

**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

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.

{¶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 *Appolo 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.merriam-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.