . . . groundwater in an aquifer is often being replenished from the surface, and while it may be sold as a commodity, its uses vary widely, from irrigation, to industry, to drinking, to recreation.”); *McAshan v. Delhi Gas Pipeline Corp.*, 739 S.W.2d 130, 131 (Tex. App.—San Antonio 1987, no writ) (when measuring market value, “fact finder should consider the highest and best use to which the land is adaptable”). We conclude that, under these circumstances, just compensation should be determined by reference to the highest and best use of the properties, which here are as commercial pecan orchards.

We believe this is consistent with the analysis we undertake to determine, in the first instance, whether a taking has occurred. The economic impact of the regulation compares the value that has been taken from the property with the value that remains in the property. And, the existing and permitted uses of the property constitute the “primary expectation” of the landowner that is affected by the regulation. The Braggs' right to withdraw Edwards Aquifer water for the beneficial use in irrigating their pecans was restricted by the implementation of the Act and denial of their permits. Therefore, we conclude the “property” actually taken is the unlimited use of water to irrigate a commercial-grade pecan orchard, and that “property” should be valued with reference to the value of the commercial-grade pecan orchards immediately before and immediately after

the provisions of the Act were implemented or applied to the Home Place Orchard in 2005 and to the D'Hanis Orchard in 2004.

The Authority strenuously argues the Act increased the value of the Home Place Orchard because the Braggs received a permit for 120.2 acre-feet of water, which they could sell or lease. But, the Authority also insists the trial court erred by basing the compensation for the taking of the Home Place Orchard on the value of the water rights permit because the Braggs did not own the permit before the Act. Neither party disputes that the Act created a market for water right permits. While we agree compensation should not be based on the value of the permit rights alone, we cannot agree the value of these same rights should be used to lower any compensation owed to the Braggs. The argument made by the Authority is similar to the “project enhancement” argument made in condemnation cases.

In determining market value, the project-enhancement rule provides that the factfinder may not consider any enhancement to the value of the landowner's property that results from the taking itself. *Exxon Pipeline Co. v. Zwahr*, 88 S.W.3d 623, 627 (Tex. 2002); *City of Fort Worth v. Corbin*, 504 S.W.2d 828, 830-31 (Tex. 1974). “This is because the objective of the judicial process in the condemnation context is to make the landowner whole.” *Zwahr*, 88 S.W.3d at 628. “To compensate a landowner for value attributable to the condemnation project itself, however, would place the landowner in a better position than he would have enjoyed had there been no condemnation.” *Id.* We believe the reverse of this principle is also true—landowners should not be required to buy or lease what was taken from them based on speculative value arising from the taking itself. *Cf. Westgate, Ltd.*, 843 S.W.2d at 456 (measure of compensation in partial-takings case is market value of part taken plus damage to remainder caused by condemnation; “the landowner is in all cases entitled to at least the market value of the part taken, even if the condemnation actually increases the value of the remainder”); *see also Loretto*, 458 U.S. at 438

n.15 (holding a property right was taken even when infringement of that right arguably increased market value of property at issue). The Braggs are entitled to compensation for the amount by which their property was impaired by the taking.

C. Conclusion

Based on our discussion above, we conclude the trial court erred in calculating the compensation owed for the takings of the two orchards.¹³ Therefore, we remand this cause for the trial court to calculate the compensation owed on the Home Place Orchard as the difference between the value of the land as a commercial-grade pecan orchard with unlimited access to Edwards Aquifer water immediately before implementation of the Act in 2005 and the value of the land as a commercial-grade pecan orchard with access to Edwards Aquifer water limited to 120.2 acre-feet of water immediately after implementation of the Act in 2005. We also remand this cause for the trial court to calculate the compensation owed on the D'Hanis Orchard as the difference between the value of the land as a commercial-grade pecan orchard with unlimited access to Edwards Aquifer water immediately before implementation of the Act in 2004 and the value of the land as a commercial-grade pecan orchard with no access to Edwards Aquifer water immediately after implementation of the Act in 2004.

CONCLUSION

We conclude the trial court properly determined the implementation of the Act resulted in a taking. However, we conclude the trial court erred in quantifying the compensation owed to the Braggs. Therefore, we reverse the trial court's judgment and remand the cause for further

¹³ The Authority contends we should render a take-nothing judgment against the Braggs because there is no evidence of the difference between the values of the orchards or the Braggs' rights to use the Edwards Aquifer water for irrigation, sale, or other purposes immediately before and after the alleged takings in 1996. Because the parties disagreed as to the timing of the takings, the "property" to be valued, and the method of calculating the compensation, and because the trial court erred in the method of quantifying compensation, we do not believe rendering judgment is appropriate.

proceedings consistent with this opinion on the issue of the compensation owed for the taking of the Home Place Orchard and the D'Hanis Orchard.¹⁴

Sandee Bryan Marion, Justice

¹⁴ We do not address the remaining issues of the parties because they are not dispositive. TEX. R. APP. P. 47.1.