

In the
Supreme Court of Ohio

STATE OF OHIO, <i>ex rel.</i>	:	Supreme Court Case No.
AWMS WATER SOLUTIONS, LLC, <i>et al.</i>	:	2024-1433
	:	
Relators-Appellants,	:	On Appeal from the
	:	Trumbull County
v.	:	Court of Appeals
	:	Eleventh Appellate District
MARY MERTZ, DIRECTOR OHIO	:	
DEPARTMENT OF NATURAL	:	Court of Appeals
RESOURCES, <i>et al.</i>	:	Case No. 2016-TR-00085
	:	
Respondents-Appellees.	:	

**MERIT BRIEF OF APPELLANTS AWMS WATER SOLUTIONS, LLC,
AWMS HOLDINGS, LLC AND AWMS RT. 169, LLC**

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I. INTRODUCTION

This is AWMS's third appeal to this Honorable Court challenging a decision of the Eleventh District in this long running mandamus action. In its first appeal to this Court, the Eleventh District's decision granting summary judgment in favor of the Division's motion for summary judgment was reversed and remanded, by a six-to-one decision, requiring the Eleventh District to weigh the evidence and determine whether a total and/or partial taking of AWMS's property occurred. *See State ex rel. AWMS Water Solutions, LLC v. Mertz*, 2020-Ohio-5482 ("*AWMS I*").

In the second appeal to this Court, the Eleventh District's decision finding that AWMS lacked any cognizable property interest in its leasehold was unanimously reversed and remanded, again, with instructions to weigh the evidence to determine whether a total and/or partial taking occurred. *See State ex rel. AWMS Water Solutions, LLC v. Mertz*, 2024-Ohio-200 ("*AWMS II*")

In this third appeal, AWMS seeks reversal and remand of the Eleventh District's most recent September 9, 2024 decision upon four separate bases. First, the Eleventh District erred when it exceeded this Court's mandate in *AWMS II*, usurped the role of the Trumbull County Probate Court, and preemptively limited AWMS's compensation for its partial taking to only \$359,373.00. Second, the Eleventh District erred when a successor judge who did not sit on the panel that tried the case made crucial credibility determinations in finding that AWMS did not suffer a total taking and incurred limited damages for its partial taking claim. Third, the Eleventh District abused its discretion in finding that AWMS did not suffer a total taking. Fourth, the Eleventh District abused its discretion in limiting AWMS's damages on its partial taking claim.

AWMS respectfully requests the following:

1) This Court should reverse the Eleventh District's decision and hold that AWMS suffered a total taking of its property and remand the matter back to the Eleventh District with instructions to enter an order compelling the Division to initiate appropriation proceedings in the Trumbull County Probate Court;

2) Alternatively, this Court should reverse the Eleventh District's decision and hold that AWMS suffered a partial taking and remand the matter back to the Eleventh District with instructions to modify its decision limiting AWMS's damages, and to enter an order compelling the Division to initiate appropriation proceedings in the Trumbull County Probate Court to ascertain the extent of AWMS's damages;

3) Alternatively, this Court should reverse the Eleventh District's decision and remand the matter for further proceedings for the Eleventh District to properly weigh the parties' evidence to determine solely whether AWMS suffered a total taking under *Lucas*, or a partial taking under *Penn Central*. Should the Eleventh District find a taking occurred, the appropriation proceedings shall be initiated in the Trumbull County Probate Court to ascertain the extent of AWMS's damages.

II. STATEMENT OF FACTS

This Court is already familiar with the procedural history and facts associated with this case. *See generally, AWMS I; AWMS II.* Relators-Appellants AWMS Water Solutions, LLC, AWMS Holdings, LLC, and AWMS, Rt. 169, LLC (collectively, "AWMS¹") hereby incorporate the factual findings made by this Court in *AWMS I* and *AWMS II* by reference. In addition to the factual and procedural background outlined in this Court's prior opinions, AWMS provides the following information.

¹ AWMS collectively all are wholly-owned subsidiaries of Avalon Holdings Corporation headquartered in Warren, Ohio. Avalon Holdings Corporation is not a party to this Action.

A. AWMS's Property and Injection Well Operations.

AWMS's property and injection-well operations company, AWMS Water Solutions, LLC (fka American Water Management Services, LLC), specializes in disposing waste from oil and gas production sites and drilling sites. It is the company to which the Ohio Department of Natural Resource's Division of Oil & Gas Resources Management (the "Division") issued the drilling permit and the operational permit. AWMS Holdings, LLC is the holding company for a series of wholly-owned subsidiaries that own and operate brine disposal wells and facilities. AWMS Rt. 169, LLC is the wholly-owned subsidiary of AWMS Holdings, LLC that was formed to own and operate salt-water injection wells on the property at issue here. It is managed by AWMS Water Solutions, LLC. (J.S. ¶¶ 1-4). All are collectively referred to as "AWMS."

1. AWMS acquires an injection well lease.

In 2011, AWMS entered into an Injection Well Lease with the owner of a certain parcel of industrial property located on State Route 169 in Weathersfield Township, Trumbull County, Ohio for the sole purpose of constructing and operating an injection-well facility for the disposal of saltwater brine that is the byproduct of fracking and other oil-and-gas drilling operations. The Lease specifically limits AWMS's use of the 5.2-acre property to "operat[ing] one or more Class II Saltwater disposal wells (each a 'Well', and collectively, the 'Wells') on the Property." While the Lease allows AWMS to take other actions, those "Operations" are to be performed solely in furtherance of the disposal activity. AWMS agreed to pay the property owner rent in the form of a 5% royalty "of the disposal revenue received by Lessee from each Well located on the Property." The Lease term is tied directly to AWMS's continued operation of the Facility. (T.d. 56, Kilper Dep. 11-13, Ex. 3; J.S. ¶¶ 11-14).

2. AWMS's financial investment into the disposal facility.

AWMS invested nearly \$7 million into developing and constructing a state-of-the-art disposal Facility on the leasehold (the "Facility"). (T.d. 56, Kilper Dep. 73-74) This included \$5.6 million for the construction of two salt-water injection wells and the attendant infrastructure, facilities, and equipment needed for their operation. (J.S. ¶ 34) AWMS intended to derive its revenue from the facility by injecting saltwater waste into these two wells, the first of which is a shallow well ("Well #1"), while the second is significantly deeper ("Well #2"). (T.d. 1, Ex. B, Hearing Tr. 30; J.S. ¶ 19, 29) During the short time that both were operating in mid-2014, Well #2 proved to have significantly greater capacity, receiving 95% of the saltwater that was injected. (J.S. ¶ 23)

B. AWMS's Expectation of Governmental Regulation.

In order to raise the necessary capital, AWMS circulated an offering memorandum that advised potential investors about the risks and benefits of investing in the injection well operations as well as the potential financial gain. AWMS acknowledged that injection wells operate in a highly-regulated field and there would be certain risks associated with its disposal activities. (T.d. 56, Kilper Dep., Ex. 12) The individuals who would be operating the Facility had significant prior experience working with dozens of environmental agencies across the country and had conducted extensive research into how the Division had recently worked with other operators who were experiencing seismic events near their wells. (T.d. 79, Kilper Aff. ¶ 3) Thus, AWMS and its investors had an informed expectation of how the regulations applicable to their industry would be applied, and expected the Division to treat AWMS consistently with the Division's prior and then-current practices, the applicable statutes and administrative regulations, and the overarching policy goals guiding the Division. (T.d. 79, Kilper Aff. ¶ 8)

Those goals were established by the Ohio Department of Natural Resources (“ODNR”), which oversees the Division. ODNR has confirmed that it expects the Division to: (1) rely on sound scientific data, findings, and principles to make informed and measured regulatory decisions; (2) emphasize an effort to avoid felt earthquakes, *i.e.*, seismic events that could be felt and experienced by people, as opposed to being measured only by sensitive monitoring instruments; (3) temporarily suspend operations at a well that was inducing earthquakes for the specific purpose of working with an operator to adjust operations to avoid further seismic events; and (4) engage in an open dialogue with injection well operators and obtain from the operators information “that [the Division] believe[s] would be helpful to the Division for it to digest and it sounds (sic) science based and to potentially make a decision to move forward.” (T.d. 47, Shimp Dep. 82-83, 19-20, and 36). All agree that it is the ground shaking from a seismic event – and not the magnitude of that event – that is the concern for causing damage or injury to people and property. (T.d. 55, Wong Dep. 17-18)

Many of these goals arose out of the Division’s analysis of an ML 4.0 seismic event in December 2011 that has been connected to the Northstar #1 injection well located just outside Youngstown. (T.d. 49, Simmers Dep. 54-57; J.S. ¶ 17) Following that event, the Division placed a one-year moratorium on permits for injection-well facilities to allow it to more fully study induced seismicity. *Am. Water Mgt. Servs., LLC v. Div. of Oil & Gas Resources Mgt.*, 2018-Ohio-3028, ¶ 2 (10th Dist.). The Division used that time to develop additional regulatory rules for injection wells which consisted primarily of increased monitoring and testing protocols. It then lifted the moratorium. *Id.*, at ¶ 3.

AWMS’s permit applications were delayed by the moratorium. AWMS eventually moved forward with its plans and obtained both a drilling (summer 2013) and operational (spring 2014)

permit from the Division under the new regulations based on its informed expectations regarding how the Division had worked with prior injection-well operators to reduce felt seismic events. AWMS expected that it would be treated similarly to those operators. (T.d. 79, Kilper Aff. ¶ 8; J.S. ¶¶ 10, 18, 21). Despite its moratorium and a year studying induced seismicity, the Division did not attach any provisions to AWMS's permits that would allow the Division to suspend operations in the event of suspected seismic events. *Am. Water Mgt. Servs., LLC*, at ¶ 3. The Division's position at the time apparently was that increased monitoring was sufficient.

This Court ultimately agreed with AWMS's position that it did not expect the Division to suspend its operations at the Wells, noting that AWMS acquired its property interest, the leasehold, on December 19, 2011, *before* the seismic events occurred on December 24 and 31, 2011. *See AWMS I*, ¶ 66. This Court specifically noted, “[b]ut it is the interest holder's expectations at the time it acquired its interest that is determinative, not its expectations following an event occurring at some later point in time.” *Id.* (citing *Appolo Fuels, Inc. v. United States*, 381 F.3d 1338 (Fed.Cir.2004)). As this Court noted, AWMS could not have a reasonable expectation that the Division's exercise of its regulatory authority would result in an indefinite suspension of the operations of its wells.

C. The Division's Suspension Order.

1. Minor, unfelt seismic events near the AWMS facility.

Seismic monitoring equipment, including machines that AWMS installed, detected two minor seismic events on July 28, 2014 (ML 1.7) and August 31, 2014 (ML 2.1) in the vicinity of the Facility. (J.S. ¶ 20, 26) Neither was actually felt. And neither was beyond the scope of seismic events that occur on a regular basis in Ohio. (T.d. 1, Ex. B, Hearing Tr. 194; T.d. 11, Ans. ¶ 14)

AWMS at all times had followed—and was in compliance with—every rule, regulation, and permit condition imposed on its operations. *Am. Water Mgt. Servs., LLC*, at ¶ 12.

The United States Geological Survey estimates that there are more than one million earthquakes greater than ML 2.0 that naturally occur around the world every year. (T.d. 1 and 81, Ex. C, Primer 44). The USGS also states that damage to homes and other buildings do not occur unless the magnitude reaches between ML 4.0 and 5.0, which are orders of magnitude (700 to 22,000 times) stronger than the seismic events for which AWMS’s operations were suspended. (T.d. 1, Ex. C, Primer 50, and Ex. E; T.d. 11, Ans. ¶ 18). ODNR publicly supports this conclusion. (T.d. 1, Ex. F; T.d. 11, Ans. ¶ 18).

Ohio is not immune. To put this into perspective, ODNR has recorded thousands of seismic events in Ohio in the last decade, with many meeting or exceeding ML 2.0. (T.d. 56, Kilper Dep. 33). This includes a suspected induced event in Monroe County that measured ML 3.0, which is 22 times stronger than the ML2.1 for which Well #2 was suspended.² (For every ML 1.0 increase in the scale, the event is actually a ten-fold increase in magnitude and a thirty-two fold increase in energy released. (T.d. 1, Ex. B, Hearing Tr. 187-188; T.d. 55, Wong Dep. 148)). Prior to the September 2021 trial, the most recent felt event in Ohio was a ML 4.0-4.2 on June 10, 2019 with an epicenter in Lake Erie a short distance from the City of Eastlake; there were several aftershocks that were recorded as being larger than the seismic events at issue here.³ That naturally occurring earthquake was at least 1,000 times more powerful than the August 2014 seismic event for which

² 1 The Division of Geological Survey maintains an active list of recent seismic events. See ODNR, Div. of Geological Survey, “Earthquake, Graysville, Ohio, Monroe County, April 02, 2017,” available at <http://geosurvey.ohiodnr.gov/quakes-2010-to-present-pgs/graysville-april-2-2017> (last accessed March 27, 2023).

³ United States Geological Survey, “M 4.0 – 5 km NNW of Eastlake, Ohio,” available at <https://earthquake.usgs.gov/earthquakes/eventpage/us70003xny/executive> (last accessed June 11, 2019). See also Exner, R., “4.2 Lake Erie earthquake strikes Cleveland area,” available at <https://www.cleveland.com/news/2019/06/was-that-an-earthquake-that-rattled-northern-ohiomonday-morning.html> (last accessed June 11, 2019). ODNR maintains an updated list of recent earthquakes in Ohio and the region at <http://geosurvey.ohiodnr.gov/earthquakesohioseis/quakes-felt-in-ohio/recent-ohio-regional-quakes>.

Well #2 was suspended.⁴ Notably, there was no report of any damage, and the public’s reaction did not appear to be one of alarm.⁵

2. Post-event communications between AWMS and Division officials.

In the days following the August 2014 seismic event, AWMS personnel engaged in extensive discussions with Division regarding technical aspects of the seismic events and AWMS’s operational parameters (e.g., volume and pressure). (T.d. 50, *Worstall Dep.* 33-39). AWMS offered to temporarily reduce or suspend operations if the Division would identify its criteria for restoring operations. (*Id.* at 43). This is consistent with AWMS’s understanding of how Division officials treated the operator of a well in Washington County that was suspected of inducing significantly more seismic events that were of greater magnitude and closer to homes than the seismic events that occurred near the AWMS Facility in July and August 2014 . (T.d. 79, *Kilper Aff.* ¶ 14)

The Division instead issued a suspension order for both Wells on September 3, 2014. (The suspension on Well #1 was lifted a few weeks later after the Division determined that there was no connection between that well and the seismic events). The Division’s Order No. 2014- 372, as amended by Order No. 2014-374 on September 5, 2014 (“Suspension Order”), required AWMS to: (1) immediately suspend all operations at Well #2, and (2) submit a written plan to the Division for evaluating “seismic concerns associated with the operation of the salt water injection Well #2.” (T.d. 1, Ex. R; J.S. ¶¶ 27-29).

⁴ United States Geological Survey, “How Much Bigger...?’ Calculator,” available at <https://earthquake.usgs.gov/learn/topics/calculator.php> (last accessed June 11, 2019)

⁵ See, e.g., Bona, M., “Quake County Captains Promos Announced,” available at <https://www.cleveland.com/entertainment/2019/06/quake-county-captains-promosannounced.html> (last accessed June 11, 2019) (noting the minor league baseball team that plays its games near the epicenter planned to change its name for an upcoming game from “Lake County Captains” and offer a reduced ticket price “for anyone who survived Monday’s 4-plus magnitude earthquake”).

D. AWMS's Efforts to Work With the Division to Resume Operations.

AWMS made numerous efforts to open a dialogue with the Division to resume operations but was rebuffed at every turn, a fact noted by the Eleventh District in its decision. (T.d. 217, ¶ 106) (“When AWMS acquired the lease, it did not (nor could it) anticipate that the Division would effectively ‘stonewall’ its efforts to comply with the Division in interest of either lifting or modifying the Suspension Order.”). AWMS complied with the Suspension Order and then submitted a plan to the Division outlining the conditions under which it proposed to resume operations, but “no one from the [D]ivision contacted AWMS to collaborate on the plan or critique what AWMS had submitted.”⁶ (J.S. ¶ 30; *Am. Water Mgt. Servs., LLC*, at ¶¶ 6-7) Instead, at a joint meeting between the parties in October 2014, the Division unequivocally told AWMS that (a) it was not going to address the suspension until the Division developed a statewide policy for induced seismicity, which they expected to take “four to six months,” and (b) it would not give AWMS any feedback on the Plan until the statewide policy was implemented. (T.d. 79, Kilper Aff., ¶ 10).

Subsequently, in February 2015, the Division presented AWMS with a single sheet of paper upon which there were typed fourteen “seismic evaluation criteria” that the Division was “considering including in their policy” but for which no further guidance was provided. (T.d. 82, Ex. II; J.S. ¶ 32; T.d. 50, Worstall Dep. 44-47; T.d. 79, Kilper Aff. ¶ 11). AWMS asked the Division whether, if these criteria were addressed to its satisfaction, the Division would deal with AWMS’s situation independently of the statewide induced-seismicity policy (which the Division then stated was at least another eight months out and probably more). The response was “no,” and the Division further made clear it would not even recommend implementation of the statewide policy to the ODNR Director unless it “guaranteed zero risk.” (T.d. 79, Kilper Aff. ¶ 12). AWMS

⁶ The Plan is found at T.d. 82, Ex. HH.

also asked for specific technical clarifications on two of the items. The Division, rather than clarify, told AWMS to “propose whatever you think is appropriate.” (T.d. 50, Worstall Dep. 46- 47; T.d. 79, Kilper Aff. ¶ 13; T.d. 82, Ex. NN).

AWMS responded a week later by “addressing each of the fourteen criteria stating whether and when AWMS had already addressed it or how AWMS could address it,”⁷ but, “[o]nce again, the Division did not respond.” *Am. Water Mgt. Servs., LLC*, at ¶ 8. In the meantime, ODNR was sitting on a draft response to AWMS’s plan. (T.d. 82, Ex. JJ and MM (revised); T.d. 50, Worstall Dep. 50-51). AWMS’s numerous other attempts to get feedback on its Plan, the fourteen criteria submittal, or the status of the statewide policy from the Division were deflected or ignored.

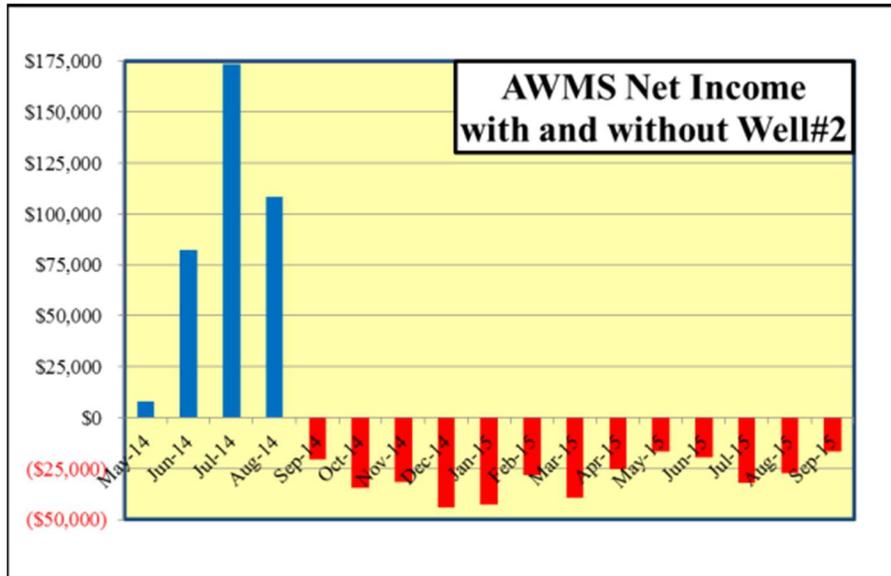
As this Court noted, at the time AWMS acquired its leasehold interest in December 2011, “AWMS could not have anticipated that the state would waver between a case-by-case approach and a statewide approach to addressing induced seismicity while rebuffing AWMS’s attempts to meet the state’s inchoate regulatory expectations.” *See AWMS I*, ¶ 67. Similarly, “AWMS could not have reasonably anticipated when it acquired its leasehold interest that the state’s inconsistent regulatory approach or its lack of responsiveness to AWMS’s attempts at remediation would leave AWMS in limbo for years with an indefinite suspension of its operations.” *Id.*, at ¶ 69.

E. Limited Operation of Well #1

AWMS resumed operations at Well #1 on September 18, 2014. Because of its limited capacity, however, Well #1 did not generate sufficient revenues to cover the monthly operating expenses for the Facility. This is shown in the following chart that was compiled by AWMS’s economist expert witness using AWMS’s financial data and reports. The positive values in blue reflect the time when both wells were operating, while the negative values in red from September 2014

⁷ The supplemental response is at T.d. 82, Ex. PP.

through September 2015 reflect the time after the Suspension Order when AWMS was only permitted to operate Well #1:



(T.d. 64, Wade Dep. and Reports (Exs. 74, 75)). This forced AWMS to discontinue injections at Well #1 and all operations at the Facility by August 2015. (T.d. 56, Kilper Dep. 43-47).

F. Administrative and Judicial Review of the Suspension Order

The Suspension Order was upheld by the Ohio Oil & Gas Commission after a hearing in March 2015 and reversed by the Franklin County Court of Common Pleas.⁸ However, the Tenth District Court of Appeals ultimately affirmed the Suspension Order as neither unreasonable nor unlawful. The Tenth District agreed with the Commission that the Suspension Order was temporary and that the Chief needed more time to finish his work with the Interstate Oil and Gas Compact Commission (“IOGCC”) so he could develop a statewide policy on induced seismicity. *Am. Water Mgt. Servs., LLC*, at ¶¶ 43, 45. The Chief testified under oath that he was working on

⁸ Notably, Judge Cocroft, in acting as the appellate court in AWMS’s administrative appeal, stated in her opinion that “...the Division’s continual refusal to engage and work towards a resolution with the operator of the AWMS #2 Well is arbitrary...there is no evidence that the Appellant has violated its permit, or any applicable laws or regulations.” *Am. Water Mgt. Servs., LLC v. Div. of Oil & Gas Res. Mgmt.*, Franklin C.P. No. 16-CV-6218, 17 (December 23, 2016) (C.P.). Judge Cocroft further held, “Thus, this Court concludes that [Respondents’] ‘suspension’ of the AWMS #2 Well is tantamount to a revocation, and is not in accordance with reason.” *Id.*, at 15.

both at the same time. (T.d. 1, Ex. B, Hearing Tr. 299 (“During that time, as that draft national product is developed, we’ll be developing the Ohio-specific version of that”). The Chief’s position was that this impending statewide policy prevented him from lifting the Suspension Order, but the timeline for the policy’s creation, he assured, would be short. (*Id.* at 306-308).

1. The Suspension Order is upheld to allow the Division to develop a statewide plan for induced seismicity.

The Tenth District acknowledged the paramount role of the purported statewide policy on the Commission’s decision. It noted that the Chief “testified that although the division initially intended to deal with AWMS’s well on an individual basis, ODNR Oil & Gas had instead decided to work with interstate commissions to develop and implement a policy on induced seismicity and that the Chief was not intending to consider AWMS’s well until that work was done.” *Am. Water Mgt Servs., LLC*, at ¶ 9.⁹ The Tenth District then held that the Commission “recognized that the Chief did not intend to allow resumption of injection operations at [the #2] well until a state policy on injection-induced seismicity was in place.” *Id.* at ¶ 12. The Chief admitted this was a change in the way the Division typically handled such matters, *i.e.*, a case-by-case basis. (T.d. 1, Ex. B, Hearing Tr. 306 – 307). The Tenth District reversed the trial court only because, in its opinion, the trial court removed from the Chief the decision “to seek and await guidance from a statewide policy that addressed this kind of seismic activity.” *Am. Water Mgt. Servs., LLC*, at ¶¶ 43, 45.

G. AWMS’s Takings Claims

1. Nature of AWMS’s claims.

While the administrative and judicial review of the Suspension Order was pending, AWMS filed a petition for a writ of mandamus in the Eleventh District Court of Appeals in August 2016

⁹ The IOGCC published its *Potential Injection-Induced Seismicity Associated with Oil & Gas Development: A Primer on Technical and Regulatory Considerations Informing Risk Management and Mitigation* in September 2015. (T.d. 1 and 81, Ex. C)

asserting a regulatory taking claim under the Fifth and Fourteenth Amendments to the United States Constitution and Section 19, Article I of the Ohio Constitution. AWMS's claims were based on both types of regulatory takings: categorical under *Lucas* and partial under *Penn Central*. AWMS alleges the entire leasehold at the Rt. 169 Location – including Well #1, Well #2, and the associated equipment and tangible property – as an income-producing property was taken as a result of the Suspension Order and the Chief's actions and inactions thereafter. (T.d. 1).

2. The Eleventh District's summary judgment decision.

The Eleventh District granted Respondents' motion for summary judgment and denied AWMS the writ as a matter of law on both claims without a hearing to determine the issues of credibility on the factual questions. The court first ignored the critical test for a categorical taking claim by disregarding the competing opinions of experts who analyzed the severity of the economic impact on AWMS. The court instead held that there has not been a complete elimination of the value of AWMS's property. It based its decision on (1) testimony from the hearing before the Commission that the property generated revenue; (2) testimony that unidentified third parties had "expressed interest" in using the property; and (3) the speculative opinion of one of the Division's employees (Andrew Adgate) that there were alternative uses for the property. *State ex rel. AWMS Water Solutions, LLC v. Zehringer*, 2019- Ohio-923 (11th Dist).

The court also rejected AWMS's partial takings claim by holding that there was a lack of genuine issues of material fact regarding each of the *Penn Central* factors. It again completely ignored the economic impact on AWMS, which is the first factor. As for AWMS's distinct investment-backed expectations, the Court determined that AWMS and its investors could not have had "reasonable investment-backed expectations that they would not be subject to restraints,

in the form of regulations, that could foreseeably cause their operations to be suspended, perhaps indefinitely, due to induced seismic activity.” *Id.* at ¶ 49.

It then found the character factor to weigh in Respondents’ favor. It did so by holding that the decision in the administrative appeal precluded a challenge to the character of the Suspension Order as anything other than reasonable even though the Suspension Order’s reasonableness is not the basis for AWMS’s claim or the proper test. *Id.*, ¶ 22. The court also referred to the “highly-involved process” that the Chief said he was going to follow “in creating a state-wide policy,” even though that representation was demonstrably false. *Id.* at ¶¶ 26-34. The court deflected any concerns about the disparity in treatment between AWMS and the operators in Washington County by accepting at face value the Chief’s self-serving conclusion that there were “sufficient differences” between the operations to justify the Division’s conduct. *Id.* at ¶ 39. The court incorrectly stated that the Chief testified that the Division had concluded that operations at the Long Run Well were not inducing seismicity, despite the fact that the record—including the Chief’s testimony before the Commission and admissions from the Division’s own seismic experts—unequivocally demonstrates otherwise. (*Compare id.* at ¶ 37 with Hearing Tr. (T.d. 1, (Ex. B) 240, 245–46)).

Based on these erroneous conclusions, the Eleventh District held that “considering the totality of the circumstances, the character of the order at issue protects the public’s health and safety from the realistic potential of increased induced seismicity resulting from injection activities on AWMS #2 Well.” *Zehringer* at ¶ 40.

3. This Court reverses the Eleventh District’s summary judgment decision.

On April 5, 2019, AWMS appealed the Eleventh District’s decision granting summary judgment in favor of the Division. AWMS argued that the Eleventh District’s decision was

erroneous because the Suspension Order operated as a regulatory taking, depriving AWMS of all economically viable use and investment-backed expectations of its property interest. The Division’s opposition argued against AWMS’s propositions of law, but also included an argument that AWMS lacked any “cognizable property interest” sufficient to assert a claim under the Takings Clause. Upon due consideration of the parties’ arguments, this Court reversed and remanded the Eleventh District’s decision because genuine issues of material fact existed as to whether AWMS suffered a total and/or a partial taking of its property interest, and further finding that the Division waived its nuisance defense. *AWMS I*, ¶¶ 55, 56, 87 – 89. However, on the Division’s motion for reconsideration, this Court reissued its opinion, omitting its instruction to “disregard the state’s nuisance defense.” *Id.*, at fn. 2.

4. The Division Issues a Conditional Restart Order of Well #2.

On May 21, 2021, during preparations for the scheduled September bench trial, the Division issued a conditional restart order pursuant to Order No. 2021-97 (the “Restart Order”). (T.d. 176, 349:1 – 8 at Exhibit IIII). The Restart Order allowed AWMS to restart operations at the property under seventeen (17) restrictive and conditional criteria, with the most egregious criteria requiring that AWMS immediately cease all operations at the property indefinitely, with restart at the sole discretion of the Division, in the event of seismic activity with a magnitude of 2.1 or greater within a 3-mile radius of the Well. (*Id.*) (“(14) AWMS shall cease injection at [the Well] if a seismic event occurs with an epicenter within a three-mile radius of [the Well] with a measured magnitude of M_l of 2.1 or greater. AWMS also shall ... not resume operations until a full evaluation of the data from the seismic event is performed...”). AWMS appealed the Restart Order to the Oil & Gas Commission based upon, among other reasons, that another unfelt background level event could result in another 7-year, or longer, suspension. Days after AWMS’s appeal of

the Restart Order, the Division requested a stay of the proceedings on remand, perhaps for years, during the pendency of the appeal. The Eleventh District ultimately denied the Division's request and proceeded to bench trial in September 2021. (T.d. 133; 141).

5. The Eleventh District's further proceedings in the wake of *AWMS I*.

On remand, the Eleventh District conducted a two-week trial, which began September 20, 2021 and concluded October 1, 2021. (T.d. 200, ¶ 1). Upon conclusion of the trial, the parties filed post-trial briefs in support of their respective positions regarding AWMS's total and partial takings claims. (*Id.*; *See also*, T.d. 194 and T.d. 195). On March 16, 2022, the Eleventh District *sua sponte* ordered the parties to submit supplemental post-trial briefs "on a pivotal but under-addressed issue of what, if any, cognizable property interest was allegedly taken by the Division's actions." (T.d. 200, ¶ 1; T.d. 196). The parties submitted their supplemental post-trial briefs on March 31, 2022. (T.d. 197 and T.d. 198).

AWMS argued that that it possesses a cognizable property interest in its leasehold interest, in its permits to operate the Wells, in its Wells and Equipment, and in its rights to inject brine into the earth. (T.d. 197). Despite acknowledging AWMS's property interests in prior briefing and before multiple tribunals, the Division argued that AWMS possessed no cognizable property interest and that the Eleventh District should deny AWMS's writ. (T.d. 198). After the supplemental post-trial briefs were submitted, the Eleventh District issued an opinion denying AWMS's writ on the sole basis that AWMS lacks a cognizable property interest in its leasehold, permits, wells and equipment, and right to inject brine into the earth. (T.d. 200).

6. This Court reverses the Eleventh District for a second time in *AWMS II*.

On January 30, 2023, AWMS filed a notice of appeal of the Eleventh District's decision that AWMS lacked a cognizable property interest. (T.d., 204). On January 24, 2024, this Court

unanimously, and without oral argument, entered its decision in *AWMS II*, holding that “AWMS’s leasehold interest is a cognizable property interest for purposes of the Takings Clause.” *AWMS II*, ¶¶ 28, 30. This Court further explained that the Eleventh District’s contrary holding violated the law of the case doctrine, reversing and remanding the matter to the Eleventh District. *Id.* This Court’s mandate provided:

For the foregoing reasons, we ... remand the case to the court of appeals for further proceedings in accordance with *AWMS*, 162 Ohio St.3d 400, 2020-Ohio-5482, 165 N.E.3d 1167, and this opinion. On remand, the court of appeals must (1) weigh the parties’ evidence to determine whether AWMS suffered a total-taking and (2) weigh the parties’ evidence and balance all three *Penn Cent.*, 438 U.S. 104, 98 S.Ct. 2646, 57 L.Ed.2d 631, factors to determine whether AWMS suffered a partial taking.

Based on its plain language, the mandate was limited solely to conducting further proceedings to weigh the Parties’ evidence in determining whether a total or partial taking occurred, not to determine the extent of AWMS’s monetary damages. (*Id.*, ¶ 31).

7. Proceedings on remand to the Eleventh District.

Upon remand, the Eleventh District was instructed to conduct further proceedings to weigh the evidence and determine solely whether a total or partial taking of AWMS’s property occurred. (*Id.*) In 2022, after the September 2021 bench trial but before any factual or legal conclusions were rendered on the merits of AWMS’s claims, a new judge was elected to the Eleventh District Court of Appeals. This successor judge replaced Judge Thomas Wright, who previously served on the 3-judge panel that presided over the September 2021 trial. Since the newly elected judge’s term did not commence until February 2023, he did not preside over, and was not otherwise present for, the September 2021 bench trial, nor was he personally privy to the evidence and testimony rendered more than a year before his term commenced.

After this matter was remanded, the Parties submitted a joint motion for telephone status conference to discuss the status of the case. (T.d. 215). AWMS intended to discuss the remand instructions, as well as the status of the case on the court’s docket. However, the Eleventh District denied the joint motion as moot after it reopened the case on its docket. (T.d. 216). Then, on September 9, 2024, the Eleventh District entered a final, appealable order holding that AWMS did not suffer a total taking under *Lucas*, but that AWMS did suffer a limited, partial taking under *Penn Central*. (T.d. 217). The Eleventh District relied significantly on the Parties’ expert testimony and made crucial credibility determinations in finding that AWMS did not suffer a total taking, and in finding that AWMS’s partial taking claim was limited per the unsupported opinions expressed by the Division’s expert witnesses during the September 2021 trial.

The Eleventh District ordered the Division to initiate appropriation proceedings in the Trumbull County Probate Court but restricted the probate court’s just compensation determination to the damages identified by the Eleventh District in its decision. (*Id.*).

8. The Eleventh District’s total takings analysis.

In its decision, the Eleventh District found that “[t]he weight of the credible evidence does not support the conclusion that AWMS lost all economically viable use of the leasehold; indeed, the Division produced evidence that AWMS could utilize the leased property in alternative, reasonable manners that would allow it to again generate income.” (T.d. 217, ¶ 4). In coming to this conclusion, the Eleventh District noted that its total takings analysis was a “question ... of evidential weight, not a matter of law.” (*Id.*, ¶ 40). Therefore, the Eleventh District relied on the expert witnesses’ testimony that was offered during the September 2021 bench trial. *See generally*, (T.d., 217).

In its analysis, the Eleventh District primarily relied on the Division’s expert witness testimony in finding that a total taking did not occur because alternative uses for the property allegedly existed. (T.d. 217, ¶¶ 64 – 70). Specifically, the Eleventh District found that, based on Mr. Adgate’s testimony, no total taking occurred because there were alternative options to utilizing the leasehold. *Id.* The Eleventh District summarized these alternative uses as follows:

- (1) “Mr. Adgate testified AWMS could apply to obtain a permit to drill a deeper well. In particular, he testified that AWMS could seek a permit to inject into the deeper Clinton Sandstone formation and such a process does not, in the instant case, prevent such drilling and injection.” *Id.*, ¶ 67.
- (2) “Mr. Adgate testified that, in addition to seeking an additional permit to drill AWMS #1 Well into a deeper rock stratum, AWMS could also seek to modify AWMS #2 Well by ‘plugging back the existing open hole section and injecting into a shallower injection zone.’” *Id.*, ¶ 68.
- (3) “Mr. Adgate testified AWMS could use a combination of the two (non-exhaustive) scenarios to operate and move forward with injections.” *Id.*, ¶ 69.
- (4) “Mr. Adgate observed that AWMS could apply for completely new permits with the option of drilling new wells.” *Id.*, ¶ 70.

Based on this testimony, the Eleventh District found that AWMS was not completely deprived of the economic value of its Wells despite Mr. Adgate’s acknowledgment that the identified remedies were purely speculative, were significantly cost prohibitive to AWMS, and were otherwise not economically viable. *Id.*, ¶ 73; *see also*, (T.d., 181, 1346:6 – 1351:2).

Despite receiving testimony from Mr. Kilper and AWMS’s expert Dr. Brian Roach, the Eleventh District did not consider whether the Restart Order itself constituted a categorical taking due to its restrictive nature, depriving the property of its economic viability.¹⁰ (*See*, T.d., 176, 350:1 – 355:16, citing Exs. IIII, 84, and 90 (testifying as to how the restrictive conditions contained in the Restart Order would affect the economic viability of the Well); *see also*, T.d., 179 840:2 –

¹⁰ The Eleventh District did consider the Restart Order in rejecting the Division’s claims that AWMS’s conduct was a nuisance, and in finding that the Division “stonewalled” AWMS after the Suspension Order was entered.

844:21, 861:2 – 863:15 (testifying that AWMS invested \$6.1 million into the property prior to the Suspension Order, but under the Restart Order, AWMS would generate a net income of \$140,000 over a six-year period, meaning AWMS would never make a profit or recover its initial investment costs); *see*, T.d., 217 ¶¶ 56 - 75).

The Eleventh District found no total taking of AWMS's property interest under *Lucas* because AWMS could have sought different avenues for utilizing the leasehold based on Mr. Adgate's testimony, while ignoring the fact that such uses were purely speculative at best and that the Division presented no analysis of the economic viability of such uses. (T.d., 217, ¶¶ 67 – 75; *see also*, T.d. 181, 1347:8 – 12). The Eleventh District expressly acknowledged that its findings in this regard were based on its overall assessment of Mr. Adgate's credibility. (T.d. 217, ¶¶ 64, 74). Notably, the Eleventh District recognized Mr. Adgate as an expert in Class II permitting and regulations only, not in business or economics. (*Id.*, ¶ 60). On the other hand, the court of appeals ignored AWMS's supported, competent, and credible evidence, including evidence that the alternative uses were speculative and not economically viable. Additionally, the court of appeals ignored AWMS's analysis of the property's economic viability in light of the Restart Order.

i. Dr. Wade's analysis of AWMS's total takings claims under Lucas.

In 2017, Dr. William Wade rendered an opinion as to the evaluation of economically beneficial use of AWMS Investment in Injection Well Facilities. (T.d., 179, 794:3 – 795:10); *see also*, (T.d., 157 at Ex. 75 (Dr. Wade's report summarizing his analysis of AWMS's economic loss under *Lucas*)). Dr. Wade ultimately opined that there are no alternative, economically beneficial uses for AWMS's property, and that AWMS #2 represented 95% of the total injection activities making AWMS #1 a loss when operated alone (as it represented just 5% of the total injection activities on the property). (T.d. 157, at Ex. 75, p. 4). Dr. Wade concluded that to make AWMS

whole for the total loss of its property, just compensation would amount to \$21,940,375. (*Id.*, p. 16).

A total taking requires a finding that a government regulation deprived property of its economically beneficial use. In analyzing damages under this criteria, Dr. Wade defined what “economically beneficial use” is and discussed whether AWMS had any alternative uses for the property that would be economically beneficial. First, Dr. Wade distinguished “generating revenue” with being “economically viable.” (*Id.*, pp. 5 - 8) (providing that generating a revenue is a separate and distinct concept from being economically viable); *see also*, (T.d., 179, 803:21 – 804:19 (where Dr. Roach testifies that revenue alone is not an indicator that a business venture is viable)).

In citing *Lucas v. South Carolina Coastal Council*, 505 U.S. 1003 (1992) and *State ex rel. Shelly Materials, Inc. v. Clark Cty. Bd. of Commrs.*, 2007-Ohio-5022, Dr. Wade identified the definition of “economically beneficial use” for purposes of a Takings Clause analysis. In those cases, the Courts held that economically beneficial use means economically viable use. In citing to various authorities, Dr. Wade noted that “economically beneficial use of property investment must allow the investor to recoup his investment and earn a return on that investment consistent with reasonable financial expectations.” (T.d., 157, at Ex. 75, pp. 5 – 8).

AWMS #2 was economically viable prior to the Suspension Order, with AWMS having monthly income as high as \$175,000.00, and reaching an average of 63,000 barrels per month. After the Suspension Order, AWMS #2 lost all its economic viability, and operating at monthly losses reaching nearly \$50,000.00. (*Id.*, p. 10). To confirm this loss of economic viability, Dr. Wade applied a Discounted Cash Flow (DCF) analysis. In conducting this analysis, Dr. Wade considered AWMS’s initial investment into the property between 2013 – 2014, amounting to \$5.56

million dollars. To calculate the economic outcome for an income producing property, such as the AWMS Wells, Dr. Wade utilized the following calculation: **Net Present Value = Present Value (monthly net operating income less investments in this project)**. (*Id.*, pp. 11 – 16).

Dr. Wade also considered whether there were other economically viable uses for the property, but none existed.¹¹ AWMS’s leasehold interest in the property is limited “for the purpose of constructing two saltwater injection wells for the disposal of oil and gas production waste.” The Suspension Order required AWMS to immediately cease all injection activities at the property, depriving AWMS of using the property at all. Given the complete inability to perform any injection activities at the property, and that AWMS had no other possible use for the property, Dr. Wade proceeded with his DCF analysis in determining what damages would be to AWMS from the date of the Suspension Order under “expected outcome”¹² and “actual outcome”¹³ scenarios:

5 AWMS Economic Impact & Damages due to Suspension Order (Present Value September 2014)			
	Expected Outcome	Actual Outcome	Damages
PV Investment	(\$6,076,043)	(\$6,076,043)	
PV NOI	\$20,551,813	(\$89,231)	\$20,641,044
NPV Sept 2014	\$14,475,770	(\$6,165,274)	\$20,641,044

Dr. Wade also acknowledged that his calculations of the “but for” Net Operating Income (“NOI”) treated AWMS’s lease 5% royalty rate as a subtracted cost. Dr. Wade provided that “to fully award just compensation to AWMS and to acknowledge the additional 5% that AWMS will have to pay the lessor for its royalty from the damage award, the present value September 2014

¹¹ The Restart Order was not issued until May 2021, years after this analysis was undergone. The Division’s expert did not dispute that AWMS was incapable of engaging in any alternative uses for the property until after the Division entered the Restart Order.

¹² An analysis of expected income “but for” the issuance of the Suspension Order.

¹³ An analysis of actual income because of the issuance of the Suspension Order.

amount owed is \$1,299,331.” (*Id.*, pp. 15 - 16). Thus, the total amount owed to AWMS for the Division’s total taking is \$21,940,375.00. (*Id.*, p. 16).

- ii. *Dr. Roach’s analysis of Dr. Wade’s DCF analysis, and analysis of the Restart Order to determine whether operations under the same are economically viable.*

Dr. Wade unfortunately passed away in 2020. After his passing, his colleague, Dr. Brian Roach, who was assisting Dr. Wade in his analysis, was retained by AWMS to opine as to its takings claims under the *Lucas* and *Penn Central* tests. (T.d., 179 724:11 – 19, 801:22 – 803:20). In doing so, Dr. Roach replicated Dr. Wade’s DCF model and verified the conclusions rendered in Dr. Wade’s report. (*Id.*; *see also*, T.d., 157 at Ex. 89). In this report, Dr. Roach replicated Dr. Wade’s DCF analysis by using the same data Dr. Wade relied upon. (T.d. 179, 810:8 – 19). After undergoing the same analysis, Dr. Roach concluded that AWMS was damaged by \$20,500,000.00 as a direct result of the Suspension Order which deprived AWMS of its ability to operate the Wells or property in any economically beneficial manner since 2014. (T.d., 157 at Ex. 89).

But for the Restart Order, Dr. Roach’s opinion would have been that the Suspension Order created a total taking of AWMS’s property interest, causing in excess of \$20 million dollars. However, the issuance of the Restart Order required Dr. Roach to perform an analysis of whether the Wells would be economically viable under the conditions of the Restart Order. Dr. Roach therefore applied the DCF analysis (used by both Dr. Wade and Dr. Roach in their prior reports analyzing economic impact) to opine as to the economic impact the Restart Order would have on the Wells. (T.d. 179, 840 – 841, citing Ex. 90, “Expert Report: Discounted Cash Flow Analysis of AWMS Suspension and Restart”).

Under Dr. Wade’s and Dr. Roach’s “expected outcome” analysis discussed above, AWMS expected to operate the Well between 2014 and 2027 (i.e., for a period of 13 years). Since the

Restart Order was rendered four years after Dr. Wade completed his report, Dr. Roach expanded the DCF analysis until 2034, meaning AWMS could expect to operate the Well for the 13-year time period between 2021 and 2034. (T.d., 179, 852 – 853).

In analyzing the economic impact of the Restart Order, Dr. Roach considered important historical and market data provided by AWMS and updated his DCF model. Specifically, AWMS provided Dr. Roach with data supporting the costs for planning and preparation for the start-up of operations, costs associated with site work, monitoring, and data processing and reporting systems, as well as information on seismic events, volume of expected monthly barrel deliveries, and pricing AWMS expected to charge customers per barrel. (T.d., 179, 850:5 – 851:4; *see also*, Exs. 84 and 90). This associated seismic events data was based upon publicly available information regarding injection wells in Washington County, Ohio that were never suspended despite much higher magnitude and more frequent events which were closer to homes than the AWMS events. (T.d., 176, 355:23 – 356:22, citing Ex. 86).

Mr. Kilper testified during the trial that since the Restart Order mandated shutdowns for each seismic event at or exceeding M2.1, AWMS would have a difficult time finding and retaining customers. (T.d. 176, 353:12 – 355:16). As such, AWMS would restart its operations charging a low price of \$2.00 per barrel, then increasing to \$2.25 per barrel, and ultimately reaching a price of \$2.50 per barrel. (*Id.*). Although the Restart Order could potentially require AWMS to remain shutdown indefinitely, Mr. Kilper assumed a 30-day shutdown for each seismic event that repeatedly mandated suspension. (*Id.*, 297:15 – 22).¹⁴

In updating his DCF analysis, Dr. Roach considered the profits AWMS would have received absent the shutdown, and, by extension, the profit totals in the “expected” or “no

¹⁴ Restarts after repeated suspensions were based upon AWMS’s proposed “traffic light system” adopted by the Franklin County Court of Common Pleas during AWMS’s appeal of the Suspension Order. (T.d. 176, 312:4 – 313:6).

suspension” scenario. (T.d. 179; Ex. 90, pp. 7 – 8, Tbl. 3 and 4). Then, Dr. Roach, using the data and information provided by AWMS, included an analysis of future operational data made relevant by the Restart Order. (T.d., 179, 841 – 846, citing Exs. TTTTT and UUUUU). Ultimately, Dr. Roach’s analysis established that the Wells are not economically viable under the Restart Order. Under his updated model, Dr. Roach concluded that, if only the 2014–2027 lifespan is used, the economic impact of the Suspension Order is \$18,069,924, *i.e.*, the difference between the “expected” scenario (+\$11,987,370) and “actual” scenario (-\$6,082,554):

Discounted Values	Expected Outcome (No Suspension)	Actual Outcome (Suspension and Restart)
<i>May 2014 – August 2021</i>		
Capital Costs	\$6,105,873	\$6,105,873
Operating Revenues	\$17,636,293	\$922,774
Operating Costs	\$4,494,861	\$1,043,122
Net Financial Position	+7,035,559	-\$6,226,221
<i>September 2021 – December 2027</i>		
Capital Costs	\$0	\$0
Operating Revenues	\$6,610,270	\$1,762,724
Operating Costs	\$1,658,459	\$1,619,057
Net Financial Position	+4,951,811	+\$143,667
TOTAL (May 2014–Dec. 2027)	+\$11,987,370	-\$6,082,554

(Ex. 90, p. 10, Tbl. 5, “AWMS Net Discounted Financial Position, 2014–2027, Actual vs. Expected Outcome”). Even considering the resumption of injections at the #2 Well, there is only a roughly \$2 million difference between this number and Dr. Roach’s model validating Dr. Wade’s model (Ex. 89). For the most part, this difference is not attributable to offsetting revenue but is instead the result of Dr. Roach’s reductions to the price of brine after 2016. (Ex. 90, p. 9).

Extending the “actual” scenario to 2034 lessens the total economic impact to \$17,424,164. (T.d., 179, 908) So even if AWMS restarts injections immediately under the Restart Order and continues injecting for thirteen years, it would still not recover enough to significantly reduce the Suspension Order’s economic impact:

Discounted Values	Expected Outcome (No Suspension)	Actual Outcome (Suspension and Restart)
<i>May 2014 – August 2021</i>		
Capital Costs	\$6,105,873	\$6,105,873
Operating Revenues	\$17,636,293	\$922,774
Operating Costs	\$4,494,861	\$1,043,122
Net Financial Position	+7,035,559	-\$6,226,221
<i>September 2021 – December 2027</i>		
Capital Costs	\$0	\$0
Operating Revenues	\$6,610,270	\$1,762,724
Operating Costs	\$1,658,459	\$1,619,057
Net Financial Position	+4,951,811	+\$143,667
<i>January 2028 – December 2034</i>		
Capital Costs	\$0	\$0
Operating Revenues	\$0	\$1,392,771
Operating Costs	\$0	\$746,624
Net Financial Position	\$0	\$646,147
TOTAL (May 2014 – Dec. 2034)	+\$11,987,370	-\$5,436,406

(Ex. 90, p. 14, Tbl. 7, “AWMS Net Discounted Financial Position, Actual Outcome to 2034 vs. Expected Outcome to 2027”).

In short, Dr. Roach’s DCF analysis based on the Restart Order and supporting data unequivocally establishes that operations under the Restart Order would not be economically viable, only allowing AWMS to recover a meager 11% of its initial investment of \$6 million. (T.d. 179 861:2 – 863:15; *see also*, Ex. 90, p. 15). Dr. Roach succinctly stated, “[u]nder the restart condition, under the assumption of [Mr. Kilper’s] spreadsheet, AWMS would obtain a small profit over the next 13 years, but not come anywhere close to offsetting the minus \$6 million that they are at now. They would still end up minus compared to before they started this, minus about \$5.5 million.” (*Id.*, 863:6 – 15).

9. The Eleventh District’s partial takings analysis.

As with its total takings analysis, the Eleventh District relied primarily on expert witness testimony offered during the September 2021 bench trial to support its finding that AWMS suffered a partial taking. (T.d. 217, ¶¶ 77 – 147). AWMS offered Dr. Wade’s and Dr. Roach’s opinions on the extent of the partial taking under the *Penn Central* factors. (T.d., 179, 801:22 – 803:20); *see also*, (T.d., 157 at Ex. 89). In this report, Dr. Roach replicated Dr. Wade’s discounted cash flow analysis by using the same data Dr. Wade relied upon. (T.d. 179, 810:8 – 19). After

undergoing the same analysis, Dr. Roach concluded that AWMS was damaged by \$20,500,000.00 as a direct result of the Suspension Order which deprived AWMS of its ability to operate the Wells or property in any economically beneficial manner since 2014. (T.d., 157 at Ex. 89).

AWMS also offered an expert opinion from Mr. Tom Tomastik, who worked for the Division between 1988 and 2014. For decades, Mr. Tomastik was responsible for directly overseeing Class II injection wells in the state of Ohio. (T.d. 178, 623:18 – 625:17). Based on his expertise in Class II injection wells, Mr. Tomastik analyzed the viability of the Wells to establish the longevity of injective activity at the property.

In contrast, the Division offered a petroleum engineering expert, Mr. Roland Blauer¹⁵, who has never worked on an Ohio injection well, lacks any knowledge of Ohio geology, and did not know what types of rocks into which AWMS was injecting, to opine as to the Wells viability and capacity. (T.d. 181, 1257 – 58, 1278). Mr. Blauer admitted that he lacked expertise in this field, and openly acknowledged that his opinions were premised comparing AWMS’s Wells with a “magical well” that he “made up” rather than a similar Class II well in Ohio (a comparison made by Mr. Tomastik). (T.d. 181, 1270:1 – 1271:1; *see also*, T.d. 178, 641:23 – 642:11). Nonetheless, the Eleventh District found Mr. Blauer’s opinion more credible. Accordingly, and while the court of appeals ultimately found that AWMS did suffer a partial taking, it limited AWMS’s damages to conform to Mr. Blauer’s speculative, biased, and “made up” opinion. (T.d. 181, 1270:1 – 1271:1, 1298:6 - 23). The Eleventh District’s decision was further undermined by the Division’s own economic expert, Dr. Malek, who opined that in the event of a partial taking, AWMS would still be entitled to millions in damages. (T.d. 183, 1463:6 – 1465:24, citing Ex. KKKK).

i. Mr. Tomastik’s analysis proves the longevity of AMWS Well #2.

¹⁵ Mr. Blauer does not possess an Ohio engineering license. (T.d. 181, 1249:10 – 16).

Mr. Tomastik performed an analysis and an opinion as to the Well's viability. (T.d., 178: 643:18 – 20); *see also*, (T.d., 158, at Ex. 82). In his report, Mr. Tomastik analyzed the Well's operations in 2014 which included a radioactive tracer log survey performed on the Well. (T.d., 158, at Ex. 82). The purpose of this survey is to determine that the permitted injection zones are taking fluid and that radioactive tracer fluids are not entering into the Precambrian basement rocks, meaning that the Well is still accepting fluids and is not leaking off into unauthorized areas. (*Id.*, pp. 6 – 7).

Mr. Tomastik also analyzed limited injectivity tests performed on the Well between January and February 2014. (*Id.*, p. 7). A limited injectivity test analyzes the ability of the Well to take fluid by injecting fluids at a set pressure. (*Id.*). These limited injectivity tests established that the Well is viable, based on the barrels accepted during the tests. One day after the tests were performed, the Well “went on vacuum”, which is an indicator that the Well was accepting fluids. (*Id.*). Part of Mr. Tomastik's analysis included a technical analysis of the volumetric and pressure data associated with the operational history of the Well, which also concluded that the Well was viable. (*Id.*, p. 8).

Mr. Blauer, on the other hand, primarily relied upon a pressure and injection rate data from when the Well was in operation, admitting that he drew his conclusions without performing any analysis of the data. (T.d. 181, 1185 – 186, 1200 – 1202). Without all of the relevant data in front of him, he looked at data points and declared, “[t]he reservoir is filling up” because the Well was injecting at maximum pressure. (*Id.*, 1201 – 1202). Despite of the availability of data from four hundred injection runs that Mr. Blauer could have included in his analysis, Mr. Blauer elected to review only four. (*Id.* 1279). Mr. Blauer purposely excluded data pertinent to his analysis from the last few weeks of the Well's operation, or data from after the Well was shut in. (*Id.*, 1279 – 1281,

1283 – 1284); *see also*, T.d. 181, 1207 citing Demonstrative Ex. 1, slide 17). In short, Mr. Blauer’s opinion that the Well had limited capacity was based upon his uninformed belief looking at a very limited set of data.

Next, Mr. Blauer misapplied a Hall Plot test to validate his uninformed opinion that the Well’s capacity was nearing its maximum. (T.d. 181, 1212:7 – 17 (testifying that the Hall Plot method is primarily used for surveilling water flooding¹⁶)). As noted above, Mr. Blauer had never worked with a Class II injection well prior to being retained to provide an expert opinion on AWMS’s Class II injection wells. (*Id.*, 1249:3 – 18, 1254:13 - 18). Mr. Tomastik, the Division’s former overseer of Class II injection wells, testified that in his nearly three-decade experience had never seen or heard of a Hall Plot test being used on a Class II injection well not associated with a production well¹⁷. (T.d., 178, 628:3 - 13). Mr. Tomastik testified that the Hall Plot test is used to evaluate how effective an injection well is operating in a water flooding operation. (*Id.*).

Despite the lack of industry application of the Hall Plot test to Class II injection wells, Mr. Blauer used it to analyze the Well’s efficiency by comparing the Well to a “magical” well that was “made up” by Mr. Blauer himself, and performing no calculations for AWMS’s Well, instead focusing on calculating the fictional “magical” well’s capacity. (T.d. 181, 1270:1 – 1271:1). Specifically, Mr. Blauer testified as follows:

Q: And what you did magical (sic) was you made up a larger reservoir; right?

A: I did.

Q: It’s not a real reservoir in Ohio; is it?

A: No, it is not.

Q: So, you’re comparing AWMS’s leakoff to a made-up reservoir that you just made up that is not even based on an Ohio reservoir. Is that your testimony?

A: That is correct.

¹⁶ Water flooding is a secondary oil recovery technique that is utilized after primary oil production has diminished to where either reservoir pressure is no longer capable of moving crude oil to the producing wells. (T.d. 178, 627:13 – 24).

¹⁷ A production well is a well that is drilled exclusively for the production of crude oil and natural gas. (T.d. 178, 627:3 – 6).

Q: And, yet, your calculations are supposed to be accurate?

A: I didn't calculate anything on AWMS. I calculated the theoretical reservoir.

Q: But you made an opinion saying that ours is compared to a larger magical reservoir capacity; and that's your opinion today; isn't it?

A: The data that is on this slide is what would the response to a larger reservoir be.

(*Id.*).¹⁸

As part of his analysis, Mr. Tomastik considered Mr. Blauer's opinion and analyses that the Well had very limited capacity to accept additional fluids. Mr. Tomastik noted over 20 glaring issues with Mr. Blauer's analysis, which included (1) Mr. Blauer incorrectly assuming that the tracer log test was similar to other tests used on different wells, (2) Mr. Blauer's injection well volumetric reservoir analysis was unreliable, and (3) Mr. Blauer's report include assumptions that are provably false by the data. (T.d. 158, Ex. 82, pp. 9 – 13). With respect to Mr. Blauer's analysis, Mr. Tomastik ultimately concluded that Mr. Blauer had a fundamental misunderstanding of the tests he performed, lacked requisite geological knowledge of the area, and otherwise misapplied and misanalysed important data and tests to come to an inherently erroneous conclusion that the Well's capacity was limited. (*Id.*, pp. 13 – 14). These conclusions are supported by Mr. Blauer's own failure to rely on supporting data or evidence when rendering his report and opinions. (T.d. 181, 1252:5 – 1254:18) (where Mr. Blauer acknowledges he relied on no texts, formulas, learned treatises, peer reviewed articles, or other literature).

Despite these glaring issues with Mr. Blauer's opinions and his admittedly unsupported testimony, the Eleventh District found Mr. Blauer's testimony to be more credible than Mr. Tomastik's testimony, a Class II injection well expert previously employed by the Division. Accordingly, and while the court held that AWMS did suffer a partial taking under the *Penn Central* factors, it limited AWMS's damages based on Mr. Blauer's faulty and unreliable opinion

¹⁸ Mr. Blauer also admitted to using his "own particular bias and my own particular experience" to determine Well capacity. (T.d. 181, 1298:6 – 23). Prior to being retained for this case, Mr. Blauer's "own particular experience" did not include Class II injection wells in Ohio.

of the Well's capacity. (T.d., 217, ¶ 88 (finding that AWMS Well #2 had a maximum capacity of 200,000 barrels, which would result in an economic impact of \$359,373)). In so holding, the Eleventh District exceeded the scope of its remand by limiting the damages available to AWMS, despite acknowledging previously that it was not to determine the extent of AWMS' damages. (*Id.*, ¶ 151).

ii. Dr. Malek's opinion undermines the Eleventh District's decision.

The Eleventh District's decision to limit AWMS's partial takings damages to \$359,373.00 was also contrary to the evidence presented by the Division's own economic expert, Mr. Kenneth Malek, who opined that AWMS's potential damages under a *Penn Central* analysis would still amount to millions of dollars.¹⁹ Indeed, in his supplemental report analyzing the economic impact of the Suspension Order and Restart Order, Dr. Malek assumed that (1) AWMS would inject 2,035 bbl/day (instead of AWMS's forecasted 4,000 bbl/day) and (2) AWMS would only experience half of the shutdowns under the Restart Order that Mr. Kilper predicted. (T.d. 183 at Exs. KKKK (PDF), Schedule 1; LLLL (Excel), Tab "Sch 1") Under these scenarios, Mr. Malek concedes that the economic impact of the shutdown totals either \$13,468,586 or \$13,046,163. (T.d. 183 at Ex. KKKK (PDF), Schedule 1; LLLL (Excel), Tab "Sch 1," Cells 50E and 50F).

iii. Dr. Wade's Analysis of AWMS's Partial Takings Claim.

In 2018, Dr. Wade rendered an opinion as to the estimated damages due to the Suspension Order of the Well. Dr. Wade analyzed the actual outcome caused by the Suspension Order's shutdown of the Well, and the expected outcome, which motivated AWMS's investment in the property. Dr. Wade used his Discounted Cash Flow models (referenced above) for each scenario.

¹⁹ This report discusses the economic impact in the event the capacity of the Wells is not significantly limited per Mr. Blauer's unsupported and uninformed opinion.

The net present value (NPV) of each scenario was estimated to evaluate the *Penn Central* factors set forth in *Penn Central Transp. Co. v. City of New York*, 438 U.S. 104 (1978):

ES1 AWMS Economic Impact & Damages due to Suspension Order (Present Value September 2014)			
	Expected Outcome	Actual Outcome	Damages
PV Investment	(\$6,076,043)	(\$6,076,043)	
PV NOI	\$20,551,813	(\$43,232)	\$20,595,045
NPV Sept 2014	\$14,475,770	(\$6,119,275)	\$20,595,045

In coming to his conclusions above, Dr. Wade considered the two economic prongs established by the *Penn Central* decision: (1) estimation of economic impact; and (2) evaluation of interference with distinct investment-backed expectations (DIBE). These are measured with established financial benchmarks.

In support of his analysis, Dr. Wade considered AWMS’s loss of income as a result of the Suspension Order. Dr. Wade considered AWMS’s projected brine injection activities as well as income statements provided by AWMS for the injection operations prior to the Suspension Order. At Dr. Wade’s direction, Dr. Roach performed an analysis of AWMS’s projected brine deliveries to the Well based on market area data, total brine production in these markets between 2014 – 2017, AWMS’s actual and planned customer expansion but for the Suspension Order, estimated brine deliveries based on the foregoing factors, projections for natural gas and brine production up to 2027, and projected brine deliveries until 2027. (T.d., 179, 732:19 – 733:1); *see also*, (T.d., 158 at Ex. 72).

As of the Suspension Order, AWMS received brine deliveries from five (5) Ohio counties, but expected to receive deliveries from eight (8) Ohio counties absent the Suspension Order. Prior to the Suspension Order, AWMS received deliveries from fifteen (15) Pennsylvania counties. (T.d., 158 at Ex. 72, pp. 5 – 6).

The data analyzed by Dr. Roach indicated that from the Ohio market-area, there was an estimated increase in brine production in AWMS's 8-county Ohio market, peaking in 2015 and then declining through 2017. Similarly, AWMS's 15-county Pennsylvania market increased between 2014 – 2016, then declined slightly through the second half of 2016. (*Id.*).

AWMS provided Dr. Roach with its monthly brine injection quantities, as well as third quarter injection data from 2014 prior to the implementation of the Suspension Order. This data, along with the market-area demands and AWMS customers, Dr. Roach opined that it would take a relatively short amount of time for AWMS to ramp up to inject 3,000 – 4,000 barrels per day, between both AWMS #1 and #2 Wells. Specifically, the data provided to Dr. Roach indicated that, absent the Suspension Order, AWMS would be expected to proceed as follows:

- 2014, Third Quarter: Brine deliveries in September 2014 would have continued the July and August 2014 trend of 2,000 barrels / day.
- 2014, Fourth Quarter: Anticipated new customers would have increased brine deliveries by 25%.
- 2015, First Quarter: Additional customer expansion would have against increased brine deliveries by one half, to an average of 3,000 barrels per day assuming stable market-area brine production.
- 2015, Second Quarter: Further customer expansion would increase AWMS's brine deliveries to 3,500 barrels per day
- 2015, Third Quarter: Brine deliveries would reach the expected 4,000 barrels per day.
- 2015, Fourth Quarter: Brine deliveries would continue to average at 4,000 barrels per day, assuming stable market area brine production and AWMS Well capacity.

(*Id.*, pp. 8 – 14).

Even with market-area decline in brine production, AWMS would still be averaging between 2,500 – 3,365 barrels per day in 2015, between 2,847 – 3,091 in 2016, and 3,560 in 2017. (*Id.*).

Dr. Roach analyzed population growth in Pennsylvania markets, where AWMS received the majority of its brine production. The expansion of population in these areas indicate an increase in natural gas and brine production as well. Indeed, between 2011 – 2016, Ohio’s overall brine production increased by 3.3% and Pennsylvania’s increased by 1.7% (noting that with each 10% increase of natural gas production, brine production also increases by 2.5%).

Given these population growths, as well as the increased production of natural gas and brine, Dr. Roach projected that brine production in AWMS market areas would increase by 1.2% annually. In short, Dr. Roach’s analysis of market-area growth and brine production indicates that AWMS’s business would have increased each year, with receiving between 3,000 – 4,000 barrels per day.

Based on Dr. Roach’s analysis and AWMS’s income statements, Dr. Wade calculated that, between projected brine activities and the income statements, AWMS would have had future income and reasonable returns, i.e., the property would have been economically viable.

Dr. Wade’s DCF model allows calculations of both the Net Present Value (NPV) and the Internal Rate of Return (IRR), which are standard benchmarks used in investment analysis. Dr. Wade relied on NPV for his *Penn Central* analysis to evaluate DIBE. The detailed calculations are indicated in Dr. Wade’s report. Dr. Wade applied the NPV calculations to his DCF model based on the income statement data provided to him by AWMS.

Penn Central provides that property must be analyzed as a “parcel-as-a-whole.” In this case, Dr. Wade noted that the AWMS whole parcel consists of investments in tangible corporate property: two wells, site facilities, and equipment totaling \$5.6 million.

Next, Dr. Wade considered the NPV of the actual outcome, and the NPV of the expected outcome but for the Suspension Order. Based on total loss of use of the Well, the loss of AWMS’s

investment, and costs of idle facilities, Dr. Wade opined that AWMS's incurred a loss of 101.5% of investment.

As shown in the table above, the economic impact is the difference between earnings of the two scenarios (expected and actual outcomes): an expected outcome of \$20,551,813 but for the Suspension Order, but an actual outcome of a loss of \$43,232 through June 2017 with the Suspension Order. Therefore, the economic impact of the Suspension Order damaged AWMS in the amount of \$20,595,045.

III. STANDARD OF REVIEW

This Court reviews a decision denying a petition for a writ of mandamus for abuse of discretion. *See State ex rel. Allen v. Goulding*, 2019-Ohio-858, ¶ 5 (citing *State ex rel. Williams v. Trim*, 2015-Ohio-3372, ¶10). “The term ‘abuse of discretion’ connotes more than an error of law or judgment; it implies that the court’s attitude is unreasonable, arbitrary or unconscionable.” *Blakemore v. Blakemore*, 5 Ohio St.3d 217 (1983), quoting *Steiner v. Custer*, 137 Ohio St.448 (1940). “Regarding this standard, the term ‘abuse of discretion’ is one of art, connoting judgment exercised by a court which neither comports with reason, nor the record.” *Denvir v. Blewitt*, 2019-Ohio-187, ¶ 17, citing *State v. Ferranto*, 112 Ohio St. 667, 676 – 78 (1925). “An abuse of discretion may be found when the trial court ‘applies the wrong legal standard, misapplies the correct legal standard, or relies on clearly erroneous findings of fact.’” *Id.*, quoting *Thomas v. Cleveland*, 2008-Ohio-1720, ¶ 15 (8th Dist.); *see also, In re Sullivan*, 2006-Ohio-3206, ¶ 12 (11th Dist.), citing *AAAA Ents., Inc. v. River Place Community Urban Redevelopment Corp.*, 50 Ohio ST.3d 157 (1990) (An abuse of discretion exists where the reviewing court finds that there “is no sound reasoning process that would support that decision.”).

IV. ARGUMENTS

**Proposition of Law No. 1:
A Lower Court Lacks Jurisdiction to Consider Matters Outside the Scope of Remand
from a Higher Court.**

The Eleventh District lacked jurisdiction to limit the damages available to AWMS for its partial takings claim. An appellate mandate has two functions: 1) on remand, the mandate vests the lower court with jurisdiction, and 2) it provides the lower court with the authority to render judgment consistent with the appellate court’s judgment. *State v. Carlisle*, 2010-Ohio-3407, ¶ 16 (8th Dist.). The “Mandate Rule” provides that a lower court must, on remand, carry out the appellate court’s mandate “and do nothing else.” *Estate of Mikulski v. Centerior Energy Corporation*, 2019-Ohio-983, ¶ 35 (8th Dist.). Therefore, an inferior court may not ignore an issue that a reviewing court has remanded for consideration, nor may it address issues not encompassed by the remand. *The Oak Furniture Showroom, Inc. v. Normandy Pointe Associates*, 1998 WL 425507 at *3 (2nd Dist.), citing *Dougherty v. Torrence*, 10 Ohio St.3d 139 (1984). A lower court exceeds its jurisdiction where matters outside the scope of remand are considered. *State ex rel. Heck v. Kessler*, 1995-Ohio-304, citing *State ex rel. TRW, Inc., v. Jaffe*, 78 Ohio App.3d 411 (8th Dist. 1992). *See also, State v. Grayson*, 2019-Ohio-864, ¶¶ 8, 18 (8th Dist.) (holding that “[lower] courts have no authority to extend the scope of remand limited by a mandate of a[] [higher court]”), citing *Nolan v. Nolan*, 11 Ohio St.3d 1 (1984).

Here, the Eleventh District violated the mandate rule and exceeded the scope of its jurisdiction when it limited the damages available to AWMS in its partial takings analysis. (T.d. 217, ¶¶ 87 – 88, 149 – 150). Nowhere in this Court’s mandate did it ask the Eleventh District to make a damages determination. *See, AWMS II*, ¶ 31. Indeed, the Eleventh District itself acknowledged that its jurisdiction on remand was limited to determining whether a total or partial taking occurred, not in deciding damages. (T.d. 217, ¶ 5 (ordering the Division to initiate

appropriation proceedings in the probate court “for that court to determine just compensation”), ¶ 59 (“Our task does not require a damages calculation. Rather, we must merely decide whether a categorical taking occurred.”)).

Yet, Eleventh District exceeded this mandate by holding that AWMS’ compensation for its partial taking is limited. (T.d. 217, ¶¶ 87 – 88 (finding that the economic impact of the Suspension Order was between \$201,150 to \$359,373), ¶¶ 149 - 150 (“just compensation must be assessed only and insofar as such it may be established in relation to this conclusion”, and limiting the probate court’s analysis on just compensation)).

This Court’s mandate instructed the Eleventh District to determine solely whether a total and/or partial taking occurred. Indeed, the Eleventh District itself acknowledged that “[o]ur task does not require a damages calculation.” (T.d. 217, ¶ 29). Inexplicably, the Eleventh District proceeded to exceed the scope of the task delegated to it on remand and held that AWMS’s damages are limited to, at most \$359,373. This Court should reverse the Eleventh District’s ultra vires finding limiting AWMS’s recovery, insofar as this determination was outside the scope of this Court’s mandate to the Eleventh District on remand.

**Proposition of Law No. 2:
A Successor Judge is Prohibited From Making Crucial Credibility Determinations From a Transcript Alone.**

The Eleventh District abused its discretion by making credibility determinations on remand even though one of the judges on the Eleventh District panel had not participated in the September 2021 trial and had no basis (apart from a review of the transcripts) on which to judge witness credibility. Ohio law provides that a successor judge abuses his discretion and lacks jurisdiction to render judgment on the merits of a case based on a review of the trial transcript alone where witness credibility is a factor. *Vergon v. Vergon*, 87 Ohio App.3d 639, 643 (8th Dist. 1993); *see also, Welsh*

v. Brown-Graves Lumber Co., 58 Ohio App.2d 49 (9th Dist. 1978); *see also*, *Arthur Young & Co. v. Kelly*, 68 Ohio App.3d 287 (10th Dist.); *see also*, *Yurkowski v. Univ. of Cincinnati*, 2015-Ohio-1511 (10th Dist.).

In *Yurkowski v. Univ. of Cincinnati*, the Tenth District reversed and remanded a case for retrial where a successor judge impermissibly decided questions involving credibility of expert witnesses merely by considering the transcript from the original trial. *Yurkowski*, 2015-Ohio-1511, at ¶ 14 (“Generally, where credibility is a factor, courts have held that it is reversible error for a successor judge in a bench trial, having never observed the testimony of the witnesses, to enter judgment based on a transcript of the proceedings”), citing *Welsh*, 58 Ohio App. at syllabus; *also citing Arthur Young & Co.*, at 68 Ohio at 295 (“Where credibility is involved, a fair hearing requires the trier of fact to observe the testimony”) (emphasis added).

Other appellate jurisdictions have similarly held that where a successor judge does not observe witness testimony, he or she cannot rely on a transcript alone to render findings of facts and findings of law. For example, in *Vergon v. Vergon*, the Eighth District reversed a successor judge he made credibility determinations from the trial transcript without personally observing witness testimony. *See, Vergon, supra*. The Ninth District also held that a successor judge may not render judgment based on a review of the transcript alone when witness credibility is a factor. *Welsh v. Brown-Graves Lumber Co., supra*.

In this case, Judge Wright’s successor (who joined the majority opinion below) made crucial credibility determinations supporting the Eleventh District’s finding that no total taking occurred, and that a limited partial taking occurred. (T.d. 217, at ¶ 4 (“[t]he weight of the credible evidence does not support the conclusion that AWMS lost all economically viable use of its leasehold”), ¶ 40 (whether AWMS suffered a total taking is one of “evidentiary weight”), ¶ 64

(assessing “the credibility and weigh of Mr. Adgate’s ... testimony”), ¶ 74 (finding “Mr. Adgate’s testimony credible” in holding that AWMS did not suffer a total taking), ¶ 93 (“in this original action we sit as the trier of fact. As such, we must weigh and determine the credibility of each witness.”), ¶ 133 (finding the Division’s expert’s testimony “more credible than the evidence advanced by AWMS”), ¶ 151 (finding the “Division’s expert testimony highly credible in relation to AWMS’ expert testimony...”). This is in spite of the fact that Judge Wright’s successor had not participated in the September 2021 trial and had no basis on which to evaluate witness credibility apart from reviewing the written transcripts.

Ohio law is clear that a successor judge may not make credibility determinations where the successor judge did not observe the witness testimony. The mandate of this Court was for the Eleventh District to “weigh the evidence” and determine whether a total or partial taking occurred. *See, AWMS II*, ¶ 31 (requiring the Eleventh District to “weigh the parties’ evidence” to determine whether AWMS suffered a total and/or partial taking). This Court should reverse the Eleventh District’s decision and remand the matter for further proceedings, consistent with this Court’s prior decisions, for the Eleventh District to properly weigh the parties’ evidence to determine solely whether AWMS suffered a total taking under *Lucas*, or a partial taking under *Penn Central*. Should the Eleventh District find a taking occurred, the appropriation proceedings shall be initiated in the Trumbull County Probate Court to ascertain the extent of AWMS’s damages.

**Proposition of Law No. 3:
The Evidence and Testimony Established the Existence of a Total Taking of AWMS’
Property Interest.**

The Eleventh District abused its discretion in holding that AWMS did not suffer a total, or categorical, taking by virtue of the Division’s Suspension Order or the Restart Order. A total taking of a property interest occurs where a property owner loses all economically beneficial use of its

property. *Lucas v. South Carolina Coastal Council*, 505 U.S. 1003, 1019 (1992) (holding that government regulations that completely deprive an owner of “all economically beneficial uses” of the property require just compensation under the Takings Clause). In *AWMS I*, this Court provided that “[u]nder *Lucas*, the ‘determinative factor’ is whether the regulation effects a ‘complete elimination of a property’s value.’” *AWMS I*, 2020-Ohio-5482, ¶ 43. Here, the Eleventh District abused its discretion in unreasonably and arbitrarily holding that no total taking occurred. (T.d. 217, ¶ 75).

The Eleventh District held that no categorical taking occurred because alternative uses for the property existed. (T.d. 217, ¶¶ 67 – 70). However, the Eleventh District ignored the testimony and evidence offered that these “alternative uses” were speculative at best and were not economically viable. The Eleventh District also failed to consider the restrictive nature of the conditional Restart Order, which requires AWMS to shut down operations at the property for indefinite periods of time, at the sole discretion of the Division.

A. The “Alternative Uses” identified by the Division’s expert are purely speculative in nature and the Division fails to establish physical adaptability or market need.

In *AWMS I*, this Court held that “a proposed ‘use’ requires a showing of reasonable probability that, at the time of the taking, the land was both physically adaptable for such use and that there was a need or demand for such use in the reasonably near future.” *AWMS I*, ¶ 49, quoting *Bd. of Cty. Supervisors of Prince William Cty. v. United States*, 276 F.3d 1359, 1365 (Fed.Cir.2002). At trial, the Division offered Mr. Andrew Adgate’s testimony in support of its theory that there were alternative uses for the property. Mr. Adgate, who had no training, education, or experience in economics or in running a business, testified that there were four potential alternative uses at the property and did not opine whether (1) there was a market need for the alternative uses, (2) the cost of those alternative uses to AWMS, (3) any economic benefit of

the alternative uses, or (4) whether the Division would even allow AWMS to engage in those alternative uses. (T.d., 181, 1346 – 1350).

Based on the test set forth in *AWMS I*, the Division was required to show that there was “a reasonable probability that, at the time of the taking, the land was both physically adaptable for such use and that there was a need or demand for such use in the reasonably near future.” *AWMS I*, ¶ 49, quoting *Bd. of Cty. Supervisors of Prince William Cty., supra*. (T.d. 217). The Division failed to meet the requirements of this test, and the Eleventh District abused its discretion by failing to apply the test cited by this Court. (T.d. 217).

Despite the Division’s abject failure to establish a real and economically beneficial alternative use at the property, the Eleventh District erroneously relied upon Mr. Adgate’s unsupported testimony in finding that a total taking did not occur. (T.d. 217, ¶¶ 56 – 75). Specifically, the Eleventh District found that the four speculative alternative uses for the property did not deprive it of all economically beneficial use, despite Mr. Adgate’s failure to conduct any economic analysis of those alternative uses. (T.d. 217, ¶¶ 67 – 70). Relying on Mr. Adgate’s testimony, the Eleventh District identified the following “alternative uses” for the property:

- (1) AWMS could apply to obtain a permit to drill deeper to reach a deeper formation for injection. AWMS could then seek a permit to inject into the deeper formation.
- (2) AWMS could seek to modify AWMS Well #2 “by ‘plugging back the existing open hole section and injecting into a shallower injection zone.’”
- (3) AWMS could use a combination of the two options above “to operate and move forward with injections.”
- (4) AWMS could apply for “completely new permits with the option of drilling new wells.”

(*Id.*, ¶¶ 66 – 70).

Importantly, the Eleventh District ignored Mr. Adgate's admission that these "alternative uses" are not guaranteed:

Q: Are you saying there that even if AWMS attempted to do what you're suggesting it could do, there's no guarantee they would be allowed to do that?

A: There's no guarantee.

(T.d. 181, 1347:8 – 12).

Simply put, the "alternative uses" relied on by the Eleventh District are not alternatives at all. The Eleventh District abused its discretion in finding that no total takings occurred because the test in *AWMS I* required the Division to establish a reasonable probability that "at the time of the taking, the land was both physically adaptable for such [the proposed alternative uses] and that there was a need or demand for such use in the reasonably near future." *AWMS I*, ¶ 49. No such reasonable probability existed based on Mr. Adgate's admission that such uses were not guaranteed. (T.d. 181, 1347:8 – 12).

Furthermore, the argument that AWMS could simply apply for another permit stands in stark contrast to the Eleventh District's finding that the Division "stonewalled" AWMS's repeated attempts and applications to restart injection under the permits it already possesses. (T.d. 217, ¶ 106). The Eleventh District abused its discretion in finding no total taking when it found that AWMS had alternative uses for the property, but in failing to consider whether such alternative uses could be adapted to the property or whether they would be economically viable. (T.d. 217).

B. The identified "Alternative Uses" are not economically viable.

The Eleventh District abused its discretion when it did not take into consideration this Court's requirement that the proposed alternative uses be of economic benefit to AWMS. *AWMS I*, ¶ 47. Under this test, the Division was still required to establish some reasonable probability that the alternative uses would render economic viability to the property. *Id.* ("Our concern here,

however, is not whether AWMS's property is capable of being used, but whether it is capable of being used in an 'economically beneficial or productive' manner.").

Mr. Adgate performed no analysis of whether these alternative uses would be economically beneficial to AWMS. (T.d 181, 1348:1 – 1349:12) (Mr. Adgate admits that he performed no analysis of whether any of these options "would make any business sense", and further admitting that such an analysis would be done after AWMS incurred the time and expense in applying for a new permit). Indeed, on cross examination, Mr. Adgate admitted that he performed no analysis of the cost of implementing his proposed alternatives. (T.d., 181, 1346:6 – 24). Excluding the costs described above for applying for additional permits to engage in these alternative uses, the costs associated with the alternative uses, including the requirements in the restart plan the Division submitted to Judge Cocroft, are prohibitive and would cost AWMS an additional \$2.1 million dollars at least. (T.d. 175, 299:24 – 304:11) (where Mr. Kilper explained AWMS's costs to restart operations, engage in additional monitoring, and other associated costs based on the Parties' experts, would range between \$2.1 million - \$4.3 million dollars).

C. The conditional Restart Order deprives the property of economic viability.

The Eleventh District abused its discretion when it failed to consider the Restart Order's economic effect on the property. As noted above, Dr. Roach's analysis established that if AWMS operates its Wells under the Restart Order, AWMS will not be able to recover the total cost of its initial investment of \$6 million, ultimately losing approximately \$5.5 million. (T.d. 179, 861:2 – 863:15).

Even where a regulation is cut short, including the government's voluntary amendment or revocation of a regulation, a total takings claim still exists if (1) at the time the regulation was imposed, it was prospectively permanent in effect, and (2) the regulation deprived the property of

all economic value while it was in effect. *See, Resource Investments, Inc. v. U.S.*, 85 Fed.Cl. 447, 471–485 (2009) (noting the “effect of the taking had been ‘cut short’”); *State ex rel. Greenacres v. Cincinnati*, 2015-Ohio-5479, ¶ 38 (1st Dist.); *First English Evangelical Lutheran Church of Glendale v. City of Los Angeles*, 482 U.S. 304, 321 (1987) (“[W]here the government’s [regulatory] activities have already worked a taking of all use of property, no subsequent action by the government can relieve it of the duty to provide compensation for the period during which the taking was effective”). *See also, State ex rel. Shemo v. Mayfield Hts.*, 2002-Ohio-1627 (recognizing *First English*) and *State ex rel. Pizza v. Rezcallah*, 1998-Ohio-313 (same).

The effect of the combined Suspension Order and Restart Order have deprived AWMS of all the economic viability of its property. *AWMS I* at ¶ 43. The Suspension Order’s effect was prospectively permanent. *AWMS I*, ¶¶ 38 – 42 (rejecting the Division’s arguments that the Suspension Order is temporary). AWMS was prohibited from engaging in any activity under the Suspension Order. Under the Restart Order and its restrictive conditions, including additional and indefinite shutdowns, AWMS would still deprive of any economic value at the Property, operating at a total loss of \$5.5 million through the expected 13-year life of the Wells. (T.d. 179, 861:2 – 863:15).

The Eleventh District’s holding that AWMS was not deprived of all economic benefit of the property is not supported by the record, the law, or the evidence. This Court should reverse the Eleventh District’s decision and hold that AWMS suffered a total taking of its property and remand the matter back to the Eleventh District with instructions to enter an order compelling the Division to initiate appropriation proceedings in the Trumbull County Probate Court.

Proposition of Law No. 4: The Evidence and Testimony Established that AWMS’s Damages Exceeded the Eleventh District’s Limited Findings for its Partial Takings Claim.

Under *Penn Central*, the Eleventh District was required to consider (1) the economic impact suffered by AWMS, (2) the extent to which the Suspension Order has interfered with reasonable and distinct investment-backed expectations, and (3) the character of the regulation. *Penn Cent.*, 438 U.S. 104; *see also*, *Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528, 538 – 39 (2005) and *Foster v. Wickliffe*, 2007-Ohio-7132, ¶ 94 (11th Dist.) (recognizing economic impact on property owner). Although the Eleventh District engaged in the *Penn Central* analysis, it abused its discretion in two ways. First, the Eleventh District erred in limiting AWMS’s partial takings damages under Mr. Blauer’s analysis. Second, the Eleventh District abused its discretion when it failed to take into consideration the seven-year period (2014 – 2021) that AWMS was prohibited from using the property. This Court should reverse and remand for further proceedings to properly weigh the parties’ evidence and determine solely whether a partial taking occurred, with instructions to initiate appropriation proceedings in the Trumbull County Probate Court to ascertain monetary damages.

A. The Eleventh District abused its discretion in limiting AWMS’s damages for its partial takings claim.

As discussed above, the Eleventh District exceeded the scope of this Court’s mandate by making a damages determination at all. *See*, Proposition of Law No. 1. However, assuming *arguendo* that the Eleventh District did not exceed this Court’s mandate in *AWMS II*, the court’s damages determination nonetheless constitutes an abuse of discretion because it was premised upon testimony that was unsupported by any reliable scientific data or other substantial evidence. In short, the Eleventh District relied upon clearly erroneous findings of fact that the Well’s capacity is “significantly limited” based upon Mr. Blauer’s report and testimony.

An expert may not base an opinion upon subjective belief or unsupported speculation. *Valentine v. PPG Industries, Inc.*, 2004-Ohio-4521, ¶ 27 (4th Dist.). To be considered in a case,

“[s]cientific evidence and expert testimony must have a traceable, analytical basis in objective fact before it may be considered.” *Id.*, quoting *Bragdon v. Abbott*, 524 U.S. 624, 653 (1998). Here, the Eleventh District abused its discretion when rendering and relying upon clearly erroneous factual findings that the Well’s capacity was limited based upon Mr. Blauer’s report. (T.d. 217). As discussed above, Mr. Blauer has no Class II injection well expertise. Mr. Blauer applied only four out of four hundred available data points in rendering his report. Mr. Blauer selectively chose which data he relied upon, ignoring other relevant data that would not fit with his analysis. Mr. Blauer misapplied inapplicable tests when rendering his opinion. And, most egregious of all, Mr. Blauer based his calculations, which he eventually compared to AWMS’s Well, on a fictional, “magical” well he “made up”. The Eleventh District’s decision that AWMS’s damages are limited based on Mr. Blauer’s unsupported opinions is clearly erroneous and constitute an abuse of discretion.

B. The Identified “Alternative Uses” were unavailable until May 21, 2021.

Assuming, *arguendo*, that AWMS was granted a permit to engage in an alternative use that was economically beneficial, such an alternative use was not available for *seven years* after the Division implemented its Restart Order, a fact noted by the Eleventh District. (T.d., 181, 1350:14 – 1351:2); *see also* (T.d., 217, ¶ 32). The Eleventh District provided that AWMS’s operations were completely halted on September 3, 2014 when the Division entered its Suspension Order requiring all injection to stop at AWMS’s Well #2, and further noted that the Division “stonewalled” AWMS in developing agreeable terms for AWMS commence its operations at the property. (T.d., 217, ¶¶ 18, 106). The Eleventh District similarly held that AWMS suspended all injection activities at Well #1 because “[t]he monthly revenues generated from the AWMS #1 Well did not cover the monthly expenses incurred to keep the facility running.” (*Id.*, at ¶ 19).

In *Resource Investments, Inc. v. U.S.*, 85 Fed.Cl. 447 (2009), the United States Court of Federal Claims considered whether the government’s unreasonable delay in rendering mandatory permits constituted a taking. *Resource Investments*, at *473. The court, citing to *First English*, 482 U.S. at 306-07, provided that “property owners are entitled to compensation for the period a regulation had unconstitutionally taken the property interest in question until it had been rescinded or repealed – or, in other words, the effect of the taking had been ‘cut short.’” The property was not available for use, in any capacity, until the Division issued the Restart Order in May 2021.²⁰

Here, it is undisputed between the Parties’ experts that AWMS suffered a partial taking. Indeed, Mr. Malek testified that AWMS’s damages under its partial taking claim due to the Suspension and Restart Orders would be in the range of \$13 million, whereas Dr. Roach’s estimates are even higher. (T.d. 183, 1463:6 – 1465:24, citing Ex. KKKK). Ignoring the economic experts’ testimony, the Eleventh District instead relied upon Mr. Blauer’s testimony premised upon his “magical” well and selective analysis of AWMS data. (T.d. 217). It was a clear abuse of discretion for the court of appeals to ignore the undisputed testimony that AWMS suffered at least \$13 million in damages to hold that AWMS suffered just under \$360,000.00 in damages. (*Id.*).

This Court should reverse the Eleventh District’s decision and hold that AWMS suffered a partial taking and remand the matter back to the Eleventh District with instructions to modify its decision limiting AWMS’s damages, and to enter an order compelling the Division to initiate appropriation proceedings in the Trumbull County Probate Court to ascertain the extent of AWMS’s damages.

²⁰ AWMS argues that the Restart Order does not “cut short” the Suspension Order. Rather, it expands the categorical taking due to its restrictive conditions for operation that deprive AWMS of any economic viability of the property. *See*, Proposition of Law No. 3 at subsection (C).

V. CONCLUSION

For the foregoing reasons, this Court should reverse the Eleventh District's decision and (1) hold that AWMS suffered a total taking of its property and remand the matter back to the Eleventh District with instructions to enter an order compelling the Division to initiate appropriation proceedings in the Trumbull County Probate Court; or (2) in the alternative, reverse the Eleventh District's decision and hold that AWMS suffered a partial taking and remand the matter back to the Eleventh District with instructions to modify its decision limiting AWMS's damages, and to enter an order compelling the Division to initiate appropriation proceedings in the Trumbull County Probate Court to ascertain the extent of AWMS's damages; or (3) in the alternative, reverse the Eleventh District's decision and remand the matter for further proceedings for the Eleventh District to properly weigh the parties' evidence to determine solely whether AWMS suffered a total taking under *Lucas*, or a partial taking under *Penn Central*. Should the Eleventh District find a taking occurred, the appropriation proceedings shall be initiated in the Trumbull County Probate Court to ascertain the extent of AWMS's damages.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I certify that a copy of this Merit Brief was served by email and regular U.S. mail to counsel for appellees as noted on the cover page on December 13, 2024.

/s/ Hilary F. DeSaussure
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4916-4848-1798, v. 1

162 Ohio St.3d 400

Editor's Note: Additions are indicated by **Text** and deletions by **Text** .

Supreme Court of Ohio.

The STATE EX REL. **AWMS WATER SOLUTIONS, L.L.C.**, et al., Appellants,

v.

MERTZ,¹ Dir., et al., Appellees.

No. 2019-0493

|
Submitted April 7, 2020

|
Decided September 23, 2020

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Reconsideration Granted and Opinion

Reissued December 2, 2020.²

Synopsis

Background: Saltwater injection well operator filed petition for writ of mandamus to compel state to commence property-appropriation proceedings, alleging that state's suspension order with respect to one of its two wells effected a governmental total or partial taking of property requiring state to pay it just compensation. State moved for summary judgment. The Eleventh District Court of Appeals, **No. 2016-T-0085**, 2019-Ohio-923, **132 N.E.3d 1151**, granted the motion. Operator appealed.

Holdings: On reconsideration, the Supreme Court, **Fischer, J.**, held that:

[1] operator's failure to submit third restart plan did not render its takings claim unripe;

[2] fact issues precluded summary judgment on determination that state effected a total regulatory taking;

[3] state waived its nuisance defense to total takings claim;

[4] fact issues precluded summary judgment on economic-impact factor of test for partial takings;

[5] fact issues precluded summary judgment on reasonable-backed expectations factor of test for partial takings;

[6] character of state's regulation weighed against finding a partial taking.

Reversed and remanded.

Kennedy, J., filed opinion concurring in judgment only, in which **Stewart, J.**, concurred.

Donnelly, J., filed dissenting opinion.

Procedural Posture(s): On Appeal; Motion for Summary Judgment; Petition for Writ of Mandamus; Motion for Reconsideration.

West Headnotes (36)

[1] Eminent Domain Defenses

State's waiver of nuisance defense to saltwater injection well operator's total takings claim, arising from state's suspensions of operations at one of two wells due to potential seismicity problems, for purposes of summary judgment and appeal of that judgment, did not waive such defense for trial. **U.S. Const. Amends. 5, 14.**

[2] Summary Judgment Favoring nonmovant; disfavoring movant

Summary judgment is appropriate when (1) there is no genuine issue of material fact, (2) the moving party is entitled to judgment as a matter of law, and (3) it appears that after construing the evidence most strongly in the nonmoving party's favor that reasonable minds can come to but one conclusion. **Ohio Civ. R. 56(C).**

4 Cases that cite this headnote

[3] Appeal and Error Summary Judgment Weighing evidence, resolving conflicts, and determining credibility

Neither the appellate court nor the trial court may weigh the proof or choose among reasonable inferences in deciding whether

summary judgment should be granted. [Ohio Civ. R. 56\(C\)](#).

- [4] **Summary Judgment** 🔑 [Conflicting Evidence; Extent of Disagreement or Dispute as to Facts](#)

At the summary-judgment stage, a court should not reject one expert opinion for another simply because it believes one theory over the other. [Ohio Civ. R. 56\(C\)](#).

- [5] **Eminent Domain** 🔑 [Compelling proceedings to assess compensation](#)

To prevail on its mandamus claim, relator must show (1) a clear legal right to compel the state to commence property-appropriation proceedings, (2) a clear legal duty on the part of the state to institute that action, and (3) the lack of an adequate remedy in the ordinary course of the law.

- [6] **Eminent Domain** 🔑 [Compelling proceedings to assess compensation](#)

Mandamus is the appropriate action to compel public authorities to commence appropriation cases when an involuntary taking of private property is alleged.

- [7] **Constitutional Law** 🔑 [Fifth Amendment Eminent Domain](#) 🔑 [Necessity of just or full compensation or indemnity](#)

The Takings Clause provides that private property shall not be taken for public use, without just compensation; the clause applies to the states through the Fourteenth Amendment. [U.S. Const. Amends. 5, 14](#).

- [8] **Eminent Domain** 🔑 [Real property in general Eminent Domain](#) 🔑 [Easements and other rights in real property](#)

Every sort of real property interest the citizen may possess' counts as a property interest under

the Fifth Amendment; accordingly, the holder of an unexpired leasehold interest in land is entitled to invoke the Takings Clause's guarantees. [U.S. Const. Amend. 5](#).

1 Case that cites this headnote

- [9] **Eminent Domain** 🔑 [What Constitutes a Taking; Police and Other Powers Distinguished](#)

Under the “categorical rule” for total regulatory takings, the government's payment of just compensation is required when its regulation deprives land of all economically beneficial use, unless background principles of the state's law of property and nuisance impose independent restrictions on the owner's usage. [U.S. Const. Amend. 5](#).

2 Cases that cite this headnote

- [10] **Eminent Domain** 🔑 [What Constitutes a Taking; Police and Other Powers Distinguished](#)

The ad hoc, fact-specific analysis for partial regulatory takings requires a court to consider three factors: (1) the economic impact of the regulation on the claimant, (2) the extent to which the regulation has interfered with distinct investment-backed expectations, and (3) the character of the governmental action. [U.S. Const. Amend. 5](#).

- [11] **Eminent Domain** 🔑 [Conditions precedent to action; ripeness](#)

A claim that the application of government regulations effects a taking of a property interest is not ripe until the government entity charged with implementing the regulations has reached a final decision regarding the application of the regulations to the property at issue. [U.S. Const. Amend. 5](#).

- [12] **Eminent Domain** 🔑 [Conditions precedent to action; ripeness](#)

Where further administrative process could reasonably result in a more definite statement of the impact of the regulation, the property

owner is generally required to pursue that avenue of relief before bringing a takings claim. *U.S. Const. Amend. 5.*

[13] Administrative Law and

Procedure 🔑 Ripeness; prematurity

Failure to secure a final decision may be excused under the futility exception to the ripeness requirement, where an agency's decision makes clear that pursuing remaining administrative remedies will not result in a different outcome.

[14] Eminent Domain 🔑 Conditions precedent to action; ripeness

A landowner need not resort to futile piecemeal litigation or submit to repetitive application requirements to make a taking claim ripe. *U.S. Const. Amend. 5.*

[15] Eminent Domain 🔑 Conditions precedent to action; ripeness

Because a takings claim is ripe after a governmental entity's final decision, an applicant need not submit further applications before it can pursue its claim. *U.S. Const. Amend. 5.*

[16] Eminent Domain 🔑 Conditions precedent to action; ripeness

Saltwater injection well operator's failure to submit third restart plan did not render its takings claim, arising from state's suspension of operation of one of its wells due to potential seismicity problem, unripe for judicial resolution; state suggested that if operator submitted plan that met its standards, then operator would be able to restart operations, but operator had twice tried, and failed, to persuade state to allow it to restart operations at the well, and there was no indication state's standards, if met, would be binding on state, as it could change the standards at any time and create another opportunity to say all that operator had to do was submit another plan. *U.S. Const. Amends. 5, 14.*

[17] Eminent Domain 🔑 Oil and gas

State's suspension of saltwater injection well for potential seismicity problem could not be characterized as temporary, for purposes of determining analysis of total or partial taking applied in assessing well operator's takings claim arising from state's suspension of operation of one of its wells, where suspension would remain in effect unless and until Department of Natural Resources' Division of Oil and Gas Resources Management decided that operations at the well could be restarted. *U.S. Const. Amends. 5, 14.*

[18] Eminent Domain 🔑 What Constitutes a Taking; Police and Other Powers Distinguished

Under categorical rule for total regulatory takings, the determinative factor for total takings is whether the regulation effects a complete elimination of a property's value. *U.S. Const. Amend. 5.*

1 Case that cites this headnote

[19] Eminent Domain 🔑 Questions for jury
Summary Judgment 🔑 Eminent domain

Genuine issue of material fact as to whether state's suspension of operations of second of two saltwater injection wells due to potential seismicity problems deprived operator of all economically beneficial use of its leasehold precluded summary judgment determination that state effected a total regulatory taking of operator's property. *U.S. Const. Amends. 5, 14.*

[20] Eminent Domain 🔑 Value for special use

Proposed use of property, for purposes of determining value of property in assessing a takings claim, requires a showing of reasonable probability that, at the time of the taking, the land was both physically adaptable for such use and that there was a need or demand for such use in the reasonably near future. *U.S. Const. Amend. 5.*

- [21] **Eminent Domain** 🔑 Necessity of just or full compensation or indemnity

Even if a governmental regulation completely deprives an owner of all economically beneficial use of its property, just compensation is not required if the government can show that background principles of property and nuisance law proscribe the owner's use of the property. *U.S. Const. Amend. 5.*

2 Cases that cite this headnote

- [22] **Pleading** 🔑 Necessity for defense

Unlike lack of subject matter jurisdiction, other affirmative defenses can be waived.

- [23] **Appeal and Error** 🔑 Necessity of presentation in general

Party who fails to raise an argument in the court below waives his or her right to raise it on appeal.

- [24] **Eminent Domain** 🔑 Amendment

State waived its nuisance defense to saltwater injection well operator's total takings claim, arising from state's suspensions of operations at one of two wells due to potential seismicity problems, for purposes of summary judgment and appeal of that judgment, where, even though its amended answer to the complaint clearly set forth the defense, state supplied no argument regarding whether relevant case law, applied to the facts of the case, justified decision in its favor. *U.S. Const. Amends. 5, 14.*

1 Case that cites this headnote

- [25] **Eminent Domain** 🔑 Zoning, Planning, or Land Use; Building Codes

A regulation that prohibits less than all economically beneficial use of land falls outside of categorical rule for total regulatory takings and into three-factor analysis for partial regulatory takings. *U.S. Const. Amend. 5.*

2 Cases that cite this headnote

- [26] **Eminent Domain** 🔑 Questions for jury
Summary Judgment 🔑 Eminent domain

Genuine issue of material fact as to value of operator's investment in the leasehold after state suspended operation on one of operator's two saltwater injection wells due to potential seismicity problem precluded summary judgment determination on economic-impact factor of test for determining whether state's regulation effected a partial taking. *U.S. Const. Amends. 5, 14.*

- [27] **Eminent Domain** 🔑 What Constitutes a Taking; Police and Other Powers Distinguished

Reasonable, investment-backed expectation analysis of a partial takings claim is designed to account for property owners' expectation that the regulatory regime in existence at the time of their acquisition will remain in place, and that new, more restrictive legislation or regulations will not be adopted. *U.S. Const. Amend. 5.*

- [28] **Eminent Domain** 🔑 What Constitutes a Taking; Police and Other Powers Distinguished

Factors courts consider under reasonable, investment-backed expectation prong of test for determining whether regulation is a partial taking include: (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. *U.S. Const. Amend. 5.*

- [29] **Eminent Domain** 🔑 What Constitutes a Taking; Police and Other Powers Distinguished

Reasonable investment-backed expectations, as used to determine if a regulation is a partial

regulatory taking, are greatly reduced in a highly regulated field. *U.S. Const. Amend. 5.*

[30] **Eminent Domain** 🔑 Questions for jury

Summary Judgment 🔑 Eminent domain

Genuine issues of material fact existed as to whether operator was aware of the potential seismicity problem with its saltwater injection wells and whether operator could have anticipated that state would waver between case-by-case approach and statewide approach to addressing induced seismicity while rebuffing operator's attempt to meet state's regulatory expectations precluded summary judgment on reasonable investment-backed expectations factor for determining whether state's suspension of one of operator's two wells effected a partial taking. *U.S. Const. Amends. 5, 14.*

[31] **Eminent Domain** 🔑 What Constitutes a Taking; Police and Other Powers Distinguished

Factors courts consider to guide character-of-the-governmental-action inquiry for determining whether a regulation is a temporary, partial taking include whether the interestholder has been impermissibly singled out by the government for unfavorable treatment or instead been permissibly included within a governmental program aimed at adjusting the benefits and burdens of economic life to promote the common good, whether the regulation bears a harm-preventing purpose, and extent to which regulatory delay accompanied the government's decisionmaking process. *U.S. Const. Amend. 5.*

[32] **Eminent Domain** 🔑 What Constitutes a Taking; Police and Other Powers Distinguished

Regulation will weigh strongly against finding a taking when the purpose of that regulation is to prevent harm to public health and safety. *U.S. Const. Amend. 5.*

[33] **Eminent Domain** 🔑 Zoning and Permits

Although a requirement that a person obtain a permit before engaging in a certain use of his or her property does not itself take the property in any sense, a taking may occur by reason of extraordinary delay in governmental decisionmaking. *U.S. Const. Amend. 5.*

[34] **Eminent Domain** 🔑 Zoning and Permits

In deciding whether a delay in governmental decisionmaking regarding permit application is extraordinary, as may effect a taking, a court must weigh all relevant factors, including the length of the delay, bad faith on the part of the government, any delay that the interestholder's conduct caused, nature of the permitting process, and reasons for any delay. *U.S. Const. Amend. 5.*

[35] **Eminent Domain** 🔑 What Constitutes a Taking; Police and Other Powers Distinguished

Party alleging a governmental taking must tie its claim of extraordinary delay to the government's decisionmaking process, namely, the process by which the government reviews an interestholder's formal request to use its property in a particular way. *U.S. Const. Amend. 5.*

[36] **Eminent Domain** 🔑 Oil and gas

Character of state's suspension of operations at one of two saltwater injection wells was to protect the public's health and safety, weighing against finding that the regulation was a temporary, partial taking of well operator's property, where state did not single out the well for unfair treatment, as well's injection volumes contributed to seismicity in the surrounding area and differed geologically, and was closer in proximity to densely populated areas, than the other well, well's operations posed imminent threat to public safety, and there was no showing that there was extraordinary delay in decisionmaking process with respect to operator's restart plan for the well. *U.S. Const. Amends. 5, 14.*

1 Case that cites this headnote

****1171** APPEAL from the Court of Appeals for Trumbull County, No. 2016-T-0085, 2019-Ohio-923.

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[Dave Yost](#), Attorney General, [Samuel C. Peterson](#), Deputy Solicitor General, and [Brett A. Kravitz](#) and [W. Scott Myers](#), Assistant Attorneys General, for appellees.

Opinion

[Fischer, J.](#)

****1172 *401 [1] ¶ 1** In this regulatory-takings case, appellants, AWMS Water Solutions, L.L.C.; AWMS Holdings, L.L.C.; and AWMS, Rt. 169, L.L.C. (collectively, “AWMS”), filed a petition for a writ of mandamus in the Eleventh District Court of Appeals to compel appellees, the Ohio Department of Natural Resources (“ODNR”); ODNR’s director, Mary Mertz; ODNR’s Division of Oil and Gas Resources Management (“the division”); and the division’s chief, Richard Simmers (collectively, “the state”), to initiate property-appropriation proceedings. AWMS alleged that it had suffered a taking of its property when the division suspended AWMS’s operation of one of its two saltwater-injection wells. The division suspended the operation of the well because of concerns that the well had induced a pair of earthquakes in its vicinity. The Eleventh District granted summary judgment to the state and denied the writ, determining that AWMS had suffered neither a total nor a partial governmental taking.

¶ 2 Regulatory-takings cases present “complex and difficult” questions that often elude a “simple solution.” *State ex rel. R.T.G., Inc. v. State*, 98 Ohio St.3d 1, 2002-Ohio-6716, 780 N.E.2d 998, ¶ 1 (plurality opinion). This case is no different. ***402** As we will explain below, the court of appeals erred by entering summary judgment in favor of the state when genuine issues of material fact remained regarding whether AWMS had suffered a total or partial taking. Accordingly, we reverse the Eleventh District’s judgment and remand this cause to the court of appeals for further proceedings consistent with this opinion.

I. FACTUAL AND PROCEDURAL BACKGROUND

A. AWMS obtains permits to drill and inject wells, earthquakes ensue, and the division suspends the operation of one of AWMS’s wells

¶ 3 On December 19, 2011, AWMS, a disposer of waste from oil-and-gas production and drilling sites, secured a leasehold right to operate one or more Class II saltwater-injection wells on 5.2 acres of industrial property in Weathersfield Township, Trumbull County, Ohio. A Class II saltwater-injection well is used for the purpose of disposing of saltwater, a byproduct of oil and natural-gas production. A saltwater-injection well is designed to isolate the injected fluid in a specific formation and prevent the contamination of freshwater. United States Environmental Protection Agency, *Class II Oil and Gas Related Injection Wells*, https://www.epa.gov/uic/class-ii-oil-and-gas-related-injection-wells#dw_protect (accessed Sept. 14, 2020) [<https://perma.cc/CH23-MYWS>]. The lease obligated AWMS to pay the lessor a 5 percent royalty on its disposal revenue.

¶ 4 On December 23, 2011, AWMS applied to the division for permits to construct and operate two wells on the site: “well #1” and “well #2.” The next day, a 2.7-magnitude earthquake was recorded in Youngstown, Ohio, about seven miles from AWMS’s Weathersfield Township site and about one mile from an injection well known as “Northstar #1” that was not related to AWMS’s wells. On December 30, 2011, the division decided that Northstar #1 should be “shut in”—that is, taken out of operation. On December 31, 2011, a 4.0-magnitude earthquake was recorded ****1173** within one mile of Northstar #1. That earthquake was felt by over 4,000 people in parts of northeastern Ohio, western Pennsylvania, and Ontario, Canada. The division later issued a report in which it found that a “compelling argument” existed linking the activities at Northstar #1 to the two December 2011 earthquakes.

¶ 5 To put these events in context, we note that the United States Geological Survey estimates that more than one million earthquakes of magnitude 2.0 or greater occur naturally per year globally. Ground Water Protection Council & Interstate Oil & Gas Compact Commission, *Potential Injection-Induced Seismicity Associated with Oil & Gas Development: A Primer on Technical and Regulatory Considerations Informing Risk Management*

and Mitigation 44 (2015), <http://www.gwpc.org/sites/default/files/finalprimerweb.pdf> (accessed Sept. 14, 2020) [<https://perma.cc/H9SS-FVKF>]. Earthquakes of about magnitude 2.0 or *403 less are called “microseismic events” because they usually cannot be felt by people. *Id.* Buildings usually do not suffer structural damage unless an earthquake in their vicinity reaches a magnitude of 5.0, although nonstructural damage can occur to a building during a 4.0-magnitude earthquake depending on the building's age and the materials used to construct it. *Id.* at 50. AWMS's expert witness on seismicity, Michael A. Hasting, testified at a March 2015 hearing in this case that Ohio probably experiences a couple of 2.0-magnitude earthquakes per day.

{¶ 6} Immediately after the December 31, 2011 earthquake occurred, former Governor John Kasich imposed a moratorium on certain injection-well activities, thereby enabling the division to study whether the earthquakes were due to “induced seismicity,” a term used to describe earthquakes triggered by human activity. Thereafter, the division adopted rules regarding induced seismicity, developed a seismic monitoring network, hired a seismologist, and participated in workgroups to enhance its understanding of induced seismicity.

{¶ 7} The former governor's moratorium delayed the processing of AWMS's application for its operating permits. But on July 18, 2013, the division authorized AWMS to drill wells #1 and #2. AWMS spent approximately \$5.6 million constructing its facilities, which included the costs of wells #1 and #2, infrastructure, drilling, tanks, pumps, installation, and start-up. Well #2, the deeper of the two wells, was drilled to a depth of 8,502 feet, which enabled it to accept 95 percent of total injections.

{¶ 8} In September 2013, AWMS prepared a “confidential offering memorandum” for prospective investors in which it offered membership shares for \$50,000 each. AWMS disclosed several investment risks in the memorandum, including that the government's regulation of injection wells could increase in scope and complexity due to growing industry awareness, that AWMS's wells could cause a seismic event similar to the events that had occurred in Youngstown, and that a seismic event caused by AWMS's wells could lead to the suspension of its injection operations.

{¶ 9} On March 24, 2014, the division authorized AWMS to commence injections into wells #1 and #2. AWMS's permits did not contain express language empowering the division

to suspend AWMS's operations due to a seismic event of a specific magnitude.

{¶ 10} The risks that AWMS outlined in its offering memorandum turned out to be well founded. On July 28, 2014, a 1.7-magnitude earthquake was recorded near well #2. And on August 31, 2014, a 2.1-magnitude earthquake was recorded in the same area. The Ohio Oil and Gas Commission (“the commission”) later determined **1174 that the “July and August events were not detectable on the surface, and no property damage was reported.”

*404 {¶ 11} On September 3, 2014, the division issued orders requiring AWMS to suspend its operations at wells #1 and #2, stating that the two earthquakes from July and August 2014 were related to AWMS's operations at the wells. The division also required AWMS to “submit a written plan to the Division for evaluating the seismic concerns associated with the operation of” well #2. Two days later, the division issued new orders clarifying that the seismic events “may” have been related to AWMS's wells. The division later determined that well #1 likely did not contribute to seismicity in the area, terminated its suspension of operations at well #1, and allowed AWMS to resume operations at well #1. It left the suspension of operations at well #2 in place.

{¶ 12} On September 17, 2014, AWMS submitted to the division its written plan for well #2. In its plan, AWMS explained that it had not received direction from the division about what to include in the plan. Nevertheless, AWMS's plan included several proposals addressing the division's concerns, including a proposal to establish certain operational and management controls over injections at well #2. The division found AWMS's plan to be “generic and inadequate.”

{¶ 13} On October 2, 2014, AWMS appealed the division's suspension of operations at well #2 to the commission. During the pendency of the appeal, AWMS and the division held two meetings during which they discussed the induced-seismicity issue. In the first meeting, which took place near the end of October 2014, the division communicated to AWMS that it was planning to adopt a statewide policy on induced seismicity that it expected to be completed in “four to six” months. According to Stephen G. Kilper, vice president of AWMS, the division stated at that meeting that it was not prepared to address the suspension order regarding well #2 or AWMS's plan until the statewide policy was in place.

{¶ 14} In the second meeting, which was held near the end of February 2015, the division presented AWMS with a single sheet of paper containing 14 criteria that the division was considering for evaluating induced seismicity in its statewide policy. According to Kilper, the division stated at that meeting that it would not implement the statewide induced-seismicity policy for at least eight months and that it would not recommend a policy to ODNR unless the policy “guaranteed zero risk.”

{¶ 15} A few days after the February 2015 meeting, AWMS sent an e-mail to the division seeking clarification of some of the division's proposed criteria, to which Robert Worstall, deputy chief of the division, responded that AWMS should propose whatever it thought was appropriate. In early March 2015, AWMS submitted a plan to the division addressing the division's proposed criteria. Nothing in the record suggests that the division responded to AWMS's plan.

***405 B. Administrative and judicial proceedings regarding the division's suspension order**

{¶ 16} On August 12, 2015, the commission issued a decision affirming the division's suspension of operations at well #2. The commission noted that two of AWMS's expert witnesses had testified that the seismic events in July and August 2014 were likely associated with well #2. The commission also observed that while both experts had opined that operations at well #2 could be safely resumed subject to certain conditions, neither could state that the division's suspension order was unreasonable under the circumstances that had **1175 led to the order. Turning to the testimony of Simmers, the division's chief, the commission noted that he favored a temporary cessation of injections at well #2 pending further investigation and the implementation of a statewide policy on induced seismicity.

{¶ 17} In upholding the suspension order, the commission acknowledged that under the circumstances, the division could be perceived as acting slowly in implementing a statewide policy to address induced seismicity. But the commission stressed that regulating induced seismicity caused by saltwater injection is a “complicated process that does not happen overnight.” The commission also determined that while there had been no evidence presented establishing that AWMS had violated the terms and conditions of its permit, the absence of a violation could not justify its lifting the suspension in light of the division's determination

that further injection operations at well #2 could result in imminent danger to public health and safety or damage to the environment.

{¶ 18} AWMS appealed the commission's order to the Franklin County Court of Common Pleas, which vacated the order. The court determined that although the division had the authority to issue the suspension order, the division's failure to respond to AWMS's plan for resuming operations was unreasonable. The court stated, “[I]t defies logic as to how [the division] can expect [AWMS] to formulate and submit a comprehensive plan that would comply with a statewide policy that has yet to be formulated and completed.” The court then ordered the parties to submit proposed plans for restarting operations at well #2, which both parties did. Thereafter, the court ordered that operations at well #2 could be restarted under certain conditions, including that AWMS would cease injection operations if an imminent threat to public safety and health or to the environment occurred at or near the well. In the event of such a threat, the court's order dictated that operations could not be restarted unless two AWMS representatives and two commission representatives determined that the threat had passed.

{¶ 19} The division appealed the common pleas court's judgment to the Tenth District Court of Appeals. In a two-to-one decision, the court of appeals affirmed in part, reversed in part, and after modifying the common pleas court's judgment, *406 affirmed the commission's decision and reimposed the suspension of operations at well #2. *Am. Water Mgt. Servs., L.L.C. v. Div. of Oil & Gas Resources Mgt.*, 2018-Ohio-3028, 118 N.E.3d 385, ¶ 59-60 (10th Dist.) (“*AWMS I*”). The court of appeals held that the common pleas court had erred in requiring two commission members to determine that an imminent threat had passed before operations at well #2 could be restarted. *Id.* at ¶ 28 -31. The court of appeals also held that the court had erred in drawing certain conclusions from the record about the seismic risks posed by restarting operations at well #2. *Id.* at ¶ 39-49. AWMS appealed the judgment in *AWMS I* to this court, which denied AWMS's discretionary appeal, *see* 154 Ohio St.3d 1431, 2018-Ohio-4670, 111 N.E.3d 1192, and subsequent motion for reconsideration, *see* 154 Ohio St.3d 1467, 2018-Ohio-5209, 114 N.E.3d 216.

C. AWMS's mandamus action

{¶ 20} On August 26, 2016, while AWMS's appeal in *AWMS I* was pending, AWMS filed a petition for a writ of mandamus

in the Eleventh District to compel the state to commence property-appropriation proceedings. AWMS alleged that the suspension order effected a governmental taking of its property requiring the state to pay AWMS just compensation. In support, AWMS argued that it had complied with ****1176** the relevant law and AWMS's permit conditions, had not endangered public health and safety or the environment, and had been subjected to a “permanent shutdown” (rather than a temporary suspension) of its operations. AWMS emphasized that its mandamus action was *not* an attempt to challenge the suspension order.

{¶ 21} The state moved for summary judgment, asserting that AWMS had failed to establish that a taking occurred. After the Tenth District issued its decision in *AWMS I*, the Eleventh District granted the state's summary-judgment motion and denied AWMS's mandamus petition, 2019-Ohio-923, 132 N.E.3d 1151, ¶ 50-51. First, the Eleventh District determined that the state had not effected a total regulatory taking because AWMS had not been deprived of all economically beneficial use of its property. In support, it reasoned that after the state had suspended operations at well #2, well #1 remained in operation for a period of time; that AWMS had derived revenue from processing, storing, recycling, treating, and disposing brine; that third parties had contacted AWMS about using the property; and that AWMS could put the property to other uses related to the oil-and-gas industry. *Id.* at ¶ 15-17. Second, the court of appeals determined that the state had not effected a partial regulatory taking. The court found it significant that the suspension order had been designed to “protect[] the public's health and safety from the realistic potential of increased induced seismicity resulting from injection activities” at well #2. *Id.* at ¶ 40. It also found it significant that AWMS's investors had been aware of the seismic activities in ***407** the Youngstown area and of the risks involved with the operation of AWMS's injection wells. *Id.* at ¶ 44, 49.

{¶ 22} AWMS appealed the Eleventh District's judgment to this court.

II. APPLICABLE LEGAL STANDARDS

A. Summary-judgment standard

[2] [3] [4] {¶ 23} This court reviews a grant of summary judgment de novo. *Ratonel v. Roetzel & Andress, L.P.A.*, 147 Ohio St.3d 485, 2016-Ohio-8013, 67 N.E.3d 775, ¶ 18. Under

Civ.R. 56(C), summary judgment is appropriate when (1) there is no genuine issue of material fact, (2) the moving party is entitled to judgment as a matter of law, and (3) it appears after construing the evidence most strongly in the nonmoving party's favor that reasonable minds can come to but one conclusion. “Neither we nor the trial court may weigh the proof or choose among reasonable inferences in deciding whether summary judgment should be granted.” *Perez v. Scripps-Howard Broadcasting Co.*, 35 Ohio St.3d 215, 218, 520 N.E.2d 198 (1988). At the summary-judgment stage, a “court should not reject one expert opinion for another simply because it believes one theory over the other.” *Miller v. Bike Athletic Co.*, 80 Ohio St.3d 607, 613, 687 N.E.2d 735 (1998).

B. Mandamus standard

[5] [6] {¶ 24} To prevail on its mandamus claim, AWMS must show (1) a clear legal right to compel the state to commence property-appropriation proceedings, (2) a clear legal duty on the part of the state to institute that action, and (3) the lack of an adequate remedy in the ordinary course of the law. *State ex rel. Gilmour Realty, Inc. v. Mayfield Hts.*, 122 Ohio St.3d 260, 2009-Ohio-2871, 910 N.E.2d 455, ¶ 15. “Mandamus is the appropriate action to compel public authorities to commence appropriation cases when an involuntary taking of private property is alleged.” *State ex rel. Shelly Materials, Inc. v. Clark Cty. Bd. of Commrs.*, 115 Ohio St.3d 337, 2007-Ohio-5022, 875 N.E.2d 59, ¶ 15.

****1177 C. Regulatory-takings doctrine**

[7] {¶ 25} AWMS has asserted that it is entitled to compensation for the state's regulatory taking of its property under the Takings Clause of the Fifth Amendment to the United States Constitution. The Takings Clause provides that private property shall not “be taken for public use, without just compensation.” The clause applies to the states through the Fourteenth Amendment. *Chicago, Burlington & Quincy RR. Co. v. Chicago*, 166 U.S. 226, 239-241, 17 S.Ct. 581, 41 L.Ed. 979 (1897).

[8] {¶ 26} We acknowledge that “ ‘[e]very sort of [real property] interest the citizen may possess’ counts as a property interest under the Fifth Amendment.” ***408** (Brackets sic.) *Cienega Gardens v. United States*, 331 F.3d 1319, 1329 (Fed.Cir.2003) (“*Cienega Gardens I*”), quoting *United States v. Gen. Motors Corp.*, 323 U.S. 373, 378, 65

S.Ct. 357, 89 L.Ed. 311 (1945). Accordingly, “the holder of an unexpired leasehold interest in land is entitled” to invoke the Takings Clause’s guarantees. *Alamo Land & Cattle Co., Inc. v. Arizona*, 424 U.S. 295, 303, 96 S.Ct. 910, 47 L.Ed.2d 1 (1976).

{¶ 27} AWMS has also referred to its right to compensation for the state’s alleged taking of its property under the Ohio Constitution. “Section 19, Article I of the Ohio Constitution also provides that private property shall not be taken for public use without just compensation.” *Shelly Materials*, 115 Ohio St.3d 337, 2007-Ohio-5022, 875 N.E.2d 59, at ¶ 16. Although AWMS makes a passing reference to that provision, its substantive arguments rely on Fifth Amendment takings jurisprudence so we focus our analysis here on that jurisprudence.

{¶ 28} Although the federal Takings Clause had been originally understood to apply only to situations involving the direct appropriation of property or the functional equivalent of a practical ouster of an owner’s possession, *Lucas v. South Carolina Coastal Council*, 505 U.S. 1003, 1014, 112 S.Ct. 2886, 120 L.Ed.2d 798 (1992) (collecting cases), the United States Supreme Court has recognized that the clause may also be applied to overly burdensome governmental regulations of property, *Pennsylvania Coal Co. v. Mahon*, 260 U.S. 393, 415, 43 S.Ct. 158, 67 L.Ed. 322 (1922) (“while property may be regulated to a certain extent, if regulation goes too far it will be recognized as a taking”). Since *Mahon*, principles have been established for identifying regulations that go too far. See *Lingle v. Chevron U.S.A., Inc.*, 544 U.S. 528, 538-540, 125 S.Ct. 2074, 161 L.Ed.2d 876 (2005).

[9] [10] {¶ 29} Two of those principles bear on this case. The first is the “categorical rule” discussed in *Lucas*, which applies to “total regulatory takings.” *Lucas* at 1026, 112 S.Ct. 2886. Under that rule, the government’s payment of just compensation is required when its regulation “deprives land of all economically beneficial use,” *id.* at 1027, 112 S.Ct. 2886, unless “background principles of the State’s law of property and nuisance” impose independent restrictions on the owner’s usage, *id.* at 1029, 112 S.Ct. 2886. The second principle derives from the Supreme Court’s decision in *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104, 98 S.Ct. 2646, 57 L.Ed.2d 631 (1978), which applies to “‘partial’ regulatory taking[s],” *Shelly Materials* at ¶ 19. The ad hoc, fact-specific analysis established in *Penn Cent.* requires a court to consider three factors: “(1) the economic impact of the regulation on the claimant, (2) the extent to which

the regulation has interfered with distinct investment-backed expectations, and (3) the character of the governmental action.” *Id.*

**1178 *409 III. ANALYSIS

{¶ 30} We begin our analysis by addressing two preliminary questions, the answers to which will influence our regulatory-takings analysis. First, we consider the state’s argument that this case is unripe. Second, we consider the state’s argument that it effected at most a temporary suspension, rather than a permanent shutdown, of well #2. After addressing those questions, we turn to the main issue in this case, i.e., whether the state effected either a total taking of well #2 under the standard established in *Lucas* or a partial taking of it under the standard established in *Penn Cent.*

A. Ripeness

{¶ 31} The state faults AWMS for having failed to submit a comprehensive plan for restarting operations at well #2, stating that it “stands by willing to allow operation of the AWMS #2 Well if [AWMS] submits a comprehensive plan protective of public health and safety.” (Emphasis sic.) Although the state does not precisely identify a legal doctrine in support of its argument, the crux of its position, as we understand it, is that AWMS’s takings claim is unripe.

[11] [12] {¶ 32} “[A] claim that the application of government regulations effects a taking of a property interest is not ripe until the government entity charged with implementing the regulations has reached a final decision regarding the application of the regulations to the property at issue.” *Williamson Cty. Regional Planning Comm. v. Hamilton Bank of Johnson City*, 473 U.S. 172, 186, 105 S.Ct. 3108, 87 L.Ed.2d 126 (1985), *overruled on other grounds, Knick v. Twp. of Scott*, — U.S. —, 139 S.Ct. 2162, 2179, 204 L.Ed.2d 558 (2019). “Where further administrative process could reasonably result in a more definite statement of the impact of the regulation, the property owner is generally required to pursue that avenue of relief before bringing a takings claim.” *Morris v. United States*, 392 F.3d 1372, 1376 (Fed.Cir.2004).

[13] [14] [15] {¶ 33} The “[r]ipeness doctrine does not,” however, “require a landowner to submit applications for their own sake.” *Palazzolo v. Rhode Island*, 533 U.S. 606,

622, 121 S.Ct. 2448, 150 L.Ed.2d 592 (2001). Accordingly, “[a] failure to secure a final decision may be excused under the futility exception, ‘where [an] agency’s decision makes clear that pursuing remaining administrative remedies will not result in a different outcome.’ ” (Second brackets sic.) *Freeman v. United States*, 875 F.3d 623, 628 (Fed.Cir.2017), quoting *Morris* at 1376. “A landowner need not resort to futile piecemeal litigation or submit to repetitive application requirements to make a taking claim ripe.” *Cooley v. United States*, 324 F.3d 1297, 1302 (Fed.Cir.2003). Because a takings claim is ripe after a governmental entity’s final *410 decision, “an applicant need not submit further applications” before it can pursue its claim. *Id.* at 1302-1303.

{¶ 34} In this case, the state suggests that if AWMS would submit a restart plan for well #2 that meets the standards it set out during the parties’ common-pleas-court litigation (standards the state settled on *after* AWMS filed its mandamus petition), then AWMS would be able to restart its operations. Broadly speaking, the state’s standards outlined a five-step restart plan directing AWMS to (1) gather information, (2) perform well-construction modifications, (3) install monitoring equipment, (4) perform preoperation testing, and (5) follow a schedule of operations with defined injection pressures and maximum amounts to be injected, subject to modifications or the suspension of operations depending on seismicity in the area of well #2.

**1179 {¶ 35} The state ignores that AWMS twice tried—and failed—to persuade the division to allow it to restart operations at well #2. AWMS first tried to do this by submitting its September 2014 plan. According to Simmers, the division had found that plan to be “generic and inadequate,” although, as noted by the court of appeals in *AWMS I*, the division did not contact AWMS to collaborate on the plan or to critique the plan, 2018-Ohio-3028, 118 N.E.3d 385, at ¶ 7, and the record does not show that the division responded to the plan. Moreover, AWMS submitted a second plan in March 2015 to which the division apparently never responded either, *id.* at ¶ 8.

{¶ 36} Now, the state argues that AWMS should be faulted for having failed to submit a third restart plan for well #2 based on standards the state set out after AWMS filed its mandamus complaint and after it twice tried to satisfy the state’s standards. The state’s argument, if we were to accept it, would invite protracted litigation. Also, because there is no indication that the state’s standards, if met, would be binding on the state, the division could change them at any

time, which, under the state’s logic, could create yet another opportunity for it to say that all AWMS needs to do is submit another plan. We decline the state’s invitation to issue a decision establishing precedent permitting the state to create moving targets.

[16] {¶ 37} In summary, the division either rebuffed or ignored the two plans that AWMS had submitted to restart well #2. We conclude that AWMS was justified in pursuing compensation through a takings action rather than submitting a third restart plan and that AWMS’s claim was ripe at the time it instituted its takings action. *See Cooley*, 324 F.3d at 1302-1303.

B. Permanent versus temporary takings

{¶ 38} The state next argues that the suspension of operations at well #2 is merely temporary and cannot amount to a categorical taking. In casting the *411 suspension as temporary, the state seeks the benefit of the rule articulated in *Tahoe-Sierra Preservation Council, Inc. v. Tahoe Regional Planning Agency*, 535 U.S. 302, 122 S.Ct. 1465, 152 L.Ed.2d 517 (2002), in which the United States Supreme Court determined that the principles espoused in *Penn Cent.*, rather than those set forth in *Lucas*, should apply to a moratorium on property development of finite duration, provided the duration of the moratorium is reasonable under the circumstances. *Tahoe-Sierra* at 341-342, 122 S.Ct. 1465 (considering a 32-month moratorium). The court reasoned that *Lucas*’s categorical rule should not apply to that situation, because a temporary prohibition on property use could not permanently deprive the property of all its value. “Logically, a fee simple estate cannot be rendered valueless by a temporary prohibition on economic use, because the property will recover value as soon as the prohibition is lifted.” *Id.* at 332, 122 S.Ct. 1465.

{¶ 39} The state contends that its suspension of operations at well #2 is temporary for two reasons. First, it argues that the division did not order the well to be permanently plugged under R.C. 1509.12(B). But from a functional standpoint, there is no material difference between a plugged well and a suspended well—neither can be used. Second, it argues that the restart of operations at well #2 is entirely within the control of AWMS because all AWMS needs to do is submit another restart plan. But that is simply untrue. Even if AWMS were to submit another plan, the division might again fail to respond to it or disapprove it.

****1180** [17] {¶ 40} The state's attempt to characterize the suspension of operations at well #2 as temporary founders on its open-endedness. See *Wyatt v. United States*, 271 F.3d 1090, 1097 (Fed.Cir.2001), fn. 6 (“The essential element of a temporary taking is a finite start and end to the taking”). Unlike in *Tahoe-Sierra*, which involved a prohibition on land use of finite duration, this case involves a suspension of operations without a fixed expiration date. Indeed, the record shows that the suspension will remain in effect unless and until the division decides that operations at well #2 may be restarted.

{¶ 41} Also instructive here is our decision in *State ex rel. BSW Dev. Group. v. Dayton*, 83 Ohio St.3d 338, 699 N.E.2d 1271 (1998). In that case, we rejected a property owner's argument that the government had permanently taken the owner's property because the government indicated that it would have granted the owner's application for a permit upon the owner's fulfillment of certain ministerial requirements. *Id.* at 342-343, 699 N.E.2d 1271. Here, the conditions that the division has asked AWMS to meet to restart operations at well #2 are hardly ministerial.

{¶ 42} In summary, we reject the state's argument that the suspension of operations at well #2 is temporary.

***412 C. Whether the division effected a total taking**

1. Economically beneficial use

[18] {¶ 43} We start our analysis of AWMS's total-takings claim with the rule espoused in *Lucas*, which applies to the “relatively rare situations where the government has deprived a landowner of all economically beneficial uses.” 505 U.S. at 1018, 112 S.Ct. 2886, 120 L.Ed.2d 798. Under *Lucas*, the “determinative factor” is whether the regulation effects a “complete elimination of a property's value.” *Lingle*, 544 U.S. at 539, 125 S.Ct. 2074, 161 L.Ed.2d 876. See also *R.T.G., Inc.*, 98 Ohio St.3d 1, 2002-Ohio-6716, 780 N.E.2d 998, at ¶ 39 (plurality opinion) (“*Lucas* applies where the regulation has deprived the property of all economic value”).

{¶ 44} AWMS supports its argument that it suffered a total taking with the report of its expert witness, Dr. William W. Wade, who determined, using a net-present-value calculation that AWMS had lost 99.4 percent of its investment by September 2015 and 101.5 percent of its investment by June

2017. Dr. Wade determined that the division's continued enforcement of its suspension order for well #2 created a situation in which AWMS could not cover its operating costs despite any operating revenues generated by well #1. As he explained, “operations without Well #2 are not economically viable,” because “Well #2 is essential to the business operations.”

{¶ 45} The state's expert witnesses faulted Dr. Wade's analysis as relying on an overly optimistic projection of the volume of wastewater that AWMS's wells would have accepted. In their view, the well-capacity limitations of AWMS's wells, not the division's suspension order, had been one of the leading culprits for AWMS's decline in operating revenues. Had Dr. Wade accounted for those limitations, the state says, he would not have concluded that AWMS suffered a total taking.

[19] {¶ 46} We need not decide which expert witness was right, for a court may not weigh competing expert-witness opinions at the summary-judgment stage. *Miller*, 80 Ohio St.3d at 613, 687 N.E.2d 735. We hold, however, that these differences of opinion are enough to establish a genuine issue of material fact concerning whether AWMS suffered a total taking under *Lucas*. For that reason, we reverse the Eleventh ****1181** District's judgment granting summary judgment to the state and remand to that court for further proceedings on AWMS's total-takings claim.

{¶ 47} In reaching this decision, we reject the state's argument that AWMS did not suffer a total taking because AWMS used and could continue to use its site after the division suspended operations at well #2. The state emphasizes that AWMS could use the site to (1) conduct saltwater-injection operations at well #1, ***413** (2) store, recycle, and treat wastewater, and (3) sell byproducts of the wastewater. According to the state, nothing prevents AWMS from continuing those uses. Our concern here, however, is not whether AWMS's property is capable of being used, but whether it is capable of being used in an “economically beneficial or productive” manner. *Lucas*, 505 U.S. at 1015, 1017, 112 S.Ct. 2886, 120 L.Ed.2d 798. As Dr. Wade opined, the uses to which the state refers yield monthly net losses. For the purposes of summary judgment, his opinion is enough to establish a genuine issue of material fact sufficient to withstand the state's claim that AWMS did not suffer a total taking.

{¶ 48} We also reject the court of appeals' conclusion that AWMS did not suffer a total taking because AWMS could have sublet its property to a third party. 2019-Ohio-923, 132

N.E.3d 1151, at ¶ 16. The Federal Circuit addressed a similar argument in *Lost Tree Village Corp. v. United States*, 787 F.3d 1111 (Fed.Cir.2015). In that case, the government argued that an owner's ability to sell an affected parcel of land constituted an economically beneficial use under *Lucas*. In rejecting that argument, the court explained that “[t]ypical economic uses enable a landowner to derive benefits from land ownership rather than requiring a landowner to sell the affected parcel.” *Id.* at 1117. By analogy, AWMS's subletting the property, which would transfer away its right to directly use the property, also does not rise to the level of an economically beneficial use under *Lucas*. Moreover, any sublessee of the property would encounter the same problem as AWMS because it would inherit AWMS's leasehold rights, which, as noted above, extend no further than saltwater-injection-well operations.

[20] {¶ 49} It is doubtful that AWMS's subletting the property would even be a viable option here. “[A] proposed ‘use’ requires a showing of reasonable probability that, at the time of the taking, the land was both physically adaptable for such use and that there was a need or demand for such use in the reasonably near future.” *Bd. of Cty. Supervisors of Prince William Cty. v. United States*, 276 F.3d 1359, 1365 (Fed.Cir.2002). The court of appeals observed that third parties had expressed interest in using AWMS's property but that no agreement had been finalized. 2019-Ohio-923, 132 N.E.3d 1151, at ¶ 16. In support, it relied on the deposition testimony of Kilper, AWMS's vice president, who explained that two potential buyers had contacted him and expressed interest in possibly buying out AWMS's interest in the property. The record does not disclose the details of those conversations, but Kilper explained that at some point in the negotiations the potential buyers stopped returning AWMS's telephone calls. The evidence, therefore, does not show a legitimate demand for AWMS's interest in the property.

{¶ 50} The court of appeals also relied on the report of Andrew Adgate, ODNR's underground-injection-control manager, *id.* at ¶ 17. In his report, *414 Adgate suggested alternative ways in which AWMS could use the property. But because we conclude that Dr. Wade's opinions in his report are enough to create a genuine issue of material **1182 fact regarding whether AWMS suffered a total taking, we need not consider the substance of Adgate's report.

2. The state's nuisance defense

[21] {¶ 51} Under *Lucas*, even if a governmental regulation completely deprives an owner of all economically beneficial use of its property, just compensation is not required if the government can show that background principles of property and nuisance law proscribe the owner's use of the property. *Lucas*, 505 U.S. at 1029, 1017, 112 S.Ct. 2886, 120 L.Ed.2d 798. To take an example from *Lucas*,

the corporate owner of a nuclear generating plant [would not be entitled to just compensation] when it is directed to remove all improvements from its land upon discovery that the plant sits astride an earthquake fault. Such regulatory action may well have the effect of eliminating the land's only economically productive use, but it does not proscribe a productive use that was previously permissible under relevant property and nuisance principles.

Id. at 1029-1030. Courts have interpreted *Lucas*'s background-principles-of-property-and-nuisance-law passage as creating a *defense* that the government can raise in a regulatory-takings action. *See, e.g., Rith Energy, Inc. v. United States*, 247 F.3d 1355, 1361 (Fed.Cir.2001); *Palm Beach Isles Assocs. v. United States*, 231 F.3d 1354, 1357 (Fed.Cir.2000). We must consider whether, as AWMS argues, the state waived its nuisance defense.

[22] [23] {¶ 52} “Unlike lack of subject matter jurisdiction, other affirmative defenses can be waived.” *State ex rel. Jones v. Suster*, 84 Ohio St.3d 70, 77, 701 N.E.2d 1002 (1998). “[I]t is well settled that ‘[a] party who fails to raise an argument in the court below waives his or her right to raise it here.’” (Second brackets sic.) *Niskanen v. Giant Eagle, Inc.*, 122 Ohio St.3d 486, 2009-Ohio-3626, 912 N.E.2d 595, ¶ 34, quoting *State ex rel. Zollner v. Indus. Comm.*, 66 Ohio St.3d 276, 278, 611 N.E.2d 830 (1993).

{¶ 53} AWMS argues that the state waived its nuisance defense because the state did not raise it in the court of appeals. The state's second amended answer to AWMS's complaint clearly sets forth the defense, but whether the state

did so in its summary-judgment motion presents a closer question.

{¶ 54} In its motion for summary judgment, the state briefly analogized the facts of this case to the hypothetical used by the court in *Lucas* in which the *415 government could raise a nuisance defense in a situation in which a nuclear-power-generation plant sits astride an earthquake fault. In making that analogy, the state claimed that AWMS's facility was located near “a previously unknown earthquake fault.”

[24] {¶ 55} At first blush, it would appear that the state did not waive its nuisance defense. The problem, however, is that *Lucas* requires a government-defendant to ground its nuisance defense in principles of its state's property and nuisance law. *Lucas*, 505 U.S. at 1029-1030, 1017, 112 S.Ct. 2886, 120 L.Ed.2d 798. Here, the state did not ground its nuisance defense in principles of Ohio property and nuisance law. We have held that waiver will apply when a litigant supplies no argument “regarding whether the relevant case law, applied to the facts of th[e] case, justifies a decision in [the litigant's] favor.” *Util. Serv. Partners, Inc. v. Pub. Util. Comm.*, 124 Ohio St.3d 284, 2009-Ohio-6764, 921 N.E.2d 1038, ¶ 53. We find that principle dispositive here and hold that the **1183 state waived its nuisance defense for purposes of this appeal.

{¶ 56} In summary, we conclude that there is a genuine issue of material fact concerning whether the state's suspension of operations at well #2 deprived AWMS of all economically beneficial use of its leasehold. We further conclude that the state waived its nuisance defense. We therefore reverse the Eleventh District's judgment granting summary judgment to the state on AWMS's total-takings claim. On remand, the court of appeals must weigh the parties' evidence relating to AWMS's total-takings claim.

D. Whether the division effected a partial taking

[25] {¶ 57} A regulation that prohibits less than all economically beneficial use of land falls outside of *Lucas*'s categorical rule and into *Penn Cent.*'s three-factor analysis. *Palazzolo*, 533 U.S. at 617, 121 S.Ct. 2448, 150 L.Ed.2d 592. Under the framework of the *Penn Cent.* analysis, a court should consider “(1) the economic impact of the regulation on the claimant, (2) the extent to which the regulation has interfered with distinct investment-backed expectations, and (3) the character of the governmental action,” *Shelly*

Materials, 115 Ohio St.3d 337, 2007-Ohio-5022, 875 N.E.2d 59, at ¶ 19. “[T]he *Penn Central* inquiry turns in large part, albeit not exclusively, upon the magnitude of a regulation's economic impact and the degree to which it interferes with legitimate property interests.” *Lingle*, 544 U.S. at 540, 125 S.Ct. 2074, 161 L.Ed.2d 876. “These essentially ad hoc, factual inquiries,” *Penn Cent.*, 438 U.S. at 123, 98 S.Ct. 2646, 57 L.Ed.2d 631, account for the “particular circumstances of the case,” *767 Third Ave. Assocs. v. United States*, 48 F.3d 1575, 1580 (Fed.Cir.1995).

*416 1. Economic impact

{¶ 58} Although the court of appeals did not consider the economic impact upon AWMS resulting from the state's suspension of its operations at well #2, an established method of performing the economic-impact analysis involves “compar[ing] the value that has been taken from the property with the value that remains in the property,” *Keystone Bituminous Coal Assn. v. DeBenedictis*, 480 U.S. 470, 497, 107 S.Ct. 1232, 94 L.Ed.2d 472 (1987). This method is sometimes referred to as the “with and without” method. Eagle, “*Economic Impact*” in *Regulatory Takings Law*, 19 *Hastings W.-Nw.J.Env'tl.L. & Pol'y* 407, 417-418, 420 (2013) (“The usual approach to determine the impact of the regulation subtracts the value of a parcel with the regulation in place from the value of the parcel without the regulation”).

{¶ 59} Although there does not appear to be an exclusive method of comparing the value of property before and after a regulation, at least two approaches have been expressly endorsed. The first is the market-value approach, which compares the “market value of the property with and without the restrictions on the date that the restriction began.” *Cienega Gardens v. United States*, 503 F.3d 1266, 1282 (Fed.Cir.2007) (“*Cienega Gardens II*”). The second is the lost-net-income approach, which “compare[s] the lost net income due to the restriction (discounted to present value at the date the restriction was imposed) with the total net income without the restriction over the entire useful life of the property (again discounted to present value).” *Id.*

{¶ 60} AWMS's expert witness, Dr. Wade, calculated the economic impact of the state's regulation on AWMS under the with-and-without method using the lost-net-income approach. In Dr. Wade's first calculation, he computed “the actual outcome caused by the shutdown of well #2.” **1184 In his second calculation, he computed “the

expected outcome, which motivated [AWMS]'s investment in the leased property.” In each scenario, Dr. Wade used a discounted-cash-flow model to arrive at the net present value of AWMS's property interest as of September 2014 (when the suspension of operations at well #2 occurred) by looking backward from June 2017 (the last date for which Dr. Wade had figures included on AWMS's net-income statement from which to perform an analysis).

{¶ 61} Regarding the first calculation, Dr. Wade computed a net loss of \$6,119,275, and regarding the second calculation, he computed an expected net income of \$14,475,770. Dr. Wade then computed the difference between those two numbers and determined that the economic impact upon AWMS was a loss of \$20,595,045. Finally, Dr. Wade compared the present value of AWMS's investment (\$6,076,043 as of September 2014) with the actual outcome (a net loss of \$6,119,275 as of September 2014) and concluded that AWMS's “continued ownership of the facilities through June 2017 incurred a loss of 101.5% of investment.” *417 In his words, “the actual outcome does not recoup investment; no return on investment exists.”

{¶ 62} The state's expert witnesses agree that the lost-net-income approach is a valid method for computing economic impact. And they too performed a discounted-cash-flow analysis. But they concluded that the economic impact of the state's suspension of operations at well #2 upon AWMS ranged from a low of \$116,334 to a high of \$359,374.

[26] {¶ 63} Again, the court of appeals did not consider the economic impact upon AWMS resulting from the state's suspension of its operations at well #2. Given the significant numerical disparities in the results of the economic-impact analyses between AWMS's and the state's expert witnesses, we conclude that a genuine issue of material fact precluded the granting of summary judgment on the economic-impact factor under *Penn Cent.* We therefore reverse the Eleventh District's judgment granting summary judgment to the state on AWMS's partial-takings claim, remand this cause to the court of appeals, and order it to weigh the parties' evidence concerning the economic impact upon AWMS of the state's suspension of operations at well #2.

2. Reasonable investment-backed expectations

[27] [28] {¶ 64} “The reasonable, investment-backed expectation analysis is designed to account for property

owners' expectation that the regulatory regime in existence at the time of their acquisition will remain in place, and that new, more restrictive legislation or regulations will not be adopted.” *Love Terminal Partners, L.P. v. United States*, 889 F.3d 1331, 1345 (Fed.Cir.2018). The Federal Circuit has developed three factors to guide a court when conducting that inquiry: “(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.” *Appollo Fuels, Inc. v. United States*, 381 F.3d 1338, 1349 (Fed.Cir.2004), quoting *Commonwealth Edison Co. v. United States*, 271 F.3d 1327, 1348 (Fed.Cir.2001).

[29] {¶ 65} Starting with the first factor—whether AWMS operated in a highly regulated industry—AWMS correctly notes that an entrant into a highly regulated field does not abandon all reasonable **1185 investment-backed expectations. See *Cienega Gardens I*, 331 F.3d at 1350. It is also true, however, that “reasonable investment-backed expectations are greatly reduced in a highly regulated field.” *Branch v. United States*, 69 F.3d 1571, 1581 (Fed.Cir.1995). And here, AWMS does not deny that it had entered a highly regulated industry—that of oil and gas.

*418 {¶ 66} Turning to the second factor—whether AWMS had been aware of the potential seismicity problem—AWMS admits to having known that induced seismicity could be an issue with its injection wells. However, we disagree with some of the state's arguments concerning the problem-awareness factor because they focus on circumstances that arose after AWMS had acquired its leasehold on December 19, 2011. First, the state points to the seismic events that took place in Youngstown on December 24 and 31, 2011, which prompted former Governor Kasich to impose a moratorium on certain injection activities. Second, the state emphasizes the September 2013 confidential offering memorandum that AWMS prepared for prospective investors in which AWMS acknowledged that governmental regulation of injection wells might increase, that its wells might induce a seismic event, and that such an event could cause a suspension of its injection operations. True, that evidence tends to show AWMS's awareness that its operations might be suspended if its wells were to be determined to have induced seismic events. But it is the interestholder's expectations at the time it acquired its interest that is determinative, not its expectations following an

event occurring at some later point in time. *See Appolo Fuels* at 1349.

{¶ 67} At the time AWMS acquired its leasehold interest, AWMS could not have anticipated that the state would waver between a case-by-case approach and a statewide approach to addressing induced seismicity while rebuffing AWMS's attempts to meet the state's inchoate regulatory expectations. The parties do not dispute that at the time AWMS obtained its leasehold in December 2011, the division had not established its approach to managing induced seismicity. When the division first issued its suspension orders in September 2014, it put the onus on AWMS to “submit a written plan to the Division for evaluating the seismic concerns associated with the operation of” well #2. Although AWMS had not received direction from the division about what to include in the plan, AWMS nevertheless submitted a plan that included several proposals to establish certain controls over injections at well #2. The division rejected the plan as “generic and inadequate.”

{¶ 68} During its appeal of the suspension order, AWMS met twice with the division in an attempt to understand the division's regulatory position. At the first meeting, in October 2014, the division stated that its statewide policy would not be ready for at least four to six more months and declined to address the circumstances of its suspension of AWMS's operations. At the second meeting, in February 2015, the division presented AWMS a single sheet of paper containing 14 criteria that the division was considering for evaluating induced seismicity in its statewide policy. But the division also told AWMS that it would not implement a statewide policy for at least another eight months. A few days after the February 2015 meeting, AWMS sought clarification on some of the division's proposed criteria. Once again, the division failed to offer any direction or *419 clarification. AWMS nevertheless submitted a plan to the division in early March 2015 addressing the division's proposed criteria. The record does not indicate that the division responded.

**1186 {¶ 69} AWMS got its answer in August 2015 when the commission issued its decision affirming the division's suspension of operations of well #2. AWMS could not have reasonably anticipated when it acquired its leasehold interest that the state's inconsistent regulatory approach or its lack of responsiveness to AWMS's attempts at remediation would leave AWMS in limbo for years with an indefinite suspension of its operations.

[30] {¶ 70} AWMS has demonstrated a material issue of fact that the division's suspension of operations at well #2 interfered with AWMS's reasonable investment-backed expectations. We therefore reverse the Eleventh District's granting of summary judgment on this factor under *Penn Cent.*

3. Character of the governmental action

{¶ 71} The court of appeals began its analysis of the character-of-the-governmental-action factor under *Penn Cent.* as follows:

In evaluating the character of the Suspension Order, we emphasize that the issue of the reasonableness of the Suspension Order has been fully litigated and the Tenth District's opinion has preclusive effect on that point. * * * The character of the order has been deemed reasonable as a matter of law and that judgment was issued in an action between the same parties. Collateral estoppel therefore bars [AWMS] from challenging the reasonableness of the underlying order.

2019-Ohio-923, 132 N.E.3d 1151, at ¶ 22. The court of appeals did not, however, cite any takings-related authority to support its application of the doctrine of collateral estoppel as a means of deciding the character-of-the-governmental-action inquiry. And neither party's brief defends the court of appeals' invocation of that doctrine. The parties' silence is justified because the character of a governmental action is not determined by its lawfulness or propriety. *See Norman v. United States*, 63 Fed.Cl. 231, 285 (2004) (“the lawfulness or appropriateness of the governmental action is not akin to the character of the governmental action”). Applying this principle, we will analyze the character-of-the-governmental-action factor on its merits rather than recognize the court of appeals' procedural bar.

{¶ 72} Without attempting to provide an exhaustive list of the factors that courts have used to guide their character-of-the-governmental-action inquiries, we will focus on three factors emphasized by the parties. The first factor involves *420 whether the interestholder has been impermissibly “singled out” by the government for unfavorable treatment, *Sherman v. Chester*, 752 F.3d 554, 565-566 (2d Cir.2014), or instead been permissibly included within a governmental program aimed at “adjusting the benefits and burdens of economic life to promote the common good,” *Penn Cent.*, 438 U.S. at 124, 98 S.Ct. 2646, 57 L.Ed.2d 631. The second factor involves whether the regulation bears a “harm-preventing purpose.” *Rose Acre Farms, Inc. v. United States*, 559 F.3d 1260, 1281 (Fed.Cir.2009). And the third factor involves the extent to which regulatory delay accompanied the government's decisionmaking process. *State ex rel. Duncan v. Middlefield*, 120 Ohio St.3d 313, 2008-Ohio-6200, 898 N.E.2d 952, ¶ 19-20.

{¶ 73} Turning to the first factor—whether the state impermissibly singled out AWMS for unfair treatment—AWMS claims that the division unfairly did so by suspending its operations at well #2 while **1187 not suspending operations at a seismicity-inducing well in Washington County (the “Long Run well”). The state's expert witnesses agreed that the Long Run well contributed to seismicity in its surrounding area. And the division's personnel do not dispute that the division contacted the operator of the Long Run well and asked it to reduce—rather than suspend—the well's injection volumes in an effort to mitigate seismicity risks.

{¶ 74} The state argues, however, that there has been no unfair singling out of well #2 because the characteristics of well #2 and the Long Run well differ. First, the state asserts that the wells differ from a geological standpoint. The state stresses the proximity of the bottom of well #2 to a region known as the Precambrian basement, which consists of “igneous and metamorphic rocks that exist below the oldest sedimentary rock cover.” Ground Water Protection Council & Interstate Oil & Gas Compact Commission at 124. According to Simmers, the division's chief, well injections near that region should be avoided. In Washington County, the separation between the bottom of the Long Run well's injection zone and the Precambrian basement is just under a mile, which is a significant separation. Well #2, however, is drilled much deeper and bottoms out in an area located directly above the Precambrian basement.

{¶ 75} AWMS agrees that the Long Run well and well #2 differ geologically. But it maintains that the significance of the differences have been overblown. The problem with AWMS's argument in that regard, however, is that AWMS's brief cites nothing from the record to support that view. *See State ex rel. Coulverson v. Ohio Adult Parole Auth.*, 62 Ohio St.3d 12, 14, 577 N.E.2d 352 (1991) (holding that conclusory allegations are not sufficient to withstand summary judgment).

{¶ 76} The state's second basis for distinguishing the Long Run well from well #2 rests on the respective wells' relative proximities to population centers. In support, the state points to a report prepared by one of its expert witnesses concluding that “the seismic risk in Trumbull and Washington Counties are at *421 opposite ends of the spectrum” due to the differences in the “distribution and density of [the] population and structures” in those areas. AWMS responds that it is not the proximity of injection wells to population centers that should matter but rather the proximity of seismic events to population centers. Yet, AWMS fails to identify anything in the record that affirmatively negates the state's emphasis on the wells' proximity to population centers. And even if it had done so, there are still enough differences between well #2 and the Long Run well to persuade us that the state did not unfairly single out well #2.

{¶ 77} Under the second character-of-the-governmental-action factor—whether governmental regulation bears a harm-preventing purpose—the character of a regulation will “weigh [] strongly against finding a taking” when the purpose of that regulation is to prevent harm to public health and safety. *Rose Acre Farms*, 559 F.3d at 1281. “[I]n the context of the protection of public health and safety, ‘the private interest has traditionally been most confined and governments are given the greatest leeway to act without the need to compensate those affected by their actions.’ ” *Dimare Fresh, Inc. v. United States*, 808 F.3d 1301, 1311 (Fed.Cir.2015), quoting *Rose Acre Farms* at 1281-1282. In *Rose Acre Farms*, the federal circuit addressed a governmental action undertaken to limit the spread of salmonella bacteria in the chicken-egg market. *Id.* at 1261. In rejecting the plaintiff's takings claim, the court gave considerable weight to the government's **1188 harm-preventing purpose, explaining that human consumption of the “infected eggs could have caused serious illness and possibly even death.” *Id.* at 1283.

{¶ 78} In this case, the state presents a similar harm-prevention justification, arguing that the purpose behind the

division's suspension of operations at well #2 was to protect the public against the threat of earthquakes. A December 2017 report prepared by Simmers bears out this assertion. Simmers explained in his report that the “protect[ion] [of] public health and safety” was the purpose of the state's suspension of operations at well #2. He further noted a strong correlation between the operations at well #2 and the seismic events that took place in the vicinity of well #2 on July 28 and August 31, 2014. And he concluded that the restarting of operations at well #2 would pose a continued threat of harm to public health and safety because the division has, since issuing the suspension order, obtained evidence that well #2 sits near a geological fault.

{¶ 79} AWMS does not challenge Simmers's statement that the purpose of the suspension was to protect the public from harm—in fact, AWMS recognizes that preventing harm to the public is a laudable goal. Nor does AWMS challenge Simmers's determination that its operations at well #2 correlated with the seismic events from 2014—two of AWMS's expert witnesses concur in that determination. But AWMS does say in its merit brief that no one has determined *422 that AWMS's operations posed an “imminent threat” to public safety. However, AWMS identifies no authority that requires a governmental actor to establish that there is an imminent threat of harm before the government implements a regulatory action to protect public health and safety.

[33] [34] {¶ 80} The third and final character-of-the-governmental-action factor involves the extent to which delay accompanied the state's decisionmaking process. Although “[a] requirement that a person obtain a permit before engaging in a certain use of his or her property does not itself ‘take’ the property in any sense,” *United States v. Riverside Bayview Homes, Inc.*, 474 U.S. 121, 127, 106 S.Ct. 455, 88 L.Ed.2d 419 (1985), “a taking may occur by reason of ‘extraordinary delay in governmental decisionmaking,’ ” *Wyatt*, 271 F.3d at 1097, quoting *Tabb Lakes, Ltd. v. United States*, 10 F.3d 796, 803 (Fed.Cir.1993). In deciding whether a delay is extraordinary, a court must weigh “all relevant factors,” *Duncan*, 120 Ohio St.3d 313, 2008-Ohio-6200, 898 N.E.2d 952, at ¶ 20, including the length of the delay, *Bass Ents. Prod. Co. v. United States*, 381 F.3d 1360, 1366 (Fed.Cir.2004). Bad faith on the part of the government will influence the inquiry, as will any delay that the interestholder's conduct caused. *Duncan* at ¶ 20. The “nature of the permitting process” and the “reasons for any delay” may also inform the analysis. *Wyatt* at 1098.

[35] {¶ 81} The party alleging a governmental taking must tie its claim of extraordinary delay to the government's decisionmaking process, namely, the process by which the government reviews an interestholder's formal request to use its property in a particular way. *Duncan* at ¶ 19-20. In *Duncan*, a case cited by AWMS in its merit brief, a landowner tied his claim of extraordinary delay to the government's conduct in reviewing his zoning-permit applications. *Duncan* at ¶ 21 (addressing delays of six and nine months). In *Byrd v. Hartsville*, a case *Duncan* cites with approval, see *Duncan* at ¶ 19, a landowner similarly claimed to have suffered from extraordinary delay during the government's **1189 review of his zoning petition, 365 S.C. 650, 660-662, 620 S.E.2d 76 (2005) (addressing delays of two and 11 months). Although the plaintiffs in *Duncan* and *Byrd* did not succeed on their extraordinary-delay claims, the salient point for the purpose of our analysis is that the plaintiffs in those cases tied their claims to the manner in which the government conducted itself in reviewing their formal requests to use their property in a particular way.

{¶ 82} Here, although it is a bit unclear, AWMS appears to allege extraordinary delay stemming from the division's decision to delay, and then abandon, the implementation of its once-promised statewide policy on induced seismicity. But AWMS cites no authority supporting its argument that a claim of extraordinary delay will lie against the government for unduly delaying the implementation of a policy, as opposed to deciding an interestholder's pending request to use its *423 property in a certain way. And AWMS makes no claim that it is awaiting the division's approval of its plans to restart well #2.

{¶ 83} AWMS next alleges that the division has engaged in extraordinary delay based on the length of time that operations at well #2 have been suspended. But that argument is misplaced because it targets the consequences of the division's decisionmaking process, not the decisionmaking process itself.

{¶ 84} AWMS also alleges that the division has acted in bad faith. In support of that contention, AWMS points to an affidavit provided by Kilper, its vice president, in which he stated that he was told by a member of the division that “press and politics” (rather than science) was the real reason that the Long Run well had been permitted to operate and well #2 had not. But as explained above, there is no genuine dispute that well #2 and the Long Run well differ in significant ways. Given these differences, AWMS's allegations of bad

faith are not “significantly probative.” *Buckeye Union Ins. Co. v. Consol. Stores Corp.*, 68 Ohio App.3d 19, 22, 587 N.E.2d 391 (10th Dist.1990) (if evidence is “merely colorable” or not “significantly probative,” summary judgment may be entered).

{¶ 85} If the crux of AWMS's argument is that the division took too long to conduct its review of AWMS's restart plan—again, AWMS's argument regarding the division's delay is a bit unclear—then the temporal scope of such reviews must be considered. AWMS is not clear on how it imputes value to a particular length of time. Approximately seven months—from September 2014 to March 2015—elapsed between the dates on which it submitted its first and second restart plans. And approximately 17 months—from March 2015 to August 2016—elapsed between the dates on which it submitted its second restart plan and filed its mandamus petition. Because the record does not show that the division ever formally rejected AWMS's second restart plan, *see also AWMS I*, 2018-Ohio-3028, 118 N.E.3d 385, at ¶ 8, in the absence of further guidance, we construe the filing of AWMS's mandamus petition as setting the date upon which AWMS regarded the division as having effected a constructive denial of its plans. Even if we were to assume that the state acted in bad faith, AWMS cites no authority supporting its argument that delays of the lengths that occurred in this case are extraordinary under the circumstances. Further, delays of 45 months and longer have been deemed unextraordinary when, as here, complex regulatory schemes are involved. *See, e.g., Bass Ents. Prod. Co. v. U.S.*, 381 F.3d 1360, 1363, 1366-1368 (Fed. Cir. 2004) (45-month delay); *Wyatt*, 271 F.3d at 1098-1100 (76-month delay).

[36] {¶ 86} In summary, we conclude that AWMS has not demonstrated that **1190 there is a genuine issue of material fact regarding whether the character of the division's suspension order was to protect the public's health and safety.

*424 4. Balancing the factors

{¶ 87} In a typical partial-takings case, a reviewing court must balance the *Penn Cent.* factors to determine whether a partial taking has occurred. *Reoforce, Inc. v. United States*, 853 F.3d 1249, 1271 (Fed.Cir.2017). But genuine issues of material fact preclude us from performing that balancing exercise. We reverse the Eleventh District's judgment granting summary judgment to the state on AWMS's partial-takings claim. On remand, the court of appeals must weigh the parties'

economic-impact evidence and determine in whose favor that factor falls. After doing so, the court of appeals must balance all three *Penn Cent.* factors to determine whether AWMS suffered a partial taking.

IV. CONCLUSION

{¶ 88} For the foregoing reasons, we hold that there is a genuine issue of material fact concerning whether the state's suspension of AWMS's operations at well #2 constituted a total taking by depriving AWMS of all economically beneficial use of its leasehold. We further conclude that the state waived its nuisance defense to AWMS's total-takings claim. We reverse the Eleventh District's judgment granting summary judgment to the state on AWMS's total-takings claim. On remand, the court of appeals must weigh the parties' evidence relating to AWMS's total-takings claim.

{¶ 89} We also reverse the Eleventh District's judgment granting summary judgment to the state on AWMS's partial-takings claim. On remand, the court of appeals must weigh the parties' evidence in accordance with this opinion and balance all three *Penn Cent.* factors to determine whether AWMS suffered a partial taking.

Judgment reversed and cause remanded.

O'Connor, C.J., and French and DeWine, JJ., concur.

Kennedy, J., concurs in judgment only, with an opinion.

Stewart, J., concurs in judgment only.

Donnelly, J., dissents, with an opinion.

Kennedy, J., concurring in judgment only.

{¶ 90} Because I agree with the majority that there are genuine issues of material fact precluding the entry of summary judgment in favor of appellees, the Ohio Department of Natural Resources (“ODNR”); ODNR's director, Mary Mertz; ODNR's Division of Oil and Gas Resources Management (“the division”); *425 and the division's chief, Richard Simmers (collectively, “the state”), I concur in the court's judgment to reverse the decision of the Eleventh District Court of Appeals. Appellants, AWMS Water Solutions, L.L.C.; AWMS Holdings, L.L.C.; and AWMS, Rt. 169, L.L.C. (collectively, “AWMS”), presented evidence that the state's order closing AWMS's saltwater-

injection well effected a total or partial taking of its property sufficient to survive the state's motion for summary judgment.

Total-takings analysis

{¶ 91} The threshold issue in a takings analysis is to define the property allegedly taken, and state law determines which individual rights constitute property, *see State ex rel. New Wen, Inc. v. Marchbanks*, 159 Ohio St.3d 15, 2020-Ohio-63, 146 N.E.3d 545, ¶ 24. “An interest in real property is defined by the metes and ****1191** bounds that describe its geographic dimensions and the term of years that describes the temporal aspect of the owner's interest.” *Tahoe-Sierra Preservation Council, Inc. v. Tahoe Regional Planning Agency*, 535 U.S. 302, 331-332, 122 S.Ct. 1465, 152 L.Ed.2d 517 (2002). We have recognized, for example, that “[a] mineral estate may be considered the relevant parcel for a compensable regulatory taking if the mineral estate was purchased separately from the other interests in the real property.” *State ex rel. Shelly Materials, Inc. v. Clark Cty. Bd. of Comms.*, 115 Ohio St.3d 337, 2007-Ohio-5022, 875 N.E.2d 59, ¶ 34.

{¶ 92} The property interest at stake in this case is a narrow one: a leasehold right to operate Class II saltwater-injection wells on 5.2 acres of industrial property in Weathersfield Township, Trumbull County, Ohio. AWMS has invested millions of dollars to develop the facilities necessary to operate those wells, but it may use the property only for operations consistent with the limited property interest it owns. That is, AWMS cannot use the property to operate a fast-food restaurant or a car dealership or anything else exceeding the scope of the lease. Therefore, in determining whether the state's order suspending AWMS's operations at well #2 constitutes a total or partial taking, the property allegedly taken is AWMS's limited property right allowing it to operate saltwater-injection wells under its leasehold and the ancillary activities associated with that right.

{¶ 93} In the United States Supreme Court's seminal decision in *Pennsylvania Coal Co. v. Mahon*, 260 U.S. 393, 43 S.Ct. 158, 67 L.Ed. 322 (1922), the claimant had sold the surface rights to particular parcels of property but expressly reserved the right to remove the coal underneath those parcels. After the sale, Pennsylvania enacted a statute forbidding the mining of coal that causes the subsidence of any structure used as a human habitation unless, among other exceptions, the owner of the coal also owned the surface land. *Id.* at 412-413, 43 S.Ct. 158. The Supreme Court determined that the statute

had made it “commercially impracticable” to mine the coal and had “very nearly the same effect for constitutional ***426** purposes as appropriating or destroying” the reservation of the mineral interest. *Id.* at 414, 43 S.Ct. 158. The court therefore held that the statute effected a governmental taking of property. *Id.* at 415-416, 43 S.Ct. 158.

{¶ 94} Similarly, AWMS's evidence established a triable issue regarding whether the state's suspension order caused a total taking of AWMS's property by depriving its leasehold of “all economically beneficial or productive use,” *Lucas v. South Carolina Coastal Council*, 505 U.S. 1003, 1015, 112 S.Ct. 2886, 120 L.Ed.2d 798 (1992). AWMS presented the report of its expert, Dr. William W. Wade, who explained that AWMS had lost 99.4 percent of its investment by September 2015 and 101.5 percent of its investment by June 2017. He therefore opined that it was not economically viable for AWMS to conduct saltwater-injection operations at well #1 if the suspension order remained in place for well #2. That evidence, if believed, is sufficient to establish that the suspension order was a total governmental taking of AWMS's property because it completely deprived AWMS of all economically beneficial use of its leasehold interest, a limited property right allowing AWMS to operate saltwater-injection wells and to conduct the ancillary activities associated with the wells. *See Lucas* at 1015, 112 S.Ct. 2886; *Mahon* at 414. A property right has no economic value if it can be exercised only at an economic loss.

{¶ 95} Because Dr. Wade's opinion created a genuine issue of material fact regarding whether AWMS had suffered a ****1192** total taking of its property interest, it is unnecessary to consider other factual issues regarding whether AWMS's leasehold retained some economic value because AWMS could continue other kinds of operations on the premises or because it could sell or sublet its interest. Those remain triable issues that should be considered by the court of appeals on remand; this court should not resolve factual disputes in the first instance when considering issues on appeal.

Partial-takings analysis

{¶ 96} Regarding AWMS's partial-takings claim, I agree with the majority that there are genuine issues of material fact that precluded the entry of summary judgment in favor of the state. In determining whether a partial taking has occurred, we apply the analysis from *Penn Cent. Transp. Co. v. New York*

City, 438 U.S. 104, 98 S.Ct. 2646, 57 L.Ed.2d 631 (1978). We have noted that the analysis involves

an ad hoc, factual inquiry that requires the examination of the following three factors to determine whether a regulatory taking occurred in cases in which there is no physical invasion and the regulation deprives the property of less than 100 percent of its economically viable use: (1) the *427 economic impact of the regulation on the claimant, (2) the extent to which the regulation has interfered with distinct investment-backed expectations, and (3) the character of the governmental action.

Shelly Materials, 115 Ohio St.3d 337, 2007-Ohio-5022, 875 N.E.2d 59, at ¶ 19.

{¶ 97} Regarding the first prong of the *Penn Cent.* test—the economic impact of the regulation—AWMS presented Dr. Wade's expert opinion that the economic impact of the suspension order on AWMS was a loss of \$20,595,045 and the elimination of any return on investment. The state's experts calculated the economic impact as ranging between \$116,334 and \$359,374. Accordingly, there is a significant factual dispute regarding the scope of the economic impact that AWMS suffered. Without resolving this factual dispute, the court of appeals had no basis to determine what weight, if any, to give the economic impact of the regulation on AWMS's property. Simply assuming that this factor weighed in AWMS's favor, as the court of appeals did here, is no substitute. There is a difference between assuming that this factor weighed in AWMS's favor and finding that the suspension order has cost AWMS tens of millions of dollars.

{¶ 98} The majority therefore correctly determines that there are genuine issues of material fact regarding the economic impact of the regulation that precluded the court of appeals from granting summary judgment to the state.

{¶ 99} The second prong of the *Penn Cent.* test requires us to evaluate the reasonableness of the property owner's distinct

investment-backed expectations. In investing millions of dollars to construct saltwater-injection wells, AWMS had a reasonable expectation that it would be able to conduct its operations if it complied with the statutes enacted by the General Assembly and the rules promulgated by the division. It was also more than reasonable for AWMS to expect that it would be able to continue saltwater-injection operations as long as it obeyed the terms of its permits. That is, AWMS had the right to expect that the state would adhere to the principle that “the government itself is subject to rules of law, and cannot disregard the law, or remake it to suit itself without heeding those procedures specified **1193 by law.” *Cooper v. Gwinn*, 171 W.Va. 245, 250, 298 S.E.2d 781 (1981).

{¶ 100} The state might be correct when it calls AWMS's investment “a calculated investment risk.” However, that calculation was based on AWMS's expectations that the division would adhere to Ohio's statutes and rules and AWMS's permit conditions as written, which would allow AWMS's continued operation of its well if the terms of its permits were not violated. AWMS could reasonably rely on R.C. 1509.04(A) and (C), which allow saltwater-injection operations to be suspended when there is a violation of a statute, administrative rule, or condition of the permit, but only if (1) the operator has violated an order *428 finding a material and substantial violation or (2) continued operation “presents an imminent danger to the health or safety of the public or * * * results in or is likely to result in immediate substantial damage to the natural resources of this state.” And AWMS could rely on the fact that neither the Revised Code nor the division's administrative rules include specific provisions regulating induced seismicity. And to the extent that Ohio law permits the division to include conditions regarding induced seismicity in a permit, AWMS could rely on the fact that its permits did not contain express language empowering the division to suspend its operations due to a seismic event of a specific magnitude.

{¶ 101} The division and AWMS were both aware of the concerns that saltwater-injection operations could induce seismicity prior to the division's issuing AWMS its permits, but the division nonetheless issued the permits for AWMS to construct two wells, without reserving its authority to suspend AWMS's operations if the wells caused a particular amount of seismic activity. The Supreme Court of the United States has recognized that such approval “can lead to the fruition of a number of expectancies embodied in the concept of ‘property’—expectancies that, if sufficiently important, the Government must condemn and pay for before it takes

over the management of the landowner's property.” *Kaiser Aetna v. United States*, 444 U.S. 164, 179, 100 S.Ct. 383, 62 L.Ed.2d 332 (1979). And there have been no relevant changes to Ohio's regulatory scheme that should preclude AWMS's continued reliance on the division's approval.

{¶ 102} Based on these facts, a fact-finder could conclude that the state's suspension order interferes with AWMS's distinct investment-based expectations and that those expectations were reasonable.

{¶ 103} In reviewing this second prong of the *Penn Cent.* test, the majority focuses on “the state's inconsistent regulatory approach” and “its lack of responsiveness to AWMS's attempts at remediation.” Majority opinion at ¶ 69. But that evidence should not be considered solely under the second prong of the *Penn Cent.* test, because it is also relevant in determining the character of the governmental regulation, which is the third prong of the *Penn Cent.* test. The third prong recognizes that there can be a range of governmental action that can affect property rights, from the physical invasion of property, to a regulation that “merely affects property interests through ‘some public program adjusting the benefits and burdens of economic life to promote the common good.’ ” *Lingle v. Chevron U.S.A., Inc.*, 544 U.S. 528, 539, 125 S.Ct. 2074, 161 L.Ed.2d 876 (2005), quoting *Penn Cent.*, 438 U.S. at 124, 98 S.Ct. 2646, 57 L.Ed.2d 631. The focus should appropriately be on “the degree to which [the regulation] interferes with legitimate property interests,” *id.* at 540, 125 S.Ct. 2074, and draw on the understanding that the right to use property “is subject to the reasonable exercise of state authority, **1194 *429 including the enforcement of valid zoning and land-use restrictions,” *Palazzolo v. Rhode Island*, 533 U.S. 606, 627, 121 S.Ct. 2448, 150 L.Ed.2d 592 (2001). Our task here is to determine where on the continuum of governmental action the state's suspension order on AWMS fell.

{¶ 104} Contrary to the majority's reasoning, there are genuine issues of material fact that must be resolved before the third prong of the *Penn Cent.* test may be balanced against the first two factors. AWMS presented evidence establishing that the division's suspension order had neither been intended to promote public safety nor supported by science but that it was imposed because of “press and politics.” AWMS supports that claim by pointing to situations involving other saltwater-injection wells that had been permitted to continue their operations notwithstanding concerns about their inducing seismicity, including one that had been permitted to inject

saltwater at reduced volumes rather than have its operations suspended. AWMS points to the division's delay in reviewing its plan for restarting its operations, a plan that sought to mitigate potential seismic activity through operational adjustments that had been successfully used with other wells. That is, “the state's inconsistent regulatory approach” and “its lack of responsiveness to AWMS's attempts at remediation” that have left “AWMS in limbo for years with an indefinite suspension of its operations,” majority opinion at ¶ 69, support AWMS's assertion that the suspension order is “not * * * a broadly applied regulation to prevent or limit an existing threat to public safety or welfare[,]” but rather requires one injection-well operator to solely bear the burden of “a problem that is shared by its peers.”

{¶ 105} This evidence establishes a factual dispute regarding the character of the state's regulation of AWMS's operations and whether the state's purpose is to protect the environment and public safety or whether this “particular exercise of the State's regulatory power is so unreasonable or onerous as to compel compensation,” *Palazzolo* at 627, 121 S.Ct. 2448.

{¶ 106} For these reasons, I agree with the majority that there are genuine issues of material fact precluding the entry of summary judgment on AWMS's total-takings and partial-takings claims.

Donnelly, J., dissenting.

{¶ 107} I would hold that appellants, AWMS Water Solutions, L.L.C.; AWMS Holdings, L.L.C.; and AWMS, Rt. 169, L.L.C. (collectively, “AWMS”), suffered neither a total nor a partial regulatory taking, and thus I would affirm the judgment of the Eleventh District Court of Appeals. Accordingly, I respectfully dissent.

*430 Total-takings analysis

{¶ 108} I start my regulatory-takings analysis where the majority does, by considering AWMS's total-takings claim against the backdrop of the United States Supreme Court's decision in *Lucas v. South Carolina Coastal Council*, 505 U.S. 1003, 112 S.Ct. 2886, 120 L.Ed.2d 798 (1992). In that case, the property owner bought beachfront property for the purpose of developing it into single-family residences. *Id.* at 1006-1007, 112 S.Ct. 2886. Later, the South Carolina legislature enacted legislation forbidding the owner from erecting any permanent habitable structures on the property,

rendering the property “valueless.” *Id.* at 1007, 112 S.Ct. 2886. The Supreme Court of South Carolina determined that the legislation had not effected a governmental taking of the owner's property because the legislation's purpose was to preserve beaches as a public **1195 resource. *Id.* at 1009-1010, 112 S.Ct. 2886.

{¶ 109} The United States Supreme Court reversed, determining that the legislation's purpose had no place in a takings analysis. The Supreme Court held that “when the owner of real property has been called upon to sacrifice all economically beneficial uses in the name of the common good, that is, to leave his property economically idle, he has suffered a taking,” *id.* at 1019, 112 S.Ct. 2886, unless the state can show that the owner's “proscribed use interests were not part of his title to begin with,” *id.* at 1027, 112 S.Ct. 2886. The court explained that when a regulation deprives land of any “economically beneficial or productive options for its use—typically, as here, by requiring land to be left substantially in its natural state,” the regulation carries with it a “heightened risk that private property is being pressed into some form of public service under the guise of mitigating serious public harm.” *Id.* at 1018, 112 S.Ct. 2886.

{¶ 110} The facts presented in this case are a far cry from those involved in *Lucas*. Appellees, the Ohio Department of Natural Resources (“ODNR”); ODNR's director, Mary Mertz; ODNR's Division of Oil and Gas Resources Management (“the division”); and the division's chief, Richard Simmers (collectively, “the state”), did not force AWMS to render its property economically idle by leaving it to its natural state. AWMS continued to use well #1 after the division suspended operations at well #2. In fact, before AWMS voluntarily decided to shut down its operations at well #1, it had generated hundreds of thousands of dollars in revenue from its use. And as the court of appeals noted, even after well #2's suspension, AWMS “still processed, stored, recycled, treated, and disposed of brine” on the property. 2019-Ohio-923, 132 N.E.3d 1151, ¶ 15.

{¶ 111} Given that the property was, and still could be, used for income-producing purposes, I am puzzled by the majority's decision to remand the cause to the court of appeals for further weighing of the evidence. The majority points to the parties' competing economic-impact evidence, explaining that there is a *431 genuine issue of material fact about whether the division's suspension of operations at well #2 left AWMS' leasehold valueless. True, the parties' experts offered sharply divergent opinions on how far AWMS undershot its

original revenue goals and why. The majority correctly notes that the “ ‘complete elimination of a property's value’ ” is the “ ‘determinative factor’ ” under the analysis espoused in *Lucas*. Majority opinion at ¶ 43, quoting *Lingle v. Chevron, U.S.A., Inc.*, 544 U.S. 528, 539, 125 S.Ct. 2074, 161 L.Ed.2d 876 (2005). But from a regulatory-takings perspective, I fail to see how a property could ever be characterized as valueless when the property is capable of being put to the economically beneficial uses discussed above. As *Lucas* itself makes clear, a property's usage informs its value. *See Lucas*, 505 U.S. at 1019, 1027, 112 S.Ct. 2886, 120 L.Ed.2d 798.

{¶ 112} Indeed, we interpreted the reasoning in *Lucas* in precisely that way in *State ex rel. Shelly Materials, Inc. v. Clark Cty. Bd. of Commrs.*, 115 Ohio St.3d 337, 2007-Ohio-5022, 875 N.E.2d 59. In that case, a local zoning board had denied a company's request for a permit to mine sand and gravel deposits located below the surface of the company's property. *Id.* at ¶ 4. The company eventually responded by filing a total-takings claim. *Id.* at ¶ 14. In one part of our decision, we framed the takings question as turning on whether the government had deprived the owner of all economically beneficial use of the property. *Id.* at ¶ 18. In another part of our decision, **1196 we framed the question as whether the company had suffered a “ ‘complete elimination of [the property's] value.’ ” *Id.* at ¶ 22, quoting *Lingle* at 539, 125 S.Ct. 2074. We ultimately rejected the company's argument that the government's denial of the permit destroyed “all economic value associated with its property,” determining instead that “there are other potential uses available for th[e] land.” (Emphasis added.) *Shelly Materials* at ¶ 39. We noted that the property could be used for agricultural purposes or developed into residential lots. *Id.* at ¶ 3.

{¶ 113} Other authorities support this understanding of *Lucas*. According to a leading treatise on regulatory takings, “[t]he tenor of *Lucas* * * * continually reinforces the idea that ‘property’ consists of rights to use resources.” (Emphasis sic.) 1 Eagle, *Regulatory Takings*, Section 7-3(b)(5) (2018). While recognizing that the concept of value does appear in *Lucas*, the treatise explains that *Lucas*'s discussion of value “is coupled with economically beneficial use.” *Id.* This coupling arises from the fact that “[a] large component of property, and of its value, is the right to receive streams of income in the future.” *Id.* at Section 7-3(b)(6).

{¶ 114} The same treatise further observes that the United States Court of Appeals for the Federal Circuit “has

repeatedly found that a categorical taking is measured by complete deprivation of use, not value.” *Id.* at Section 7-3(b) (5). The United States Courts of Appeals for the Ninth and Fourth Circuits have applied *432 *Lucas*'s rule in a similar way. *See, e.g., Del Monte Dunes at Monterey, Ltd. v. Monterey*, 95 F.3d 1422, 1433 (9th Cir.1996) (“our focus is primarily on use, not value”), *aff'd on other grounds*, 526 U.S. 687, 119 S.Ct. 1624, 143 L.Ed.2d 882 (1999); *Front Royal & Warren Cty. Indus. Park Corp. v. Front Royal*, 135 F.3d 275, 286 (4th Cir.1998) (rejecting the claimant's total-takings claim under *Lucas* because the claimant had not been denied “the right to use its property”).

{¶ 115} Today's decision creates friction with those authorities and does little to bring certainty to Ohio litigants, other than ensuring that their litigation costs will rise. The majority's holding will now make it necessary for litigants to pay an expert to prepare an economic-impact statement to prosecute (or defend against) a total-takings claim brought under *Lucas*. Nor is the majority's decision today likely to simplify matters for Ohio courts considering a total-takings claim. Rather than requiring courts to consider, as *Lucas* instructs, whether an owner has been forced to render his or her property economically idle by leaving it to its natural state (a simple enough inquiry), the courts will now be expected to sift through dense economic analyses and determine which litigant's expert produced the more probative report. Nothing in *Lucas* requires that we leave these important questions of constitutional dimension in the hands of economists and corporate-strategy analysts.

{¶ 116} The upshot of the majority's decision today is that Ohio taxpayers might now be forced to bear the financial fallout of an inherently risky business venture. Justice Oliver Wendell Holmes Jr. warned of such dangers long ago, observing that “[g]overnment hardly could go on if to some extent values incident to property could not be diminished without paying for every such change in the general law.” *Pennsylvania Coal Co. v. Mahon*, 260 U.S. 393, 413, 43 S.Ct. 158, 67 L.Ed. 322 (1922). I fear that the majority's decision today has lost sight of that principle.

Partial-takings analysis

{¶ 117} I turn now to the majority's analysis of AWMS's partial-takings claim and the factors to be applied to that claim **1197 derived from *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104, 98 S.Ct. 2646, 57 L.Ed.2d 631 (1978).

Although I agree with the majority's analysis of the factor in *Penn Cent.* examining the character of the governmental action and its conclusion that there is a genuine issue of material fact concerning the economic-impact factor, I would resolve the *Penn Cent.* inquiry solely on the basis of the reasonable-investment-backed-expectations factor.

{¶ 118} I agree with a good portion of the majority's analysis of the facts of this case under *Penn Cent.*'s reasonable-investment-backed-expectations factor. As the majority correctly points out, the government's regulation of induced seismicity is an issue of enormous complexity. But, as the Federal Circuit noted *433 in *Good v. United States*, we have a “growing consciousness of and sensitivity toward environmental issues,” with the result here being that AWMS “must * * * have been aware that standards could change to [its] detriment, and that regulatory approval could become harder to get.” 189 F.3d 1355, 1363 (Fed.Cir.1999). Given the added threat to public health and safety or damage to the environment arising from human-induced earthquakes, the majority properly finds that the balance of the investment-backed-expectations factor tips in the state's favor.

{¶ 119} Unlike the majority, however, I would go a step further and conclude that the balance tips *decisively* in the state's favor, thus obviating the need to address the other *Penn Cent.* factors. That is precisely the approach that the Federal Circuit applied in *Good* when it held that “the government is entitled to summary judgment on a regulatory takings claim where the plaintiffs lacked reasonable, investment-backed expectations, even where the challenged government action ‘substantially reduc[ed] the value of plaintiff's property.’” (Brackets sic.) *Good* at 1363, quoting *Avenal v. United States*, 100 F.3d 933, 937 (Fed.Cir.1996). The Ninth Circuit Court of Appeals has applied a similar approach. *See Guggenheim v. Goleta*, 638 F.3d 1111, 1120 (9th Cir.2010) (accord[ing] dispositive status to its conclusion on the inquiry into reasonable investment-backed expectations).

{¶ 120} The majority declines to accord controlling significance to the investment-backed-expectations factor. I find it problematic that while the majority has applied a large swath of the Federal Circuit's takings jurisprudence in this case, it has chosen not to apply it, as the Federal Circuit did in *Good*, to conclusively resolve the *Penn Cent.* analysis on the basis of the expectations factor. I do not find the majority's piecemeal approach to be particularly helpful. In order to better ensure predictability and uniformity in our takings

jurisprudence, the majority should follow the approach taken by the Federal Circuit in *Good*.

{¶ 121} More importantly, I find it problematic that the majority focuses on AWMS's expectations at the time it obtained its leasehold—rather than at the time of its investment. An analysis of a claimant's reasonable investment-backed expectations should necessarily involve consideration of the claimant's expectations formed at the time of its investment. When an interest in real property is relevant in a takings case, the economic investment and the price of acquiring the property interest are normally one and the same. See, e.g., *Love Terminal Partners, L.P. v. United States*, 889 F.3d 1331, 1337, 1346 (Fed.Cir.2018) (claimant's investment was \$6.5 million spent to acquire the property interest). Not so here.

{¶ 122} When AWMS obtained its leasehold in December 2011, its only “investment” **1198 was its promise to pay the lessor a 5 percent royalty on any revenue *434 eventually derived from each well from brine disposal. AWMS's actual investment occurred, as AWMS itself states, when it spent millions of dollars “constructing a state-of-the-art disposal [f]acility on the leasehold.” The actual investment did not start to take place until September 2013, long after the series of earthquakes that occurred in Youngstown, Ohio in December 2011, long after the division took the “Northstar #1” well out of operation for causing the earthquakes, and long after the statewide moratorium had been imposed on certain well-injection activities so that the division could study induced seismicity. At the time that AWMS's actual investment occurred, AWMS explicitly acknowledged in its

“confidential offering memorandum” that it knew that the government's regulation of injection wells could increase in scope and complexity due to growing industry awareness, that AWMS's wells could cause a seismic event similar to the events that had occurred in Youngstown, and that a seismic event caused by AWMS's wells could lead to the suspension of its injection operations.

{¶ 123} All three factors in the reasonable-expectations analysis weigh heavily in the state's favor: AWMS operates in a highly regulated industry, it was aware that induced earthquakes had caused state regulation of an injection well in its property's vicinity by the time of its investment, and it expressly anticipated the possibility of such regulation of its own wells at the time of its investment. See *Appolo Fuels, Inc. v. United States*, 381 F.3d 1338, 1349 (Fed.Cir.2004). Contrary to the majority's conclusion, AWMS was absolutely forewarned that the division would regulate injection-well-induced earthquakes in the way that the division did.

{¶ 124} Accordingly, after the division ordered AWMS to temporarily suspend its operations at well #2 due to the likelihood that AWMS's operations had caused multiple earthquakes, the court of appeals correctly held that the suspension did not cause AWMS to suffer a total or partial regulatory taking. I therefore dissent and would affirm the judgment of the Eleventh District Court of Appeals.

All Citations

162 Ohio St.3d 400, 165 N.E.3d 1167, 2020-Ohio-5482

Footnotes

- 1 James Zehringer, the former director of the Ohio Department of Natural Resources (“ODNR”), was originally named as a respondent in this case. Mary Mertz has since replaced Zehringer as ODNR's director.
- 2 On September 23, 2020, this court issued its judgment and original opinion in this case. Mertz filed a motion for reconsideration asserting as follows:

[Mertz] does not move to reconsider the judgment. But one statement in the opinion is inconsistent with settled practice and settled precedent. In particular, [Mertz] moves to have the Court delete its instruction that the appeals court “disregard” the nuisance defense. While the Department may have waived that defense for summary judgment—and the appeal to this Court of that judgment—a defense pleaded in an answer is not waived for trial merely because it was not raised on summary judgment.

See Civ.R. 12(B); *First Bank of Marietta v. Cline*, 12 Ohio St.3d 317, 318, 466 N.E.2d 567 (1984); *Bridges v. Natl. Eng. & Contracting Co.*, 49 Ohio St.3d 108, 111, 551 N.E.2d 163 (1990); *Gliozzo v. Univ. Urologists of Cleveland, Inc.*, 114 Ohio St.3d 141, 2007-Ohio-3762, 870 N.E.2d 714, ¶ 12. A majority of the court agrees with Mertz and therefore grants the motion for reconsideration. See 160 Ohio St.3d 1485, 2020-Ohio-5454, 158 N.E.3d 613 (granting motion for reconsideration, with Justices Kennedy, Fischer, and Stewart, JJ., dissenting). This reissued opinion omits the last six words of paragraphs 56 and 88 of our original opinion: “On remand, the court of appeals must weigh the parties’ evidence relating to AWMS’s total-takings claim and disregard the state’s nuisance defense .” (Strikethrough added to indicate deleted words.) 162 Ohio St.3d 367, 2020-Ohio-4509, 165 N.E.3d 1136.

**IN THE COURT OF APPEALS OF OHIO
ELEVENTH APPELLATE DISTRICT
TRUMBULL COUNTY**

STATE OF OHIO ex rel. AWMS WATER
SOLUTIONS, LLC, et al.,

Relators,

- v -

MARY MERTZ, DIRECTOR OHIO
DEPARTMENT OF NATURAL
RESOURCES, et al.,

Respondents.

CASE NO. 2016-T-0085

Original Action for Writ of Mandamus

**PER CURIAM
OPINION**

**FILED
COURT OF APPEALS**

DEC 19 2022

Decided: December 19, 2022
Judgment: Petition denied

**TRUMBULL COUNTY, OH
KAREN INFANTE ALLEN, CLERK**

Matthew G. Vansuch and Brian A. Coulter, Brouse McDowell, LPA, 6550 Seville Drive, Suite B, Canfield, OH 44406; *Kyle A. Shelton*, Brouse McDowell, LPA, 388 South Main Street, Suite 500, Akron, OH 44311 (For Relators).

Dave Yost, Ohio Attorney General, State Office Tower, 30 East Broad Street, 16th Floor, Columbus, OH 43215; *W. Scott Myers and Brett A. Kravitz*, Assistant Attorneys General, Environmental Enforcement Section, 2045 Morse Road, Suite A-3, Columbus, OH 43229-6693; *Matthew E. Meyer*, Assistant Attorney General, Environmental Enforcement Section, 30 East Broad Street, 25th Floor, Columbus, OH 43215 (For Respondents).

PER CURIAM.

{¶1} This matter came for trial before this court on relators', AWMS Water Solutions, LLC, et al. (collectively "AWMS"), petition for writ of mandamus filed against respondents, Mary Mertz, Director, Ohio Department of Natural Resources, et al. (collectively "the Division"). Trial was held commencing on September 20, 2021, and

concluded on October 1, 2021. The parties filed post-trial briefs in support of their relative positions. Also, this court requested additional briefing on a pivotal but under-addressed issue of what, if any, cognizable property interest was allegedly taken by the Division's actions. Both parties filed their supplemental briefs. AWMS argued it possessed a cognizable interest in both the lease and the permit to inject, which was suspended, and, hence, this court must proceed to analyze the merits of their taking claim. The Division argued AWMS possessed no cognizable property interest, and, as a result, AWMS is not entitled to a writ of mandamus necessitating an order to commence appropriation proceedings.

{¶2} I. SUMMARY OF THE FACTS AND HOLDING

{¶3} After leasing acreage in Weathersfield Township, Trumbull County, Ohio, AWMS sought and obtained two Level II injection well permits to inject wastewater brine deep into the subsurface areas of the leased property. To obtain the permits, AWMS was required to follow specific statutory procedures and submit to significant governmental oversight. The oversight was premised upon certain inherent risks attendant to injecting wastewater, not the least of which is the risk of inducing earthquakes. Shortly after injection commenced, two seismic events took place – the first, a 1.7M event (“M” = “magnitude”); the second, a 2.1M event.

{¶4} The seismic events prompted the Division to issue suspension orders on both wells. Shortly thereafter, the shallower of the two wells was permitted to continue operation (which AWMS ultimately closed due to economic losses), but the second well remained closed. Although AWMS attempted to meet the Division's requests for a restart plan of the second well, the suspension order remained active. After unsuccessfully challenging the suspension order, AWMS filed the instant action seeking an order

requiring the Division to file appropriation proceedings based upon an alleged unconstitutional taking requiring just compensation.

{¶5} The matter eventually proceeded to trial. A necessary legal hurdle to overcome for this court to proceed to the merits of the case, however, was neither broached, let alone discussed, until after the trial's conclusion; namely, whether AWMS possessed a cognizable property interest under the law such that it is entitled to both an analysis of the merits of its claim as well as whether it might prevail. Because AWMS has failed to establish a cognizable property interest contemplated under the Fifth Amendment's Just Compensation Clause, we conclude the Division is entitled to judgment as a matter of law and deny AWMS' petition for writ of mandamus.

{¶6} II. FACTUAL AND PROCEDURAL BACKGROUND

{¶7} AWMS is a company involved in disposing wastewater from oil and gas production sites and drilling sites. Respondents are Mary Mertz, the Director of the Ohio Department of Natural Resources ("Director"); the ODNR; Richard Simmers, the former Chief of the Division of Oil and Gas Resources Management ("Chief"); and the Division.

{¶8} AWMS secured a lease on 5.2 acres of property ("the Site") in an industrial area in Weathersfield Township, which it acquired for the purpose of constructing and operating salt-water injection wells, also known as Class II disposal wells. The Site is located in the urban area of Weathersfield Township, near the city of Niles. Schools, residences, the Mineral Ridge Dam, a fire department, a hospital, and other infrastructure are within three miles of the Site.

{¶9} A. AWMS APPLIES FOR PERMITS

{¶10} On December 23, 2011, AWMS applied to the Division for permits to construct the wells, designated AWMS #1 Well and AWMS #2 Well. At the time AWMS

submitted its applications for drilling permits, it had invested approximately \$100,000 into the development of the Site. The Division's procedure for obtaining authorization to operate a Class II injection well is a two-step process. First, an applicant must apply for a permit to drill and construct a Class II injection well, and second, the applicant must apply to inject into the well.

{¶11} Also, between March and December 2011, six seismic events of varying magnitudes were detected in Youngstown, Ohio, near an injection well designated "Northstar #1," operated by a third party not connected to this matter. On December 24, 2011, a 2.7 magnitude earthquake was recorded within one mile of the well. After reviewing the seismic data, the Division found that Northstar #1 Well likely induced the earthquake. On December 31, 2011, one day after Northstar #1 Well voluntarily ceased operations at the Division's request, a 4.0 magnitude event was recorded within one mile of the well. Northstar #1 Well is located approximately seven miles from the Site. After the second seismic event, the Division temporarily halted the issuance of permits through November 2012. During the pause in permit issuances, the Division drafted emergency rules to protect the public health and safety.

{¶12} On July 18, 2013, the Division issued a drilling permit to AWMS. In September 2013, AWMS furnished a confidential offering memorandum to potential qualified investors to raise the capital to construct the wells on the Site. Among other things, including projected production volume of the wells, the memorandum identified "risk factors," emphasizing that the securities at issue "involve a high degree of risk" and prospective investors should be aware of these risks. The memorandum highlighted the "continuing risk" of "seismic events similar to the one that occurred in the Youngstown, Ohio area." The memorandum additionally noted that, due to the inherent risks of

operating a well site, there is a possibility that well operations could be suspended and/or terminated by the Ohio Environmental Protection Agency and/or the ODNR. The memorandum also outlined certain geologic risks. It stated that AWMS had performed no "subsurface testing." As a result, the memorandum disclosed that the adequacy of the geology and the suitability of the wells "will only be known upon drilling, completion, and operation of the wells."

{¶13} B. AWMS BEGINS OPERATIONS

{¶14} AWMS #1 Well was drilled to a true vertical depth of 4,403 feet below ground surface, and AWMS #2 Well was drilled to a true vertical depth of 8,502 feet below ground surface. On March 24, 2014, an operational permit was issued. Full commercial operations of the wells commenced in May and June of 2014. AWMS installed four seismic monitoring stations for monitoring seismic activity around the Site and surrounding community in accordance with and at the request of the Division.

{¶15} During July 2014, AWMS injected 71,434 barrels of fluid, and, in August 2014, it injected 54,734 barrels. During the time the wells were operating, AWMS #1 Well represented 5% of total injections between the two wells, while AWMS #2 Well represented 95% of total injections. AWMS generated a gross income of \$242,799 in July 2014 and \$170,695 in August 2014.

{¶16} On July 28, 2014, a seismic event measuring a magnitude of 1.7 occurred in Trumbull County in the vicinity of AWMS' wells. ODNR did not receive any "felt reports" for the July event.¹ On August 31, 2014, another seismic event occurred in the vicinity of the wells measuring 2.1M. The earthquakes were connected in time and space with

1. When a member of the public feels a seismic event, it is known as a "felt event."

injections at AWMS #2 Well, and experts agreed that the events were likely induced by AWMS' operations.

{¶17} C. ODNR ISSUES SUSPENSION ORDER

{¶18} On September 3, 2014, the Division issued Chief's Order No. 2014-372, amended by Chief's Order No. 2014-374 ("Suspension Order"), ordering AWMS to (1) immediately suspend all operations at AWMS #2 Well, and (2) submit a written plan to the Division for evaluating certain "seismic concerns associated with the operation of the AWMS #2 saltwater injection well." The Division also suspended operations at AWMS #1 Well but subsequently terminated this suspension after AWMS submitted additional information that AWMS #1 Well did not contribute to the earthquake activity. Following the termination of the Suspension Order on AWMS #1 Well, AWMS injected into AWMS #1 Well from September 2014 until September 2015. The monthly revenues generated from the AWMS #1 Well did not cover the monthly expenses incurred to keep the facility running. In effect, AWMS was unable to inject the volumes at the AWMS #1 Well that it had expected in its confidential offering memorandum.

{¶19} AWMS submitted a plan to restart its operations at AWMS #2 Well; the Division found, however, that the plan was deficient, was "generic and inadequate," and did not support terminating the Suspension Order. AWMS #2 Well has not operated since imposition of the Suspension Order.

{¶20} D. PROTRACTED ADMINISTRATIVE AND JUDICIAL PROCEEDINGS

{¶21} AWMS appealed the Suspension Order to the Ohio Oil & Gas Commission ("Commission"). On February 24, 2015, the Division and AWMS met to discuss resolution of the appeal of the Suspension Order. The Division provided AWMS with a list of 14 criteria consisting of additional tools and/or recommendations for AWMS to consider in

aid of potentially restarting AWMS #2 Well. A hearing was held on AWMS' appeal of the Order, at which the Division's former Chief, Mr. Simmers, issued a report and testified that "AWMS has not submitted a plan with sufficient detail or information to minimize risk presented by induced seismicity." Additionally, he testified that if AWMS "presented a very comprehensive plan; then it's possible we would consider that plan." Experts for AWMS testified that, in their view, AWMS' plan was reasonable but could also not conclude the Suspension Order was unreasonable. Still, AWMS' experts opined that the Order was unnecessary.

{¶22} In August 2015, the Commission found the Chief's issuance of the Suspension Order was not unlawful or unreasonable and affirmed the Division's issuance of the Suspension Order. AWMS filed an appeal of the Commission's affirmation of the Suspension Order to the Franklin County Court of Common Pleas. Meanwhile, in November 2016 and on December 20, 2016, ODNR informed AWMS through letters from its counsel that, consistent with former Chief Simmers' testimony at the March 2015 Commission hearing, the Division was open to considering a comprehensive plan from AWMS that properly minimized risk.

{¶23} On December 23, 2016, the court of common pleas found that the Suspension Order was lawful but reversed the judgment of the Commission, concluding the Order was unreasonable. The Division appealed this decision to the Tenth District Court of Appeals.

{¶24} Meanwhile, on August 26, 2016, AWMS filed the instant petition for writ of mandamus alleging the continued enforcement of the Suspension Order had substantially interfered with AWMS' property rights by depriving them of all, or at least partial, economically viable use of the property. In light of the appeal to the Tenth Appellate

District, this court stayed the underlying proceedings due to the possibility of rendering an inconsistent ruling contrary to the jurisdictional-priority rule.

{¶25} On July 31, 2018, in the administrative appeal, the Tenth District reversed the judgment of the court of common pleas in part, concluding, inter alia, the lower court based its decision on impermissible evidentiary inferences made between experts who testified before the division *and* the trial court drew conclusions regarding the likelihood of seismic risk without reliable evidentiary support. See *Am. Water Mgt. Servs., LLC v. Div. of Oil & Gas Resources Mgt.*, 2018-Ohio-3028, 118 N.E.3d 385, ¶ 57 (10th Dist.). The Tenth District therefore determined the Suspension Order was reasonable and reinstated the same. See *id.* at ¶ 59. AWMS filed a jurisdictional appeal with the Supreme Court of Ohio, and, on November 21, 2018, the court declined jurisdiction. See *Am. Water Mgt. Servs., L.L.C. v. Div. of Oil & Gas Resources Mgt.*, 154 Ohio St.3d 1431, 2018-Ohio-4670, 111 N.E.3d 1192. On December 26, 2018, the court denied AWMS' motion for reconsideration. See *Am. Water Mgt. Servs., L.L.C. v. Div. of Oil & Gas Resources Mgt.*, 154 Ohio St.3d 1467, 2018-Ohio-5209, 114 N.E.3d 216.

{¶26} This court subsequently lifted the stay and proceeded to consider the Division's motion for summary judgment and AWMS' memorandum in opposition. On March 15, 2019, after considering the parties' pleadings, this court entered summary judgment in the Division's favor, concluding AWMS failed to create a genuine issue of material fact requiring trial on both their categorical-regulatory takings claim and their partial-regulatory takings claim. See *State ex rel. AWMS Water Solutions, LLC v. Zehringer*, 2019-Ohio-923, 132 N.E.3d 1151, ¶ 17, ¶ 50 (11th Dist.).

{¶27} AWMS filed a direct appeal to the Supreme Court of Ohio, and, on December 2, 2020, the court reversed this court's order entering summary judgment. See

State ex rel. AWMS Water Solutions, L.L.C. v. Mertz, 162 Ohio St.3d 400, 2020-Ohio-5482, 165 N.E.3d 1167. The Supreme Court determined there were genuine issues of material fact for trial on both AWMS' categorical-regulatory takings claim and their partial-regulatory takings claim and remanded the case to this court for further proceedings. See *id.* at ¶¶ 88-89. The threshold issue of whether AWMS possessed a cognizable property interest that would trigger a takings analysis, however, was neither briefed nor addressed by this court or the Supreme Court.

{¶28} Subsequently, on May 21, 2021, Chief Vendel issued Chief's Order No. 2021-97, which terminated the Suspension Order ("Restart Order"). The Restart Order authorized AWMS to resume injection operations at the AWMS #2 Well by modifying operational conditions of the Suspension Order. In July 2021, AWMS appealed the Restart Order to the Commission. To date, AWMS has not sought a stay of the Restart Order and has not resumed injection operations at the AWMS #2 Well. AWMS #2 Well has not operated since September 2, 2014.

{¶29} In light of the Supreme Court's remand order, the matter proceeded to trial.

{¶30} **III. MANDAMUS**

{¶31} In order for a writ of mandamus to issue, AWMS must establish a clear legal right to compel the Division to initiate an appropriation action, the Division's corresponding duty to institute the action, and the lack of an adequate remedy for AWMS in the ordinary course of law. See *State ex rel. Duncan v. Mentor City Council*, 105 Ohio St.3d 372, 2005-Ohio-2163, 826 N.E.2d 832, ¶ 10.

{¶32} The "standard of proof" is the threshold quantum of evidence that a party must establish in order to be entitled to the relief requested. *State ex rel. Todd v. State Teachers Retirement Sys.*, 6th Dist. Lucas No. L-15-1267, 2016-Ohio-5073, ¶ 17. The

standard of proof placed upon a relator seeking a writ of mandamus is heightened. See *State ex rel. Doner v. Zody*, 130 Ohio St.3d 446, 2011-Ohio-6117, 958 N.E.2d 1235, ¶ 56. "Parties seeking extraordinary relief bear a more substantial burden in establishing their entitlement to this relief." *Id.* In a mandamus case, a relator must prove its entitlement to a writ by clear and convincing evidence. See *State ex rel. Summit Cty. Republican Party Executive Commt. v. LaRose*, 165 Ohio St.3d 185, 2021-Ohio-1464, 177 N.E.3d 218, ¶ 8. Clear and convincing evidence is "intermediate" evidence, in that it requires more than a preponderance of evidence, but less than evidence beyond a reasonable doubt. *Cross v. Ledford*, 161 Ohio St. 469, 477, 120 N.E.2d 118 (1954). "Clear and convincing evidence is that measure or degree of proof which will produce in the mind of the trier of facts a firm belief or conviction as to the allegations sought to be established." *Id.*

{¶33} "[M]andamus is the vehicle for compelling appropriation proceedings by public authorities where an involuntary taking of private property is alleged." *State ex rel. Levin v. Sheffield Lake*, 70 Ohio St.3d 104, 108, 637 N.E.2d 319 (1994). "In such actions, the court, as the trier of fact and law, must determine whether any property rights of the owner have been taken by the public authority." *Id.*

{¶34} **IV. REGULATORY TAKINGS DOCTRINE**

{¶35} AWMS claims it is entitled to compensation for the state's regulatory taking of its property under the Takings Clause of the Fifth Amendment to the United States Constitution. The Takings Clause of the Fifth Amendment to the United States Constitution provides that private property shall not "be taken for public use, without just compensation." This clause applies to the individual states by virtue of the Fourteenth Amendment to the United States Constitution. See *Barber v. Charter Twp. of Springfield*,

Michigan, 31 F.4th 382, 387 (6th Cir.2022). Moreover, the Takings Clause applies to both ownership interests in fee and unexpired leasehold interests. See *Alamo Land & Cattle Co., Inc. v. Arizona*, 424 U.S. 295, 303, 96 S.Ct. 910, 47 L.Ed.2d 1 (1976) ("It has long been established that the holder of an unexpired leasehold interest in land is entitled, under the Fifth Amendment [of the United States Constitution], to just compensation for the value of that interest * * *") (Footnote omitted.)

{¶36} Originally, the federal Takings Clause was thought to apply only to situations where the direct appropriation of property or the functional equivalent of a practical elimination of an owner's possession. *Lucas v. South Carolina Coastal Council*, 505 U.S. 1003, 1014, 112 S.Ct. 2886, 120 L.Ed.2d 798 (1992). The Supreme Court of the United States has recognized, however, that the clause may also be applied to overly burdensome governmental regulations of property. See *Pennsylvania Coal Co. v. Mahon*, 260 U.S. 393, 415, 43 S.Ct. 158, 67 L.Ed. 322 (1922) ("[W]hile property may be regulated to a certain extent, if regulation goes too far it will be recognized as a taking").

{¶37} The Court has established guidelines for identifying regulations that go too far. See *Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528, 538-540, 125 S.Ct. 2074, 161 L.Ed.2d 876 (2005). "The rub, of course, has been—and remains—how to discern how far is 'too far.'" *Id.* at 538. "In answering that question, we must remain cognizant that 'government regulation—by definition—involves the adjustment of rights for the public good,' and that '[g]overnment hardly could go on if to some extent values incident to property could not be diminished without paying for every such change in the general law[.]'" (Internal citation omitted.) *Id.*, quoting *Mahon* at 413.

{¶38} With the foregoing in mind, federal courts have established a two-part test to determine whether government actions amount to a taking of property under the Fifth

Amendment. First, a court must determine whether a party possesses a cognizable property interest in the subject of the alleged taking.² See *Conti v. United States*, 291 F.3d 1334, 1339 (Fed.Cir.2002), *cert. denied*, 537 U.S. 1112, 123 S.Ct. 904, 154 L.Ed.2d 785 (2003). Second, once a court has determined a property interest exists, it must determine whether a taking occurred. *Id.* "If the claimant fails to demonstrate the existence of a legally cognizable property interest, the court[']s task is at an end." *Am. Pelagic Fishing Co., L.P. v. United States*, 379 F.3d 1363, 1372 (Fed.Cir.2004), *cert. denied*, 545 U.S. 1139, 125 S.Ct. 2963, 162 L.Ed.2d 887 (2005). "The question of whether [AWMS] owned a compensable property interest presents 'a question of law based on factual underpinnings.'" *Mohlen v. United States*, 74 Fed.Cl. 656, 660 (Fed.Cl.2006), quoting *Walcek v. United States*, 303 F.3d 1349, 1354 (Fed.Cir.2002).

{¶39} Regarding the concept of a cognizable property interest, "the Fifth Amendment concerns itself solely with the "property," i.e., with the owner's relation as such to the physical thing and not with other collateral interests which may be incident to his ownership." *Mitchell Arms, Inc. v. United States*, 7 F.3d 212, 217 (Fed.Cir.1993), *cert. denied*, 511 U.S. 1106, 114 S.Ct. 2100, 128 L.Ed.2d 662 (1994) ("*Mitchell Arms II*"), quoting *United States v. Gen. Motors Corp.*, 323 U.S. 373, 378, 65 S.Ct. 357, 89 L.Ed. 311 (1945). Further, in order to have a cognizable property interest, one "must have more than an abstract need or desire for it * * * [or] a unilateral expectation of it,' and 'must, instead, have a legitimate claim of entitlement to it.'" *Horne v. Mayor & City Council*

2. For purposes of the Fifth Amendment's Takings Clause, the phrases "property interest," "cognizable property interest," and "compensable property interest" are generally used in caselaw interchangeably. Accordingly, if one lacks a "Fifth Amendment property interest," a "cognizable property interest," or a "compensable property interest," one is not entitled to a Just-Compensation Takings analysis.

of *Baltimore*, 349 Fed.Appx. 835, 838 (4th Cir.2009), quoting *Bd. of Regents of State Colleges v. Roth*, 408 U.S. 564, 577, 92 S.Ct. 2701, 33 L.Ed.2d 548 (1972).

{¶40} Moreover, “[w]e determine whether an asserted right is one of the rights in the bundle of sticks of property rights that inheres in a *res* by looking to ‘existing rules or understandings’ and ‘background principles’ derived from an independent source such as state, federal, or common law.” (Emphasis sic.) *Am. Pelagic Fishing Co.*, *supra*, at 1376, quoting *Lucas*, *supra*, at 1030. Moreover, “in the case of personal property, by reason of the State’s traditionally high degree of control over commercial dealings, [the owner] ought to be aware of the possibility that new regulation might even render his property economically worthless. * * *.” *Id.*, quoting *Lucas* at 1027. In this respect, “there is a distinction between simply not being disturbed in the particular use of one’s property and having the *right* to that use of the property. Clearly, in order for there to be a cognizable property interest sufficient to support a takings claim, the latter must be true.” (Emphasis sic.) *Id.*

{¶41} V. ANALYSIS

{¶42} A. WHAT PROPERTY INTEREST, IF ANY, WAS ALLEGEDLY TAKEN?

{¶43} AWMS purchased a leasehold in the property for purposes of constructing and operating salt-water injection wells. It obtained permits to drill wells and inject brine. Both wells were initially shut down, but AWMS #1 Well was subsequently allowed to recommence injection; thus, there is no meaningful argument that any property interest AWMS possessed in AWMS #1 Well and/or its permit was taken such that it would be entitled to compensation for Fifth Amendment purposes. The subject of AWMS’ claim for relief, therefore, is the property interest it had in its lease, its well/equipment, and/or its permit and whether that (or those) interest(s) rises to the level of a cognizable property

interest as a matter of law. AWMS asserts it has a cognizable property interest, for purposes of a Fifth Amendment takings claim, in the lease, its well, and the permit issued by the Division. We shall address each of these points individually.

{¶44} B. PROPERTY INTEREST IN THE LEASE

{¶45} Initially, AWMS contends that, in reversing this court's award of summary judgment, the Supreme Court of Ohio held AWMS has a protected property interest in the lease. Specifically, AWMS cites the court's observation that "'the holder of an unexpired leasehold interest in land is entitled' to invoke the Takings Clause's guarantees." *Mertz, supra*, at ¶ 26, quoting *Alamo Land, supra*, at 303. To be sure, as the court noted, "'[e]very sort of [real property] interest the citizen may possess" counts as a property interest under the Fifth Amendment.'" *Id.*, quoting *Cienega Gardens v. United States*, 331 F.3d 1319, 1329 (Fed.Cir.2003), quoting *Gen. Motors Corp., supra*, at 378. The question is not whether AWMS has some property interest in its lease, it clearly does; the question germane to this matter is what property interest, if any, was taken via the Division's Suspension Order.

{¶46} The Supreme Court, in issuing its remand order, *did not* hold that AWMS had a cognizable property right in the lease or permit under the Fifth Amendment's Just Compensation Clause. Indeed, on appeal from the grant of summary judgment, the legal question of whether AWMS possessed a cognizable property interest was not at issue. Despite the sine qua non character of this preliminary legal point, the issue of AWMS' alleged cognizable property interest was not discussed or briefed until closing arguments and post-trial briefing. As such, neither this court nor the Supreme Court had occasion to comment on whether the property interest AWMS possessed was a *cognizable* and thus compensable property interest under the Fifth Amendment's Takings Clause.

{¶47} At most, in the above quote cited by AWMS, the Supreme Court was noting that AWMS was prima facie entitled to invoke the constitutional right to just compensation; this did not imply, however, AWMS was entitled to relief or even an analysis of such an entitlement if it could not establish a cognizable property interest. In short, the Supreme Court's passing observation vis-à-vis AWMS' right to "invoke" the Fifth Amendment's guarantee did not establish AWMS possessed any such interest.

{¶48} Adjunctly, AWMS argues the Division conceded that AWMS possessed an extensive property interest in its lease, i.e., the Division regularly pointed out AWMS could utilize the property for other purposes, not the least of which would be obtaining additional permits to drill in alternative areas on the property. We discern nothing inconsistent with the Division's concession of AWMS' property right in the leasehold and its concomitant denial that it engaged in a compensable taking of a cognizable property interest. AWMS' leasehold rights remained intact even though AWMS #2 Well was shut down. There is nothing preventing AWMS from securing additional permits for the narrow purpose of its lease. Regardless of the economical and logistical feasibility of this option, such an option is still available and would allow AWMS to retain some use regardless of the Suspension Order.

{¶49} Again, while we recognize AWMS possesses a property right in its lease, the real question is whether that right is cognizable such that it is entitled to a just-compensation analysis. In *Mitchell Arms II*, *supra*, the Federal Circuit Court of Appeals addressed a similar point. Specifically, the plaintiff in *Mitchell Arms II* was a federally-licensed arms importer who entered into a contract to purchase Yugoslavian assault rifles. The plaintiff imported rifles pursuant to the contract and its permits throughout 1987 and 1988. In March of 1989, however, the Bureau of Alcohol, Tobacco, and Firearms ("ATF")

issued an announcement suspending the import of assault rifles under existing permits. The plaintiff filed suit, asserting its reliance on the issued permits constituted "property" and thus the suspension constituted a taking under the Fifth Amendment. The Federal Claims Court dismissed the plaintiff's complaint for failure to state a claim. *Id.* at 213-215.

{¶50} On appeal, the court rejected the plaintiff's assertion, reasoning that in revoking the import permit, the government did not take the rifles, and the plaintiff could have done anything it wished with them except import them into the United States. *Id.* at 217. The court underscored that the Fifth Amendment addresses "property" and the owner's relation to that property, but not with collateral interests that might be incident to that ownership. *Id.* As such, the plaintiff's expectation that it would be allowed to import and then sell those weapons in the United States was a collateral interest that "comes into being only upon the issuance of an import permit." *Id.*, quoting *Mitchell Arms, Inc. v. United States*, 26 Cl.Ct. 1, 6 (Cl.Ct.1992) ("*Mitchell Arms I*").

{¶51} Here, although we are currently concerned with the nature of AWMS' property interest in its lease, the foregoing points are instructive. AWMS entered into its lease with an awareness that injection wells are subject to pervasive governmental control. And AWMS' lease afforded it only the extremely narrow right to inject brine. Just as the plaintiff's ability in *Mitchell Arms II* to import and sell rifles was entirely subject to the ATF's regulatory power, so was (and is) AWMS' ability to inject brine subject to the Division's overarching oversight. And, as a result, even though AWMS had an expectation (particularly after receiving its permits) to utilize its leasehold pursuant to its terms, its collateral interest in injecting brine came into being only upon the issuance of the relevant injecting permits. Hence, any expectation AWMS had in using its lease for

the narrow purpose for which it entered, the same cannot constitute a property right protected by the Fifth Amendment.

{¶52} Further, in order to have a cognizable property interest in the lease, AWMS must have more than an abstract or one-sided expectation for that which the leasehold granted. *Horne, supra*, at 838. Rather, it must demonstrate "a legitimate claim of entitlement" to the property interest. *Id.*, quoting *Roth, supra*, at 577.

{¶53} The Suspension Order required AWMS to cease injecting brine. As just noted, AWMS was legally allowed to inject brine, subject to significant regulatory oversight, through the Division's issuance of a permit pursuant to R.C. Chapter 1509. The lease did not and could not confer a right to inject brine. Instead, it only afforded AWMS the right to apply for a permit, without which (or without special permission by the Division's Chief) AWMS could not inject wastewater. See R.C. 1509.22(D).

{¶54} A review of the lease itself does not (nor could it, given the highly regulated nature of wastewater injection) afford AWMS any guaranteed interest that it would be conclusively able to inject brine on any aspect of the property; in other words, it does not confer or purport to confer a specific property interest in the industrial activities which are at the heart of AWMS' takings claim. The lease merely affords AWMS the exclusive right to operate Class II disposal wells and install, operate, and maintain infrastructure. AWMS' ability to utilize these provisions of the lease, however, were fundamentally conditioned on its ability to secure the necessary permits.

{¶55} While the lease conferred certain rights of use, those rights were not inherent in the instrument itself; rather, they were necessarily dependent on AWMS meeting specific statutory criteria established by the General Assembly and administered

as well as enforced by the Division.³ The lease represented a gamble, like many facets of this highly regulated industry, which, without the synergy of various surrounding circumstances, might easily eventuate in a "bust." Although AWMS' ability to do what it desired to do on the leased property was halted by virtue of the Suspension Order, the lease did not represent an assurance that AWMS was entitled to fulfill its aspirations under the instrument. AWMS, consequently, only possessed a "unilateral expectation" in its lease, the scope of which was limited to injecting brine, not the "legitimate claim of entitlement" necessary for a cognizable property interest. In short, AWMS has failed to establish a cognizable property interest under the Fifth Amendment in its lease that would necessitate a just compensation/takings analysis.

{¶56} C. PROPERTY INTEREST IN WELLS AND EQUIPMENT

{¶57} AWMS also contends it has a cognizable property interest in its well and all attendant equipment in which it invested for its business. While AWMS has a property interest in its physical investments, the Division did not physically commandeer the infrastructure. To the contrary, the infrastructure's use was halted due to the Suspension Order, which was deemed lawful and reasonable during the administrative appeals process. In this regard, even if AWMS could establish a cognizable property interest in the equipment, we fail to see how the physical investments installed on the leasehold property, which were only operable by virtue of AWMS securing a permit, were taken.

3. The legal reality that the injection-well industry is highly regulated in Ohio foreshadows an additional reason why AWMS has no cognizable property interest in its lease. As will be discussed below in significant detail, the traditional features of a cognizable property interest include the right to assign or sell the interest and, most fundamental, the right to exclude others - most significantly, the government. (See *infra*, ¶ 64-87). Even if AWMS could assign its interest in the lease (a matter on which the lease is silent), it cannot prevent the government from inserting itself at any moment and directing the way in which AWMS conducts its business. At any time, the Division's oversight would supersede any property right AWMS might possess to inject brine.

{¶58} Still, for a comprehensive legal analysis, we shall address whether AWMS possesses the requisite property interest. As noted above, the state generally exercises a high degree of control over commercial endeavors. *Am. Pelagic Fishing Co., supra*, at 1377. As such, where personal property is also commercial property, the owner should be on notice of the possibility that a regulation may render that property economically valueless. *Id.* To establish a cognizable property interest in personal, commercial property, therefore, AWMS was required to demonstrate it had a right to use the equipment. *Id.*

{¶59} Prior to the Suspension Order, AWMS was able to enjoy the use of the equipment without the Division's interference. The use of the equipment, which is not inherent in AWMS' ownership, was totally and entirely dependent upon the permit issued by the Division. *See Mitchell Arms II, supra*, at 217. Even though AWMS had an expectation that, upon purchasing and erecting the equipment at issue, it would be able to freely use the same for commercial profit, it had no legitimate claim of entitlement to use it. Therefore, we decline to hold AWMS possessed a cognizable property interest in the equipment under the Fifth Amendment.

{¶60} D. PROPERTY INTEREST IN THE PERMIT

{¶61} Next, AWMS contends it has a vested property interest in its permit because, in issuing the permit, the Division did not confer a discretionary benefit that could be arbitrarily revoked. AWMS underscores that Ohio statutory law and administrative rules create and ensure that its property interests under the permit are protected. While AWMS' assertions are not without some basis, it appears to be conflating its due process property interests with the property interests necessary to

establish a cognizable property interest for a compensable-takings analysis. These two Fifth Amendment property interests are legally distinct.

{¶62} The existence of a property interest in an intangible benefit, such as a permit, may give the holder of the interest a right to a hearing before the benefit is taken away as a matter of procedural due process.⁴ See, e.g., *Perry v. Sindermann*, 408 U.S. 593, 603, 92 S.Ct. 2694, 33 L.Ed.2d 570 (1972). This right, however, does not necessarily mean the interest entitles a holder to compensation under the Takings Clause of the Fifth Amendment. See *Pro-Eco, Inc. v. Bd. of Commrs. of Jay Cty.*, 57 F.3d 505, 513 (7th Cir.1995) (“[P]roperty as contemplated by the Takings Clause and property as contemplated by the Due Process Clause cannot be coterminous. * * * The Due Process Clause * * * recognizes a wider range of interests as property than does the Takings Clause”); *Corn v. Lauderdale Lakes*, 95 F.3d 1066, 1075 (11th Cir.1996) (“‘Property’ as used in the Just Compensation Clause is defined much more narrowly than in the due process clauses”); *Kizas v. Webster*, 707 F.2d 524, 534-540 (D.C.Cir.1983); *Arctic King Fisheries, Inc. v. United States*, 59 Fed.Cl. 360, 372 (Fed.Cl.2004), fn. 27. To wit, “[a] claim of *deprivation* of property without due process cannot be blended as one and the

4. It is worth pointing out that, given the manner in which AWMS has pleaded this matter, the substantive component of the Due Process Clause would not apply to this case. There are three forms of regulatory action that generally will be deemed a taking for Fifth Amendment purposes, see *Crown Point Dev., Inc. v. Sun Valley*, 506 F.3d 851, 855 (9th Cir.2007): First, where the government requires an owner to suffer a permanent physical invasion of property, see *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419, 102 S.Ct. 3164, 73 L.Ed.2d 868 (1982); second, where a regulation deprives an owner of all economically beneficial use of property, see *Lucas, supra*; and third, a partial regulatory taking where the *Penn Central* factors are met. See *Penn Cent. Transp. Co. v. New York*, 438 U.S. 104, 98 S.Ct. 2646, 57 L.Ed.2d 631 (1978). To the extent a property owner’s complaint falls within one of these categories (or some other recognized application of the Takings Clause), the Supreme Court of the United States has indicated that the claim must be analyzed under the Fifth Amendment. *Crown Point Dev.* at 855-856, citing *Cty. of Sacramento v. Lewis*, 523 U.S. 833, 118 S.Ct. 1708, 140 L.Ed.2d 1043 (1998). To the extent, however, the conduct alleged cannot be a taking, a substantive due process claim is not precluded. See *Lingle, supra*, at 542 (“[A] regulation that fails to serve any legitimate governmental objective may be so arbitrary or irrational that it runs afoul of the Due Process Clause”). Throughout these proceedings, AWMS has argued the Division’s actions have effected either a categorical or a partial regulatory taking. Hence, the substantive aspect of the Due Process Clause is inapplicable.

same with the claim that property has been *taken* for public use without just compensation." (Emphasis sic.) Sackman, *Nichols' The Law of Eminent Domain*, Section 4.3.

{¶63} A "legitimate claim of entitlement" to a permit or the benefits of possessing a permit does not transform the permit or the benefits it confers into a vested, cognizable property interest under the Just Compensation Clause. That is, although one who applies for and receives a permit may have such a legitimate claim, that claim is, in Ohio, protected by due process through administrative procedures. As such, due process "property interests" in the permit or its benefits are "limited, as a general rule, by the governmental power to remove, through prescribed procedures, the underlying source of those benefits." *O'Bannon v. Town Court Nursing Ctr.*, 447 U.S. 773, 798, 100 S.Ct. 2467, 65 L.Ed.2d 506 (1980) (Blackmun, J., concurring in judgment).

{¶64} While AWMS had/has a legitimate entitlement to due process protections in its possession of the permit (which have been vindicated through the administrative process), we decline to conclude that this entitlement rises to the level of "property" protected by the Takings Clause. If AWMS' right to receive the benefits from the permit was a cognizable property interest under the Takings Clause, the state could not deprive AWMS of the permit's benefits, even after notice and an opportunity to be heard, without affording it just compensation.

{¶65} Such an outcome would be absurd and inconsistent with the heightened regulatory authority the statutory scheme accords the Chief and the Division as well as general, accepted conceptions of the state's police power. See *DeMoise v. Dowell*, 10 Ohio St.3d 92, 96, 461 N.E.2d 1286 (1984) (because nearly every exercise of the state's police power interferes with the enjoyment or possession of property, the constitutional

provisions against the taking of property must give way to the exercise of the state's police power if it bears a real and substantial relation to the public health and safety and is neither unreasonable nor arbitrary).

{¶66} With the foregoing in mind, we acknowledge that, over the course of the parties' ongoing interactions from the inception of AWMS' business venture, the acts or omissions of the Division could be seen as a form of bureaucratic stonewalling. While we neither condone nor validate what might reasonably be considered administrative foot-dragging, AWMS received procedural due process via the administrative procedures under Ohio law. The Tenth Appellate District determined the suspension order was reasonable, and its decision was left untouched by the Supreme Court of Ohio.

{¶67} We therefore conclude AWMS' due process rights vested in its possession of the permit do not rise to the level of a cognizable property interest protected by the Takings Clause.

{¶68} With these points in mind, "[c]ourts which have directly considered the question at bar have taken a dim view of the notion that government-issued licenses [or in this matter a permit] are compensable property interests." *Kafka v. Montana Dept. of Fish, Wildlife & Parks*, 348 Mont. 80, 96, 201 P.3d 8 (2008), citing *United States v. Fuller*, 409 U.S. 488, 93 S.Ct. 801, 35 L.Ed.2d 16 (1973) (grazing permit not a compensable property interest); *Conti, supra*, at 1342 (commercial fishing permit not a cognizable property interest); *Am. Pelagic Fishing Co., supra*, at 1374 (previously issued fishing permits were revoked, but court found no compensable property interest).

{¶69} In addressing whether AWMS' interest in its permit is entitled to the protection of the Fifth Amendment's Just Compensation Clause, we reiterate the axiom that "[p]roperty interests * * * are not created by the Constitution. Rather, they are created

and their dimensions are defined by existing rules or understandings that stem from an independent source such as state law * * *.” *Webb’s Fabulous Pharmacies, Inc. v. Beckwith*, 449 U.S. 155, 161, 101 S.Ct. 446, 66 L.Ed.2d 358 (1980), quoting *Roth, supra*, at 577. These “rules or understandings” focus upon the nature of the citizen’s relationship to the alleged property, not the government’s. See *Conti* at 1340, citing *Gen. Motors, supra*, at 378. To the point, courts have considered specific factors inherent in an alleged “property right” that, when considered in sum, may or may not create a cognizable property interest under the Just Compensation Clause.

{¶70} Specifically, compensable property interests may exist in a governmentally-issued permit if there is no explicit statutory language preventing the formation of such an interest, combined with the right to transfer the interest and the right to exclude others. See *Members of the Peanut Quota Holders Assn., Inc. v. United States*, 421 F.3d 1323, 1331 (Fed.Cir.2005), *cert. denied*, 548 U.S. 904, 126 S.Ct. 2967, 165 L.Ed.2d 951 (2006); see *Kafka* at 96; *Conti* at 1341-1342; *Am. Pelagic Fishing Co.* at 1373-1374.

{¶71} Moreover, “courts must consider whether the affected ‘right of use’ is dependent upon the regulatory scheme or whether ‘an independent or preexisting right of use under common law applies.’” *Page v. United States*, 51 Fed.Cl. 328, 339 (Fed.Cl.2001), quoting *Maritrans Inc. v. United States*, 40 Fed.Cl. 790, 798 (Fed.Cl.1998). If the interest was independent of the regulatory scheme, courts have found that a compensable taking has occurred. See, e.g., *Cienega Gardens, supra*, at 1334 (concluding that federal statutes preventing the prepaying of federally subsidized mortgages were a taking of property despite heavy regulation of the federal housing program).

{¶72} Conversely, courts have determined that property interests that are dependent on a regulatory scheme are not compensable where pervasive regulation exists in the area. See, e.g., *Bowen v. Pub. Agencies Opposed To Social Sec. Entrapment*, 477 U.S. 41, 55-56, 106 S.Ct. 2390, 91 L.Ed.2d 35 (1986) (holding there was no vested property interest where an act of Congress eliminated the state's ability to terminate participation in national social security program where Congress retained the right to amend the statutory scheme for the public welfare); see also *Conti* at 1341-1342 (finding no property interest for fisherman where, inter alia, the permit was altered by a new regulation permitted under existing statutory scheme).

{¶73} We shall address each of the relative "sticks" in AWMS' abstract bundle of property rights to determine whether it possesses a cognizable property interest in the permit. It bears noting that when we requested the parties to identify the alleged cognizable property interest at issue (if any), AWMS did not engage in this analysis in its post-trial supplemental brief or direct this court to authority as to why such an analysis might be unnecessary.

{¶74} I. ABILITY TO TRANSFER

{¶75} "The right to transfer is a traditional hallmark of property." *Members, supra*, at 1332. Here, the "Well Permit" issued to AWMS for the #2 Well, issued on July 18, 2013, expressly states, "This permit is NOT TRANSFERABLE." Pursuant to the unequivocal and bold language of the permit itself, AWMS plainly lacked the ability to transfer its rights and/or privileges under the permit.

{¶76} Moreover, while perhaps less directly, the governing statutory scheme, read in relation to AWMS' lease, demonstrates it was precluded from transferring or assigning its permit to drill and inject. AWMS' lease affords it a right to operate injection wells on

the subject property. Specifically, the lease provides, in relevant part: "Lessor hereby grants and leases to Lessee the exclusive right to operate one or more Class II Saltwater disposal wells * * * on the Property * * *. Lessor expressly excepts from this Lease and reserves to Lessor all minerals of every kind and character including but not limited to oil and gas."

{¶77} R.C. 1509.01(A) defines "Well" as "any borehole, whether drilled or bored, within the state for production, extraction, or injection of any gas or liquid mineral, excluding potable water to be used as such, but *including natural or artificial brines and oil field waters.*" (Emphasis added.) R.C. 1509.01(K) defines "Owner," in relevant part, as "the person who has the right to drill on a tract or drilling unit, to drill into and produce from a pool, *and to appropriate the oil or gas* produced therefrom either for the person or for others, except that a person ceases to be an owner with respect to a well when the well has been plugged in accordance with applicable rules adopted and orders issued under this chapter. 'Owner' does not include a person who obtains a lease of the mineral rights for oil and gas on a parcel of land if the person does not attempt to produce or produce oil or gas from a well or obtain a permit under this chapter for a well * * *." (Emphasis added.)

{¶78} Here, AWMS has two wells as contemplated by R.C. 1509.01(A). AWMS obtained permits for its wells; it does not, however, have a lease for the mineral rights for oil and gas on the leased land. Hence, even as a statutory permit holder and injection well operator, AWMS is not an "owner" under the code – especially because the General Assembly included injection of brine water in its definition of a well but did not include a leaseholder for the right to inject brine in its definition of owner.

{¶79} Pursuant to the narrow nature of AWMS' rights under its lease, in conjunction with the interplay of R.C. 1509.01(A) and (K), AWMS is not a statutory "owner." If it is not an owner (because it only possesses the leasehold right to operate disposal wells), regardless of whether it is a permit holder, it cannot transfer or assign that right. Pursuant to R.C. 1509.01(K) and R.C. 1509.31(C), only an "owner" holding a drilling permit for an "oil and gas lease" can transfer or assign that interest.

{¶80} The permit, by its plain language, prevents transferability. Further, AWMS is not a statutory "owner" and accordingly cannot "transfer or assign" its interest under the revised code. We therefore conclude AWMS necessarily lacks the fundamental ability to transfer its property interest in the permit.

{¶81} **ii. RIGHT TO EXCLUDE**

{¶82} The Supreme Court of the United States has recognized "that the right to exclude is 'perhaps the most fundamental of all property interests.'" *Members, supra*, at 1333, quoting *Lingle, supra*, at 539. "In the bundle of rights we call property, one of the most valued is the right to sole and exclusive possession—the right to *exclude* strangers, or for that matter friends, but especially the [g]overnment." (Emphasis sic.) *Hendler v. United States*, 952 F.2d 1364, 1374 (Fed.Cir.1991). To provide further definition of the right to exclude as being fundamental to a cognizable property interest, caselaw on the subject is highly instructive.

{¶83} In *Conti, supra*, the Federal Circuit was asked to decide whether a fishing permit was a cognizable property interest subject to a takings analysis. See *id.* at 1340. The permit holder was subject to the federal government's prohibition on drift gillnet swordfishing in the Atlantic Swordfish Fishery. *Id.* at 1337. The holder brought a lawsuit alleging that the regulation effected a taking of his permit requiring just compensation. *Id.*

The court reasoned that "courts have held that no property rights are created in permits and licenses." *Id.* at 1340. The court emphasized the fact that the holder did not have the right to assign, sell, or otherwise transfer the permit and stated that such rights "are traditional hallmarks of property." *Id.* at 1341. The court also pointed out the holder did not have the right to exclude under the permit. *Id.* The court observed that the fishing permits did not confer exclusive fishing privileges in the oceanic fisheries and that the government retained the right to suspend, revoke, or modify the permit. *Id.* at 1341-1342. Accordingly, the court held the permit holder had no cognizable property right in the permit. *Id.* at 1342.

{¶84} In *Mitchell Arms II*, *supra*, the Federal Circuit declined to recognize a property interest in a contract entered into in accordance with the terms of a firearm import permit issued pursuant to federal law and suspended before the contract could be performed. *See id.* at 215-216. The court determined that when a citizen voluntarily enters a market subject to pervasive governmental control and regulation, he or she does not possess the right to exclude. *Id.* at 216. Put differently, the court concluded that the relevant right to exclude that the permit holder lacked was the ability to exclude others from the market for sale of firearms. *Id.* at 215. Only the government possessed this power. *Id.*

{¶85} In *Kafka*, *supra*, the Supreme Court of Montana considered whether owners of an alternative livestock game farm suffered a compensable taking as a result of an initiative that prohibited the owners from charging a fee to shoot the livestock – a significant source of income which was previously permissible via state licensing. *See id.* at 91. Although the court concluded the licenses were transferrable when issued, it determined the owners did not possess the right to exclude. *Id.* at 99-100. Specifically,

the court noted nothing in the language of the licenses gave the license holders the right to exclude others from the Game-Farm industry. *Id.* at 99. The holders were not assured freedom from competition nor were they guaranteed a discrete segment of the industry. *Id.* at 100. The court also underscored the industry was highly regulated, which militated significantly against the right to exclude because the government exercised control over licensing. *Id.* Although the licenses in *Kafka* were transferable and they were free of any language prohibiting the formation of a compensable property interest, the court concluded the licenses lacked excludability and thus were not a cognizable property interest. *Id.*

{¶86} In *Carney v. Atty. Gen.*, 451 Mass. 803, 890 N.E.2d 121 (2008), the Supreme Judicial Court of Massachusetts determined dog track owners' racing licenses lacked excludability, and thus owners' expectation of continued renewal of licenses was not a property interest. *See id.* at 816-817. The court underscored the licensees lacked the power to prevent other market entrants from obtaining licenses. *Id.* at 817. In so concluding, the court underscored that "the licenses lack the essential attribute of exclusivity." *Id.* at 816.

{¶87} In *Members, supra*, the court, in discussing the "right to exclude," stated:

{¶88} "A license represents a limited suspension of the otherwise general restrictions imposed by the government—in the case of a fishing license, it is merely a representation by the government that it will not interfere with the licensee's efforts to catch fish. The number of licenses to be issued under such a scheme is not fixed. Each additional license dilutes the value of the previously issued licenses. So long as the government retains the discretion to determine the total number of licenses issued, the number of market entrants is indeterminate. Such a license is by its very nature not

exclusive. Neither the fisherman nor the firearms salesman can exclude later licensees from entering the market, increasing competition, and thereby diminishing the value of his license." *Id.* at 1333-1334.

{¶89} In this matter, AWMS' permit did not give it the right to exclude others from the injection-well industry or confer upon it a discrete segment of the injection industry in Trumbull County. There was nothing to indicate the number of permits in the region of AWMS' wells was limited or that another potential well operator could not obtain a well permit in direct propinquity to AWMS' leasehold property. Further, the Division retained the discretion to determine the total number of permits issued, and, as a result, the number of market participants in any given region is unfixed.

{¶90} Also, there is nothing to indicate that the Division somehow represented or otherwise suggested it would not interfere with AWMS' well operation once its permit was issued. To the contrary, the permit issued by the Division included multiple conditions demonstrating that AWMS could only operate if it met the Division's criteria for operation. Indeed, prior to initiating operations, AWMS was required to receive additional, written approval from the Division to commence injection.

{¶91} We recognize that AWMS does have the right to exclude others from surface injection of brine on the leased property. That is, AWMS entered into the lease with the lessor, and the lease conferred exclusive rights to inject brine (to the extent AWMS received the necessary permits). In this regard, AWMS could, by operation of its leasehold, prevent others from entering its leased property and attempting to commence surface injection. This right, however, is not a function of the permit but is due to the inherent rights conferred by the leasehold itself. Hence, this point is irrelevant to AWMS' legal ability to exclude others as it relates to the property interest that was allegedly taken.

Each of the foregoing points militates strongly against any claim that AWMS possessed the right to exclude.

{¶92} Additionally, in *Chance v. BP Chems., Inc.*, 77 Ohio St.3d 17, 670 N.E.2d 985 (1996), the Supreme Court of Ohio rejected property owners' trespass claim based upon the lateral migration of subsurface waste injectate beneath the property owners' land. The court concluded that without demonstrating some physical damage or interference with the property itself, the claim for relief was without merit. See *id.* at 28.

{¶93} The court determined that "subsurface rights in [the owners'] properties include the right to exclude invasions of the subsurface property that actually interfere with [their] reasonable and foreseeable use of the subsurface." *Id.* at 26. From this, we can extrapolate that AWMS cannot universally exclude wastewater that might migrate from other wells onto its leased property, which is an additional point that weighs significantly against any arguable right to exclude.

{¶94} Finally, similar to the situation in *Mitchell Arms II, supra*, AWMS voluntarily entered into an industrial arena that is subject to significant if not complete governmental control. The industry is highly regulated, and a prospective market participant can only inject wastewater if it obtains the necessary permit. "[E]nforceable rights sufficient to support a taking claim against the [government] cannot arise in an area voluntarily entered into and one which, from the start, is subject to pervasive [g]overnment control." *Id.* at 216, quoting *Mitchell Arms I, supra*, at 5 (applying *Bowen, supra*).

{¶95} Accordingly, an entity does not possess the "right to exclude" in a regulated arena where the government possesses complete control over the manner in which the entity operates its business. AWMS knowingly and voluntarily entered into a market which, by its own recognition, included significant and continuing investment risk and is

also highly regulated. Due to such risks and regulation, AWMS knew that operations could be suspended and/or terminated at any time. See Confidential Offering Memorandum submitted by AWMS to potential investors in September 2013.

{¶96} AWMS pursued its risky investment, aware of the heightened governmental oversight and scrutiny, fully aware it could not “keep out” the government. In this additional regard, AWMS’ expectation of continued or consistent operation, which fundamentally and necessarily flowed from its Division-issued permit, cannot meet the excludability condition essential to a cognizable property interest.

{¶97} In sum, we conclude that AWMS has failed to establish, and the facts and circumstances demonstrate, it does not possess the right to exclude necessary for establishing a cognizable property interest.

{¶98} **iii. TRADITIONAL STATE PROPERTY INTEREST OR COMMON LAW RIGHT**

{¶99} Just as in *Mitchell Arms II*, where the court explained the ability to sell a firearm does not inhere in ownership of the firearm itself, the right to inject does not inhere in the ownership of a physical injection well. The right or privilege to inject exists only by virtue of an authorized and valid permit. Moreover, in *Kafka*, the court concluded that “the ability to operate a Game Farm is not a common law right incident to the ownership of real property, and is legal only by virtue of legislative enactment.” *Id.* at 99.

{¶100} Similarly, Ohio received “primacy” for its Underground Injection Control program from the United States EPA in 1983 and was thus given authority to enforce and administer the program. See *Am. Water Mgt. Servs., LLC*, 2018-Ohio-3028, at ¶ 23. The ability to inject wastewater into the earth is permissible only by virtue of R.C. Chapter 1509. If the requirements of that chapter are not met, an entity could not inject such

waste. AWMS' rights under the permit are inextricably dependent on the regulatory scheme enacted by Ohio's General Assembly. In this respect, injection cannot be viewed as a traditional property interest under state law or an otherwise common-law right.

{¶101} Additionally, the Federal Circuit has observed that, when considering whether a cognizable property interest exists, a court "should inquire into the nature of the land owner's estate to determine whether the use interest proscribed by the governmental action was part of the owner's title to begin with, *i.e.*, whether the land use interest was a 'stick in the bundle of property rights' acquired by the owner." *M & J Coal Co. v. United States*, 47 F.3d 1148, 1153-1154 (Fed.Cir.1995), *cert. denied*, 516 U.S. 808, 116 S.Ct. 53, 133 L.Ed.2d 18 (1995), quoting *Lucas, supra*, at 1027. As just noted, injecting brine is neither a common law right incident to ownership, and an owner's or leaseholder's ability to do so is fundamentally dependent upon statutory compliance and the Division's oversight. AWMS' "use interest," therefore is not a Fifth Amendment property interest under the Takings Clause.

{¶102} VI. CONCLUSION

{¶103} AWMS' lease does not, nor could it, vouchsafe it any assured interest that it could inject brine on any aspect of the property. And, while the lease gives it exclusive rights to operate Class II disposal wells, such a right is conditioned on its ability to obtain necessary permits. Any ability to operate such wells was not inherent in the lease but dependent upon the Division's discretion to issue such permits and subject to heightened governmental oversight. Even if AWMS could transfer or assign its lease, it therefore fundamentally lacked the necessary right to exclude the government. Accordingly, AWMS does not possess a cognizable property interest in the lease that would trigger a Fifth Amendment takings analysis.

{¶104} Moreover, while AWMS has a property interest in its wells and equipment, these items were not physically seized by the Division. Rather, their use was merely suspended via an order deemed reasonable and lawful during the administrative process. And, significantly, AWMS' ability to operate its equipment was fundamentally dependent upon the Division's oversight; as such, it had no legitimate entitlement to utilize the same. Any interest AWMS has in this property, therefore, does not require a Fifth Amendment takings analysis.

{¶105} Finally, although there appears to be no *express* statutory language preventing the formation of a property right in AWMS' permit, the lack of transferability, the lack of the right to exclude, coupled with the lack of a common-law right incident to property ownership compel the conclusion that AWMS has no cognizable property interest in its permit. Thus, because the permit does not meet any of the criteria for compensability under governing law, we therefore additionally conclude that AWMS has failed to meet the necessary, preliminary prong of the Fifth Amendment's takings analysis. AWMS' petition for writ of mandamus is accordingly denied.

JOHN J. EKLUND, P.J., THOMAS R. WRIGHT, J., MARY JANE TRAPP, J., concur.

STATE OF OHIO)
) SS.
COUNTY OF TRUMBULL)

IN THE COURT OF APPEALS
ELEVENTH DISTRICT

STATE OF OHIO ex rel. AWMS WATER
SOLUTIONS, LLC, et al.,

JUDGMENT ENTRY

Relators,

CASE NO. 2016-T-0085

- v -

MARY MERTZ, DIRECTOR OHIO
DEPARTMENT OF NATURAL
RESOURCES, et al.,

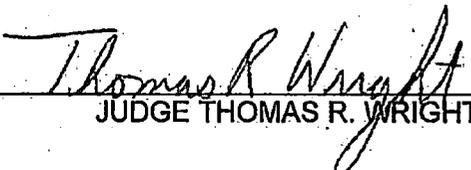
Respondents.

For the reasons stated in the Per Curiam Opinion of this court, relators' petition for writ of mandamus is denied.

Costs to be taxed against relators.



PRESIDING JUDGE JOHN J. EKLUND



JUDGE THOMAS R. WRIGHT



JUDGE MARY JANE TRAPP

FILED
COURT OF APPEALS

DEC 19 2022

TRUMBULL COUNTY, OH
KAREN INFANTE ALLEN, CLERK

IN THE COURT OF APPEALS
ELEVENTH APPELLATE DISTRICT
TRUMBULL COUNTY, OHIO

FILED
COURT OF APPEALS

MAR 18 2019

TRUMBULL COUNTY, OH
KAREN INFANTE ALLEN, CLERK

STATE OF OHIO ex rel. AWMS WATER SOLUTIONS, LLC, et al.,

PER CURIAM OPINION

Relators,

CASE NO. 2016-T-0085

- vs -

JAMES ZEHRINGER, DIRECTOR OHIO DEPARTMENT OF NATURAL RESOURCES, et al.,

Respondents.

Original Action for Writ of Mandamus.

Judgment: Petition denied.

Thomas J. Wilson, Comstock, Springer & Wilson Co., L.P.A., 100 Federal Plaza East, Suite 926, Youngstown, OH 44503; *Matthew G. Vansuch*, Brouse McDowell Co., LPA, 6550 Seville Drive, Suite B, Canfield, OH 44406; and *Kyle A. Shelton*, Brouse McDowell Co., LPA, 388 South Main Street, Suite 500, Akron, OH 44311 (For Relators).

Dave Yost, Ohio Attorney General, State Office Tower, 30 East Broad Street, 16th Floor, Columbus, OH 43215; *W. Scott Myers* and *Brett A. Kravitz*, Assistant Attorneys General, Environmental Enforcement Section, 2045 Morse Road, A-3, Columbus, OH 43229; and *Curtis J. Amrosy*, Manchester Newman & Bennett, LPA, 144 North Park Avenue, Suite 200, Warren, OH 44481 (For Respondents).

PER CURIAM.

{¶1} Respondents, James Zehringer, Director, Ohio Department of Natural Resources, et al., have moved this court for summary judgment on the petition for writ

of mandamus filed by Relators, AWMS Water Solutions, LLC, et al. Relators seek the underlying writ to compel Respondents to commence appropriations proceedings based upon their allegation that Respondents' regulatory actions have eliminated the economic viability of certain real property and, as a result, Respondents have effectuated either a categorical-regulatory taking or a partial-regulatory taking, in violation of the United States and Ohio Constitutions. Respondents maintain there are no genuine issues of material fact to be litigated on Relators' allegations and therefore they are entitled to judgment as a matter of law. Relators have opposed the motion, asserting there are issues of material fact to be litigated on both of their takings claims and, as a result, their petition to compel appropriations on the subject real estate survives Respondents' motion.

Factual Background

{¶2} Relator, AWMS Water Solutions, LLC, is a company involved in disposing waste from oil and gas production sites and drilling sites. Relator, AWMS Holdings, LLC, is a holding company for a series of wholly-owned subsidiaries that own and operate brine disposal wells and facilities. Relator, AWMS Rt. 169, LLC, is a company that is a wholly-owned subsidiary of AWMS Holdings, LLC, and was formed to own and operate two salt-injection wells in Weathersfield Township, Trumbull County, Ohio. Respondents are James Zehringer, the Director of the Ohio Department of Natural Resources ("Director"); the Ohio Department of Natural Resources ("ODNR"); Richard Simmers, Chief of the Division of Oil and Gas Resources Management ("Chief"); and the Division of Oil and Gas Resources Management ("Division").

{¶3} Relators secured a lease on property in an industrial area in Weathersfield Township, which it acquired for the purpose of constructing two salt-water injection wells. On December 23, 2011, Relators applied to the Division for a permit to construct the wells, designated AWMS #1 Well and AWMS #2 Well. Also in December 2011, two seismic events of varying magnitudes were detected in Youngstown, Ohio near the Northstar #1 injection well, operated by a third party not connected to this matter. The first, on December 24, 2011, a 2.7 magnitude earthquake was recorded within one mile of the well. The Division found that Northstar #1 Well likely induced the earthquake after reviewing the seismic data. One day after the Northstar #1 Well voluntarily ceased operations at the Division's request, a 4.0 magnitude event was recorded within one mile of the well. The Northstar #1 Well is located approximately seven miles from the AWMS #2 Well. After the second seismic event, the Division temporarily halted the issuance of permits through November 2012. During the pause in permit issuances, the Division drafted emergency rules to protect the public health and safety.

{¶4} Ultimately, on July 18, 2013, the Division issued a drilling permit to AWMS and, on March 24, 2014, an operational permit was issued. Full commercial operations of the wells commenced in May and June of 2014. During the time the wells were operating, AWMS #1 Well represented 5% of total injections between the two wells, while AWMS #2 Well represented 95% of total injections.

{¶5} On July 28, 2014, a seismic event, measuring a magnitude 1.7, occurred in Trumbull County in the vicinity of Relators' wells. On August 31, 2014, another seismic event occurred in the vicinity of the wells measuring 2.1. The earthquakes were connected in time and space with injections at AWMS #2 Well and experts agreed that

the events were likely induced by Relators' operations. On September 3, 2014, the Division issued Chief's Order No. 2014-372, amended by Chief's Order No. 2014-374 ("Suspension Order"), ordering relators to: (1) immediately suspend all operations at AWMS #2 Well, and (2) submit a written plan to the Division for evaluating certain "seismic concerns associated with the operation of the AWMS #2 salt water injection well." The Division also suspended operations at AWMS #1 Well, but subsequently terminated this suspension after Relators submitted additional information that AWMS Well #1 did not contribute to the earthquake activity.

{¶6} Relators submitted a plan to restart its operations at AWMS #2; the Division found, however, that the plan was deficient, that it was "generic and inadequate," and did not support terminating the Suspension Order. AWMS #2 Well has not operated since imposition of the Suspension Order.

{¶7} Relators appealed the Suspension Order to the Ohio Oil & Gas Commission ("Commission"). A hearing was held and, on August 12, 2015, the Commission found the Chief's issuance of the Suspension Order was not unlawful or unreasonable and affirmed the Division's issuance of the Suspension Order. On September 8, 2015, Relators filed an appeal of the Commission's affirmance of the Suspension Order to the Franklin County Court of Common Pleas. After various procedural rulings relating to whether Relators properly filed their notice of appeal, the administrative appeal proceeded on June 30, 2016. And, on December 23, 2016, the Court of Common Pleas found that the Suspension Order was lawful, but reversed the judgment of the Court of Common Pleas, concluding the Order was unreasonable. The Division appealed this decision to the Tenth District Court of Appeals.

{¶8} Meanwhile, on August 26, 2016, Relators filed the instant petition for writ of mandamus alleging the continued enforcement of the Suspension Order had substantially interfered with Relators' property rights by depriving them of all or, at least partial, economically-viable use of the property. In light of the appeal to the Tenth Appellate District, this court stayed the underlying proceedings due to the possibility of rendering an inconsistent ruling contrary to the jurisdictional priority rule.

{¶9} On July 31, 2018, the Tenth District reversed the judgment of the court of common pleas, concluding, inter alia, the lower court based its decision on impermissible evidentiary inferences made between experts who testified before the division *and* because the trial court drew conclusions regarding the likelihood of seismic risk without reliable evidentiary support. See *Am. Water Mgt Servs., LLC v. Div. of Oil & Gas Resources Mgt.*, 10th Dist. Franklin No. 17AP-145, 2018-Ohio-3028. The Tenth District therefore determined the Suspension Order was reasonable and reinstated the same. Relators filed a jurisdictional appeal with the Supreme Court of Ohio and, on November 21, 2018, in *Am. Water Mgt. Servs., LLC v. Div. of Oil & Gas Resources Mgt.*, 2018-Ohio-3028, the Court declined jurisdiction. And, on December 26, 2018, the Court denied Relators' motion for reconsideration. See 2018-Ohio-3028. This court subsequently lifted the stay and we now consider Respondents' motion for summary judgment and Relators' memorandum in opposition.

Mandamus

{¶10} In order for a writ of mandamus to issue, Relators must establish a clear legal right to compel Respondents to initiate appropriation action, Respondents' corresponding duty to institute the action, and the lack of an adequate remedy for

relators in the ordinary course of law. See, e.g., *State ex rel. Duncan v. Mentor City Council*, 105 Ohio St.3d 372, 2005-Ohio-2163, ¶10.

¶11 “[M]andamus is the vehicle for compelling appropriation proceedings by public authorities where an involuntary taking of private property is alleged.” *State ex rel. Levin v. Sheffield Lake*, 70 Ohio St.3d 104, 108 (1994), citing *State ex rel. McKay v. Kauer*, 156 Ohio St. 347 (1951), paragraph three of the syllabus. “In such actions, the court, as the trier of fact and law, must determine whether any property rights of the owner have been taken by the public authority.” *Levin, supra, citing Akron-Seller v. Akron*, 49 Ohio App.2d 128, 130 (9th Dist.1974).

Summary Judgment Standard

¶12 Pursuant to Civil Rule 56(C), summary judgment is proper when (1) the evidence shows “that there is no genuine issue as to any material fact” to be litigated; (2) “the moving party is entitled to judgment as a matter of law;” and (3) “it appears from the evidence * * * that reasonable minds can come to but one conclusion and that conclusion is adverse to the party against whom the motion for summary judgment is made, that party being entitled to have the evidence * * * construed most strongly in the party's favor.” *Id.*

“Takings”

¶13 Frequently referred to as the “Just Compensation Clause,” the final clause of the Fifth Amendment to the United States Constitution provides: “nor shall private property be taken for public use, without just compensation.” The prohibition against takings applies equally to the states and the federal government. *Chicago, B. & Q. Co. v. Chicago*, 166 U.S. 226, 239, 241 (1896). Two forms of regulatory acts are deemed

per se unconstitutional takings: (1) governmental actions that cause an owner to experience a permanent physical invasion of the property. *State ex rel. Shelly Materials v. Clark Co. Bd. of Comm'rs*, 115 Ohio St.3d 337, 2007-Ohio-5022 ¶18, citing *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419, 435-440 (1982); and (2) governmental regulations that completely deprive the owner of all economically beneficial use of the property. *Shelly, supra*, citing *Lucas v. South Carolina Coastal Council*, 505 U.S. 1003, 1019 (1992).

{¶14} Beyond these two narrow categories, temporary takings are governed by the standards set forth in *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104 (2005). *Shelly, supra*. "Penn Cent. recognizes an ad hoc, factual inquiry that requires the examination of the following three factors to determine whether a regulatory taking occurred in cases in which there is no physical invasion and the regulation deprives the property of less than 100 percent of its economically viable use: (1) the economic impact of the regulation on the claimant, (2) the extent to which the regulation has interfered with distinct investment-backed expectations, and (3) the character of the governmental action." *Shelly, supra*, at ¶19, citing *Penn Cent., supra*, at 124.

{¶15} We shall first address Respondents' arguments that Relators have failed to establish a clear legal right to relief or Respondents' concomitant duty to perform the requested actions as it relates to their categorical taking claim. Relators attached the transcript of the hearing before the Commission to their original petition. At the hearing, testimony established that, even though operations of AWMS #2 Well have been suspended, AWMS #1 Well is operational. Moreover, at the time of the hearing, the well-site property still processed, stored, recycled, treated, and disposed of brine. As a

result, AWMS president Steve Kilper testified at the hearing, the property "generates revenue."

{¶16} Although Relators ceased operations of the AWMS #1 Well in 2015, this does not imply the property is without value. Mr. Kilper testified during deposition that certain third parties had expressed an interest in using the property, but no agreement was finalized. This suggests the property could be sub-let to other parties and thus revenue could be passively earned, despite the voluntary shutdown of AWMS #1 Well and the regulatory shutdown of AWMS #2 Well.

{¶17} Moreover, Andrew Adgate, Underground Injection Control Manager of Division of Oil and Gas Resources Management, submitted a report on potential alternative uses of Relators' property. Mr. Adgate opined that the property and its existing structures could be used to operate waste facilities to store, treat, process, or dispose of brine or other substances associated with oil and gas operations. Accordingly, even though Relators voluntarily ceased operations of AWMS #1 well, they have not been completely deprived of all economically beneficial use of the property. The foregoing demonstrates that, notwithstanding the order suspending operations of AWMS #2 Well, there has not been a complete elimination of the property's value. Viewing the evidence in Relators' favor, there is no genuine issue of material fact relating to their categorical taking claim. As such, they are not entitled to require Respondents to commence appropriation proceedings on this basis and Respondents are therefore entitled to judgment as a matter of law on that issue.

{¶18} We shall next address Respondents' position that the Suspension Order did not result in a partial regulatory taking and thus Relators are not entitled to relief in mandamus on that issue.

{¶19} *Penn Cent.* requires a court to consider three factors in evaluating whether a partial regulatory taking has occurred; to wit (1) the economic impact of the regulation on Relators, (2) the extent to which the regulation has interfered with Relators distinct investment-backed expectations, and (3) the character of the governmental action. *See id.* We shall first consider the character of the government action.

Character of the Suspension Order

{¶20} Respondents note that the Division is vested with the statutory authority to regulate oil and gas activities, including the disposal of brine, to promote public health, safety, and welfare. Moreover, Respondents note neither they, nor Relators were aware the injection well site was within 1,000 feet of an earthquake fault line when Relators obtained their permit. They emphasize, however, that "changed circumstances may make what was previously permissible no longer so. So also does the fact that other landowners, similarly situated, are permitted to continue the use denied to the claimant." *Lucas v. S.C. Coastal Carolina*, 505 U.S. 1003, 1031 (1992). Respondents additionally cite to the Tenth Appellate District's decision which upheld the Suspension Order as reasonable and engaged in a lengthy discussion of the character of the order. In light of these points, Respondents maintain, the character of the order militates heavily against Relators' request for writ of mandamus.

{¶21} Relators contend that even though Respondents' actions are purportedly premised upon public health and safety, these concerns do not automatically negate

their taking claim. Relators maintain they have complied with all requirements and conditions placed upon them and Respondents have failed to work with them in re-initiating operations. Relators assert they have proposed conditions to restart operations that are consistent with Respondents' policies and practices; Relators claim, however, Respondents have ignored their proposals. They contend the delay has been unreasonable and the Suspension Order is tantamount to a complete termination of operations. In their view, the character of the order is unreasonably onerous and, as a result, they assert there are genuine issues of material fact on this point precluding summary judgment.

{¶22} In evaluating the character of the Suspension Order, we emphasize that the issue of the reasonableness of the Suspension Order has been fully litigated and the Tenth District's opinion has preclusive effect on that point. The doctrine of res judicata covers two related concepts: claim preclusion and issue preclusion, traditionally known as collateral estoppel. *O'Nesti v. DeBartolo Realty Corp.*, 113 Ohio St.3d 59, 2007-Ohio-1102, ¶6. As relevant to our case, issue preclusion "serves to prevent relitigation of any fact or point that was determined by a court of competent jurisdiction in a previous action between the same parties or their privies." *Fort Frye Teachers Assn., OEA/NEA v. State Emp. Relations Bd.*, 81 Ohio St.3d 392, 395 (1998). Issue preclusion applies even if the causes of action differ. *Id.* The character of the order has been deemed reasonable as a matter of law and that judgment was issued in an action between the same parties. Collateral estoppel therefore bars Relators from challenging the reasonableness of the underlying order.

{¶23} Notwithstanding the preclusive effect of the Tenth District's opinion on the issue, a few additional points underscoring the reasonable character of the order bear emphasis. Relators' expert, Michael Hasting, a geophysicist, as well as the Chief agreed that the seismic events in 2014 were likely caused by the injection activities of AWMS #2 Well. And, in his December 2017 report, which addressed the Division's actions in relation to Relators suspension, the Chief stated:

{¶24} When the Division reviews an application for an injection well, the location and known faults in the immediate area are considered. The Division was not aware of known faults in the immediate area and pre-injection seismic monitoring detected no nearby events. After two seismic events in close proximity to the AWMS #2 injection well, the Division now has evidence of a fault in the immediate area. *The Division does not know the size or energy contained in the fault, but in other similar instances, the energy of the seismicity has increased substantially from one event to another. The urban setting of the AWMS #2 injection well increases the potential for damage resulting from continued seismicity. Nine schools and multiple neighborhoods are located within close proximity of the AWMS #2 injection well.* (Emphasis added.)

{¶25} During his testimony at the hearing before the Commission, the Chief specifically stated that schools, neighborhoods, various forms of infrastructure, as well as the Niles Fire Department are within a two-mile radius of Respondents' operation. And, after discovering the active fault line in light of the seismic events, which were strongly linked to Respondents' injection activities, the Chief asserted the Division's risk assessment changed such that it was unclear that any injection activities could be safe. This was so especially in light of the likelihood that any future induced seismic event would be incrementally more severe than the previous events.

{¶26} Relators nevertheless contend that, regardless of the various circumstances surrounding the Suspension Order, Respondents have acted in an

unreasonably dilatory fashion in addressing what conditions must be satisfied to reinstate operations of AWMS #2 Well. At the hearing before the Commission, the Chief detailed the highly-involved process in creating a state-wide policy. He stated:

{¶27} We're in the process of trying to develop those criteria. We're not there yet. Back in September of 2013, I approached the executive director of the Interstate Oil and Gas Compact Commission, which is a commission of state governors for oil and gas-producing states. Ohio is a member state. I represent our governor in that organization.

{¶28} And I also approached the executive director of Ground Water Protection Council. That's a national organization where states that run injection programs are for the most part members of that organization, and it's probably the leading organization for groundwater protection and injection activities in general.

{¶29} So I approached those directors and asked them if they would help me get a group going through what they have as states' first initiatives. They pull states together to help states decide how states should address and handle problems like induced seismicity. So in September I approached them. In March of 2014, we held our first face-to-face meeting. Mr. Warstal and I flew to Oklahoma. We met with our counterparts from Oklahoma, Kansas, Texas, and Arkansas, and we began the group.

{¶30} * * *

{¶31} The risk assessment. Part of the group is creating, how do we communicate the seismic data? How do we make it available to people so they can review it as well? How do we communicate the seismic event? Essentially what we're creating is a toolbox of scientific methodology to evaluate the technical and risk-based issues associated with this. We're creating a process where all these experts from all around the country are saying, like on the seismic equipment, here are the types of seismic equipment, here's its limitations, here's its advantages, here are costs, here's where I would use it, here's where I wouldn't use it, so that people like me can make better decisions when we evaluate these problems.

{¶32} We have a goal, and I'm extremely confident we will meet this goal. In May, the Interstate Oil and Gas Compact Commission has its business meeting. We're going to present a draft document to them that has all this information in it, all this advice to regulatory

programs. In September, the Ground Water Protection Council and Interstate Oil and Gas Compact Commission are having a combined meeting. We hope to present a final document to those two organizations to be used as a reference by all regulatory programs, including us.

{¶33} From that, and in parallel with that development, we in Ohio will develop the Ohio-specific version of that document. That will then turn into an Ohio Specific guideline. It will be a guideline for industry. It will be a guideline for our staff. It will make things known and more predictable. And then we will wrap a policy around that that says this is how we're going to implement it and this is what it means.

{¶34} The foregoing demonstrates that the procedure for developing a state-wide policy for seismic regulation is a complicated and time-consuming process. It involves meeting with various regulatory bodies and information sharing with officials from other states. After working with various state regulators, industry experts, and consultants, the Chief, in his December 2017 report, stated the Division's knowledge relating to induced seismicity increased significantly. As a result of this increased knowledge, the Division determined that a policy on induced seismicity for injection wells could not be applied on a statewide basis. In lieu of the policy, the Division elected to treat each injection-well site on a case-by-case basis. Given this decision, the Chief maintained that operations of AWMS #2 Well should not be resumed until the Division received and approved of a detailed plan, drafted by AWMS, that would include risk assessment criteria. The Chief recognized that AWMS had previously submitted a plan to resume operations, but, after reviewing the plan, the Division found it to be overly generic and inadequate. As of the December 2017 report, our record does not indicate AWMS had submitted an alternative plan that meets the criteria set forth in the Chief's report.

{¶35} In light of the process detailed by the Chief relating to interstate cooperation and information sharing on induced seismicity and the ultimate decision to evaluate each well on an individual basis, as well as Relators' failure to submit a more comprehensive plan, we fail to see how the Division has acted in an unreasonably or unnecessarily dilatory fashion.

{¶36} Next, Relators assert that they are being treated unfairly because similarly situated operations in Washington County have been allowed to continue despite consistent seismic events and those wells' proximity to the city of Marietta, a relatively populated area.

{¶37} At the hearing before the Commission, the Chief testified that, in its investigations of the Washington County seismic activity, the Division concluded the operations were not inducing seismicity. Alternatively, upon evaluating the activity occurring near Relators' operations, the Division, along with the Geologic Survey and a separate consultant, concluded there was strong evidence that Relators' Well #2 induced the seismic events. The Chief noted that the proximity of well construction to the Precambrian basement rock in the earth's crust is an important factor in evaluating whether injection induces seismicity. He stated that the Washington County site had just under a one-mile separation from the Precambrian rock, whereas AWMS #2 Well was significantly closer, less than 500 feet from the Precambrian rock. And, in his December 2017 report, the Chief stated that the Division's actions are consistent with responses to other incidents of seismicity. To wit, he observed:

{¶38} Comparing AWMS's events to others like Washington County and Northstar [Well #1, Youngstown] events, reveals that the Division's approach is consistent given the circumstances of each case. In both the AWMS and Northstar incidents, the injection wells

penetrate the deepest formation above the Precambrian basement rock, inject through an open-hole well construction, and detected events occurred in an escalating nature at depths within the Precambrian basement rock. This can be contrasted with the incident in Washington County, where the injection well is completed as perforations through casing in a formation separated from the basement by more than 5050 feet.

{¶39} According to the Chief, the relative depths of the wells in question and their proximity to the Precambrian basement are pivotal factors for the Division's risk assessment and the measures it takes to regulate the operations. Pursuant to statute, "[t]he division has sole and exclusive authority to regulate the permitting, location, and spacing of oil and gas wells and production operations within the state." R.C. 1509.02. Given the above points, we conclude there are sufficient differences between Relators' operations and the Washington County operations to reasonably justify the Division's different treatment of the relative injection sites.

{¶40} In light of (1) the Tenth Appellate District's legal conclusion that the Suspension Order is reasonable as a matter of law; (2) the temporal and spatial relationship of the seismic events and Relators' activities; (3) the proximity of the operations to an actual fault line and the Precambrian basement rock; (4) the views of the experts, including the Chief, regarding the causal relationship between Relators' operations and the seismic events (induced seismicity); (5) the empirical likelihood that induced seismic activity could amplify if operations are continued; (6) the proximity of the injection sites to populated urban areas; and (7) the Chief's proclamation that the Division would work with AWMS if it provided a sufficiently detailed, scientific plan to re-initiate operations, we conclude the character of the Suspension Order is neither unfair nor arbitrary. Thus, considering the totality of the circumstances, there is no genuine

issue of material fact that the character of the order at issue protects the public's health and safety from the realistic potential of increased induced seismicity resulting from injection activities on AWMS #2 Well.

Distinct Investment-Backed Expectations

{¶41} Relators, in their memorandum in opposition, acknowledge the distinct-investment-backed-expectations analysis encompasses two prongs. The first looks at Relators' actual expectation, i.e., an expectation "would not really be 'investment-backed' unless they actually believed in a certain outcome and entered the program in reliance on it." *Cienega Gardens v. United States*, 331 F.3d 1319, 1346 (Fed.Cir. 2003). The second is whether those expectations are objectively reasonable. *CCA Associates v. United States*, 667 F.3d 1239, 1247 (Fed. Cir. 2011).

{¶42} In this matter, Relators have established they actually had a subjective expectation their operations would make a profit. And, after obtaining the necessary permits and adhering to all conditions imposed by the Division, they reasonably expected to earn an economic return on their investments. The issue therefore turns on whether their subjective expectations, in light of the surrounding circumstances that existed at the time they sought investors as well as the circumstances that developed once operations commenced, were objectively reasonable.

{¶43} In 2011, a near-4.0 event occurred at the Northstar Well #1, near Youngstown. This well was approximately seven miles from Relators' injection site. Although this event was not in the immediate vicinity of Relators' property, it placed Relators on notice that some significant seismic activity had occurred within the region.

{¶44} In a Confidential Offering Memorandum submitted by AWMS Holdings, LLC to prospective investors in September 2013, Relators identified “risk factors” emphasizing that the securities at issue “involve a high degree of risk” and prospective investors should be aware of these risks. The Memorandum highlights the “continuing risk” of “seismic events similar to the one that occurred in the Youngstown, Ohio area.” Relators were consequently not only aware that, even though their site was not adjacent to the Youngstown-event site, there were dangers posed by the operations and, significantly, that such dangers were sufficiently foreseeable that they must be disclosed.

{¶45} The Memorandum also noted that, due to the inherent risks of operating a well site, there is a possibility that well operations could be suspended and/or terminated by the OEPA and/or the ODNR. Relators were thus aware that their business investment was subject to heightened oversight and regulation. And, by investing in the business, investors were assuming an acknowledged and significant risk.

{¶46} Furthermore, the Memorandum also outlined certain geologic risks. It stated that AWMS had performed no “subsurface testing.” As a result, the Memorandum disclosed that the adequacy of the geology and the suitability of the wells “will only be known upon drilling, completion, and operation of the wells.” This indicates that AWMS had no ability to predict that the well site(s) would be viable; in effect, investors would have to have “faith,” in light of the significant risks, that after construction and commencement of operations, the wells would perform without a potentially environmentally catastrophic incident.

{¶47} Ultimately, after the two events had occurred in 2014 on Relators' site, Respondents determined there was a fault line in the immediate area. As the Memorandum recognized, Relators did not conduct any subsurface testing and additionally acknowledged that the suitability of the wells would be known after operations commenced. Upon commencement of AWMS #2 Well, the events occurred, Respondents (along with Relators' expert) acknowledged that the events were likely induced by the operations, and suspended operations. Each of these eventualities were foreseen in the Memorandum and duly noted as "risk factors."

{¶48} Relators must demonstrate they had a reasonable investment-backed expectation that they would not be subject to the restraints imposed upon them when they commenced their enterprise by leasing the property. Given the acknowledgements in the Memorandum, in conjunction with the Chief's explanation for entering the Suspension Order, we conclude they could not have possessed such expectations. Relators knew they were embarking on a business venture that is highly regulated, pursuant to Ohio statute, and designed to protect the health and safety of the public. Their disclosures in the Memorandum demonstrate they did not expect they would be free from regulatory oversight with regard to seismic events. And, because they had conducted no subsurface testing, they recognized the suitability of the wells and, by implication, the investment, depended upon how the geology of the area responded to their actual drilling. Of course, Relators hoped that, after obtaining the permits, their operations would persist free of further regulation. This hope, however, was a speculative possibility, not an objectively reasonable expectation. See *Guggenheim v. Goleta*, 638 F.3d 1111, 1120 (9th Cir.2010) ("Speculative possibilities of windfalls do not

amount to 'distinct investment-backed expectations.');" *see also Rith Energy, Inc. v. United States*, 247 F.3d 1355, 1365 (Fed. Cir.2001) (Coal lessee could not show reasonable investment-backed expectation that it would not be subject to type of regulation imposed when it acquired leases.); *M & J Coal Co. v. United States*, 47 F.3d 1148, 1154 (Fed.Cir.1995), (Mining company "knew or should have known that it could not mine in such a way as to endanger public health or safety and that any state authorization it may have received was subordinate to the national standards that were established by SMCRA[, the Surface Mining Control and Reclamation Act] and enforced by OSM[, the United States Department of Interior]." *See generally Good v. United States*, 189 F.3d 1355, 1362 (Fed.Cir.1999) (holding that the property owner had no reasonable investment-backed expectations because he "had both constructive and actual knowledge that either state or federal regulations could ultimately prevent him from building on the property"); *Creppel v. United States*, 41 F.3d 627, 632 (Fed.Cir.1994) (stating that one who buys with knowledge of regulatory restrictions on the use of property "assumes the risk of economic loss.")

{¶49} Although the materialization of the business risks (of which Relators were aware upon seeking investors) may have interfered with their subjective expectations for profit, the manifestation of the risks cannot provide a basis for the inference that Relators' *reasonable* investment-backed expectations were thwarted by regulations designed to ameliorate the dangers caused by such risks. We therefore conclude Relators have failed to demonstrate a genuine issue of material fact that they possessed reasonable investment-backed expectations that they would not be subject

to restraints, in the form of regulations, that could foreseeably cause their operations to be suspended, perhaps indefinitely, due to induced seismic activity.

{¶50} In light of the foregoing analysis, even assuming the economic impact of the regulation has been severe, Relators have failed to demonstrate (1) the character of the regulation, in light of the circumstances, was unreasonable or unfair; and (2) that the regulation interfered with Relators' objectively reasonable investment-backed expectations. We therefore conclude that no genuine issue of material fact remains to be litigated in mandamus. Relators are not entitled to require Respondents to initiate appropriations proceedings as a matter of law.

{¶51} It is hereby ordered and adjudicated that Respondents are entitled to summary judgment on Relators' petition for writ of mandamus.

THOMAS R. WRIGHT, P.J., CYNTHIA WESTCOTT RICE, J., TIMOTHY P. CANNON, J., concur.

STATE OF OHIO)
)ss.
COUNTY OF TRUMBULL)

IN THE COURT OF APPEALS
ELEVENTH DISTRICT

STATE OF OHIO ex rel. AWMS WATER
SOLUTIONS, LLC, et al.,

JUDGMENT ENTRY

Relators,

CASE NO. 2016-T-0085

- vs -

JAMES ZEHRINGER, DIRECTOR OHIO
DEPARTMENT OF NATURAL
RESOURCES, et al.,

Respondents.

For the reasons stated in the Per Curiam Opinion of this court,
Respondents' motion for summary judgment is hereby granted. Relators' petition
for writ of mandamus is hereby denied.

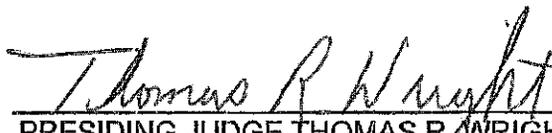
Costs to be taxed against Relators.

Any pending motions are hereby overruled as moot.

FILED
COURT OF APPEALS

MAR 18 2019

TRUMBULL COUNTY, OH
KAREN INFANTE ALLEN, CLERK


PRESIDING JUDGE THOMAS R. WRIGHT


JUDGE CYNTHIA WESTCOTT RICE


JUDGE TIMOTHY P. CANNON

STATE OF OHIO)
)SS.
COUNTY OF TRUMBULL)

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JUDGMENT ENTRY

Relators,

CASE NO. 2016-T-0085

- vs -

JAMES ZEHRINGER, DIRECTOR OHIO
DEPARTMENT OF NATURAL
RESOURCES, et al.,

Respondents.

Respondents, James Zehringer, Director, Ohio Department of Natural Resources, et al., have moved this court to dismiss or, in the alternative, stay, the petition for writ of mandamus filed by relators, AWMS Water Solutions, LLC, et al. Relators seek the underlying writ to compel respondents to commence appropriations proceedings based upon their allegation that respondents regulatory actions have eliminated the economic viability of certain real property and, as a result, respondents have effectuated a taking, in violation of the United States and Ohio Constitutions. Respondents maintain relators' petition fails to state a claim upon which relief can be granted and, therefore, the petition should be dismissed pursuant to Civ.R. 12(B)(6). For the reasons discussed below, respondents' motion is granted in part and denied in part.

Relator, AWMS Water Solutions, LLC, is a company involved in disposing waste from oil and gas production sites and drilling sites. Relator, AWMS Holdings, LLC, is a holding company for a series of wholly-owned subsidiaries

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that own and operate brine disposal wells and facilities. Relator, AWMS Rt. 169, LLC, is a company that is a wholly-owned subsidiary of AWMS Holdings, LLC, and was formed to own and operate two salt-injection wells in Weathersfield Township, Trumbull County, Ohio. Respondents are James Zehringer, the Director of the Ohio Department of Natural Resources (“Director”), the Ohio Department of Natural Resources (“ODNR”), Richard Simmers, Chief of the Division of Oil and Gas Resources Management (“Chief”) and the Division of Oil and Gas Resources Management (“Division”).

Relators secured a lease of property in an industrial area in Weathersfield Township, which it acquired for the purpose of constructing two salt-water injection wells for the disposal of oil and gas production waste. On December 23, 2011, relators applied to the Division for a permit to construct the wells, designated AWMS #1 Well and AWMS #2 Well. The operational permit was issued on March 24, 2014. Full commercial operations of the wells commenced in May and June of 2014. During the time the wells were operating, AWMS #1 Well represented 5% of total injections between the two wells, while AWMS #2 Well represented 95% of total injections.

On July 28, 2014, a seismic event, measuring magnitude 1.7, occurred in Trumbull County in the vicinity of Relators’ wells. On August 31, 2014, another seismic event occurred, measuring 2.1 occurred in the vicinity of the wells. On September 3, 2014, the Division issued Chief’s Order No. 2014-372, amended by Chief’s Order No. 2014-374 (“Suspension Order”), ordering relators to: (1) immediately suspend all operations at AWMS #2 Well, and (2) submit a written plan to the Division for evaluating certain “seismic concerns associated with the

operation of the AWMS #2 salt water injection well.” AWMS #2 Well has not operated since imposition of the Suspension Order.

Relators appealed the Suspension Order to the Ohio Oil & Gas Commission (“Commission”). After a hearing, the Commission found the Chief’s issuance of the Suspension Order was not unlawful and/or unreasonable and affirmed the Division’s issuance of the Suspension Order. Relators filed an appeal of the Commissions affirmance of the Suspension Order to the Franklin County Court of Common Pleas. That matter remains pending.

On August 26, 2016, relators filed the instant petition for writ of mandamus alleging the continued enforcement of the Suspension Order has substantially interfered with relators’ property rights by depriving them of all or, at least partial, economically-viable use of the property.

Mandamus

In order for a writ of mandamus to issue, relators must establish a clear legal right to compel respondents to initiate appropriation action, respondents’ corresponding duty to institute the action, and the lack of an adequate remedy for relators in the ordinary course of law. See e.g. *State ex rel. Duncan v. Mentor City Council*, 105 Ohio St.3d 372, 2005-Ohio-2163, ¶10.

“[M]andamus is the vehicle for compelling appropriation proceedings by public authorities where an involuntary taking of private property is alleged.” *State ex rel. Levin v. Sheffield Lake*, 70 Ohio St.3d 104, 108 (1994), citing *State ex rel. McKay v. Kauer*, 156 Ohio St. 347 (1951), paragraph three of the syllabus. “In such actions, the court, as the trier of fact and law, must determine whether

any property rights of the owner have been taken by the public authority.” *Levin, supra, citing Akron-Seller v. Akron*, 49 Ohio App.2d 128, 130 (9th Dist.1974).

Civ.R. 12(B)(6) Standard

A Civ.R.12(B)(6) motion is procedural and tests the sufficiency of the complaint. *State ex rel. Hanson v. Guernsey Cty. Bd. of Commrs.*, 65 Ohio St.3d 545 (1992). A party may only prevail on a motion to dismiss under Civ.R. 12(B)(6) if it “appear[s] beyond doubt from the complaint that the plaintiff can prove no set of facts entitling him to recovery.’ *O’Brien v. Univ. Comm. Tenants union, Inc.*, 42 Ohio St.2d 242 (1975) * * * syllabus. A court ‘must presume that all factual allegations of the complaint are true and make all reasonable inferences in favor of the non-moving party.’ *Mitchell v. Lawson Milk Co.*, 40 Ohio St.3d 190, 192 (1988).” *Estate of Ridley v. Hamilton Cty. Bd. of MRDD*, 102 Ohio St.3d 230, 232, 2004-Ohio-2629. “Under these rules, a plaintiff is not required to prove his or her case at the pleading stage. * * * Consequently, as long as there is a set of facts, consistent with the plaintiff’s complaint, which would allow the plaintiff to recover, the court may not grant a defendant’s motion to dismiss.” *York v. Ohio State Highway Patrol*, 60 Ohio St.3d 143, 144-145 (1991).

In ruling on a Civ.R. 12(B)(6) motion to dismiss, we are strictly limited to the allegations in the complaint and may not consider any materials outside the pleading. “Material incorporated in a complaint may be considered part of the complaint for purposes of determining a Civ.R. 12[B][6] motion to dismiss.” *State ex rel. Crabtree v. Franklin Cty. Bd. of Health*, 77 Ohio St.3d 247, 249, fn. 1 (1997).

“Takings”

Frequently referred to as the “Just Compensation Clause,” the final clause of the Fifth Amendment to the United States Constitution provides: “nor shall private property be taken for public use, without just compensation.” The prohibition against takings applies equally to the states and the federal government. *Chicago, B. & Q. Co. v. Chicago*, 166 U.S. 226, 239, 241 (1896). Two kinds of regulatory acts are deemed per se unconstitutional takings: (1) governmental actions that cause an owner to experience a permanent physical invasion of the property. *State ex rel. Shelly Materials v. Clark Co. Bd. of Comm’rs*, 115 Ohio St.3d 337, 2007-Ohio-5022. ¶18, citing *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419, 435-440 (1982); and (2) governmental regulations that completely deprive the owner of all economically beneficial use of the property. *Shelly, supra*, citing *Lucas v. South Carolina Coastal Council*, 505 U.S. 1003, 1019 (1992).

Beyond these two narrow categories, temporary takings are governed by the standards set forth in *Penn Central Transp. Co. v. New York City*, 438 U.S. 104 (2005). *Shelly, supra*. “*Penn Cent.* Recognizes an ad hoc, factual inquiry that requires the examination of the following three factors to determine whether a regulatory taking occurred in cases in which there is no physical invasion and the regulation deprives the property of less than 100 percent of its economically viable use: (1) the economic impact of the regulation on the claimant, (2) the extent to which the regulation has interfered with distinct investment-backed expectations, and (3) the character of the governmental action.” *Shelly, supra*, at ¶19, citing *Penn Cent., supra*, at 124.

Analysis

In their petition, as well as their memoranda in opposition to respondents' motion to dismiss, relators assert two theories in support of their argument that relators have effected a taking of their property. First, they assert respondents' actions amount to a categorical taking because the Suspension Order has deprived them of all economic use of the property. Second, they contend that even if respondents' actions do not rise to the level of a categorical-regulatory taking, the Suspension Order involves a partial regulatory taking for which they are entitled to compensation.

In support of their motion to dismiss, respondents maintain relators have failed to demonstrate they have a clear legal right to compel respondents to commence appropriation proceedings. Moreover, they claim relators have also failed to demonstrate respondents have a duty to initiate appropriation proceedings. Finally, they contend that, irrespective of these points, relators have an adequate remedy at law, thereby precluding extraordinary relief in mandamus. We shall first address whether relators have an adequate remedy at law.

In support of their position, respondents argue relators have appealed the Commission's affirmance of the Suspension Order to the Franklin County Court of Common Pleas. Accordingly, they claim that their petition is merely a collateral means of attacking the Chief's issuance of the Suspension Order.

Although the validity of the Suspension Order is tangentially connected to relators' argument that respondents' actions have unconstitutionally taken their property, their petition does not specifically challenge the Suspension Order.

Rather, relators allege that, in light of the Suspension Order (and regardless of the outcome of the administrative appeal), they have been deprived of all economically viable uses of the property or, at least partially deprived of economically viable usage of the property (i.e., respondents have taken the property). As such, they are claiming respondents are obligated to initiate appropriation proceedings to vindicate their constitutional right to compensation for the alleged taking. This claim is beyond the scope of the validity of the Suspension Order and, as a result, not an issue subject to challenge on administrative appeal. In this respect, and in light of the governing precedent that “mandamus is the vehicle for compelling appropriation proceedings,” *Levin, supra*, we do not agree that relators possess an adequate remedy in the ordinary course of law to resolve the issues set forth in the underlying petition.

We shall next address respondents’ arguments that relators have failed to establish a clear legal right to relief or respondents’ concomitant duty to perform the requested actions vis-a-vis their categorical taking claim. Relators attached the transcript of the hearing before the Commission to their petition. At the hearing, testimony established that, even though operations of AWMS #2 Well have been suspended, AWMS #1 Well is operational. Moreover, the well-site property still processes, stores, recycles, treats and disposes of brine. As a result, AWMS president Steve Kilper testified, the property “generates revenue.” Even construing the factual allegations of the petition as true, relators cannot show that the Suspension Order completely deprived them of *all* economically beneficial uses of the property. Relators have failed to allege facts sufficient to state a claim for a categorical taking and, accordingly, have failed to demonstrate

they have a clear legal right to appropriation proceedings or that respondents have a clear duty to initiate such proceedings. Relators' petition fails to state a claim for mandamus on this issue and, as a result, the claim premised upon the alleged categorical taking is dismissed pursuant to respondents' Civ.R. 12(B)(6) motion.

Next, respondents claim relators have failed to establish a clear legal right to relief or respondents' reciprocal duty to perform the requested actions as they relate to their temporary taking claim. As noted above, the inquiry as to whether a temporary taking occurred requires an ad hoc examination of three factors: (1) the economic impact on the landowner, (2) the extent the regulation has interfered with reasonable investment-backed expectations, and (3) the character of government action. *See Penn Cent.*, *supra*, at 124.

Here, relators' petition and memorandum in response to respondents' motion to dismiss indicate the suspension of AWMS #2 Well has cut their injection drilling by 95%. While there is other information in the materials attached to the complaint that indicates the property is still generating revenue, it is unclear, at this stage, how significant the suspension of AWMS #2 Well's drilling activity has actually impacted relators economically.

Moreover, respondents argue relators have only invested \$100,000 when performing risk assessment of the intended activities *and* they were aware that the Division may suspend or revoke their permits due to seismicity issues. Relator's petition, however, asserts "AWMS constructed the safest, most technologically advanced, and most closely monitored salt water injection facility in the State of Ohio at an approximate cost of \$7 million, all with the intention of

constructing and operating additional, similar state-of-the-art facilities as oil and gas development in the region grew.” Again, the Civ.R. 12(B)(6) inquiry requires this court to presume relators’ “reasonable investment-backed expectations” are true. Hence, despite the conflicting allegations, it is not possible to make a fully informed analysis of this issue at this stage.

Finally, suspension orders may be a common, foreseeable hazard of injection-well drilling. Relators contend, however, the character of this particular Suspension Order is unusually onerous. Relators’ petition alleges, they submitted a “comprehensive written plan to the Division to reinitiate operations at AWMS #2 Well” based upon other, similar wells where operators were allowed to operate at “reduced levels.” Notwithstanding this proposal, and relators’ allegation that other wells have been allowed to re-initiate operations under similar circumstances, their petition alleges the Division has indicated it “would not lift the suspension of AWMS #2 Well under any circumstances and no matter what information AWMS chose to submit until the Division and ODNR completed final policy-making for induced seismicity that would cover the entire state.” Regardless of the facially reasonable character of this justification, relators nevertheless assert the Division’s act of allowing other similarly-situated operators to continue drilling at a reduced level, renders the character of the underlying Suspension Order fundamentally unfair. Given the limited nature of our inquiry and materials available at this stage, we cannot make a fully informed evaluation of the character of the governmental action.

The analysis of a temporary taking is inherently and necessarily fact driven. Because we cannot weigh the relative merits of either parties’

substantive arguments at this stage, and must presume the facts and allegations in relators' petition to be true, it would be inappropriate to dismiss this claim via Civ.R. 12(B)(6). Therefore, giving relators the benefit of all reasonable inferences in their favor, the petition is sufficient to survive respondents' Civ.R. 12(B)(6) motion to dismiss as it relates to their temporary taking claim.

Finally, because we conclude the administrative appeal, contesting the validity of the Suspension Order, involves issues separate and apart from the instant action in mandamus, it is unnecessary to stay these proceedings during the pendency of that appeal. Respondents' motion to stay is therefore overruled.

We accordingly hold respondents' motion to dismiss is granted, as it relates to the claim for categorical taking; it is, however, denied, as it relates to the partial-regulatory taking claim.

**FILED
COURT OF APPEALS**

MAR 08 2017

**TRUMBULL COUNTY, OH
KAREN INFANTE ALLEN, CLERK**


PRESIDING JUDGE CYNTHIA WESTCOTT RICE


JUDGE TIMOTHY P. CANNON


JUDGE COLLEEN MARY O'TOOLE

IN THE COURT OF APPEALS OF OHIO
ELEVENTH APPELLATE DISTRICT
TRUMBULL COUNTY

FILED
COURT OF APPEALS
SEP 09 2024

TRUMBULL COUNTY, OH
KAREN INFANTE ALLEN, CLERK

STATE OF OHIO ex rel. AWMS WATER
SOLUTIONS, LLC, et al.,

Relators,

- v -

MARY MERTZ, DIRECTOR OHIO
DEPARTMENT OF NATURAL
RESOURCES, et al.,

Respondents.

CASE NO. 2016-T-0085

Original Action for Writ of Mandamus

OPINION

Decided: September 9, 2024

Judgment: Petition granted in part and denied in part

Daniel J. Rudary, John N. Childs, Elizabeth Shively Boatwright, Justin M. Alaburda, and Hilary F. DeSaussure, Brennan, Manna & Diamond, LLC, 75 East Market Street, Akron, OH 44308 (For Relators).

Dave Yost, Ohio Attorney General, State Office Tower, 30 East Broad Street, 16th Floor, Columbus, OH 43215; John K. McManus and Brett A. Kravitz, Assistant Attorneys General, Environmental Enforcement Section, 30 East Broad Street, 25th Floor, Columbus, OH 43215 (For Respondents).

MARY JANE TRAPP, J.

{¶1} This matter is before the court on remand from the Supreme Court of Ohio. See *State ex rel. AWMS Water Solutions, L.L.C. v. Mertz*, 2024-Ohio-200. After this court granted judgment as a matter of law in favor of respondents, Mary Mertz, Director, Ohio Department of Natural Resources (“ODNR”), et al. (collectively “the Division”). See *State ex rel. AWMS Water Solutions, L.L.C. v. Mertz*, 2022-Ohio-4571 (11th Dist.), the high court reversed this court’s opinion and judgment.



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{¶2} Pursuant to the Supreme Court of Ohio's remand order, this court must weigh the parties' relative evidence to determine whether relators, AWMS Water Solutions, LLC, et al. (collectively "AWMS"), through the Division's September 2014 shutdown order ("Suspension Order"), suffered a categorical taking and/or, in balancing the relevant *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104 (2005) factors, engaged in a partial, regulatory taking of subject leased property. *Mertz*, 2024-Ohio-200, at ¶ 31.

I. Synopsis of Ruling

{¶3} In 2014, AWMS began injecting wastewater brine pursuant to permits issued by the Division. After induced seismic events were traced to AWMS' primary injection well, the Division issued the Suspension Order, which was not lifted on that well until May 2021. In the interim, AWMS filed a petition for writ of mandamus asking this court to find the order effected an unconstitutional taking of its leasehold. The action requested that we order the Division to file appropriation proceedings to justly compensate the company for its lost earnings resulting from the Suspension Order.

{¶4} After lengthy legal proceedings, this court has considered the evidence submitted by both parties. We conclude a categorical taking did not occur, but a partial regulatory taking occurred as to the primary well. The weight of the credible evidence does not support the conclusion that AWMS lost all economically viable use of the leasehold; indeed, the Division produced evidence that AWMS could utilize the leased property in alternative, reasonable manners that would allow it to again generate income.

{¶5} We determine, however, the weight of the credible evidence supports AWMS' claim for a partial regulatory taking because it suffered an economic impact as a result of the Suspension Order, which interfered with reasonable, distinct investment-

backed expectations. While the Order was deemed reasonable as a matter of law, the reasonableness does not negate the significant impact of the other prongs of a partial-takings analysis. AWMS is entitled, in part, to relief in mandamus. The Division must, therefore, proceed to commence an appropriation action in the Trumbull County Probate Court for that court to determine just compensation.

II. Introduction

{¶6} After leasing acreage in Weathersfield Township, Trumbull County, Ohio, AWMS sought and obtained two Level II injection well permits to inject wastewater brine deep into the subsurface areas of the leased property. To obtain the permits, AWMS was required to follow specific statutory procedures and submit to significant governmental oversight. The oversight was premised upon certain inherent risks attendant to injecting wastewater, not the least of which is the risk of inducing earthquakes. Shortly after injection commenced, two seismic events took place – the first, a 1.7M event (“M” = “magnitude”); the second, a 2.1M event.

{¶7} The seismic events prompted the Division to issue suspension orders on both wells. Shortly thereafter, the shallower of the two wells, AWMS #1 Well was allowed to continue operation (which AWMS ultimately closed due to economic losses), but the second well, AWMS #2 Well, remained closed. Although AWMS attempted to meet the Division’s requests for a restart plan of the second well, the Suspension Order remained active. After unsuccessfully challenging the Suspension Order, AWMS filed the instant action seeking an order requiring the Division to file appropriation proceedings based upon an alleged unconstitutional taking requiring just compensation.

III. FACTUAL AND PROCEDURAL BACKGROUND

{¶8} Relator, AWMS, is a company involved in disposing wastewater from oil and gas production sites as well as drilling sites. Respondents are Mary Mertz, the Director of the Ohio Department of Natural Resources (“Director”); the ODNR; Richard Simmers, the former Chief of the Division of Oil and Gas Resources Management; and the Division.

{¶9} AWMS secured a lease on 5.2 acres of property (“the Site”) in an industrial area in Weathersfield Township, which it acquired for the purpose of constructing and operating salt-water injection wells, also known as Class II disposal wells. The Site is located in the urban area of Weathersfield Township, near the city of Niles. Schools, residences, the Mineral Ridge Dam, a fire department, a hospital, and other infrastructure are within three miles of the Site.

A. AWMS APPLIES FOR PERMITS

{¶10} On December 23, 2011, AWMS applied to the Division for permits to construct the wells, designated AWMS #1 Well and AWMS #2 Well. At the time AWMS submitted its applications for drilling permits, it had invested approximately \$100,000 into the development of the Site. The Division’s procedure for obtaining authorization to operate a Class II injection well is a two-step process. First, an applicant must apply for a permit to drill and construct a Class II injection well, and second, the applicant must apply to inject into the well.

{¶11} Also, between March and December 2011, six seismic events of varying magnitudes were detected in Youngstown, Ohio, near an injection well designated “Northstar #1,” operated by a third party not connected to this matter. On December 24, 2011, a 2.7M earthquake was recorded within one mile of the Youngstown well. After

reviewing the seismic data, the Division found that Northstar #1 Well likely induced the earthquake.

{¶12} On December 31, 2011, one day after Northstar #1 Well voluntarily ceased operations at the Division's request, a 4.0M event was recorded within one mile of the well. Northstar #1 Well is located approximately seven miles from the Site. After the second seismic event, the Division temporarily halted the issuance of permits through November 2012. During the pause in permit issuances, the Division drafted emergency rules to protect the public's health and safety.

{¶13} On July 18, 2013, the Division issued a drilling permit to AWMS. In September 2013, AWMS furnished a Confidential Offering Memorandum to potential qualified investors to raise the capital to construct the wells on the Site. Among other things, including projected production volume of the wells, the Memorandum identified "risk factors," emphasizing that the securities at issue "involve a high degree of risk" and prospective investors should be aware of these risks. The Memorandum highlighted the "continuing risk" of "seismic events similar to the one that occurred in the Youngstown, Ohio area."

{¶14} The Memorandum additionally noted that, due to the inherent risks of operating a well site, there is a possibility that well operations could be suspended and/or terminated by the Ohio Environmental Protection Agency ("OEPA") and/or the ODNR. The Memorandum also outlined certain geologic risks. It stated that AWMS had performed no "subsurface testing." As a result, the Memorandum disclosed that the adequacy of the geology and the suitability of the wells "will only be known upon drilling, completion, and operation of the wells."

B. AWMS BEGINS OPERATIONS

{¶15} AWMS #1 Well was drilled to a true vertical depth of 4,403 feet below ground surface, and AWMS #2 Well was drilled to a true vertical depth of 8,502 feet below ground surface. On March 24, 2014, an operational permit was issued. Full commercial operations of the wells commenced in May and June of 2014. AWMS installed four seismic monitoring stations for monitoring seismic activity around the Site and the surrounding community in accordance with and at the request of the Division.

{¶16} During July 2014, AWMS injected 71,434 barrels of fluid, and, in August 2014, it injected 54,734 barrels. During the time the wells were operating, AWMS #1 Well represented 5% of total injections between the two wells, while AWMS #2 Well represented 95% of total injections. AWMS generated a gross income of \$242,799 in July 2014 and \$170,695 in August 2014.

{¶17} On July 28, 2014, a seismic event measuring a magnitude of 1.7 occurred in Trumbull County in the vicinity of AWMS' wells. ODNR did not receive any "felt reports" for the July event.¹ On August 31, 2014, another seismic event occurred in the vicinity of the wells measuring 2.1M. The earthquakes were connected in time and space with injections at AWMS #2 Well, and experts agreed that the events were likely induced by AWMS' operations.

C. ODNR ISSUES SUSPENSION ORDER

{¶18} On September 3, 2014, the Division issued Chief's Order No. 2014-372, amended by Chief's Order No. 2014-374, ordering AWMS to (1) immediately suspend all operations at AWMS #2 Well, and (2) submit a written plan to the Division for evaluating

1. When a member of the public feels a seismic event, it is known as a "felt event."

certain “seismic concerns associated with the operation of the AWMS #2 saltwater injection well.” The Division also suspended operations at AWMS #1 Well but subsequently terminated this suspension in September 2014 after AWMS submitted additional information that AWMS #1 Well did not contribute to the earthquake activity.

{¶19} Following the termination of the order on AWMS #1 Well, AWMS injected into AWMS #1 Well from September 2014 until September 2015. The monthly revenues generated from the AWMS #1 Well did not cover the monthly expenses incurred to keep the facility running. In effect, AWMS was unable to inject the volumes at the AWMS #1 Well that it expected in its Confidential Offering Memorandum. And, because of the Suspension Order, AWMS #2 Well was not operational, and the company was unable to generate revenue.

{¶20} AWMS submitted a plan to restart its operations at AWMS #2 Well. The Division found, however, that the plan was deficient, “generic and inadequate,” and did not support terminating the Suspension Order. AWMS #2 Well was not operational or allowed to operate until May 2021, when an order (“Restart Order”) was issued allowing AWMS to recommence injection in AWMS #2 Well as long as it adhered to certain conditions.

D. ADMINISTRATIVE AND JUDICIAL PROCEEDINGS

{¶21} AWMS appealed the Suspension Order to the Ohio Oil & Gas Commission (“Commission”). On February 24, 2015, the Division and AWMS met to discuss resolution of the appeal of the Suspension Order. The Division provided AWMS with a list of 14 criteria consisting of additional tools and/or recommendations for AWMS to consider in aid of potentially restarting AWMS #2 Well.

{¶22} A hearing was held on AWMS' appeal of the Suspension Order, at which the Division's former Chief, Richard Simmers, issued a report and testified that "AWMS has not submitted a plan with sufficient detail or information to minimize risk presented by induced seismicity." Additionally, he testified that if AWMS "presented a very comprehensive plan; then it's possible we would consider that plan." Experts for AWMS testified that, in their view, AWMS' plan was reasonable but could also not conclude the Suspension Order was unreasonable. Still, AWMS' experts opined that the Order was unnecessary.

{¶23} In August 2015, the Commission found former Chief Simmers' issuance of the Suspension Order was not unlawful or unreasonable and affirmed the Division's issuance of the Suspension Order.

{¶24} AWMS filed an appeal of the Commission's affirmance of the Suspension Order to the Franklin County Court of Common Pleas. In November 2016 and on December 20, 2016, ODNR informed AWMS through letters from its counsel that, consistent with former Chief Simmers' testimony at the March 2015 Commission hearing, the Division was open to considering a comprehensive plan from AWMS that properly minimized risk.

{¶25} On December 23, 2016, the Franklin County Court of Common Pleas found that the Suspension Order was lawful but reversed the judgment of the Commission, concluding the Order was unreasonable. The Division appealed this decision to the Tenth District Court of Appeals.

{¶26} Meanwhile, on August 26, 2016, AWMS filed the instant petition for writ of mandamus alleging the continued enforcement of the Suspension Order had substantially interfered with AWMS' property rights by depriving them of all economically viable use of

the property. AWMS sought a judgment ordering the Division to commence appropriation proceedings for the purpose of awarding it just compensation for the State's alleged taking of its leasehold.

{¶27} In light of the appeal to the Tenth Appellate District, this court stayed the underlying proceedings due to the possibility of rendering an inconsistent ruling contrary to the jurisdictional-priority rule.

{¶28} On July 31, 2018, in the administrative appeal, the Tenth District reversed the judgment of the court of common pleas in part, concluding, *inter alia*, the lower court based its decision on impermissible evidentiary inferences made between experts who testified before the Division *and* the trial court drew conclusions regarding the likelihood of seismic risk without reliable evidentiary support. *See Am. Water Mgt. Servs., LLC v. Div. of Oil & Gas Resources Mgt.*, 2018-Ohio-3028, (10th Dist.).

{¶29} The Tenth District determined the Suspension Order was reasonable and reinstated the same. *See id.* at ¶ 59. AWMS filed a jurisdictional appeal with the Supreme Court of Ohio, and, on November 21, 2018, the Court declined jurisdiction. *See Am. Water Mgt. Servs., L.L.C. v. Div. of Oil & Gas Resources Mgt.*, 2018-Ohio-4670. On December 26, 2018, the Court denied AWMS' motion for reconsideration. *See Am. Water Mgt. Servs., L.L.C. v. Div. of Oil & Gas Resources Mgt.*, 2018-Ohio-5209.

{¶30} This court subsequently lifted the stay and proceeded to consider the Division's motion for summary judgment and AWMS' memorandum in opposition. On March 15, 2019, after considering the parties' filings, this court entered summary judgment in the Division's favor, concluding AWMS failed to establish a genuine issue of material fact requiring trial on both their categorical-regulatory takings claim and their

partial-regulatory takings claim. See *State ex rel. AWMS Water Solutions, LLC v. Zehringer*, 2019-Ohio-923, ¶ 17, ¶ 50 (11th Dist.).

{¶31} AWMS filed a direct appeal to the Supreme Court of Ohio, and, on December 2, 2020, the Court reversed this court's order entering summary judgment. See *State ex rel. AWMS Water Solutions, L.L.C. v. Mertz*, 2020-Ohio-5482. The Supreme Court determined there were genuine issues of material fact for trial on both AWMS' categorical-regulatory takings claim and their partial-regulatory takings claim and remanded the case to this court for further proceedings. See *id.* at ¶ 88-89.

{¶32} Subsequently, on May 21, 2021, Chief Vendel issued Chief's Order No. 2021-97, which terminated the Suspension Order, i.e., the Restart Order. The Restart Order authorized AWMS to resume injection operations at the AWMS #2 Well to the extent it met and maintained certain operational conditions.

{¶33} In light of the Supreme Court's remand order, the matter proceeded to trial. Trial commenced on September 20, 2021, and concluded on October 1, 2021. After trial, this court ordered additional briefing on a threshold legal issue of whether AWMS possessed a cognizable property interest in its lease such that it could proceed with its respective takings' claims. We determined AWMS did not. See *State ex rel. AWMS Water Solutions, LLC v. Mertz*, 2022-Ohio-4571, at ¶ 104 (11th Dist.).

{¶34} AWMS filed another direct appeal to the Supreme Court of Ohio. The Court reversed this court's judgment, finding that AWMS *had* established a constitutionally-protected property interest in its leasehold interest, and remanded for further proceedings. See *State ex rel. AWMS Water Solutions, L.L.C.*, 2024-Ohio-200, at ¶ 25-31. Accordingly, we proceed to an analysis of the merits of AWMS' claim.

IV. MANDAMUS

{¶35} In order for a writ of mandamus to issue, AWMS must establish a clear legal right to compel the Division to initiate an appropriation action, the Division's corresponding duty to institute the action, and the lack of an adequate remedy for AWMS in the ordinary course of law. See *State ex rel. Duncan v. Mentor City Council*, 2005-Ohio-2163, ¶ 10.

{¶36} The "standard of proof" is the threshold quantum of evidence that a party must establish in order to be entitled to the relief requested. *State ex rel. Todd v. State Teachers Retirement Sys.*, 2016-Ohio-5073, ¶ 17 (6th Dist.). The standard of proof placed upon a relator seeking a writ of mandamus is heightened. See *State ex rel. Doner v. Zody*, 2011-Ohio-6117, ¶ 56. "Parties seeking extraordinary relief bear a more substantial burden in establishing their entitlement to this relief." *Id.* In a mandamus case, a relator must prove its entitlement to a writ by clear and convincing evidence. See *State ex rel. Summit Cty. Republican Party Executive Commt. v. LaRose*, 2021-Ohio-1464, ¶ 8. Clear and convincing evidence is "intermediate" evidence, in that it requires more than a preponderance of evidence, but less than evidence beyond a reasonable doubt. *Cross v. Ledford*, 161 Ohio St. 469, 477 (1954). "Clear and convincing evidence is that measure or degree of proof which will produce in the mind of the trier of facts a firm belief or conviction as to the allegations sought to be established." *Id.*

{¶37} "[M]andamus is the vehicle for compelling appropriation proceedings by public authorities where an involuntary taking of private property is alleged." *State ex rel. Levin v. Sheffield Lake*, 70 Ohio St.3d 104, 108 (1994). "In such actions, the court, as the trier of fact and law, must determine whether any property rights of the owner have been taken by the public authority." *Id.*

V. THE DIVISION'S PARTIAL TAKING ARGUMENT AND NUISANCE DEFENSE

{¶38} The Division has argued that the suspension of AWMS #2 Well was, at most, merely a temporary taking and could never rise to the level of a categorical taking. Thus, the Division contends we need not consider AWMS' position that a complete taking was effected by the Suspension Order. We do not agree.

{¶39} The Division asserted, during summary judgment, that no categorical taking occurred because the Suspension Order did not require AWMS #2 Well to be permanently "plugged." The Supreme Court, however, emphasized "there is no material difference between a plugged well and a suspended well – neither can be used." *Mertz*, 2020-Ohio-5482, at ¶ 39. The Division further argued that a restart of AWMS #2 Well is entirely within the control of AWMS because the burden was on it, not the Division, to submit a restart plan. The Supreme Court found this argument disingenuous because "[e]ven if AWMS were to submit another plan, the [D]ivision might again fail to respond to it or disapprove of it." *Id.*

{¶40} To the extent the Division attempted to limit this court's analysis at trial to a temporary taking, we decline to indulge this invitation. The issue, even after the Suspension Order was lifted in May 2021, is *not only* whether the Suspension Order's effect and scope was temporary, but whether it eliminated *all* economically beneficial use such that it was completely unable to derive any economic benefits from its lease. This question is a matter of evidential weight, not a matter of law. We will proceed with an analysis of this important issue in this opinion. The Division's arguments to the contrary are unpersuasive.

{¶41} Next, the Division asserts that background principles of property and nuisance law are a viable affirmative defense and thus preclude consideration of a categorical taking.

{¶42} At the summary judgment stage, the Supreme Court held the Division “waived its nuisance defense” for purposes of the appeal on award of summary judgment. *Id.* at ¶ 55. The Supreme Court, however, preserved the Division’s nuisance defense upon review of its motion for reconsideration, noting the defense was not waived for trial. *Id.* at fn. 2. We conclude the Division failed to establish the defense such that AWMS’ categorical takings claim would require dismissal or judgment as a matter of law.

{¶43} “There is no more impenetrable jungle in the entire law than that which surrounds the word ‘nuisance.’” Keeton, Dobbs, Keeton & Owen, *Prosser and Keeton on The Law of Torts*, Section 86, at 616 (5th Ed. 1984). Traditionally, a nuisance is defined as “the wrongful invasion of a legal right or interest.” *Taylor v. Cincinnati*, 143 Ohio St. 426, 432 (1944). “Wrongful invasion” envelops the compromise of one’s use and enjoyment of property or of personal rights and privileges associated with the property. *Kramer v. Angel’s Path, L.L.C.*, 2007-Ohio-7099, ¶ 15 (6th Dist.) A public nuisance is “an unreasonable interference with a right common to the general public.” *Brown v. Scioto Cty. Bd. of Commrs.*, 87 Ohio App.3d 704, 712 (4th Dist.1993). A private nuisance is understood as “a non[-]trespassory invasion of another’s interest in the private use and enjoyment of land.” *Id.*

{¶44} We acknowledge that the public’s welfare is paramount in a matter such as this. Consistent with this observation, the Division argues there can be no taking when the State acts to abate a nuisance. In *Lucas*, 505 U.S. at 1029, the Supreme Court of the United States recognized that there are certain property-use limitations that “inhere in

the title itself, in the restrictions that background principles of the State's law of property and nuisance already place upon land ownership" or "by the State under its complementary power to abate nuisances that affect the public generally, or otherwise."

{¶45} The Division asserts that AWMS' use of its leasehold, under the circumstances, constitutes a nuisance because its operations will (at some point) fundamentally cause harm to others. See, e.g., *Louden v. Cincinnati*, 90 Ohio St. 144, 152 (1914) (noting that "one may not use his own property to the injury of any legal rights to another . . ."). Moreover, the Division underscores, "the constitutional right of the individual to use private property has always been subservient to the public welfare under Section 19, Article I of the Ohio Constitution, such use is subject to the legitimate exercise of local police power pursuant to Sections 3 and 7, Article XVIII of the Ohio Constitution." *N. Ohio Sign Contrs. Assn. v. Lakewood*, 32 Ohio St.3d 316, 318 (1987).

{¶46} The Division claims that the threat of catastrophic harm – an induced seismic event that could destroy basic and necessary infrastructure – or even the annoyance of "felt events" constitute sufficient, credible evidence of a nuisance which would preclude a categorical taking.

{¶47} Nothing in the evidence indicates AWMS' injection activities were an *imminent* threat to public health and safety. During the course of its operations, two minor seismic events occurred at magnitudes that did not pose a danger to public health, safety, or the environment. Moreover, the Restart Order reflects that AWMS #2 is allowed to operate to the extent it did not cause an event over a specific magnitude set by regulatory authorities. This essentially undercuts, if not refutes, the Division's argument that the Site's operations are either a public or private nuisance.

{¶48} AWMS was allowed to move forward with injections in AWMS #2 Well in May 2021. The Restart Order was a result of the governing, regulatory body concluding that AWMS can safely operate its facility that would not cause a dangerous-magnitude event to occur. The Restart Order was issued pursuant to Ohio law governed by R.C. Chapter 1509 (controlling the oil and gas sector, which also embraces injection wells of the variety AWMS drilled at the Site). “What the law sanctions cannot be held to be a public nuisance.” *Allen Freight Lines, Inc. v. Consol. Rail Corp.*, 64 Ohio St.3d 274, 277 (1992), quoting *Mingo Junction v. Sheline*, 130 Ohio St. 34 (1935), paragraph three of the syllabus.

{¶49} Furthermore, nothing in evidence demonstrates that the seismic activity traced to the injections at AWMS #2 Well resulted in felt events that materially or substantially affected any local resident’s enjoyment of his or her property. The events connected to the Site in the summer of 2014 were not felt by any members of the public and did not approach any level of magnitude that caused even superficial property damage.

{¶50} We therefore conclude that the Division failed to adduce credible evidence that AWMS’ operations at the Site created either a public or private nuisance sufficient to meet its burden on the affirmative defense. At most, the Division provided speculative arguments that continuing injections at the Site *could* cause a public or private nuisance. The issuance of the Restart Order, however, undermines the Division’s current postulations. The affirmative defense of nuisance, therefore, is inapplicable to the actual facts and circumstances of this case.

VI. REGULATORY TAKINGS DOCTRINE

{¶51} The Takings Clause of the Fifth Amendment to the United States Constitution provides that private property shall not “be taken for public use, without just compensation.” This clause applies to the individual states by virtue of the Fourteenth Amendment to the United States Constitution. See *Barber v. Charter Twp. of Springfield, Michigan*, 31 F.4th 382, 387 (6th Cir.2022). Moreover, the Takings Clause applies to both ownership interests in fee and unexpired leasehold interests. See *Alamo Land & Cattle Co., Inc. v. Arizona*, 424 U.S. 295, 303 (1976) (“It has long been established that the holder of an unexpired leasehold interest in land is entitled, under the Fifth Amendment [of the United States Constitution], to just compensation for the value of that interest . . .”) (Footnote omitted.)

{¶52} Originally, the federal Takings Clause was thought to apply only to situations where the direct appropriation of property or the functional equivalent of a practical elimination of an owner’s possession. *Lucas v. South Carolina Coastal Council*, 505 U.S. 1003, 1014 (1992). The Supreme Court of the United States has recognized, however, that the clause may also be applied to overly burdensome governmental regulations of property. See *Pennsylvania Coal Co. v. Mahon*, 260 U.S. 393, 415 (1922) (“[W]hile property may be regulated to a certain extent, if regulation goes too far it will be recognized as a taking”).

{¶53} The Court has established guidelines for identifying regulations that go too far. See *Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528, 538-540 (2005). “The rub, of course, has been - and remains - how to discern how far is ‘too far.’” *Id.* at 538. “In answering that question, we must remain cognizant that ‘government regulation—by definition - involves the adjustment of rights for the public good,’ and that ‘[g]overnment

hardly could go on if to some extent values incident to property could not be diminished without paying for every such change in the general law[.]” (Internal citation omitted.) *Id.*, quoting *Mahon* at 413.

{¶54} Two forms of regulatory acts are deemed per se unconstitutional takings: (1) governmental actions that cause an owner to experience a permanent physical invasion of the property. *State ex rel. Shelly Materials v. Clark Co. Bd. of Commrs.*, 2007-Ohio-5022, ¶ 18, citing *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419, 435-440 (1982); and (2) governmental regulations that completely deprive the owner of all economically beneficial use of the property. *Shelly, supra*, citing *Lucas v. South Carolina Coastal Council*, 505 U.S. 1003, 1019 (1992).

{¶55} Beyond these two narrow categories, temporary takings are governed by the standards set forth in *Penn Cent. Transp. Co.*, 438 U.S. 104, *Shelly*. “*Penn Cent.* recognizes an ad hoc, factual inquiry that requires the examination of the following three factors to determine whether a regulatory taking occurred in cases in which there is no physical invasion and the regulation deprives the property of less than 100 percent of its economically viable use: (1) the economic impact of the regulation on the claimant, (2) the extent to which the regulation has interfered with distinct investment-backed expectations, and (3) the character of the governmental action.” *Shelly, supra*, at ¶ 19, citing *Penn Cent.* at 124.

VII. ANALYSIS

A. CATEGORICAL TAKING

{¶56} As adumbrated above, a categorical-takings’ claim applies to narrow scenarios “where the government has deprived a landowner of all economically beneficial uses.” *Lucas*, 505 U.S. at 1018. Pursuant to *Lucas*, the essential analysis is whether the

suspension order effected a “complete elimination of a property’s value.” *Lingle*, 544 U.S. at 539.

{¶57} After the September 3, 2014 Suspension Order was issued, the Division issued an amended order which allowed AWMS #1 Well to recommence injecting brine. At trial, Dr. Brian Roach, an environmental and natural resource economist testifying as an expert for AWMS, stated:

[R]ight after the suspension of well #2 AWMS went from, at the time of the suspension, a profitable enterprise to now, over the last seven years, an unprofitable enterprise. Even with [the] possibility of operating well #1 that was not sufficient to cover their ongoing cost, and they have been essentially shut down since 2015 accruing losses and paying some modest amount each month to keep the sites active.

{¶58} Dr. Roach testified the goal of his report was to determine, absent the shutdown, the volume of brine that would have been delivered to AWMS’ facility at the Site. He stated that the key variable in his analysis was how much brine would AWMS *have been or would be* receiving had the Division not issued the Suspension Order. Dr. Roach outlined the customer base within AWMS’ region and estimated percentages of brine received from Ohio customers and Pennsylvania customers. In doing so, Dr. Roach set forth a nine-step methodology for calculating his estimations regarding the profitability of the Site without the Suspension Order.

{¶59} Our task does not require a damages calculation. Rather, we must merely decide whether a categorical taking occurred. Hence, we need not indulge in a discussion of the estimated or potential profits the Site may have garnered or might be received in futuro. Instead, we simply must determine whether, in light of the Suspension Order affecting the Site at large, the Division created a categorical taking, i.e., whether the

Suspension Order completely deprived AWMS of all economically beneficial use of the property. We conclude it did not.

{¶60} Andrew Adgate, the Division's Natural Resources Administrator, testified on behalf of the Division. Mr. Adgate has a bachelor's degree of science and geology and a master's degree in geology and, when he originally began work with the Division, he, along with his seven-person staff, oversaw "all of the permitting, reporting, [and] field enforcement compliance" regarding, inter alia, Class II injection wells for the Division. Mr. Adgate testified to the nuances of the permit process for such wells.

{¶61} Mr. Adgate additionally testified, after serving in this capacity, he was in the emergency-incident response section of the Division. After working in this role for approximately one year, he became the Division's Natural Resources Administrator. In this role, he testified he ensures that permittees are in compliance with applicable rules and that enforcement amongst permittees occurs in a standard and uniform manner.

{¶62} With Mr. Adgate's experience, as well as the foundation for his opinion in mind, we acknowledge the Supreme Court, in *Mertz*, 2020-Ohio-5482, determined certain testimony by Mr. Adgate regarding alternative uses *did not* permit judgment as a matter of law in the Division's favor. Specifically, the Court pointed out:

[the Division] emphasizes that AWMS could use the [Site] to (1) conduct saltwater-injection operations at well #1, (2) store, recycle, and treat wastewater, and (3) sell byproducts of the wastewater. According to [the Division], nothing prevents AWMS from continuing those uses. Our concern here, however, is not whether AWMS's property is capable of being used, but whether it is capable of being used in an 'economically beneficial or productive' manner.

Id. at ¶47

{¶63} Furthermore, the Supreme Court rejected this court's analysis that AWMS could sublet the property to recoup its losses. *Id.* at ¶¶ 48-49. Still, the Court observed that Mr. Adgate's report, while not dispositive as a matter of law, is probative of issues of consequence; namely, whether AWMS experienced a total, categorical taking. ("Adgate suggested alternative ways in which AWMS could use the property. But because we conclude that Dr. Wade's opinions[, AWMS' expert in the early stages of litigation,] in his report are enough to create a genuine issue of material fact regarding whether AWMS suffered a total taking, we need not consider the substance of Adgate's report." *Id.* at ¶ 50).

{¶64} Accordingly, Mr. Adgate's opinions and testimony are competent evidence of whether AWMS suffered a categorical taking. With this in mind, we proceed to assess the credibility and weight of Mr. Adgate's report, testimony, and recommendations in relation to AWMS' experts' assessments.

{¶65} Mr. Adgate noted that the Division possesses primary enforcement authority relating to Class II injection wells. In this regard, Mr. Adgate emphasized that the Division, in its review of permits, is not concerned with the commercial viability of any given site. Instead, such viability is the sole concern of the applicant. Accordingly, the permittee, in relation to its speculation for an injection-well site, must evaluate whether its assessment of a particular property will redound to its economic benefit.

{¶66} Mr. Adgate was asked by the Division to provide a report regarding potential alternative activities that could be conducted at the Site. He submitted his report in 2017 and testified at trial that his recommendations and conclusions had not changed as of 2021.

{¶67} With respect to AWMS #1 Well, which Dr. Roach (and his predecessor Dr. William Wade) asserted had no economic viability, Mr. Adgate testified AWMS could apply to obtain a permit to drill deeper. In doing so, AWMS Well #1 would reach into a deeper formation for injection. In particular, he testified that AWMS could seek a permit to inject into the deeper Clinton Sandstone formation and such a process does not, in the instant case, prevent such drilling and injection.

{¶68} Moreover, Mr. Adgate testified that, in addition to seeking an additional permit to drill AWMS #1 Well into a deeper rock stratum, AWMS could also seek to modify AWMS #2 Well by “plugging back the existing open hole section and injecting into a shallower injection zone.”

{¶69} Further, Mr. Adgate testified AWMS could use a combination of the two (non-exhaustive) scenarios to operate and move forward with injections.

{¶70} Finally, Mr. Adgate observed that AWMS could apply for completely new permits with the option of drilling new wells. Given the size of the Site, slightly over five acres, Mr. Adgate stated the Site was large enough to obtain adequate spacing for additional wells.

{¶71} Dr. Roach assessed the economic viability of the Site in relation to the Suspension Order. His testimony reflected the economic gains (without the Suspension Order) in relation to the losses, in light of the order. Alternatively, Mr. Adgate’s testimony did not focus on economic profits and losses, but the availability of reasonable, alternative uses of the property considering the parameters of AWMS’ leasehold. And Mr. Adgate emphasized that the Division’s concerns in issuing permits focuses upon an applicant’s compliance with the statutory and administrative process, *not* potential economic benefits or banes – such considerations are solely within the bailiwick of the applicant.

{¶72} AWMS did not specifically refute any of Mr. Adgate's non-exhaustive options for utilizing the leasehold in the manners he suggested.

{¶73} With these points in mind, we conclude the Suspension Order *did not* fundamentally deprive AWMS of all economically viable use of its leasehold rights. In other words, the order did not completely eliminate the leasehold's value.

{¶74} While AWMS would have to modify its approach for injecting brine in view of the Suspension Order, it was not precluded from seeking different avenues for utilizing its leasehold in a manner consistent with its exclusive purpose. We find Mr. Adgate's testimony credible. Weighing Mr. Adgate's testimony in relation to AWMS' evidence, Mr. Adgate's alternative, reasonable options for use of the property militate against AWMS' contrary claims which primarily rely on alleged damages.

{¶75} AWMS cannot, therefore, sustain its heightened burden to establish, by clear and convincing evidence, that it suffered a categorical taking. The Division's evidence on this issue is compelling, persuasive, and is sufficient to overcome AWMS' categorical regulatory takings claim. Judgment on this claim is granted in favor of the Division and against AWMS.

B. PARTIAL REGULATORY TAKING

{¶76} As set forth above, even if a party does not suffer a categorical taking, that party may still experience a partial taking if, in balancing the three factors set forth in *Penn Cent.*, 438 U.S. 104, this court concludes AWMS has met its burdens of production and persuasion. See *Shelly Materials*, 2007-Ohio-5022, at ¶ 19. We shall consider each factor in turn.

i. Economic Impact on the Claimant

{¶77} The Supreme Court of Ohio acknowledged that the instant matter is not a typical land-appropriation/takings case where an appraiser provides an opinion on the value of a fee-simple parcel by looking at comparable properties, sales, etc. The property interest at issue is a prospective income-producing leasehold with one permissible use; namely, the operation of Class II injection wells. The Court observed that “the lost-net-income approach is a valid method for computing economic impact” in this matter, as is the use of a “discounted cash-flow analysis.” *Mertz*, 2020-Ohio-5482, ¶ 59, 62. Neither party objected to the use of these analyses.

{¶78} For AWMS, Dr. Roach created and compared discounted cash flows for two projections: (1) an “actual” or “suspension” framework containing only AWMS’ real revenue and cost data, reflecting the actual effect of the suspension order on the Site; and (2) an “expected” or “no-suspension” framework containing both (a) real revenue and cost data and (b) projected revenue and cost data as though the Suspension Order was never issued. See AWMS Exhibit 90. Dr. Roach relied on Stephen Kilper and Mark Cawthorne, each of whom are vice presidents of AWMS, for data and assumptions utilized in his calculations and estimates.

{¶79} AWMS initially invested approximately \$6.1 million capital into the property and Site. From that original investment, due to the Suspension Order, it is uncontroverted it has generated minimal revenue. According to Dr. Roach, the net present actual value of AWMS investment (in light of the Suspension Order and the Restart Order in May 2021) is \$6,105,873. The operating revenue at the date of trial was \$922,774; the operating costs as of trial was \$1,043,122. In total, therefore, AWMS had lost \$6,226,221 (\$6,105,873 plus \$1,043,122 minus \$922,774). See Exhibit 90, Table 7.

{¶80} Dr. Roach calculated the net present value of expected profits from the Suspension Order to the Restart Order as well, i.e., the estimated profit amount AWMS *would have* made had the Division never issued the suspension order. Specifically, he acknowledged the initial capital costs of \$6,105,873. And, based upon brine prices in the regional market, as well as AWMS' customer base, Dr. Roach estimated AWMS would have enjoyed operating revenues of \$17,636,293; had the Suspension Order not been issued, he estimated the Site's operating costs would be \$4,494,861. Given these figures, Dr. Roach concluded AWMS would have experienced a \$7,035,559 profit (\$17,636,293 minus \$6,105,873 minus \$4,494,861).² *Id.*

{¶81} Comparing both the actual projection, wherein AWMS suffered a loss of \$6,226,221, and the expected projection, where AWMS could garner a profit of \$7,035,559, Dr. Roach concluded AWMS experienced an economic loss of \$13,261,780 from September 2014 through May of 2021.

{¶82} Roland Blauer, a reservoir engineer whose expertise involves analyzing injection-well reservoirs, their performance, production, and optimization, testified on behalf of the Division. According to Mr. Blauer, after fluid is injected into a well, the bottom-hole pressure will decrease as the fluid dissipates into the surrounding rock formation. This allows additional fluid, in this case brine, to be injected.

2. It bears noting that Dr. Roach also calculated estimated operating revenues and operating costs beyond the May 2021 restart order through December 2034. These estimations were calculated based upon AWMS' speculation that, without the suspension order, the Site would be fully operational and sustainable through 2027 (a total of 13 years of operation). Because the suspension order shut down the Site for six years, however, Dr. Roach engaged in a calculation that would allow for the Site to operate fully, given assumptions that temporary shutdowns would occur during this period, for 13 years after the restart order. Because our analysis will focus only on the time of the Suspension Order, *see infra*, ¶ 74, we need only be concerned with Dr. Roach's estimations and calculations from the date of the Suspension Order to the date of the restart order.

{¶83} Mr. Blauer testified the leak-off rate is the rate that fluids leave a reservoir and permit additional fluid to be injected. If the leak-off is high, then an operator can replace the fluid with additional fluid. If it is low, the operator must wait for pressure to drop in order to inject more fluid into the reservoir. Under the latter circumstance, it may take days or longer for the pressure to sufficiently drop to inject additional fluids. Where the pressure fails to adequately drop, that is an indication that the well is having difficulty accepting additional fluids going forward. By implication, a reservoir is essentially full when an operator cannot inject any more fluid than can be received in light of its reservoir-capacity restrictions. In this matter, the maximum pressure injection limit is 1,680 PSI.

{¶84} Mr. Blauer engaged in five different injectivity tests of AWMS #2 Well at different times. See AWMS Exhibit LLL, Report of Kenneth J. Malek, CPA, CFF, CIRA, CDBV, CGMA and Roland Blauer PE., p. 44.³ Each successive test resulted in higher bottom-hole pressure readings and the last tests resulted in the fluid pressure reaching near maximum allowable injection pressure. Mr. Blauer testified:

In the world of reservoirs, this is [an] indication that you have a small reservoir, you have injected a small quantity of water, and you're seeing a consistent fast rise in pressure . . . [T]hat is an indication, again, that the reservoir is filling up. . . The permeability has not changed; so, we're looking at the reservoir is resisting the entry of new fluid more here because the pressure is higher than here [referring to "AWMS #2 Five Single Injection and Fall-Off Sequences" chart]; and it also gives us an indication of what the leakoff rate is. Not particularly important [that] we know what the leakoff rate is. What's important is the pressure is telling us this reservoir is filling and filling very quickly.

3. Kenneth J. Malek, is an expert in, inter alia, evaluating business plans and assessed AWMS' experts' (Drs. Wade and Roach) valuations and damages estimations. He collaborated with Mr. Blauer in the report at issue.

{¶85} Mr. Blauer created an additional chart entitled “AWMS #2 Daily Injection Rate and Tubing Pressure Total Four Month Test May to August 2014.” *Id.* at p. 36. This chart was a result of data that AWMS submitted which identified some 169,000 data points. Based upon this data, Mr. Blauer testified that, at the outset, injection and shut-in pressures in AWMS #2 Well were increasing. And, at the end of August 2014, the reservoir did not leak off significantly. According to Mr. Blauer, the reservoir was filling fast with leak off occurring very slowly.

{¶86} Mr. Blauer also created a “Hall-Plot” chart which traced the volume of fluid versus the pressure in the reservoir. See AWMS’ Exhibit LLL, pp. 47-48. The Hall Plot, while used in various circumstances by reservoir engineers, was used in this case to determine “the cumulative amount of water injected and the pressure at which it was injected.” And Mr. Blauer testified that a Hall Plot may be used to determine reservoir capacity as a standard engineering practice.

{¶87} Mr. Blauer stated that higher and higher pressures were required to inject fluid into AWMS #2 Well and that if injections continued the well would be unable to receive more fluid without exceeding the maximum pressure. In light of the data received by Mr. Blauer, as well as his assessment of AWMS #2 Well’s capacity (and AWMS #1 Well’s capacity), he determined:

[T]he two AWMS wells have severely limited capacity to accept additional brine at economic injection rates assuming the current regulatory maximum well-head pressures are honored.

Current bottom-hole reservoir pressure and pressure increases with injection in the AWMS #2 indicates the well can continue accepting water for less than a year depending on the injection rate.

Estimated future injection volume ranges between approximately 90,000 and 160,000 barrels of water based on reservoir dynamics for AWMS #2. The range of potential volumes is a result of applying different predictive methods. However, the two estimates are confirmative and consistent with the limited injection potential of the well. These estimates are based on data as of August 31, 2014. Additional fluids injected into AWMS #2 through September 3, 2014 will not materially change the capacity remaining as of September 3, 2014. We treat 90,000 barrels as the expected (base) case additional injections into AWMS #2 and 160,000 barrels as the sensitivity test (upside) case additional injections.

The historic pressure and pressure transient behavior is so persuasive that the reservoir is nearly at capacity, little additional technical evaluation is required.

Although not as thoroughly investigated as the capacity of AWMS #2, the AWMS #1 well has remaining capacity between 20,000 and 40,000 barrels assuming injection rates do not exceed 100 barrels per day and well head pressures remain below allowable limits. During actual May – Aug 2014 injection periods the average daily injection rate was less than 100 barrels per day. At that rate, the well head pressure quickly reached the maximum allowable surface pressure during short injection cycles and leaked off slowly, similar to the performance of the AWMS #2. Based on this performance ultimate reservoir capacity will range between 20,000 and 40,000 barrels of brine. The range of ultimate reservoir capacity is within normal engineering variation. The important note is the range is small and clearly indicates the limited capacity of the reservoir associated with the AWMS #1 well.

See AWMS' Exhibit LLL, p. 49.

{¶88} Extrapolating from Mr. Blauer's testimony and his substantive conclusions in AWMS' Exhibit LLL, a report submitted into evidence, the ultimate remaining capacity of the two wells on the Site range from 110,000 conservatively to 200,000 barrels in a best-case-scenario for AWMS (90,000 barrels for AWMS #2 Well and 20,000 barrels for AWMS #1 on the "low end" and 160,000 barrels for AWMS #2 and 40,000 barrels for

AWMS #1 on the “high end”). The economic impact of these estimations range between \$201,150 (“low end”) to \$359,373 (“high end”), depending on the ultimate capacity.

{¶89} With the foregoing in mind, AWMS submitted expert testimony from Tom Tomastik, a certified petroleum geologist who formerly worked for the ODNR Division of Oil and Gas. Mr. Tomastik testified he is not a petroleum engineer or a reservoir engineer. He recognized that, in issuing permits, the Division does not, itself, estimate reservoir capacity; instead, this task is the obligation of the operator or permittee. Mr. Tomastik testified that Hall Plots are generally used in assessing water flooding and oil production, but not typically seen in association with injection wells.

{¶90} Mr. Tomastik stated he did not estimate the reservoir capacity of the wells on the Site and acknowledged he was not trained in the calculation of reservoir capacity. He opined, however, that the problems experienced by AWMS #2 Well with increased reservoir capacity may be from well-bore damage/buildup which could be treated with an acid-wash treatment. Mr. Tomastik merely stated that this scenario “could be a possibility.” Mr. Tomastik had no specific data and did not run an analysis to support his opinion. And Mr. Tomastik acknowledged that despite recommendations that AWMS engage in an acid-wash treatment to AWMS #2 Well, no such treatment was completed as far as he was aware.

{¶91} Alternatively, Mr. Blauer opined that the treatment and filtration done by AWMS should have addressed any build-up or contaminants that could have caused well-bore damage. Additionally, he testified that even a *very large* acid-wash treatment might only extend 10 or 20 feet from the wellbore and would not have significant impact on the reservoir.

{¶92} Mr. Tomastik also opined that the problems experienced by AWMS #2 Well may have been partially due to the light water it was receiving; Mr. Blauer testified, however, that when AWMS was able to inject heavier water (i.e., fluid with greater brine content), the bottomhole pressure remained high, and the reservoir did not leak-off significantly. As a result, Mr. Blauer concluded, irrespective of the weight of the injected fluids, the reservoir was close to full.

{¶93} Although we are an appellate court, in this original action we sit as the trier of fact. As such, we must weigh and determine the credibility of each witness. In this capacity, we must reconcile competing testimony of the respective parties' experts on matters bearing on the ultimate issues before us. Indeed, it is axiomatic that such credibility evaluations and the weight, if any, to be accorded the evidence is within our sole province. With these guiding points in mind, we conclude:

- (1) AWMS *did* suffer specific economic impact as a result of the suspension order.
- (2) The evidence submitted by Mr. Blauer, via testimony or report, regarding the Site's reservoir capacity has greater credibility than the evidence to the contrary submitted by AWMS.
- (3) Neither Dr. Roach nor Mr. Tomastik actively tested or fully considered the capacity of the reservoirs on the Site.
- (4) Mr. Blauer's testimony was thorough and convincing such that this court concludes, while AWMS experienced some economic impact, it was not to the extent that Dr. Roach estimated and neither Dr. Roach nor Mr. Tomastik in any way refuted Mr. Blauer's testimony.
- (5) Accordingly, with respect to the economic impact on AWMS, we conclude the Site, conservatively will accept 110,000 remaining barrels and, at best, will accept 200,000 remaining barrels.

ii. The Extent to which the Regulation has Interfered with Reasonable and Distinct Investment-Backed Expectations (“DIBE”)

{¶94} “The reasonable, investment-backed expectation analysis is designed to account for property owners’ expectation that the regulatory regime in existence at the time of their acquisition will remain in place, and that new, more restrictive legislation or regulations will not be adopted.” *Love Terminal Partners, L.P. v. United States*, 889 F.3d 1331, 1345 (Fed.Cir.2018). As the Supreme Court of Ohio observed in *Mertz*, 2020-Ohio-5482, “[t]he Federal Circuit has developed three factors to guide a court when conducting that inquiry: ‘(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.’” *Id.* at ¶ 64, quoting *Appollo Fuels, Inc. v. United States*, 381 F.3d 1338, 1349 (Fed.Cir.2004), quoting *Commonwealth Edison Co. v. United States*, 271 F.3d 1327, 1348 (Fed.Cir.2001).

{¶95} Regarding the first factor, whether AWMS operated in a highly regulated industry – AWMS does not deny that it entered a highly regulated industry in this state, i.e., the oil and gas industry. This is apparent by AWMS’ compliance with the multi-step permit process required by Ohio law, which involves significant administrative oversight. The Supreme Court, again in *Mertz*, recognized this point, *id.* at ¶ 65, and the evidence adduced at trial did not change this conclusion. Indeed, Stephen Kilper, Executive Vice President of AWMS Holdings, Inc., testified to AWMS’ recognition that injection-well facilities are regulated by the Division as well as the Ohio Environmental Protection Agency.

{¶96} According to Mr. Kilper, all regulations are reviewed every five years and, as such, there is an acknowledgement that regulatory changes may be made in the State. He noted specific risks attendant to operating injection wells (which are the basis for the regulations) such as spill or contamination and geologic risks, in particular induced seismicity. Thus, there is no credible question that AWMS was not aware of the inherent and significant regulation of the industry into which it was embarking at the time it acquired its leasehold.

{¶97} Still, testimony from AWMS' witnesses clearly established the company had a subjective expectation that their operations at the Site would generate a profit; in light of the surrounding circumstances of the venture, however, we cannot unequivocally conclude this subjective expectation was objectively reasonable. We shall address this latter point under the next DIBE factor.

{¶98} Under the second factor of the DIBE analysis, we must consider whether AWMS was aware of the problem that caused the suspension order when it leased the property on which the Site was constructed.

{¶99} In September 2013, AWMS issued a Confidential Offering Memorandum to prospective investors. See Joint Stipulation No. 54. In the Memorandum, AWMS identified certain "risk factors" and it emphasized that the securities at issue "involve a high degree of risk" and prospective investors should be aware of these risks. The Memorandum highlights the "continuing risk" of "seismic events similar to the one that occurred in the Youngstown, Ohio area." (Referencing 4.1.M event). AWMS was consequently not only aware that, even though the Site was not adjacent to the Youngstown-event site, there were dangers posed by the operations and, significantly, that such dangers were sufficiently foreseeable such that they must be disclosed.

{¶100} The Memorandum also noted that, due to the inherent risks of operating an injection well site, there is a possibility that well operations could be suspended and/or terminated by the OEPA and/or the ODNR. AWMS was thus aware that its business investment was subject to noteworthy oversight and regulation. And, by investing in the business, investors were assuming a potentially foreseeable and significant risk.

{¶101} Furthermore, the Memorandum also outlined certain geologic risks. It stated that AWMS had performed no “subsurface testing.” As a result, the Memorandum disclosed that the adequacy of the geology and the suitability of the wells “will only be known upon drilling, completion, and operation of the wells.”

{¶102} These points indicate that AWMS had no ability to predict that the Site would be viable; in effect, investors must “take a chance,” in light of the significant risks, that after construction and commencement of operations, the wells would perform without potential environmental problems or a catastrophic (or even a minor, but meaningful) seismic incident.

{¶103} Importantly, AWMS leased the property for the limited purpose of drilling Class II injection wells and it drilled into the area assuming there would not be a fault line. A fault existed and Mr. Kilper admitted that the company “got that wrong.”

{¶104} Although Mr. Kilper’s testimony reflects a potential change in DIBEs *after* AWMS acquired its interest (and after commencement of drilling), the weight of the advisements and caveats in the Memorandum clearly and convincingly demonstrate that AWMS’ DIBEs at the time it acquired the leasehold were fundamentally tempered by its express awareness of the serious risks of a shutdown. In this respect, we conclude the weight of the evidence supports the conclusion that AWMS was aware of the problem

that “spawned the regulation” at the time it obtained its leasehold for the exclusive purpose of injecting brine.

{¶105} Notwithstanding, this analysis is *not* dispositive of whether AWMS’ DIBEs were reasonable or unreasonable. In evaluating this question, we move to the third inquiry into AWMS’ DIBEs, i.e., whether AWMS could have “reasonably anticipated” the possibility of the nature and extent of the Suspension Order in the face of Ohio’s injection-well regulatory scheme *when it secured* its leasehold.

{¶106} When AWMS acquired the lease, it did not (nor could it) anticipate that the Division would effectively “stonewall” its efforts to comply with the Division in interest of either lifting or modifying the suspension order. We recognize that the Supreme Court of Ohio has previously held in *Mertz*, 2020-Ohio-5482, that the Division neither engaged in extraordinary delay nor bad faith in its failure to implement a state-wide policy regarding regulation of injection wells such as those at issue. *Id.* at ¶¶ 82-86. This does not, however, imply that the Division’s acts or omissions in rebuffing AWMS’ attempts to submit a restart plan were reasonable.

{¶107} As late as March 2020 (when former Chief Richard Simmers retired), it was the Division’s position that AWMS could not resume operations because “the Division had [not] received supportive scientific data to address the concerns that the Division had to allow reoperation.” The former Chief testified that a core component of AWMS’ restart plan – reducing volumes injected or pressures at the wellhead for a period of time after a certain level of seismic activity occurs and then allowing volumes or pressures to increase at a percentage-based increment after certain periods of time – is an “inappropriate” risk mitigation tool for which there is “no scientific basis.”

{¶108} Current Chief Eric Vendel's Restart Order removed various provisions from former Chief Simmers' plan, including a risk assessment, a principal stress determination, a geology review, a seismic survey, a plug back, and well-construction-design modifications. Despite testimony regarding the former Chief's position on risk assessments, the Division ultimately determined many of the criteria were "too conservative." Indeed, Ivan Wong, a seismologist testifying as an expert on behalf of the Division, expressly rendered this opinion.

{¶109} As such, Chief Vendel was not of the ostensible opinion that the former Chief's risk assessments were, in part, necessary for AWMS to restart operations. In effect, pursuant to the May 2021 Restart Order, AWMS was not required to submit any additional information or scientific support for its plan before the Suspension Order was lifted in May 2021. The Division's Restart Order essentially relaxed the burden(s) on AWMS to recommence operations. This evidence demonstrates a lack of consistency and weighs strongly in favor of AWMS' position.

{¶110} Moreover, the evidence indicates there was little to no meaningful dialogue between the Division and AWMS regarding the company's plans to resume operations once AWMS submitted its plans to restart operations. Mr. Kilper testified that, on September 3, 2014, after the second seismic event (the 2.1M event), he and other officers of AWMS engaged the Division via phone. According to Mr. Kilper, Ron Klinge, Chairman and CEO of AWMS' parent company, offered to voluntarily suspend operation or reduce injection if the Division could provide terms of restarting or resuming operations. The Division, however, simply issued the Suspension Order. As part of the Order, the Division required AWMS to provide a plan "for evaluating the operation of the AWMS #2 saltwater injection well." See AWMS' Exhibit HH.

{¶111} Two weeks later, on September 14, 2014, AWMS submitted its restart plan to the Division. At an October 31, 2014 meeting with the Division, Mr. Kilper testified that operatives for the Division were “not prepared to give any feedback” on a restart of operations. The Division simply indicated AWMS’ appeal of the Suspension Order was “the right thing to do.”

{¶112} Moreover, at the October 2014 meeting, Mr. Kilper testified that Division officials stated that the standard for restarting was “zero seismicity.” In response to this, Mr. Kilper rejoined that if “zero” is the standard, then every injection well in the State should be shut down because the Division has no formal standard based upon “zero risk.” Mr. Kilper testified that Division officials had no express response to his observation. At the conclusion of the meeting, former Chief Simmers stated he would review AWMS’ plan for restart “in the next two weeks and get back to you.” Mr. Kilper testified AWMS did not receive a response.

{¶113} On February 24, 2015, the parties again met. During this meeting, former Chief Simmers provided AWMS with 14 criteria to assist the company in creating a more comprehensive restart plan. AWMS officers asked *if* AWMS met the 14-point criteria, would it be permitted to move forward with a restart. Division officials responded in the negative.

{¶114} Several days after this meeting, AWMS emailed the Division seeking clarification of the Division’s proposed criteria. Robert Warstall, Deputy Chief of the Division, responded that AWMS should propose whatever it deemed appropriate. Accordingly, in March 2015, AWMS submitted a plan to the Division addressing its proposed criteria. Nothing in the record indicates the Division responded to the plan. See *also Mertz, 2020-Ohio-5482, ¶ 15.*

{¶115} Considering the evidence, we conclude that even though AWMS was aware it was operating in a highly regulated industry *and* it was additionally aware of the problem that generated the Suspension Order at the time it acquired its property interest, AWMS could not have reasonably anticipated the manner in which the Division addressed its repeated proposals in light of the regulatory environment at the time it acquired its leasehold. The last point is critical because the Division's acts or omissions, in the face of AWMS' apparent cooperation with the Division's orders and requests were not only unhelpful, but arguably obstructive.

{¶116} The Supreme Court of Ohio in *Mertz*, 2020-Ohio-5482, at ¶ 69 stated, "AWMS could not have reasonably anticipated when it acquired its leasehold interest that the state's inconsistent regulatory approach or its lack of responsiveness to AWMS's attempts at remediation would leave AWMS in limbo for years with an indefinite suspension of its operations." Thus, the court concluded that "AWMS has demonstrated a material issue of fact that the division's suspension of operations at well #2 interfered with AWMS's reasonable investment-backed expectations" and it reversed this court's granting of summary judgment on this factor. *Id.* at ¶ 70.

{¶117} Moreover, in *Mertz*, the Supreme Court also highlighted the Division's lack of direction and decisiveness in its management of the injection-well industry irrespective of the predictable and consistent nature of the regulatory scheme to which AWMS adhered. The Court observed:

At the time AWMS acquired its leasehold interest, AWMS could not have anticipated that the state would waver between a case-by-case approach and a statewide approach to addressing induced seismicity while rebuffing AWMS's attempts to meet the state's inchoate regulatory expectations. The parties do not dispute that at the time AWMS obtained its leasehold in December 2011, the division had not established

its approach to managing induced seismicity. When the division first issued its suspension orders in September 2014, it put the onus on AWMS to “submit a written plan to the Division for evaluating the seismic concerns associated with the operation of” well #2. Although AWMS had not received direction from the division about what to include in the plan, AWMS nevertheless submitted a plan that included several proposals to establish certain controls over injections at well #2. The division rejected the plan as “generic and inadequate.”

Id. at ¶ 67.

{¶118} The foregoing highlights the ambiguity of the Division’s regulatory decision-making process. While the Division is entitled to engage in a dynamic or reactive way of managing the regulation of the injection-well industry (including recommending a moratorium on all activities), it bears emphasis that this management is fundamentally part of the administrative oversight process. And it is this very process that informs and animates the regulatory scheme to which injection-well speculators are subject.

{¶119} The dissent focuses, not inappropriately, on the Federal Circuit Court of Appeals’ opinion in *Love Terminal Partners*, 889 F.3d at 1345 for the proposition that a litigant’s reasonable DIBEs must be principally and inherently premised upon the expectation that the regulatory regime existing at the time the litigant acquired its interest would remain in place. Here, the regulatory regime did not fundamentally or meaningfully change. Still, simply because the regulatory scheme did not change, this does not imply the Division’s management of its regulatory scheme was effective, fair, and reasonable. The Supreme Court’s observation in *Mertz*, 2020-Ohio-5482, at ¶ 67, supports this point.

{¶120} The dissent seems to assert that the enforcement policies of the Division are unrelated to AWMS’ DIBEs because its DIBEs relate only to the expectation that the

“regulatory regime” (qua regulations or statutes) would remain in place at the time it acquired its interest. We take issue with this construction.

{¶121} While the expectation that the regulations in place at the time AWMS acquired its interest would remain in place is a necessary component to the DIBEs analysis, the phrase “regulatory regime” envelops more than just the regulations or statutes governing the industry. A “regulatory regime” also contemplates the system or plans which give effect and meaning to the regulations under consideration. See *Merriam-Webster Online*, <https://www.meriam-webster.com/dictionary/regime> (accessed Aug.14, 2024) (Regime: “A mode or rule of management.”) Thus, it follows that a “regulatory regime” involves the regulations, statutes, as well as the actual process of “regulating.”

{¶122} Even though the bones of the regulatory scheme did not change and remained in place throughout the parties’ lengthy and sometimes tumultuous association, AWMS was placed in a position where it had little, if any, direction. The Division provided no indication it would ever approve AWMS’ proposals because the Division, itself, could not determine what it wanted to do in its management of the industry. This is problematic because there was no formal moratorium on injection-well drilling/use at the time the shutdown occurred and the Division repeatedly advised AWMS to continue to submit proposals (which were either rebuffed or ignored).

{¶123} We recognize that, as the dissent emphasizes, reasonable expectations must be measured in relationship to the time AWMS acquired its interest. We also recognize that the regulatory regime did not really change from the time AWMS acquired its interest and the time it filed suit and beyond. We also, however, maintain that the dynamic nature of the process and management of the regulatory scheme cannot be

separated from the static scheme which exists “on paper.” It is this point that we differ with and depart from the dissent’s position.

{¶124} Given the particularities of the testimony and the evidence adduced at trial, as well as the Supreme Court’s observations in *Mertz*, the Division clearly and convincingly interfered with AWMS’ DIBEs.

{¶125} The evidence demonstrates that AWMS submitted two plans; the first was deemed generic and insufficient (even though the May 2021 restart order reflects the Division’s change of position on this dismissive response). And the second plan was essentially ignored. Weighing the factors at issue, we find the third factor strongly militates in favor of the conclusion that the Division did interfere with AWMS’ DIBEs.

iii. The Character of the Regulation

{¶126} In *Mertz*, 2020-Ohio-5482, the Supreme Court of Ohio focused on three factors emphasized by the parties in its analysis of the character of the suspension order. First, whether AWMS was impermissibly “singled out” by the government for unfavorable treatment or, instead, was permissibly included within a governmental program aimed at “adjusting the benefits and burdens of economic life to promote the common good.” *Id.* at ¶ 72. Second, whether the suspension order bears a “harm-preventing purpose.” *Id.* And the third factor centers on the extent to which the suspension order’s delay related to or accompanied the Division’s decision-making process. *Id.*

{¶127} With respect to the first factor, the Court concluded that “AWMS fails to identify anything in the record that affirmatively negates the State’s emphasis on the wells’ proximity to population centers. And even if it had done so, there are still enough differences between well #2 and the Long Run well [in Washington County] to persuade us that the state did not unfairly single out #2.” *Id.* at ¶ 76.

{¶128} Accordingly, the Court determined there was no genuine issue of material fact on the first factor and therefore the Division was entitled to judgment as a matter of law.

{¶129} Regarding the second factor, the Court determined “AWMS identifies no authority that requires a governmental actor to establish there is an imminent threat of harm before the government implements a regulatory action to protect public health and safety.” *Id.* at ¶ 79. Accordingly, the Court, once again, concluded AWMS failed to create a material issue of fact on the second factor. Thus, it determined the Division was entitled to judgment as a matter of law on the “harm-preventing purpose” factor.

{¶130} Finally, the Court construed “the filing of AWMS’s mandamus petition as setting the date upon which AWMS regarded the division as having effected a constructive denial of its plans.” *Id.* at ¶ 85. The Court pointed out that “AWMS cites no authority supporting its argument that delays of the lengths that occurred in this case are extraordinary under the circumstances.” *Id.* The Court consequently concluded that no genuine issue of material fact remained for trial on the third factor and the Division was entitled to judgment as a matter of law on this point.

{¶131} In sum, the Supreme Court held that there was no factual issue for trial on whether the character of the Division’s suspension order was reasonable and designed to protect the public’s health and safety. *Id.* at ¶ 86. In light of this conclusion, that issue was not a salient subject of litigation at trial.

iv. Balancing the Factors

{¶132} In balancing the *Penn Cent.* factors, we must “ascertain whether, in light of those factors, it is unfair to force the property owner to bear the cost of the regulatory action.” *Rose Acre Farms*, 559 F.3d 1260, 1282 (Fed.Cir.2009).

{¶133} As discussed above, AWMS was economically impacted by the Suspension Order, although not to the extent its experts suggested. On this point, we find Mr. Blauer's testimony more credible than the evidence advanced by AWMS. This factor, to the extent limited in our analysis under subsection VII(B)(i) of this opinion, weighs heavily in AWMS' favor.

{¶134} Similarly, in weighing the three factors emphasized by the Supreme Court of Ohio in *Mertz*, 2020-Ohio-5482, we find AWMS presented strong evidence that, at the time it obtained its leasehold, it could not have reasonably anticipated the manner in which the Division addressed the Suspension Order in relation to its business enterprise and especially in relation to Ohio's regulatory environment. Although we recognize AWMS was aware it operated in a highly regulated industry and was aware of the problems that generated the Suspension Order and that such suspension was likely given these problems, these factors do not militate strongly for the Division and are less significant in relation to what AWMS reasonably anticipated upon obtaining the leasehold. In this respect, we conclude AWMS presented persuasive and tenable evidence that the Suspension Order interfered with its DIBEs.

{¶135} Finally, the character of the Suspension Order was previously deemed reasonable, as a matter of law, by the Supreme Court of Ohio. *Id.* at ¶ 86. The reasonable character of the action does not, however, weigh heavily against AWMS' taking claim. But despite the Supreme Court's conclusion that the character of the regulation was, in effect, reasonable, we emphasize that the Division's orders and administrative decisions *must* be fundamentally consistent. It is at this point that we think the *Penn Central* factors relating to the character of the regulation and the reasonable DIBEs that AWMS was required to establish intertwine.

{¶136} The dissent points out that our observation relating to “consistency” is somewhat opaque and is unsupported by legal authority. We appreciate the dissent’s point, but “consistency,” as it pertains to our analysis, does not necessarily derive from a point of “black-letter” law. Instead, it is derived from the factually-driven nature of any partial-regulatory takings case. This fact-finding and weighing exercise is fundamental to the mandate we were expressly given by the Supreme Court of Ohio.

{¶137} We acknowledge that the dissent’s focus on the Federal Circuit Court’s teleological expression of the DIBE analysis expressed in *Love Terminal*, 889 F.3d at 1345 is accurate. We nevertheless maintain that this expression is more nuanced than simply accounting for whether the regulatory regime at the time the interest was acquired changed or remained the same. In our view, it requires an analysis of the management as well as the purported and actual decision-making strategies employed by the State in light of the backdrop of the regulatory regime.

{¶138} Although the character of the regulation was reasonable (and this conclusion was buttressed by the Supreme Court’s rationale that the delay was not excessive and the Division did not act in bad faith), we still maintain AWMS, as would any speculator in the industry, had a reasonable expectation, at the time it acquired its interest, that the management of the industry would be reasonably predictable and foster predictability to the extent a permit-holder complied with the Division’s recommendations. In this case, given the evidence adduced at trial, we narrowly conclude that the Division did not meet this relatively low bar.

{¶139} That said, consistency does not imply overall similarity of treatment among those who inject brine into the earth with permits. Administrative permits are issued without regard to a leaseholder’s interest as long as the administrative criteria are met.

In short, we do not hold all speculative interest-holders are entitled to redress in appropriation.

{¶140} While the Division emphasizes, and we acknowledge, that the State, whether in practice or law, is not obligated to usher any private interest holder through the obstacles of the administrative process, our record demonstrates AWMS was “blocked” in its attempts to remediate the problems the Division identified. Of course, neither the Division nor the State at large is obligated to “hold the hand” of permittees as they go forth in their injection enterprises. Nevertheless, AWMS offered restart plans that were neither addressed nor, in our record, given effective consideration. This is especially important considering the “loosened” nature of the Restart Order in relation to AWMS’ proposals.

{¶141} Further, the Division vacillated between employing a case-by-case regulatory regime versus a state-wide and more objective regulatory management of the industry. This is not to say the Division acted improperly in determining which regulatory method was more effective. We simply maintain that, in this case, AWMS reasonably could not expect the vacillation; its expectations when it obtained its interest were consequently interfered with and, in this respect, undermined. Simply put, it was reasonable for AWMS to expect to be regulated in the same fashion as other injection-well operators in the State of Ohio.

{¶142} Again, we recognize, especially given the Supreme Court’s holding, that the regulation was reasonable and that the Division did not act in bad faith. Still, AWMS offered two restart plans that were essentially disregarded. Although this disregard may have been a function of the Division’s purported interest in developing a state-wide policy on injection wells, we find the Division’s lack of attention to AWMS’ efforts dismaying.

{¶143} The matter went to trial. Both parties provided testimony of experts and general witnesses. The hazards of trial require a trier-of-fact to assess the weight of the evidence. Under the circumstances, and despite the reasonable character of the regulation, we conclude AWMS presented clear and convincing evidence that it was unreasonably deprived of meaningful consideration of its restart proposals. This consideration is the foundation for our observation relating to consistency in treatment. We therefore decline to conclude that AWMS was afforded adequate attention in light of its efforts to comply with the Division's requests and recommendations.

{¶144} Although AWMS did not establish a strong and cogent analogy between the Site and the Washington County site, see *Mertz*, 2020-Ohio-5482, ¶¶ 73-76, the Division's "management" of AWMS' attempts to comply were less than adequate.

{¶145} We do not know why communications failed between the parties or why the Division all but ignored AWMS' entreaties to consider its restart plans. In any event, our evaluation of the evidence demonstrates that, despite the Suspension Order's inherent reasonableness, the Division "dragged its heels" even after AWMS attempted to ameliorate the issues identified by the Division.

{¶146} To be sure, public safety is a preeminent concern of any regulatory body. These bodies, however, cannot leave a party in regulatory purgatory when that party seeks to cooperate in good faith with state decisionmakers.

{¶147} The Supreme Court has explained that "the *Penn Central* inquiry turns in large part, albeit not exclusively, upon the magnitude of a regulation's economic impact and the degree to which it interferes with legitimate property interests." *Lingle*, 544 U.S. at 540. After weighing the *Penn Central* factors, we conclude that AWMS has established

a compensable partial, regulatory taking claim. As a result, and to the extent discussed in this opinion, it is entitled to relief in mandamus on its partial taking claim.

VIII. CONCLUSION

{¶148} Based on our analysis and, in particular, our careful review of the evidence presented, AWMS has failed to establish, by clear and convincing evidence a credible claim for a categorical taking of its leasehold under the relevant dates identified in this opinion.

{¶149} AWMS has, however, presented clear and convincing evidence that it is entitled to relief in mandamus on its claim for a partial, regulatory taking. It is so entitled, pursuant to our analysis from the date of the Suspension Order to the date of the Restart Order, i.e., September 2014 through May 2021. Moreover, because this court finds the Division's testimony and evidence significantly credible as it relates to the capacity of the reservoirs on the Site, just compensation must be assessed only and insofar as such it may be established in relation to this conclusion.

{¶150} Therefore, we grant a writ of mandamus to compel the Division to commence appropriation proceedings to determine just compensation to the limited extent this court has determined, as outlined in this opinion, AWMS has suffered a partial regulatory taking. *See State ex rel. Donor v. Zody*, 2011-Ohio-6117, at ¶ 86; *see also State ex rel. Shemo v. Mayfield Heights*, 95 Ohio St.3d 59, 69 (2002).

{¶151} Because the Supreme Court remanded this matter for this court to weigh the evidence and this court finds the Division's expert testimony highly credible in relation to AWMS' expert testimony on the Site's capacity, the Trumbull County Probate Court is limited in determining just compensation and may so determine consistent with this opinion and judgment.

{¶152} For the reasons discussed in this opinion, AWMS' petition for writ of mandamus is denied in part, as it relates to its claim for a categorical taking; the petition, however, is granted, to the extent outlined above, as it relates to AWMS' partial regulatory takings claim.

{¶153} It is so ordered.

EUGENE A. LUCCI, P.J., concurs,

JOHN J. EKLUND, J., dissents with a Dissenting Opinion.

JOHN J. EKLUND, J., dissents with a Dissenting Opinion.

{¶154} I respectfully dissent from the majority's judgment because it is based on a finding that AWMS suffered a partial taking under the balancing tests mandated in *Penn Central Transp. Co. v. City of New York*, 438 U.S. 104 (1978), and *State ex rel. AWMS Water Sols., L.L.C. v. Mertz*, 2020-Ohio-5482 ("*Mertz [2020]*").

{¶155} Those decisions require that we review and weigh the parties' evidence, decide whether AWMS suffered a total taking and, if not, that we balance the factors set forth in *Penn Central* to determine whether it suffered a partial taking.

{¶156} The majority opinion's first 92 paragraphs conclude there was no total taking. I agree with that analysis and conclusion.

{¶157} It also finds that AWMS suffered an adverse economic impact from the suspension order at issue and defines its scope, thereby satisfying the first of *Penn Central's* three factors for analyzing whether a partial taking occurred. I agree with that analysis and the conclusions drawn from it.

{¶158} It is the majority's analysis of, and conclusions on, *Penn Central's* second and third factors with which I disagree. Those factors are whether the State interfered with reasonable, distinct investment-based expectations, and the "character" of the regulation complained of.

Interference with reasonable, distinct investment-backed expectations

{¶159} In the words of the Federal Circuit Court of Appeals (embraced by the Ohio Supreme Court in *Mertz [2020]*), analysis of this factor "is designed to account for property owners' expectation that the regulatory regime in existence at the time of its acquisition will remain in place, and that new, more restrictive legislation or regulations will not be adopted." *Love Terminal Partners, L.P. v. United States*, 889 F.3d 1331, 1345 (Fed.Cir. 2018).

{¶160} In *Mertz [2020]*, the Ohio Supreme Court used the three-part test the Federal Circuit uses to guide that inquiry. Essentially, it is whether the property owner who harbored such an expectation was reasonable in its expectation, and turns on at least three issues: whether the property owner: 1) operated in a highly-regulated industry, 2) was aware, when it purchased the property interest, of the problem that "spawned" the regulation, and 3) could have "reasonably anticipated the *possibility* of such regulation in light of the regulatory environment at the time it acquired the property interest." (Emphasis added). *Mertz [2020]* at ¶ 64.

{¶161} I agree that the evidence in this case weighs heavily against AWMS on the first two parts of the analysis.

{¶162} It weighs against AWMS on the third, too, for at least three reasons.

Love Terminal

{¶163} First, the expectation that *Love Terminal* instructs us to account for was not impaired in any way, *i.e.*, the expectation that the regulatory regime existing at the time AWMS acquired its interest would remain in place. Both the statutory and regulatory aspects of that regime did so remain and did not change throughout AWMS's dealings with the Division.

{¶164} The majority views *Love Terminal's* guidance as more "nuanced" than this. The majority opinion suggests that the "nuance" in reviewing the regulatory regime in place at the time a property interest was acquired "requires an analysis of the management as well as the purported and actual decision-making strategies employed by the State in light of the backdrop of the regulatory regime." (Majority Opinion at ¶ 137).

{¶165} That expression of a court's scope of review over administrative/executive functions is dangerously overbroad and the majority opinion offers no legal authority for such sweeping disregard for the principles of separation of powers. It also would handcuff the government's ability to react to, and act upon, developments in a regulated field that may not have been contemplated when a regulatory scheme was first put in place.

{¶166} The majority's formulation would result in the courts taking an improper role in the administration of executive functions. We are not called to micromanage the execution and enforcement of the laws of the State. Especially where there has been no showing of any constitutional violation, any violation of law, or any bad faith. Instead, the majority is effectively second guessing the executive branch decision making process years after the fact because the Division "vacillated between employing a case-by-case regulatory regime versus a state-wide and more objective management." *Id.* at ¶ 141.

Yet, the majority cannot say that the Division acted improperly in determining “which regulatory method was more effective.” *Id.*

{¶167} AWMS signed its lease on December 19, 2011. The parties stipulated to certain facts, including the following: seismic events were reported in the Mahoning Valley for at least 9 months immediately before that, and on December 24 and 31, 2011 (after the lease was signed) more were reported (and all these events were reported widely in the media). After the lease was signed, two regulatory (and no relevant statutory) changes occurred in Ohio. They both were based on those 2011 events: a moratorium on issuing *new* injection well permits and emergency regulations mandating additional seismic monitoring near injection wells.

{¶168} There was no evidence that these changes affected AWMS’s ability to operate (it had only just applied for its first of two necessary permits and was months away from raising the capital it needed to build its facilities). Indeed, these changes were not the regulatory actions about which it has complained in this action.

{¶169} Preliminarily, it is axiomatic that “the law presumes that every man knows the law [and] is bound by it whether he actually knows it or not[.]” *Foster v. Scarff*, 15 Ohio St. 532, 537 (1864). On this basis, we can and should presume that AWMS was aware of the laws governing the industry into which it entered at the time it acquired its interest. These laws and regulations did not meaningfully change throughout the course of this case. AWMS could not reasonably expect to be treated differently than it was actually treated by the Division.

{¶170} There was no evidence adduced at trial that Ohio’s laws, regulations, or practices for *suspending, revoking, reviving or renewing injection well permits* changed after AWMS signed its lease - not the substantive grounds for suspending or revoking

and not the procedures used in doing so. The record therefore reflects that the legislative and regulatory environment in place in December 2011 (insofar as it bore on AWMS's petition in mandamus, and whether we approve of it or not) was the same as the one pursuant to which the Division later issued the suspension order. The only material thing that changed was that more earthquakes occurred, and that AWMS Well #2 was causally responsible for these seismic activities.

{¶171} Second, the only level of "investment-based expectations" that needs to be analyzed here is the expectations of AWMS at the time it acquired its leasehold.

{¶172} There was no trial evidence that AWMS had *any* relevant expectations on December 19, 2011, reasonable or otherwise, about whether the regulatory regime in existence at the time of its acquisition regarding operating injection wells would remain in place, or that new, more restrictive legislation or regulations to which it was subjecting itself would not be adopted.

{¶173} Mr. Kilper testified that, based on his personal experience with *environmental* authorities *in the coal mining business, blasting, and operating landfills*, his expectation was that regulators would "work with" a regulated entity to develop and implement risk-minimizing strategies. Tr. Vol. 2 at 196. That proves nothing, clearly and convincingly, about AWMS's expectations concerning changes or additions to, or enforcement of, regulations or statutes in the world of brine-injection wells in December 2011, or any other expectations with which we are concerned here. On those, the record is barren of evidence. Of course it is, AWMS had never drilled a well into which it would inject brine waste.

{¶174} AWMS also introduced evidence that it expected to generate revenue and profit from operating brine injection wells. The majority opinion foregoes any analysis of

the reasonableness of those expectations. So do I, because as much as those expectations might bear on AWMS's damages *if* there was a taking, they have no bearing on *whether* there was a taking. That issue turns not on expectations of profitability, but on expectations regarding changes to, or new, more restrictive laws, regulations or their enforcement. Of that, again, we have nothing relevant in the record.

{¶175} AWMS had the burden of proving, clearly and convincingly, that it *had* expectations about regulatory and legislative interference with its use of its property, *what they were and their reasonableness*. It did not offer clear and convincing evidence on any of these issues.

{¶176} Without proof of what those expectations were, we should not rule that they were reasonable or that the State interfered with them.

{¶177} In support of its conclusion that on December 11, 2011, AWMS did have distinct, investment backed expectations worthy of considering, the majority opinion contends and finds, *without citing any evidence*, that AWMS "did not (nor could it) anticipate the Division would effectively 'stonewall' its efforts to comply with" the Division's interest in a safe re-start. In *Mertz [2020]*, the Ohio Supreme Court put it slightly differently: On December 19, 2011, "AWMS could not have anticipated that the State would waver between a case-by-case approach to addressing induced seismicity while rebuffing AWMS's attempts to meet the State's inchoate expectations." *Mertz [2020]* at ¶ 67.

{¶178} There are several gaps in this logic, in my view. First, the majority opinion cites no record evidence of what AWMS did not anticipate about anything, much less how the State would react to events of induced seismicity from the AWMS wells. Of course not; there was none. Second, it does not answer the critical question: *what were* AWMS's

expectations in December 2011? There was no clear and convincing proof at trial on that issue either. Courts should not suppose what parties knew, anticipated, or expected (or did not). The parties must prove it.

{¶179} Third, the Ohio Supreme Court already has held, in analyzing the “character of the regulation” at issue, (*see infra* at ¶ 189) that as a matter of law, the State’s delay in reviewing AWMS’s restart plans was not “extraordinary.” *Mertz [2020]*, para. 85. How is it that a business “could not” anticipate “ordinary” delays (whether born of “stonewalling”, “rebuffing”, “red tape”, “overabundance of caution” or anything short of bad faith) in its efforts to obtain or regain licensure? Again, nothing in the record suggests, much less proves, much less clearly and convincingly so, that it did not, much less could not, so anticipate.

{¶180} More fundamentally, the real threshold question before us is what AWMS *did* expect when it acquired its leasehold interest, *not what it could not anticipate*. We need to know what its expectations were and whether they were reasonable before we can say whether the State interfered with them and whether any interference with them entitles it to relief. It was AWMS’s burden to prove those things, and it failed to do so.

{¶181} Finally, the majority opinion’s finding proceeds from the proposition that the Division did, indeed, “stonewall” AWMS. It was not proven clearly and convincingly that the Division did, and no law cited by the majority supports such a conclusion.

{¶182} On September 3, 2014, prior to the suspension order, the parties met by telephone at AWMS’s request. For what? To begin a negotiation. AWMS tried to avoid the suspension order altogether by offering to reduce injection volumes or to suspend its operations completely if the Division would forgo a suspension order and tell it what modification(s) for injecting brine would be acceptable for re-starting full operations. Why

would a business be willing, and voluntarily offer, to stop or curtail operations in exchange for staving off a suspension order from the government? The question almost answers itself: To avoid the administrative hassle of having one's business under the thumb of a government order. That strategy is a paradigm (and not a bad one) for anyone who knows that government orders, once in place, create uncertainty over whether and on what terms they might ever go away. Any business that has contrary expectations has unreasonable expectations.

{¶183} The negotiation strategy went moderately well at first. Although the Division declined the initial offer and issued the suspension order, within 15 days (and after AWMS presented evidence that Well #1 was not the culprit inducing seismicity) it lifted the suspension order as to that well. That is hardly "stonewalling" much less "bad faith."

{¶184} AWMS submitted a proposed re-start plan for Well #2, but the Division found it wanting. In response, the negotiations continued in a meeting on October 31, 2014. However, by then, AWMS had filed, on October 2, 2014, an administrative appeal of the suspension order with Ohio's Oil and Gas Commission. The gauntlet had been thrown down; the fat was in the fire. AWMS had turned a negotiation into a battle over whether and to what extent the State of Ohio could suspend the operation of brine-injection facilities in the interest of preventing induced seismicity. That battle raged until late December 2018, kept alive in no small measure by both parties' refusal to accept defeat at every turn (which was their right to do).

{¶185} I recognize, at the October 31, 2014 meeting, in response to AWMS's reiterated request for the Division to tell it what to do to get a preapproved re-start opinion, the Division responded: a plan that assures zero seismicity. The majority accurately reports AWMS's response. Essentially: No, thank you. Who was stonewalling whom?

Or was AWMS taking a chance that the appellate process it had just started would bail it out? Either way, the evidence did not show clearly and convincingly that AWMS had any expectation that a suspension order would not result in a potentially long, frustrating process with attendant delays in its operations. To the contrary, the evidence showed AWMS saw it coming, exacerbated it by its obstinance and took repeated steps (however unavailing) to avoid it.

{¶186} And, I repeat, there was NO evidence adduced at trial to show what AWMS's "expectations" on this issue were on December 19, 2011. How could there be? Nothing in our record suggests, much less proves by any standard, that either the State or AWMS had ever been faced with such a record of induced seismicity caused by brine injection wells.

Character of the regulation

{¶187} Our record on *Penn Central's* third factor also weighs against finding a partial taking, contrary to the majority opinion's assertions.

{¶188} The inquiry here is, again, three-fold, at least: 1) was the relator singled out for unfavorable treatment, 2) did the regulation have a harm-preventing purpose, and 3) to what extent did a regulatory delay accompany the government's decision-making process.

{¶189} The Ohio Supreme Court already has held in *Mertz [2020]* that 1) AWMS was not "singled out," 2) that the Division's actions had a valid harm-preventing purpose even if there was no imminent threat to public safety, and 3) under any discernible theory, the delay associated with the suspension order and the State's non-responsiveness was neither extraordinary nor in bad faith given the purpose of the regulatory regime.

{¶190} Frankly, that should end the discussion of this factor. The Ohio Supreme Court held the regulation was reasonable (or, at least, not unreasonable). But, it is not the end, because the majority opinion nevertheless brushes it aside with the assertion that the “Division’s orders and administrative decisions *must* be fundamentally consistent.” (Majority Opinion at ¶ 135). I confess that I do not know what that means, and the majority opinion does not help me much. It offers no legal authority that creates such an obligation; nor should there be one since regulatory enforcement decisions are inherently fact specific.

{¶191} Moreover, no evidence at trial added to or subtracted from the record on which the Ohio Supreme Court reached its conclusion on the character of the regulation. If (as the majority opinion at least suggests) “consistent” means that decisions regarding permits should be made based on “the administrative criteria” (*Id.* at ¶ 139), then where is the evidence that the Division’s actions in this case were not? There was none. Of course there was none; the State of Ohio had not faced repeated incidents of induced seismicity in densely populated areas from brine injection before, and so there were no benchmarks, laws, regulations, administrative procedures or practices for issuing restart orders for permit suspensions. Hence, no inconsistency.

{¶192} The majority discusses the Division’s changing enforcement practices between Chief Simmers and Chief Vendel and finds that the Division’s decision to relax the regulatory burdens on AWMS demonstrates a lack of consistency in enforcement. However, such a conclusion is fallacious because it relies on post hoc ergo propter hoc reasoning. That the Division’s ultimate restart order used a more relaxed enforcement attitude does not mean that the Division’s first position was incorrect, too conservative, or fundamentally inconsistent with enforcement practices and administrative criteria.

{¶193} The majority opinion falls back on the assertion that the evidence showed the Division “blocked” AWMS by not addressing or giving “effective consideration” to two restart plans it offered.

{¶194} There are two fundamental problems with that assertion. First, it proves too much. Every property interest holder is “blocked” by government action or inaction that disappoints them. Under the majority opinion’s framework, all of them would be able to claim that they were not given “effective consideration.” Do we want judges micromanaging executive branch (or legislative branch) decisions for the “effectiveness” of consideration?

{¶195} Second, the Ohio Supreme Court already has decided that the delays asserted to have arisen from that inattention do not form the basis for a taking because those delays were not “extraordinary.” In short, it is neither a foundation for asserting a taking, nor a taking in and of itself.

{¶196} Third, it also ignores a finer point of the *Penn Central* analysis – the extent to which delays were the result of the Relator’s own actions. Here, there was ample evidence at trial that AWMS was equally dismissive of the Division’s proposals for an acceptable restart order.

{¶197} On October 31, 2014, even after AWMS had ignited the administrative and civil litigation pyres, the Division suggested a restart plan that assured zero seismicity risk. AWMS categorically rejected it. In February 2015, the Division proposed a Wilsonian “14 point Plan” for a restart. AWMS rebuffed it out-of-hand. In November and December 2016, the Division told AWMS that it still was open to considering other comprehensive restart plans. AWMS’s response? Crickets.

{¶198} What is more, AWMS was afforded the full, due administrative process to which every party is entitled throughout this dispute and used it. In early October 2014, it filed a statutory administrative appeal of the suspension order. In 2015-2016, it filed and successfully prosecuted an appeal from that proceeding to the Franklin County Court of Common Pleas. In August 2016, it filed the mandamus petition before us. In 2017, it defended itself (albeit unsuccessfully) in the Division’s appeal to the Tenth District from the Franklin County Common Pleas Court’s 2016 decision and sought (again, unsuccessfully) review (and reconsideration) in the Ohio Supreme Court from the Tenth District’s decision.

{¶199} But, the majority opinion holds that AWMS was not “afforded adequate attention” and declares this to be “dismaying.” (*Id.* at ¶ 142-143). I have little doubt that AWMS was dismayed, too. But, I am not familiar with that concept as a standard upon which to decide whether government’s law and regulation *enforcement* actions have resulted in an unconstitutional partial taking, when the complainant had and exercised full due process of law.

{¶200} There are cases that suggest, if not hold, that delays in governmental administrative decision-making can form the foundation for a partial taking claim. See *First English Evangelical Lutheran Church of Glendale v. Los Angeles Cnty., Cal.*, 482 U.S. 304 (1987). In such cases, a taking only accrues when the delay becomes unreasonable. *Resource Investments, Inc. v. United States*, 85 Fed.Cl. 447, 497 (2009).

{¶201} However, such delays are difficult to define, are fact-based inquiries, and the length of the delay alone cannot establish that an extraordinary delay exists. *Id.* at 498. Indeed, extraordinary delay “rarely travels without bad faith.” *Id.* at 499.

{¶202} In this case, the Ohio Supreme Court has found on review of our first grant of summary judgment that there was no bad faith. *Mertz* [2020] at ¶ 83-84. The Court also concluded that there was no extraordinary delay, saying that a delay of 45-months is not on its face extraordinary, particularly in cases involving complex regulatory schemes. *Id.* at ¶ 85; see also *Williamson County Reg'l Planning Comm'n v. Hamilton Bank of Johnson City*, 473 U.S. 172, (1985) (eight years is insufficient delay to effect a taking); *Bass Enterprises Prod. Co. v. United States*, 381 F.3d 1360, 1367 (Fed. Cir. 2004) (45 months' delay is not extraordinary); *Wyatt v. United States*, 271 F.3d 1090, 1098 (Fed.Cir. 2001) (nearly ten-year permitting process including seven years' delay is not extraordinary); *1902 Atlantic Ltd. v. United States*, 26 Cl.Ct. 575 (1992) (five years' delay not extraordinary). There was no additional evidence of extraordinary delay or bad faith presented at trial, and the majority, despite its references to "stonewalling," does not suggest any exists.

{¶203} The only evidence at trial on the issue already had been part of the record at the summary judgment stage that the Ohio Supreme Court reviewed. In any event, the cases in this line also hold that, absent a total taking, the plaintiff in a case asserting extraordinary delay still must carry its burden under the *Penn Central* factors. *Appolo Fuels, Inc. v. United States*, 381 F.3d 1338, 1352 (Fed.Cir. 2009) ("Even if the delay were considered extraordinary, we have already determined that application of the *Penn Central* factors here does not support a finding that there was a permanent regulatory taking"). As discussed above, I would hold that AWMS did not carry its burden under *Penn Central*. What the Division essentially did here was refuse to comply with AWMS's requests for an advanced statement of what the Division would approve as a restart plan. That does not rise to the level of singling out AWMS, does not change the suspension

order's "harm-preventing purpose," and does not delegitimize the relationship between the Division's actions and its legitimate regulatory decision-making process.

{¶204} Finally, let us remember that much of the delay complained of here was based on the Division's expressed desire to develop a state-wide plan for minimizing induced seismicity risks from injection wells, which delay the Ohio Supreme Court already has said was not "extraordinary[.]" *Mertz [2020]* at ¶ 85.

{¶205} I do not consider this delay to be in any way "extraordinary," nor do I consider the Division's actions to have been in bad faith. Moreover, the evidence failed to prove clearly and convincingly that AWMS had reasonable, distinctive, investment-based expectations that new, more restrictive legislation or regulations would not be adopted in this highly regulated, volatile industry. If they had them, the evidence failed to prove clearly and convincingly what they were. There was no evidence that Ohio changed its statutory or regulatory scheme or enforcement practices for suspending or restarting brine injection activities under state-issued permits from December 2011 until trial.

Balancing the factors

{¶206} By my count, we have three factors to weigh under *Penn Central*. Two of them are trifurcated. That makes 7 points of analysis:

{¶207} On the first, I acknowledge that AWMS has at least suffered some adverse economic impact, thus satisfying the first *Penn Central* factor.

{¶208} On the second, the extent to which the regulation interfered with Distinct Investment Backed Expectations, the majority finds, and I agree, that AWMS was aware of the significant regulation involved in its operations, that AWMS was aware of the dangers of seismicity involved in drilling and knew that its operations could be suspended and/or terminated. Finally, I would find the evidence did not clearly and convincingly

support a conclusion that the Division stonewalled AWMS or engaged in bad faith in issuing its restart order. Therefore, AWMS failed to establish any of the subparts of the second *Penn Central* factor.

{¶209} On the third, the character of the regulation, the Ohio Supreme Court said in *Mertz [2020]* there was no material question of fact supporting this factor of the *Penn Central* analysis. As a result, this issue was not salient at trial and AWMS certainly did not establish any of the three subparts of this factor by clear and convincing evidence.

{¶210} Balancing each of the seven points of analysis leads ineluctably to the conclusion that AWMS failed to establish by clear and convincing evidence a partial taking under *Penn Central*.

{¶211} For the foregoing reasons, I would hold that there was no partial taking of a property interest and respectfully dissent from the Court's judgment.

STATE OF OHIO)
) SS.
COUNTY OF TRUMBULL)

IN THE COURT OF APPEALS
ELEVENTH DISTRICT

STATE OF OHIO ex rel. AWMS WATER
SOLUTIONS, LLC, et al.,

JUDGMENT ENTRY

Relators,

CASE NO. 2016-T-0085

- v -

MARY MERTZ, DIRECTOR OHIO
DEPARTMENT OF NATURAL
RESOURCES, et al.,

Respondents.

For the reasons stated in the opinion of this court, it is the judgment and order of this court that relators' petition for writ of mandamus is granted in part and denied in part.

Costs to be taxed against the parties equally.



JUDGE MARY JANE TRAPP

EUGENE A. LUCCI, P.J., concurs,

JOHN J. EKLUND, J., dissents with a Dissenting Opinion.

FILED
COURT OF APPEALS

SEP 09 2024

TRUMBULL COUNTY, OH
KAREN INFANTE ALLEN, CLERK

174 Ohio St.3d 401
Supreme Court of Ohio.

The STATE EX REL. AWMS WATER
SOLUTIONS, L.L.C., et al., Appellants,

v.

MERTZ, Dir., et al., Appellees.

No. 2023-0125

|

Submitted October 24, 2023

|

Decided January 24, 2024

Synopsis

Background: Operator of saltwater-injection wells associated with oil and gas production filed petition for writ of mandamus to compel state to commence proceedings for property appropriation, alleging that state's suspension order with respect to one of its two wells effected a governmental taking of operator's property, requiring the state to pay it just compensation. The Eleventh District Court of Appeals, Trumbull County, [No. 2016-T-0085](#), [132 N.E.3d 1151](#), granted the state's motion for summary judgment. Operator appealed. The Supreme Court, [162 Ohio St.3d 400](#), [165 N.E.3d 1167](#), reversed and remanded. On remand, the Court of Appeals, [204 N.E.3d 140](#), denied operator's petition for writ of mandamus. Operator appealed.

Holdings: The Supreme Court held that:

[1] Court of Appeals ventured beyond scope of Supreme Court's remand order by determining that operator lacked cognizable property interest, and

[2] Court of Appeals' determination that operator lacked cognizable property interest for operator's takings claim violated doctrine of the law of the case.

Reversed and remanded with instructions.

Procedural Posture(s): On Appeal; Petition for Writ of Mandamus; Other.

West Headnotes (11)

[1] **Eminent Domain** 🔑 Appeal and error

Oral argument before the Supreme Court was not warranted, on appeal from the Court of Appeals' denial of the petition for writ of mandamus to compel state to commence proceedings for property appropriation based on suspension order for well owned by saltwater-injection well operator, although operator argued that Court of Appeals imposed new, narrow definition of what constituted property interest for purposes of the Takings Clause; it was not necessary for Supreme Court to reach issue of alleged new definition, because Court of Appeals did not follow remand order and violated doctrine of the law of the case by sua sponte revisiting issue of whether operator possessed cognizable property interest for purposes of Takings Clause. [U.S. Const. Amend. 5](#); [Ohio S. Ct. Prac. R. 17.02\(A\)](#).

[2] **Appeal and Error** 🔑 Oral arguments

In exercising its discretion to grant oral argument in a direct appeal, the Supreme Court determines whether the case involves a matter of great public importance, complex issues of law or fact, a substantial constitutional issue, or a conflict among the courts of appeals. [Ohio S. Ct. Prac. R. 17.02\(A\)](#).

[3] **Eminent Domain** 🔑 Appeal and error

Court of Appeals ventured beyond scope of Supreme Court's remand order by determining that operator of saltwater-injection wells lacked cognizable property interest, and, thus, erred in denying writ of mandamus to compel state to commence proceedings for property appropriation; Supreme Court specified that, on remand, Court of Appeals was required to weigh parties' evidence related to operator's takings claim and to weigh parties' evidence in accordance with Supreme Court's opinion and to balance all [Penn Central](#) factors to determine whether operator suffered partial

taking, and, instead, Court of Appeals sua sponte ordered parties to file supplemental briefs as to whether operator had cognizable property interest under Takings Clause and denied writ without weighing parties' evidence. [U.S. Const. Amend. 5](#).

[4] Appeal and Error 🔑 [Compliance with mandate or directions](#)

An inferior court lacks jurisdiction to depart from a superior court's mandate.

[1 Case that cites this headnote](#)

[5] Appeal and Error 🔑 [Compliance with mandate or directions](#)

An inferior court has no discretion to disregard the mandate of a superior court in a prior appeal in the same case.

[1 Case that cites this headnote](#)

[6] Eminent Domain 🔑 [Appeal and error](#)

Court of Appeals' determination that operator of saltwater-injection wells lacked cognizable property interest for operator's takings claim violated doctrine of the law of the case, in mandamus proceedings to compel state to commence proceedings for property appropriation; Supreme Court recognized that operator's leasehold was a property interest that triggered takings analysis, and, on remand, Court of Appeals determined that Supreme Court had not deemed that interest to be property interest for purposes of Takings Clause, that question of whether operator had cognizable property interest had not been at issue before Supreme Court, and that Supreme Court noted only that operator was prima facie entitled to invoke constitutional right to just compensation. [U.S. Const. Amend. 5](#).

[7] Appeal and Error 🔑 [As law of the case in general](#)

Appeal and Error 🔑 [Decision of Reviewing Court as Law of the Case in Lower Court](#)

The “law-of-the-case doctrine” provides that the decision of a reviewing court in a case remains the law of that case on the legal questions involved for all subsequent proceedings in the case at both the trial and reviewing levels.

[8] Courts 🔑 [Previous Decisions in Same Case as Law of the Case](#)

Though the law-of-the-case rule is considered one of practice and not a binding rule of substantive law, it is necessary to ensure consistency of results in a case, to avoid endless litigation by settling the issues, and to preserve the structure of superior and inferior courts as designed by the Ohio Constitution.

[9] Appeal and Error 🔑 [Matters which could have been raised or determined on prior review](#)

Appeal and Error 🔑 [Decision of Reviewing Court as Law of the Case in Lower Court](#)

The law-of-the-case doctrine not only precludes relitigation of issues addressed in a prior appeal but also precludes a litigant from attempting to rely on new arguments on retrial which could have been pursued in a first appeal.

[10] Eminent Domain 🔑 [Property and Rights Subject of Compensation](#)

To make a successful takings claim, a plaintiff has to first establish a constitutionally protected property interest. [U.S. Const. Amend. 5](#).

[11] Appeal and Error 🔑 [Scope of Issues](#)

A litigant cannot raise on remand issues that could have been pursued in the first appeal.

****113** APPEAL from the Court of Appeals for Trumbull County, No. 2016-T-0085, 2022-Ohio-4571.

Attorneys and Law Firms

Brennan, Manna & Diamond, L.L.C., [John N. Childs](#), [Elizabeth Shively Boatwright](#), [Justin M. Alaburda](#), [Daniel J. Rudary](#), Akron, and Hilary F. DeSaussure, for appellants.

[Dave Yost](#), Attorney General, [Michael J. Hendershot](#), Chief Deputy Solicitor General, and [Samuel C. Peterson](#), Deputy Solicitor General, for appellees.

Vorys, Sater, Seymour & Pease, L.L.P., [Thomas H. Fusonie](#), [Gregory D. Russell](#), [Emily J. Taft](#), and [Muna Abdallah](#), Columbus, urging reversal for amicus curiae Ohio Oil and Gas Association.

[Cherry Lynne Poteet](#), Weathersfield Township Law Director, urging affirmance for amicus curiae Weathersfield Township.

Opinion

Per Curiam.

*401 ¶ 1 Appellants, AWMS Water Solutions, L.L.C., AWMS Holdings, L.L.C., and AWMS Rt. 169, L.L.C. (collectively, “AWMS”), sought a writ of mandamus in the Eleventh District Court of Appeals to compel appellees, the Ohio Department *402 of Natural Resources (“ODNR”), ODNR’s director, Mary Mertz, the ODNR Division of Oil and Gas Resources Management (“the division”), and the division’s chief, Eric Vendel (collectively, “the state”), to initiate property-appropriation proceedings on the theory that the state had effectuated a regulatory taking of AWMS’s property. In an earlier appeal, we reversed the court of appeals’ grant of summary judgment in favor of the state and remanded the case to the court of appeals with directions for it to weigh the **114 parties’ evidence relating to AWMS’s total-takings and partial-takings claims. *State ex rel. AWMS Water Solutions, L.L.C. v. Mertz*, 162 Ohio St.3d 400, 2020-Ohio-5482, 165 N.E.3d 1167, ¶ 2, 88-89 (“AWMS”).

¶ 2 On remand, the court of appeals held a nine-day trial. After the parties submitted written closing arguments and supplemental briefing, the court of appeals again ruled in favor of the state and denied the writ. This time, the court of appeals held that AWMS did not have a cognizable property interest for purposes of a takings analysis. AWMS has appealed again and has requested oral argument.

¶ 3 We reverse the court of appeals’ judgment because the court did not comply with our remand order to weigh the

parties’ evidence in deciding the total- and partial-takings claims. We deny the request for oral argument and remand the case to the court of appeals with instructions to perform the analysis we ordered in *AWMS*.

I. FACTUAL AND PROCEDURAL BACKGROUND

A. The Prior Proceedings

¶ 4 Our opinion in *AWMS* recites the factual background giving rise to this appeal. See *AWMS*, 162 Ohio St.3d 400, 2020-Ohio-5482, 165 N.E.3d 1167, at ¶ 3-19. The following is a condensed version of the facts relevant to this appeal.

1. AWMS obtains permits to drill and inject wells, earthquakes ensue, and the division suspends one of AWMS’s wells

¶ 5 In December 2011, AWMS, a disposer of waste from oil-and-gas production and drilling sites, secured a leasehold right to operate one or more Class II saltwater-injection wells¹ on 5.2 acres of industrial property in Weathersfield Township, Trumbull County, Ohio. That same month, AWMS applied to *403 the division for permits to construct and operate two wells on the site: well #1 and well #2.

¶ 6 About a week after AWMS applied for its permits, a 4.0-magnitude earthquake was recorded near an injection well located a few miles from AWMS’s Weathersfield Township leasehold. This event was felt by over 4,000 people in parts of northeastern Ohio, western Pennsylvania, and Ontario, Canada. Immediately after the earthquake, former governor John Kasich imposed a moratorium on certain well-injection activities, which delayed the processing of AWMS’s permits. The division eventually authorized AWMS to drill wells #1 and #2 in July 2013. AWMS spent approximately \$5.6 million constructing its facilities, which included the costs of infrastructure, drilling, tanks, pumps, installation, and start-up.

¶ 7 In March 2014, the division authorized AWMS to commence injections into both wells. Four months later, a 1.7-magnitude earthquake was recorded near well #2, and a month after that, a 2.1-magnitude earthquake was recorded in the same area. Following the second earthquake in 2014, the division ordered AWMS to suspend operations at wells

#1 and #2, stating that the 2014 earthquakes were related to AWMS's operations. The division later lifted its suspension of operations at well #1 but left the suspension of operations at well #2 in place.

****115** 2. *AWMS's mandamus action*

{¶ 8} In August 2016, AWMS filed a petition for a writ of mandamus in the Eleventh District to compel the state to commence property-appropriation proceedings. See *State ex rel. Wasserman v. Fremont*, 140 Ohio St.3d 471, 2014-Ohio-2962, 20 N.E.3d 664, ¶ 22 (mandamus is the appropriate action to compel a public body to institute appropriation proceedings for an involuntary taking of private property). AWMS alleged that the suspension order effected a governmental taking of its property requiring the state to pay AWMS just compensation.

{¶ 9} The court of appeals determined that the state had not effected a total or a partial regulatory taking of AWMS's property, and thus, the court granted summary judgment to the state and denied AWMS's mandamus petition, *State ex rel. AWMS Water Solutions, L.L.C. v. Zehringer*, 2019-Ohio-923, 132 N.E.3d 1151, ¶ 50-51 (11th Dist.). AWMS appealed that judgment to this court.

{¶ 10} We reversed, holding that there were genuine issues of material fact that precluded summary judgment on AWMS's total-takings claim and its partial-takings claim. *AWMS*, 162 Ohio St.3d 400, 2020-Ohio-5482, 165 N.E.3d 1167, at ¶ 56, 87-89. As to AWMS's total-takings claim, we held that “there is a genuine issue of material fact concerning whether the state's suspension of AWMS's operations at well #2 constituted a total taking by depriving AWMS of all ***404** economically beneficial use of its leasehold.” (Emphasis added.) *Id.* at ¶ 88. We remanded the case to the court of appeals with instructions for it to “weigh the parties’ evidence relating to AWMS's total-takings claim.” *Id.*

{¶ 11} As to the partial-takings claim, we likewise held that genuine issues of material fact prevented summary judgment in the state's favor. Specifically, we found that AWMS had demonstrated a genuine issue of material fact on two of the three factors that a court must weigh as part of the applicable partial-takings analysis set forth in *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104, 98 S.Ct. 2646, 57 L.Ed.2d 631 (1978). See *AWMS* at ¶ 58-70, 87. We instructed the court of appeals to weigh the parties’ evidence “and balance all three

Penn Cent. factors to determine whether AWMS suffered a partial taking.” *Id.* at ¶ 89.

B. The Eleventh District's Proceedings on Remand

{¶ 12} On remand, a three-judge panel of the court of appeals held a nine-day trial in September 2021. At trial, the parties presented 14 witnesses, offered over 250 exhibits, and submitted posttrial closing arguments. In March 2022, three months after the parties submitted their posttrial briefs, the court of appeals sua sponte entered an order asking the parties to submit supplemental briefing addressing the following questions:

- (1) Does AWMS have a cognizable property interest in the permit issued by the division for AWMS #2 Well?
- (2) Does AWMS have a cognizable property interest in the 5.2 acre lease which affords it the right to obtain permits for Class II injection wells?
- (3) Is the injection of brine into the earth a cognizable property interest?

{¶ 13} AWMS submitted a supplemental brief answering “yes” to all three questions. Regarding the second question—whether it has a cognizable property interest in the lease—AWMS argued that this court had already held that it did and that ****116** that holding was therefore the law of the case. For its part, the state submitted its supplemental brief answering all three questions in the negative and arguing that AWMS did not have any cognizable property interest.

{¶ 14} The court of appeals denied AWMS's petition for a writ of mandamus, 2022-Ohio-4571, 204 N.E.3d 140, ¶ 103-105. The court of appeals held that (1) AWMS did not possess a cognizable property interest in its lease “that would trigger a Fifth Amendment takings analysis,” *id.* at ¶ 103, (2) the interest AWMS has in its wells and equipment were not taken and therefore “does not require a Fifth Amendment takings analysis,” *id.* at ¶ 104, and (3) AWMS had no ***405** cognizable property interest in its permit for purposes of a Fifth Amendment takings analysis, *id.* at ¶ 105. Because it ruled that AWMS lacked a cognizable property interest and its claim was therefore not subject to analysis under the Takings Clause, the court of appeals did not weigh the evidence with respect to either AWMS's total-takings claim or its partial-takings claim.

{¶ 15} AWMS appealed to this court as of right and asks for oral argument.

II. MOTION FOR ORAL ARGUMENT

[1] [2] {¶ 16} AWMS has filed a motion for oral argument, which the state did not oppose. In exercising our discretion to grant oral argument in a direct appeal, S.Ct.Prac.R. 17.02(A), we determine whether the case involves a matter of great public importance, complex issues of law or fact, a substantial constitutional issue, or a conflict among the courts of appeals. *State ex rel. Ullmann v. Husted*, 148 Ohio St.3d 255, 2016-Ohio-5584, 70 N.E.3d 502, ¶ 6.

{¶ 17} In its motion for oral argument, AWMS contends that this case is worthy of oral argument because the court of appeals “impose[d] a new, narrow definition of what constitutes a property interest for purposes of the Takings Clause.” But it is not necessary for us to reach this issue. As we explain below, the court of appeals failed to follow our remand order and violated the law-of-the-case doctrine by sua sponte revisiting the issue whether AWMS possessed a cognizable property interest for Takings Clause purposes. Thus, we deny oral argument.

III. ANALYSIS

A. Court of Appeals Did Not Comply with Remand Instructions

[3] {¶ 18} In its first proposition of law, AWMS argues that the court of appeals improperly considered issues outside the scope of this court's remand order. Because this court instructed the court of appeals to “weigh the parties’ evidence” relating to both the total-takings claim and the partial-takings claim, *AWMS*, 162 Ohio St.3d 400, 2020-Ohio-5482, 165 N.E.3d 1167, at ¶ 88-89, AWMS contends that the court of appeals lacked jurisdiction to consider, on remand, whether AWMS possessed a cognizable property interest. We agree with AWMS.

[4] {¶ 19} It is axiomatic that an inferior court lacks jurisdiction to depart from a superior court's mandate. *State ex rel. Heck v. Kessler*, 72 Ohio St.3d 98, 104, 647 N.E.2d 792 (1995). In *AWMS*, we reversed the court of appeals’

grant of summary judgment to the state and remanded the case specifically for the purpose of conducting the proper takings analysis. In this regard, we did not leave the court of appeals’ task open-ended. Rather, we specified that the court of *406 appeals “must weigh the parties’ evidence relating to AWMS's total-takings claim” and “must weigh the parties’ evidence in accordance with this opinion and balance all three **117 *Penn Cent.* [438 U.S. 104, 98 S.Ct. 2646, 57 L.Ed.2d 631] factors to determine whether AWMS suffered a partial taking.” (Emphasis added.) *AWMS* at ¶ 88-89.

[5] {¶ 20} The court of appeals did not follow our instructions. Instead, after a trial and posttrial briefing, the court of appeals sua sponte ordered the parties to file supplemental briefs on the threshold issue whether AWMS has a cognizable property interest that is compensable under the Takings Clause. The court of appeals then denied the writ of mandamus—not because it had weighed the parties’ evidence and had determined that there had been no regulatory taking, but because it held that AWMS had no cognizable property interest in the first place. 2022-Ohio-4571, 204 N.E.3d 140, at ¶ 55, 59, 101. By failing to weigh the evidence—the touchstone analysis whether there has been a regulatory taking—the court of appeals failed to perform the task we ordered it to do on remand. This is reversible error: “an inferior court has no discretion to disregard the mandate of a superior court in a prior appeal in the same case.” *Nolan v. Nolan*, 11 Ohio St.3d 1, 462 N.E.2d 410 (1984), syllabus.

{¶ 21} The state does not respond to AWMS's argument that the court of appeals exceeded the scope of this court's remand instructions. Nor does the state dispute that in *AWMS*, 162 Ohio St.3d 400, 2020-Ohio-5482, 165 N.E.3d 1167, we identified a leasehold interest as the relevant property interest for purposes of the takings analysis. Rather, regarding AWMS's leasehold, the state argues that the court of appeals found that this property interest has *not* been taken. But this argument leaves unanswered the question of how the court of appeals could have found the leasehold interest not to have been taken when it did not undertake either the total-takings or partial-takings analysis that we ordered it to perform. Indeed, the purpose of both analyses is to determine whether there has been a compensable regulatory taking of a property interest. See *AWMS* at ¶ 43, quoting *Lingle v. Chevron U.S.A., Inc.*, 544 U.S. 528, 539, 125 S.Ct. 2074, 161 L.Ed.2d 876 (2005) (“the ‘determinative factor’ [of a total-takings claim] is whether the regulation effects a ‘complete elimination of a property's value’ ”); *AWMS* at ¶ 57 (whether there is a partial regulatory

taking depends on the three-factor *Penn Cent.* analysis); see also *State ex rel. Shelly Materials, Inc. v. Clark Cty. Bd. of Commrs.*, 115 Ohio St.3d 337, 2007-Ohio-5022, 875 N.E.2d 59, ¶ 19 (to determine whether there is a partial regulatory taking requires application of the *Penn Cent.* analysis).

{¶ 22} The court of appeals erred in denying the writ on the basis that AWMS lacked a cognizable property interest. By deciding the case in this manner, the court ventured beyond the scope of our remand order.

*407 B. Law-of-the-Case Doctrine

[6] {¶ 23} AWMS's second proposition of law is related to the first. AWMS argues that the law-of-the-case doctrine required the court of appeals to abide by this court's legal findings in our previous decision in this case. Specifically, AWMS argues that this court already determined that AWMS held a leasehold interest that sufficed as a cognizable property interest for purposes of the Takings Clause. AWMS is correct on this point as well.

[7] [8] [9] {¶ 24} The law-of-the-case doctrine provides that “the decision of a reviewing court in a case remains the law of that case on the legal questions involved for all subsequent proceedings in the case at both the trial and reviewing levels.” *Nolan*, 11 Ohio St.3d at 3, 462 N.E.2d 410. Though the rule is considered one of practice **118 and not a binding rule of substantive law, it “is necessary to ensure consistency of results in a case, to avoid endless litigation by settling the issues, and to preserve the structure of superior and inferior courts as designed by the Ohio Constitution.” *Id.* Accordingly, the law-of-the-case doctrine not only precludes relitigation of issues addressed in a prior appeal but also “precludes a litigant from attempting to rely on new arguments on retrial which could have been pursued in a first appeal.” (Emphasis added.) *Pipe Fitters Union Local No. 392 v. Kokosing Constr. Co.*, 81 Ohio St.3d 214, 218, 690 N.E.2d 515 (1998); see also *Hubbard ex rel. Creed v. Sauline*, 74 Ohio St.3d 402, 404-405, 659 N.E.2d 781 (1996).

[10] {¶ 25} To make a successful takings claim, AWMS had to first establish a constitutionally protected property interest. *State ex rel. Gilbert v. Cincinnati*, 125 Ohio St.3d 385, 2010-Ohio-1473, 928 N.E.2d 706, ¶ 19. Contrary to what the court of appeals determined, AWMS had already done that in this case. In *AWMS*, 162 Ohio St.3d 400, 2020-Ohio-5482, 165 N.E.3d 1167, we recognized that AWMS possessed a property

interest that triggered a takings analysis. Indeed, we described “the main issue” in the case as “whether the state effected either a total taking of well #2 under the standard established in *Lucas v. South Carolina Coastal Council*, 505 U.S. 1003, 112 S.Ct. 2886, 120 L.Ed.2d 798 (1992)] or a partial taking of it under the standard established in *Penn Cent.* [438 U.S. 104, 98 S.Ct. 2646, 57 L.Ed.2d 631].” *AWMS* at ¶ 30; see also *id.* at ¶ 26 (recognizing that AWMS has property interest in the leasehold on which it operated well #2); *id.* at ¶ 92 (Kennedy, J., concurring in judgment only) (“The property interest at stake in this case is a narrow one: a leasehold right to operate Class II saltwater-injection wells on 5.2 acres of industrial property in Weathersfield Township, Trumbull County, Ohio”). Based on AWMS's property interest, we went on to reverse the summary judgment granted in the state's favor, finding that there were genuine issues of material fact on whether there had been a total or partial regulatory taking. *AWMS* at ¶ 56, 87-89.

*408 {¶ 26} Despite our recognizing AWMS's leasehold as a cognizable property interest, the court of appeals determined that we had *not* deemed that interest to be a property interest for takings purposes. According to the court of appeals, (1) “the legal question of whether AWMS possessed a cognizable property interest [had] not [been] at issue” before this court, 2022-Ohio-4571, 204 N.E.3d 140, at ¶ 46, and (2) this court had noted only that “AWMS was prima facie entitled to invoke the constitutional right to just compensation,” not that it actually possessed a cognizable property interest, *id.* at ¶ 47.

[11] {¶ 27} The court of appeals' reasoning is incorrect and runs afoul of the law-of-the-case doctrine. By sidestepping this court's remand instructions in favor of deciding the case based on its determination that AWMS lacks a cognizable property interest, the court of appeals revived an issue that could not be relitigated. Indeed, the state itself could not have raised the issue whether AWMS held a property interest for purposes of a takings analysis. In the summary-judgment proceedings that led to the first appeal to this court, the state did not argue in its motion for summary judgment that AWMS did not have a property interest; rather, the state argued that AWMS had suffered neither a total nor partial taking of that property interest. Nor did the state raise in the first *AWMS* appeal the absence of a cognizable property interest. A litigant cannot raise on remand issues that could have been pursued in the first appeal. **119 *Hubbard*, 74 Ohio St.3d at 404-405, 659 N.E.2d 781. Yet the court of appeals effectively allowed the state to do just that.

{¶ 28} AWMS's leasehold interest is a cognizable property interest for purposes of the Takings Clause. *AWMS*, 162 Ohio St.3d 400, 2020-Ohio-5482, 165 N.E.3d 1167, at ¶ 26, 56. That AWMS possesses a property interest is the law of the case, and the court of appeals erred in revisiting the issue.

C. Other Property Interests

{¶ 29} In its remaining propositions of law, AWMS argues that it has legally cognizable property interests in not only its leasehold but in (1) the permit granted by the division for well #2, (2) its disposal wells and related equipment, and (3) subsurface rights related to the wells. AWMS asserted these arguments in response to the court of appeals' sua sponte order for supplemental briefing on the issue of what property interest AWMS holds for purposes of the Takings Clause.

{¶ 30} We need not reach these propositions of law. For the reasons stated above, it is the law of the case that AWMS possesses a cognizable property interest in the leasehold right to operate Class II saltwater-injection wells on 5.2 acres of industrial property in Weathersfield Township, Trumbull County, Ohio. *AWMS* at ¶ 3, 26. The issue that remains for adjudication is whether the state effectuated a total or partial regulatory taking of this leasehold.

*409 IV. CONCLUSION

{¶ 31} For the foregoing reasons, we deny the motion for oral argument, reverse the Eleventh District Court of Appeals' judgment, and remand the case to the court of appeals for further proceedings in accordance with *AWMS*, 162 Ohio St.3d 400, 2020-Ohio-5482, 165 N.E.3d 1167, and this opinion. On remand, the court of appeals must (1) weigh the parties' evidence to determine whether AWMS suffered a total-taking and (2) weigh the parties' evidence and balance all three *Penn Cent.*, 438 U.S. 104, 98 S.Ct. 2646, 57 L.Ed.2d 631, factors to determine whether AWMS suffered a partial taking.

Judgment reversed

and cause remanded.

Kennedy, C.J., and Fischer, DeWine, Donnelly, Stewart, Brunner, and Deters, JJ., concur.

All Citations

174 Ohio St.3d 401, 237 N.E.3d 111, 2024-Ohio-200

Footnotes

- 1 A Class II saltwater-injection well is "constructed and used for the sole purpose of disposing of saltwater, a byproduct of oil and natural gas production. A saltwater injection well is constructed to isolate the injected fluid in a specific formation and prevent contamination of freshwater." Ohio Department of Natural Resources, *Injection Wells*, <https://ohiodnr.gov/business-and-industry/energy-resources/injection-wells> (accessed Nov. 16, 2023) [<https://perma.cc/DF2Z-MASG>].



Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR

JAMES ZEHRRINGER, DIRECTOR

Richard J. Simmers, Chief
Division of Oil and Gas Resources Management
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Phone: (614) 265-6922, Fax: (614) 265-6910

ORDER BY THE CHIEF

September 3, 2014

ORDER NO. 2014-371

TO: American Water Management Services, LLC
One American Way
Warren, Ohio 44484

RE: AWMS #1 Well
SWIW #21
API# 34-155-24076-00-00
Weathersfield Township, Trumbull County

SUBJECT: Suspension of Injection Operations

Pursuant to Ohio Revised Code Section 1509.03(D), the Chief of the Division of Oil and Gas Resources Management (“Chief” or “Division”) makes the following Findings and issues the following Orders:

BACKGROUND:

- (1) American Water Management Services, LLC (“AWMS”) is the current owner of the AWMS #1 Well, SWIW #21, API# 34-155-24076-00-00, located in Weathersfield Township, Trumbull County, Ohio (AWMS #1 saltwater injection well”).
- (2) Pursuant to R.C. 1509.05, R.C. 1509.06, and R.C. 1509.22(D), on July 18, 2013, the Division issued a permit to AWMS authorizing AWMS to drill the AWMS #1 saltwater injection well.
- (3) On November 2, 2013, AWMS completed drilling the AWMS #1 saltwater injection well.
- (4) On March 24, 2014, the Division issued Chief’s Order No. 2014-68 to AWMS authorizing AWMS to operate the AWMS #1 saltwater injection well. Chief’s Order No. 2014-68 conditioned AWMS’s authority to operate the AWMS #1 saltwater injection well on twelve (12) operational conditions listed in the permit and compliance with R.C. Chapter 1509 and Ohio Adm.Code 1501:9-3.

EXHIBIT

YYYY

- (5) In July 28, 2014, only two months after injection operations began at the well, a seismic event measuring 1.7 that may be related to AWMS's operation of the AWMS #2 saltwater injection well (API# 34-155-24075-00-00) occurred in Trumbull County.
- (6) On August 31, 2014, a seismic event measuring 2.1 related to AWMS's operation of the AWMS #2 saltwater injection well occurred in Trumbull County.
- (7) The AWMS #1 saltwater injection well is located approximately 112 feet from the AWMS #2 saltwater injection well.

FINDINGS:

- (1) The Chief finds that the AWMS #1 saltwater injection well is located in close proximity to an area of known seismic activity.
- (2) The Chief finds that the AWMS #1 saltwater injection well poses a risk of increasing or creating seismic activity.
- (3) Based on Findings (1) and (2) above, the Chief finds that AWMS should suspend all operations at the AWMS #1 saltwater injection well until the Division can further evaluate the well.

ORDERS:

IT IS HEREBY ORDERED:

- (1) Pursuant to R.C. 1509.03(D), AWMS shall immediately suspend all operations at the AWMS #1 saltwater injection well.
- (2) AWMS shall submit a written report to the Division analyzing the seismic events that occurred in July and August in relation to the operation of the AWMS #1 saltwater injection well. The report also shall include an analysis of the strata and hydro-geologic barriers between the base of the Silurian "Newberg" injection zone and the Pre-Cambrian basement rock under the AWMS #1 saltwater injection well.

Date

9-3-2014

*Scott Hill for
Richard J. Summers*

Richard J. Summers, Chief
Division of Oil and Gas Resources Management

Addressee is hereby notified that this action is final and effective and may be appealed pursuant to Section 1509.36 of the Ohio Revised Code. If the Order is appealed to the Ohio Oil and Gas Commission, the appeal must be in writing and must set forth the Orders complained of and the grounds upon which the appeal is based. Such appeal must be filed with the Oil and Gas Commission, 2045 Morse Road, Building H-3, Columbus, Ohio 43229-6693, within thirty (30) days after receipt of this Order.

In addition, within three (3) days after the appeal is filed with the Oil and Gas Commission, notice of the filing must be submitted to Richard J. Simmers, Chief, Division of Oil and Gas Resources Management, Ohio Department of Natural Resources, 2045 Morse Road, Building F, Columbus, Ohio 43229-6693.

CERTIFIED MAIL NO.

91 7199 9991 7034 1498 5573

cc: Bob Worstall, Deputy Chief
Tom Hill, Region Supervisor
Steve Ochs, UIC Inspector
Andrew Adgate, UIC Program
Legal file



Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR

JAMES ZEHNINGER, DIRECTOR

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ORDER BY THE CHIEF

September 3, 2014

ORDER NO. 2014-372

TO: American Water Management Services, LLC
One American Way
Warren, Ohio 44484

RE: AWMS #2 Well
SWIW #22
API# 34-155-24075-00-00
Weathersfield Township, Trumbull County

SUBJECT: Suspension of Injection Operations

Pursuant to Ohio Revised Code Section 1509.03(D), the Chief of the Division of Oil and Gas Resources Management (“Chief” or “Division”) makes the following Findings and issues the following Orders:

BACKGROUND:

- (1) American Water Management Services, LLC (“AWMS”) is the current owner of the AWMS #2 Well, SWIW #22, API# 34-155-24075-00-00, located in Weathersfield Township, Trumbull County, Ohio (AWMS #2 saltwater injection well”).
- (2) Pursuant to R.C. 1509.05, R.C. 1509.06, and R.C. 1509.22(D), on July 18, 2013, the Division issued a permit to AWMS authorizing AWMS to drill the AWMS #2 saltwater injection well.
- (3) On January 2, 2014, AWMS completed drilling the AWMS #2 saltwater injection well.
- (4) On March 24, 2014, the Division issued Chief’s Order No. 2014-69 to AWMS authorizing AWMS to operate the AWMS #2 saltwater injection well. Chief’s Order No. 2014-69 conditioned AWMS’s authority to operate the AWMS #2 saltwater injection well on twelve (12) operational conditions listed in the permit and compliance with R.C. Chapter 1509 and Ohio Adm.Code 1501:9-3.

- (5) In July 28, 2014, only two months after injection operations began at the well, a seismic event measuring 1.7 that may be related to AWMS's operation of the AWMS #2 saltwater injection well occurred in Trumbull County.
- (6) On August 31, 2014, a seismic event measuring 2.1 related to AWMS's operation of the AWMS #2 saltwater injection well occurred in Trumbull County.

FINDINGS:

- (1) The Chief finds that the AWMS #2 saltwater injection well is located in close proximity to an area of known seismic activity.
- (2) The Chief finds that the AWMS #2 saltwater injection well poses a risk of increasing or creating seismic activity.
- (3) Based on Findings (1) and (2) above, the Chief finds that AWMS should suspend all operations at the AWMS #2 saltwater injection well until the Division can further evaluate the well.

ORDERS:

IT IS HEREBY ORDERED:

- (1) Pursuant to R.C. 1509.03(D), AWMS shall immediately suspend all operations at the AWMS #2 saltwater injection well.
- (2) AWMS shall submit a written plan to the Division for evaluating the seismic concerns associated with the operation of the AWMS #2 saltwater injection well.

9-3-2014
Date

Scott R. Hill for
Richard J. Summers
Richard J. Simmers, Chief
Division of Oil and Gas Resources Management

Addressee is hereby notified that this action is final and effective and may be appealed pursuant to Section 1509.36 of the Ohio Revised Code. If the Order is appealed to the Ohio Oil and Gas Commission, the appeal must be in writing and must set forth the Orders complained of and the grounds upon which the appeal is based. Such appeal must be filed with the Oil and Gas Commission, 2045 Morse Road, Building H-3, Columbus, Ohio 43229-6693, within thirty (30) days after receipt of this Order.

American Water Management Services, LLC
Suspension of Operations –AWMS #2 Saltwater Injection Well
Page 3 of 3

Chief's Order No. 2014-372

In addition, within three (3) days after the appeal is filed with the Oil and Gas Commission, notice of the filing must be submitted to Richard J. Simmers, Chief, Division of Oil and Gas Resources Management, Ohio Department of Natural Resources, 2045 Morse Road, Building F, Columbus, Ohio 43229-6693.

CERTIFIED MAIL NO. 91 7199 9991 7034 1498 5580

cc: Bob Worstall, Deputy Chief
Tom Hill, Region Supervisor
Steve Ochs, UIC Inspector
Andrew Adgate, UIC Program
Legal file



Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR

JAMES ZEHRINGER, DIRECTOR

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ORDER BY THE CHIEF

September 5, 2014

ORDER NO. 2014-373

TO: American Water Management Services, LLC
One American Way
Warren, Ohio 44484

RE: AWMS #1 Well
SWIW #21
API# 34-155-24076-00-00
Weathersfield Township, Trumbull County

SUBJECT: Suspension of Injection Operations

Pursuant to Ohio Revised Code Sections 1509.03(D), the Chief of the Division of Oil and Gas Resources Management ("Chief" or "Division") makes the following Findings and issues the following Order:

ORDERS:

- (1) Chief's Order No. 2014-371 is modified.
- (2) Background Paragraph 6 is amended to read as follows:
 - (6) On August 31, 2014, a seismic event measuring 2.1 that may be related to AWMS's operation of the AWMS saltwater injection well occurred in Trumbull County.
- (3) In all other respects, Chief's Order No. 2014-371 is affirmed.

Date

9-5-2014

Scott R. Kell for
Richard J. Simmers
Richard J. Simmers, Chief
Division of Oil and Gas Resources Management

Addressee is hereby notified that this action is final and effective and may be appealed pursuant to Section 1509.36 of the Ohio Revised Code. If the Order is appealed to the Ohio Oil and Gas Commission, the appeal must be in writing and must set forth the Orders complained of and the grounds upon which the appeal is based. Such appeal must be filed with the Oil and Gas Commission, 2045 Morse Road, Building H-3, Columbus, Ohio 43229-6693, within thirty (30) days after receipt of this Order.

In addition, within three (3) days after the appeal is filed with the Oil and Gas Commission, notice of the filing must be submitted to Richard J. Simmers, Chief, Division of Oil and Gas Resources Management, Ohio Department of Natural Resources, 2045 Morse Road, Building F, Columbus, Ohio 43229-6693.

CERTIFIED MAIL No:

91 7199 9991 7034 1498 5597

cc: Robert Worstall, Deputy Chief
Tom Hill, Region Supervisor
Steve Ochs, UIC Inspector
Andrew Adgate, UIC Program
Legal File



Ohio Department of Natural Resources

JOHN R. KASICII, GOVERNOR

JAMES ZEHRINGER, DIRECTOR

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ORDER BY THE CHIEF

September 5, 2014

ORDER NO. 2014-374

TO: American Water Management Services, LLC
One American Way
Warren, Ohio 44484

RE: AWMS #2 Well
SWIW #22
API# 34-155-24075-00-00
Weathersfield Township, Trumbull County

SUBJECT: Suspension of Injection Operations

Pursuant to Ohio Revised Code Sections 1509.03(D), the Chief of the Division of Oil and Gas Resources Management ("Chief" or "Division") makes the following Findings and issues the following Order:

ORDERS:

- (1) Chief's Order No. 2014-372 is modified.
- (2) Background Paragraph 6 is amended to read as follows:
 - (6) On August 31, 2014, a seismic event measuring 2.1 that may be related to AWMS's operation of the AWMS saltwater injection well occurred in Trumbull County.
- (3) In all other respects, Chief's Order No. 2014-372 is affirmed.

Date

9-5-2014

Scott R. Hill for
Richard J. Simmers
Richard J. Simmers, Chief
Division of Oil and Gas Resources Management

Addressee is hereby notified that this action is final and effective and may be appealed pursuant to Section 1509.36 of the Ohio Revised Code. If the Order is appealed to the Ohio Oil and Gas Commission, the appeal must be in writing and must set forth the Orders complained of and the grounds upon which the appeal is based. Such appeal must be filed with the Oil and Gas Commission, 2045 Morse Road, Building H-3, Columbus, Ohio 43229-6693, within thirty (30) days after receipt of this Order.

In addition, within three (3) days after the appeal is filed with the Oil and Gas Commission, notice of the filing must be submitted to Richard J. Simmers, Chief, Division of Oil and Gas Resources Management, Ohio Department of Natural Resources, 2045 Morse Road, Building F, Columbus, Ohio 43229-6693.

CERTIFIED MAIL No: 91 7199 9991 7034 1498 5603

cc: Robert Worstall, Deputy Chief
Tom Hill, Region Supervisor
Steve Ochs, UIC Inspector
Andrew Adgate, UIC Program
Legal File



Ohio Department of Natural Resources

MIKE DEWINE, GOVERNOR

MARY MERTZ, DIRECTOR

Eric Vendel, Chief

Division of Oil and Gas Resources Management
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Phone: (614) 265-6922; Fax: (614) 265-6910

ORDER BY THE CHIEF

May 21, 2021

ORDER NO. 2021-97

**TO: AWMS Water Solutions, LLC
f/k/a American Water Management Services, LLC
One American Way
Warren, Ohio 44484-5555**

**RE: API# 34-155-2-4075-00-00
AWMS No. 2 Well
SWIW No. 22
Trumbull County, Weathersfield Township**

SUBJECT: MODIFICATION OF CHIEF'S ORDER NO. 2014-69

Pursuant to Ohio Revised Code Sections 1509.03 and 1509.22, the Chief of the Division of Oil and Gas Resources Management ("Chief" or "Division") makes the following Findings and issues the following Order:

BACKGROUND:

- (1) Pursuant to R.C. 1509.05, 1509.06, and 1509.22(D), on July 18, 2013, the Division issued a permit to American Water Management Services, LLC authorizing American Water Management Services, LLC to drill the AWMS No. 2 Well, API # 34-155-2-4075-00-00, ("AWMS No. 2 Well") as a saltwater injection well.
- (2) On February 27, 2014, the Division received written notification from American Water Management Services, LLC that the company was prepared to commence injection operations at the AWMS No. 2 Well, pursuant to Construction Condition No. 14 in the permit to drill API # 34-155-2- 4075-00-00.
- (3) On March 24, 2014, the Division authorized American Water Management Services, LLC to commence injection operations at the AWMS No. 2 Well in Chief's Order No. 2014-69. Chief's Order No. 2014-69 is attached as Exhibit A.

- (4) Between 2011 and 2014, Ohio residents submitted hundreds of notifications to the United States Geological Survey of earthquakes in northeast Ohio. The notifications were made following earthquakes with magnitudes as low as a 2.2 and epicenters at or near oil and gas operations.
- (5) On September 3, 2014, the Division issued Chief's Order No. 2014-372 to American Water Management Services, LLC suspending injection operations at the AWMS No. 2 Well due to recent seismic events near the AWMS No. 2 Well until the Division could further evaluate the AWMS No. 2 Well. In Chief's Order No. 2014-372, the Division found the AWMS No. 2 Well was in "close proximity to an area of known seismicity" and that the AWMS No. 2 Well posed "a risk of increasing or creating seismic activity." Chief's Order No. 2014-372 is attached as Exhibit B.
- (6) Notable infrastructure in the area of the AWMS No. 2 Well includes residences, the Meander Reservoir Dam, schools, hospitals, and police stations.
- (7) On September 5, 2014, the Division issued Chief's Order No. 2014-374 to American Water Management Services, LLC amending Background Paragraph No. 6 to read:

"On August 31, 2014, a seismic event measuring 2.1 that may be related to AWMS's operation of the AWMS saltwater injection well occurred in Trumbull County."

Chief's Order No. 2014-374 affirmed all other aspects of Chief's Order No. 2014-372. Chief's Order No. 2014-374 is attached as Exhibit C.
- (8) On April 22, 2015, the AWMS No. 2 Well transferred from American Water Management Services, LLC to AWMS Water Solutions, LLC ("AWMS") in Division records.

FINDINGS:

- (1) The Chief finds that Chief's Order Nos. 2014-372 and 2014-374 should be terminated.
- (2) The Chief finds that the operational conditions of Chief's Order No. 2014-69 should be modified.

ORDERS:

IT IS HEREBY ORDERED:

- (1) As of the date of this Chief's Order, Chief's Order Nos. 2014-372 and 2014-374 are terminated.
- (2) The Orders of 2014-69 are modified to read as follows:

Pursuant to R.C. 1509.22(D) and Ohio Adm.Code 1501:9-03-06(H)(3), AWMS is authorized to operate the AWMS No. 2 Well in accordance with all the following operational conditions:

- (1) No liquids or waste matter from any source other than saltwater, as that term is defined in Ohio Admin. Code 1501:9-3-01(E), may be injected into this well.
- (2) All fluids must be stored in approved tanks and allowed to settle before injection.
- (3) Surface injection pressure shall not exceed 1680 psi.
- (4) A Murphy Switch or other cut-off switch device must be in-line with the injection pump and set at the maximum allowable injection pressure of 1680 psi, so that the pump will automatically shut-down upon exceeding 1680 psi.
- (5) AWMS must continuously monitor the annulus between the injection tubing and the 9-5/8" production casing as described in paragraph (6) of this Order. If such monitoring indicates a leak in the casing, tubing, or packer, AWMS must immediately shut down the AWMS No. 2 Well and contact the applicable Division inspector and the Division's Underground Injection Control ("UIC") Section.
- (6) AWMS shall continuously monitor all injection pressures and annulus pressures on a tamper-proof continuous recording device, such as a two-pen recorder or other digital recording device. Upon request, AWMS shall make available these records to the Division.
- (7) AWMS must monitor injection pressures and volumes on a daily operational basis with average and maximum injection pressure and volumes compiled and recorded on a monthly basis and filed annually with the Division.
- (8) AWMS must file results of the monitoring required in Order paragraphs (5) and (7) above with the Division annually on a Form 204. This report is due no later than 45 days after the last day of each calendar year.
- (9) Any proposed changes in the operations conditions authorized by this Order must be request in writing to the Division's UIC Section.
- (10) Upon discontinuance of injection operations, AWMS must apply for a permit to plug and abandon the well as set forth in Ohio Admin. Code 1501:9-3-07(K). AWMS must plug and abandon the AWMS No. 2 Well within 60 days after discontinuance of operations.

- (11) AWMS shall dispose of all wastes resulting from the operations at the AWMS No. 2 Well, including filter media, and maintain records of any required testing for disposal or transport for disposal and manifests of final disposition of the wastes. AWMS shall provide the Division the records upon request of the Division.
- (12) Before resuming injection into the AWMS No. 2 Well, AWMS shall deploy two surface motion monitors in locations approved by the Division using equipment approved by the Division that may be used to determine both PGV (peak ground velocity) and PGA (peak ground acceleration) until a time that the Chief finds that the surface motion monitoring can be discontinued. If surface motion is recorded by a surface motion monitor and results in a peak particle velocity plot above the Z-curve from a seismic event with an epicenter within a three-mile radius of the AWMS No. 2 Well, AWMS will immediately depressurize the AWMS No. 2 Well and will not resume operations until a full evaluation of the data collected from the seismic event is performed by AWMS and AWMS obtains DOGRM concurrence that AWMS can resume operations, including with any engineering, management, and operational changes proposed by AWMS. A Z-curve graph is attached as Exhibit D.
- (13) AWMS shall monitor for seismicity in at least three locations approved by the Division using equipment approved by the Division until a time that the Chief finds that seismic monitoring can be discontinued. Seismic monitoring shall commence prior to resuming injection into the AWMS No. 2 Well.
- (14) AWMS shall cease injection at the AWMS No. 2 Well if a seismic event occurs with an epicenter within a three-mile radius of the AWMS No. 2 Well with a measured magnitude of M_L of 2.1 or greater. AWMS also shall depressurize the well and not resume operations until a full evaluation of the data from the seismic event is performed by AWMS, and AWMS obtains DOGRM concurrence that AWMS can resume operations, including with any engineering, management, and operational changes proposed by AWMS.
- (15) AWMS shall immediately suspend operations at the AWMS No. 2 Well upon receipt of notification from the Division that the Chief has determined that fluid from the AWMS No. 2 Well's injection operations may be outside of the permitted injection zone or the area of review.
- (16) If AWMS has reason to believe injected fluid from the AWMS No. 2 Well is outside of the permitted injection zone or outside the area of review, AWMS shall immediately notify the Division.

- (17) AWMS shall comply with all other requirements established in R.C. Chapter 1509 and Ohio Admin. Code 1501:9-3.
- (3) Nothing in this Order precludes the Division, or any other agency of the State, from seeking other claims, rights, or legal actions or from enforcing other legal duties in response to seismicity should the Division, or any other agency of the State, determine it necessary for the protection of public health, safety, or the environment.

May 21, 2021

/s/ *Eric Vendel*

Date

ERIC VENDEL, Chief
Division of Oil and Gas Resources Management

Pursuant to R.C. 1509.224(B), addressee is hereby notified that this action is a preliminary order of the Chief and becomes a final order 30 days after its issuance unless the person to whom the preliminary order is directed submits to the Chief a written request for an informal hearing before the Chief within that 30-day period.

If no informal review is requested within 30 days after the issuance of this order, this order is deemed final and effective and may be appealed pursuant to Sections 1509.36 and 1509.37 of the Ohio Revised Code. If the Order is appealed to the Ohio Oil and Gas Commission, the appeal must be in writing and must set forth the orders complained of and the grounds upon which the appeal is based. Such appeal must be filed with the Oil and Gas Commission within 30 days after the date upon which the order becomes final and sent to the following address: Oil and Gas Commission, 2045 Morse Road, E-1 Office 103, Columbus, Ohio 43229.

In addition, within three days after the appeal is filed with the Oil and Gas Commission, notice of the filing of the appeal must be filed with Eric Vendel, Chief of the Division of Oil and Gas Resources Management, Building F, 2045 Morse Road, Columbus, Ohio 43229-6633.

Enclosures:

- Exhibit A
- Exhibit B
- Exhibit C
- Exhibit D

CERTIFIED MAIL NO. 9489009000276304924284



Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR

JAMES ZEHRINGER, DIRECTOR

Richard J. Simmers, Chief
Division of Oil and Gas Resources Management
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Phone: (614) 265-6922, Fax: (614) 265-6910

ORDER BY THE CHIEF

March 24, 2014

ORDER NO. 2014-69

TO: American Water Management Services, LLC
One American Highway
Warren, Ohio 44484-5555

RE: API # 34-155-24075-00-00
AWMS No. 2 Well
SWIW No. 22
Trumbull County, Weathersfield Township

SUBJECT: Permit to Inject Brine or Other Waste Substances Pursuant to Ohio Revised Code 1509.22(D)

Pursuant to Ohio Revised Code Section 1509.22 and Ohio Administrative Code 1501:9-03-06(H), the Chief of the Division of Oil and Gas Resources Management ("Chief" or "Division") makes the following Findings and issues the following Orders:

FINDINGS

- (1) Pursuant to R.C. 1509.05, R.C. 1509.06, and R.C. 1509.22(D), on July 18, 2013 the Division issued to American Water Management Services, LLC API #34-155-24075-00-00 granting authorizing to drill the AWMS No. 2 Well as a saltwater injection well.
- (2) On February 27, 2014, the Division received written notification from American Water Management Services, LLC that the company was prepared to commence injection operations at the AWMS No. 2 saltwater injection well, pursuant to Construction Condition No. 14 in API #34-155-24075-00-00.
- (3) The AWMS No. 2 saltwater injection well complies with the requirements of R.C. 1509.22 and Ohio Adm.Code 1501:9-3, is not in violation of law, does not jeopardize public health or safety, and is in accordance with good conservation practices.

ORDER

IT IS HEREBY ORDERED:

Pursuant to R.C. 1509.22(D) and Ohio Adm.Code 1501:9-03-06(H)(3), American Water Management Services, LLC is authorized to operate the AWMS No. 2 saltwater injection well in accordance with all of the following operational conditions:

- (1) No liquids or waste matter from any source other than saltwater, as that term is defined in Ohio Adm.Code 1501:9-3-01(E), may be injected into this well.
- (2) All fluids must be stored in approved tanks and allowed to settle before injection.
- (3) Surface injection pressure shall not exceed 1680 psi.
- (4) A Murphy Switch or other cut-off switch device must be in-line with the injection pump and set at the maximum allowable surface injection pressure of 1680 psi, so that the pump will automatically shut-down upon exceeding 1680 psi.
- (5) The annulus between the injection tubing and the 9-5/8" production casing must be monitored continuously as described in paragraph (6) of this Order. If such monitoring indicates a leak in the casing, tubing, or packer, the well must be immediately shut down and the applicable Division inspector and the Division's Underground Injection Control ("UIC") section must be notified at (614) 265-1032.
- (6) All injection pressures and annulus pressures must be continuously recorded on a tamper-proof continuous recording device such as a two-pen recorder or other digital recording device. These monitoring records shall be available to the Division, upon request.
- (7) Injection pressures and volumes must be monitored on a daily operational basis with average and maximum injection pressures and volumes compiled and recorded on a monthly basis and filed annually with the Division.
- (8) Results of the monitoring required in paragraphs (5) and (7) above must be filed with the Division annually on Form 204. This report is due no later than 45 days after the last day of each calendar year.
- (9) Any proposed changes in the operational conditions authorized by this Order must be requested in writing to the Division's UIC section.

- (10) Upon discontinuance of injection operations, the owner/operator must apply for a permit to plug and abandon the well as set forth in Ohio Adm.Code 1501:9-3-07(K). The well must be plugged and abandoned within 60 days after discontinuance of operations.
- (11) The fee levied under R.C. 1509.22(H) (1) shall be paid to the Division no later than 30 days after the end of each quarter of a calendar year.
- (12) The owner or operator of the AWMS No. 2 saltwater injection well shall comply with all other requirements established in R.C. Chapter 1509 and Ohio Adm.Code 1501:9-3.

3-24-14
Date


DEPUTY CHIEF
RICHARD J. SIMMERS, Chief
Division of Oil and Gas Resources Management

Addressee is hereby notified that this action is final and effective and may be appealed pursuant to Section 1509.36 of the Ohio Revised Code. If the Order is appealed to the Ohio Oil and Gas Commission, the appeal must be in writing and must set forth the orders complained of and the grounds upon which the appeal is based. Such appeal must be filed with the Oil and Gas Commission within thirty (30) days after the receipt of this order at the following address: Oil and Gas Commission, 2045 Morse Road, H-3, Columbus, Ohio 43229.

In addition, within three (3) days after the appeal is filed with the Oil and Gas Commission, notice of the filing of the appeal must be filed with Richard J. Simmers, Chief of the Division of Oil and Gas Resources Management, Building F-3, 2045 Morse Road, Columbus, Ohio 43229-6633.

cc: Tom Tomastik, Geologist
Surety File
Well File
Legal File

CERTIFIED MAIL NO. 91 7199 9991 7030 3102 2781



Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR

JAMES ZEHRINGER, DIRECTOR

Richard J. Simmers, Chief
Division of Oil and Gas Resources Management
2045 Morse Road – Bldg. F-2
Columbus, OH 43229-6693
Phone: (614) 265-6922, Fax: (614) 265-6910

ORDER BY THE CHIEF

September 3, 2014

ORDER NO. 2014-372

TO: American Water Management Services, LLC
One American Way
Warren, Ohio 44484

RE: AWMS #2 Well
SWIW #22
API# 34-155-24075-00-00
Weathersfield Township, Trumbull County

SUBJECT: Suspension of Injection Operations

Pursuant to Ohio Revised Code Section 1509.03(D), the Chief of the Division of Oil and Gas Resources Management (“Chief” or “Division”) makes the following Findings and issues the following Orders:

BACKGROUND:

- (1) American Water Management Services, LLC (“AWMS”) is the current owner of the AWMS #2 Well, SWIW #22, API# 34-155-24075-00-00, located in Weathersfield Township, Trumbull County, Ohio (AWMS #2 saltwater injection well”).
- (2) Pursuant to R.C. 1509.05, R.C. 1509.06, and R.C. 1509.22(D), on July 18, 2013, the Division issued a permit to AWMS authorizing AWMS to drill the AWMS #2 saltwater injection well.
- (3) On January 2, 2014, AWMS completed drilling the AWMS #2 saltwater injection well.
- (4) On March 24, 2014, the Division issued Chief’s Order No. 2014-69 to AWMS authorizing AWMS to operate the AWMS #2 saltwater injection well. Chief’s Order No. 2014-69 conditioned AWMS’s authority to operate the AWMS #2 saltwater injection well on twelve (12) operational conditions listed in the permit and compliance with R.C. Chapter 1509 and Ohio Adm.Code 1501:9-3.

- (5) In July 28, 2014, only two months after injection operations began at the well, a seismic event measuring 1.7 that may be related to AWMS's operation of the AWMS #2 saltwater injection well occurred in Trumbull County.
- (6) On August 31, 2014, a seismic event measuring 2.1 related to AWMS's operation of the AWMS #2 saltwater injection well occurred in Trumbull County.

FINDINGS:

- (1) The Chief finds that the AWMS #2 saltwater injection well is located in close proximity to an area of known seismic activity.
- (2) The Chief finds that the AWMS #2 saltwater injection well poses a risk of increasing or creating seismic activity.
- (3) Based on Findings (1) and (2) above, the Chief finds that AWMS should suspend all operations at the AWMS #2 saltwater injection well until the Division can further evaluate the well.

ORDERS:

IT IS HEREBY ORDERED:

- (1) Pursuant to R.C. 1509.03(D), AWMS shall immediately suspend all operations at the AWMS #2 saltwater injection well.
- (2) AWMS shall submit a written plan to the Division for evaluating the seismic concerns associated with the operation of the AWMS #2 saltwater injection well.

9-3-2014
Date

Scott R. Hill for
Richard J. Summers
Richard J. Simmers, Chief
Division of Oil and Gas Resources Management

Addressee is hereby notified that this action is final and effective and may be appealed pursuant to Section 1509.36 of the Ohio Revised Code. If the Order is appealed to the Ohio Oil and Gas Commission, the appeal must be in writing and must set forth the Orders complained of and the grounds upon which the appeal is based. Such appeal must be filed with the Oil and Gas Commission, 2045 Morse Road, Building H-3, Columbus, Ohio 43229-6693, within thirty (30) days after receipt of this Order.

In addition, within three (3) days after the appeal is filed with the Oil and Gas Commission, notice of the filing must be submitted to Richard J. Simmers, Chief, Division of Oil and Gas Resources Management, Ohio Department of Natural Resources, 2045 Morse Road, Building F, Columbus, Ohio 43229-6693.

CERTIFIED MAIL NO. 91 7199 9991 7034 1498 5580

cc: Bob Worstall, Deputy Chief
Tom Hill, Region Supervisor
Steve Ochs, UIC Inspector
Andrew Adgate, UIC Program
Legal file



Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR

JAMES ZEHRINGER, DIRECTOR

Richard J. Simmers, Chief
Division of Oil and Gas Resources Management
2045 Morse Road – Bldg. F-2
Columbus, OH 43229-6693
Phone: (614) 265-6922, Fax: (614) 265-6910

ORDER BY THE CHIEF

September 5, 2014

ORDER NO. 2014-374

TO: American Water Management Services, LLC
One American Way
Warren, Ohio 44484

RE: AWMS #2 Well
SWIW #22
API# 34-155-24075-00-00
Weathersfield Township, Trumbull County

SUBJECT: Suspension of Injection Operations

Pursuant to Ohio Revised Code Sections 1509.03(D), the Chief of the Division of Oil and Gas Resources Management (“Chief” or “Division”) makes the following Findings and issues the following Order:

ORDERS:

- (1) Chief’s Order No. 2014-372 is modified.
- (2) Background Paragraph 6 is amended to read as follows:
 - (6) On August 31, 2014, a seismic event measuring 2.1 that may be related to AWMS’s operation of the AWMS saltwater injection well occurred in Trumbull County.
- (3) In all other respects, Chief’s Order No. 2014-372 is affirmed.

Date

9-5-2014

Scott R. Kell for
Richard J. Simmers
Richard J. Simmers, Chief
Division of Oil and Gas Resources Management

Addressee is hereby notified that this action is final and effective and may be appealed pursuant to Section 1509.36 of the Ohio Revised Code. If the Order is appealed to the Ohio Oil and Gas Commission, the appeal must be in writing and must set forth the Orders complained of and the grounds upon which the appeal is based. Such appeal must be filed with the Oil and Gas Commission, 2045 Morse Road, Building H-3, Columbus, Ohio 43229-6693, within thirty (30) days after receipt of this Order.

In addition, within three (3) days after the appeal is filed with the Oil and Gas Commission, notice of the filing must be submitted to Richard J. Simmers, Chief, Division of Oil and Gas Resources Management, Ohio Department of Natural Resources, 2045 Morse Road, Building F, Columbus, Ohio 43229-6693.

CERTIFIED MAIL No: 91 7199 9991 7034 1498 5603

cc: Robert Worstall, Deputy Chief
Tom Hill, Region Supervisor
Steve Ochs, UIC Inspector
Andrew Adgate, UIC Program
Legal File

USBM RI 8507

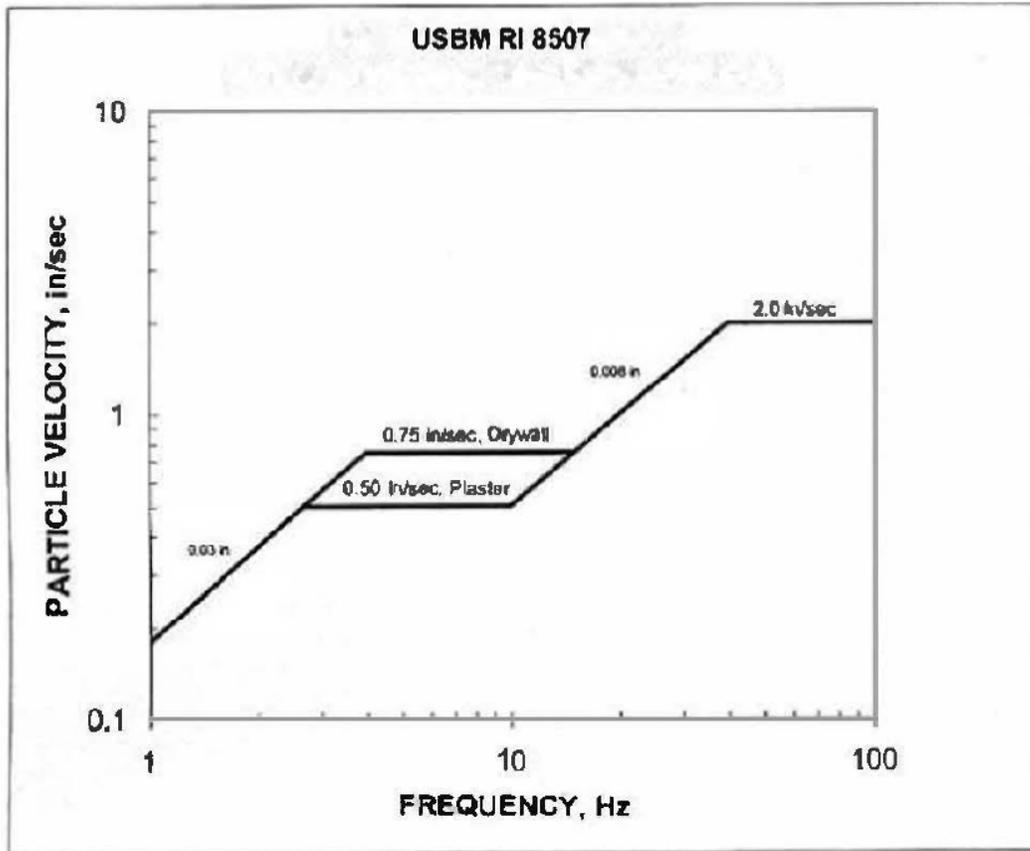


Exhibit D

United States Code Annotated
Constitution of the United States
Annotated
Amendment V. Grand Jury; Double Jeopardy; Self-Incrimination; Due Process; Takings

U.S.C.A. Const. Amend. V

Amendment V. Grand Jury Indictment for Capital Crimes; Double Jeopardy;
Self-Incrimination; Due Process of Law; Takings without Just Compensation

Currentness

No person shall be held to answer for a capital, or otherwise infamous crime, unless on a presentment or indictment of a Grand Jury, except in cases arising in the land or naval forces, or in the Militia, when in actual service in time of War or public danger; nor shall any person be subject for the same offence to be twice put in jeopardy of life or limb; nor shall be compelled in any criminal case to be a witness against himself, nor be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation.

<Historical notes and references are included in the full text document for this amendment.>

<For Notes of Decisions, see separate documents for clauses of this amendment:>

<USCA Const. Amend. V--Grand Jury clause>

<USCA Const. Amend. V--Double Jeopardy clause>

<USCA Const. Amend. V--Self-Incrimination clause>

<USCA Const. Amend. V-- Due Process clause>

<USCA Const. Amend. V--Takings clause>

U.S.C.A. Const. Amend. V, USCA CONST Amend. V

Current through P.L. 117-262. Some statute sections may be more current, see credits for details.

United States Code Annotated

Constitution of the United States

Annotated

Amendment XIV. Citizenship; Privileges and Immunities; Due Process; Equal Protection; Apportionment of Representation; Disqualification of Officers; Public Debt; Enforcement

U.S.C.A. Const. Amend. XIV

AMENDMENT XIV. CITIZENSHIP; PRIVILEGES AND IMMUNITIES; DUE PROCESS; EQUAL PROTECTION;
APPOINTMENT OF REPRESENTATION; DISQUALIFICATION OF OFFICERS; PUBLIC DEBT; ENFORCEMENT

Currentness

Section 1. All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside. No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws.

Section 2. Representatives shall be apportioned among the several States according to their respective numbers, counting the whole number of persons in each State, excluding Indians not taxed. But when the right to vote at any election for the choice of electors for President and Vice President of the United States, Representatives in Congress, the Executive and Judicial officers of a State, or the members of the Legislature thereof, is denied to any of the male inhabitants of such State, being twenty-one years of age, and citizens of the United States, or in any way abridged, except for participation in rebellion, or other crime, the basis of representation therein shall be reduced in the proportion which the number of such male citizens shall bear to the whole number of male citizens twenty-one years of age in such State.

Section 3. No person shall be a Senator or Representative in Congress, or elector of President and Vice President, or hold any office, civil or military, under the United States, or under any State, who, having previously taken an oath, as a member of Congress, or as an officer of the United States, or as a member of any State legislature, or as an executive or judicial officer of any State, to support the Constitution of the United States, shall have engaged in insurrection or rebellion against the same, or given aid or comfort to the enemies thereof. But Congress may by a vote of two-thirds of each House, remove such disability.

Section 4. The validity of the public debt of the United States, authorized by law, including debts incurred for payment of pensions and bounties for services in suppressing insurrection or rebellion, shall not be questioned. But neither the United States nor any State shall assume or pay any debt or obligation incurred in aid of insurrection or rebellion against the United States, or any claim for the loss or emancipation of any slave; but all such debts, obligations and claims shall be held illegal and void.

Section 5. The Congress shall have power to enforce, by appropriate legislation, the provisions of this article.

<Section 1 of this amendment is further displayed in separate documents according to subject matter,>

<see [USCA Const Amend. XIV, § 1-Citizens](#)>

<see [USCA Const Amend. XIV, § 1-Privileges](#)>

<see USCA Const Amend. XIV, § 1-Due Proc>

<see USCA Const Amend. XIV, § 1-Equal Protect>

<sections 2 to 5 of this amendment are displayed as separate documents,>

<see USCA Const Amend. XIV, § 2,>

<see USCA Const Amend. XIV, § 3,>

<see USCA Const Amend. XIV, § 4,>

<see USCA Const Amend. XIV, § 5,>

U.S.C.A. Const. Amend. XIV, USCA CONST Amend. XIV

Current through P.L. 117-262. Some statute sections may be more current, see credits for details.

End of Document

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Baldwin's Ohio Revised Code Annotated
Constitution of the State of Ohio
Article I. Bill of Rights (Refs & Annos)

OH Const. Art. I, § 19

O Const I Sec. 19 Eminent domain

[Currentness](#)

Private property shall ever be held inviolate, but subservient to the public welfare. When taken in time of war or other public exigency, imperatively requiring its immediate seizure, or for the purpose of making or repairing roads, which shall be open to the public, without charge, a compensation shall be made to the owner, in money, and in all other cases, where private property shall be taken for public use, a compensation therefor shall first be made in money, or first secured by a deposit of money, and such compensation shall be assessed by a jury, without deduction for benefits to any property of the owner.

CREDIT(S)

(1851 constitutional convention, adopted eff. 9-1-1851)

[Notes of Decisions \(841\)](#)

Const. Art. I, § 19, OH CONST Art. I, § 19

Current through File 1 of the 135th General Assembly (2023-2024).

End of Document

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