

IN THE COURT OF APPEALS OF OHIO
SIXTH APPELLATE DISTRICT
MERCER COUNTY

State of Ohio, ex rel. Leo Post
et al.

Court of Appeals No. 10-2006-001

Trial Court No. 01-CIV-091

Appellees

v.

Samuel W. Speck, Director
Ohio Department of Natural
Resources

DECISION AND JUDGMENT ENTRY

Appellant

Decided: December 4, 2006

* * * * *

J. Anthony Logan, for appellees.

Nan Still, amicus curiae.

Jim Petro, Attorney General of Ohio, Joan I. Fishel and Raymond J. Studer,
Assistant Attorney Generals for appellant.

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HANDWORK, J.

{¶ 1} This appeal is from the December 14, 2005 judgment of the Mercer County Court of Common Pleas. The lower court granted appellees, Leo Post, Richard Baucher, Jack Minch, Steve Zumberge, and Terry Linn, a writ of mandamus compelling appellant, Samuel Speck, Director of the Ohio Department of Natural Resources, to initiate

appropriation proceedings regarding the taking of appellees' properties. Upon consideration of the assignments of error, we affirm the decision of the lower court. Appellant asserts the following assignments of error on appeal:

{¶ 2} "THE TRIAL COURT'S DETERMINATION THAT APPELLEE'S PROPERTY HAS BEEN TAKEN AS A RESULT OF INCREASED INTERMITTENT FLOODING WAS AGAINST THE MANIFEST WEIGHT OF THE EVIDENCE.

{¶ 3} "THE TRIAL COURT ERRED IN APPLYING THE INCORRECT LEGAL STANDARD TO THE ACTION OF ODNR WHEN IT FAILED TO RULE THAT DIRECTOR SPECK'S ONLY DUTY WAS TO NOT RELEASE MORE WATER FROM THE DAM THAN THAT WHICH WOULD FLOW NATURALLY."

{¶ 4} Also before the court is an Amici Curiae brief filed by the Ohio Farm Bureau Federation, Inc. and Mercer County Farm Bureau.

{¶ 5} Appellees, Leo Post, Richard Baucher, Jack Minch, Steve Zumberge, and Terry Linn, brought a mandamus action against appellant, Samuel W. Speck, Director of the Ohio Department of Natural Resources, on May 18, 2001. Appellees all own land located in Jefferson, Washington, and Liberty Townships in Mercer County, Ohio. They alleged that their land has been subject to flooding from the west spillway of Grand Lake St. Marys because of the improper management of the water levels in Grand Lake St. Marys and a change in the spillway design. Appellant is the director of the governmental agency responsible for regulating the flow of water in and out of Grand Lake St. Marys in Mercer County.

{¶ 6} Appellees claimed that appellant and his predecessors in office either neglected or failed to perform their statutory duty to construct and maintain the west spillway in a manner consistent with the reasonable use doctrine governing surface waters. Appellees further claimed that appellant has a duty to initiate appropriation proceedings under R.C. 163.01, et seq., pursuant to Art. I, Sec. 19, of the Ohio Constitution for purposes of compensating individuals whose property rights have been adversely affected by operation of the water control facilities.

{¶ 7} The parties stipulated to the following facts prior to trial. Appellees each own farmland located in Mercer County, Ohio, with frontage on either the Wabash River or Beaver Creek. All of the property is located downstream from the western spillway of Grand Lake St. Marys. Baucher owns 78.5 acres of farmland with frontage on both sides of the Beaver Creek. Zumberge rents a 370 acre farm from the Zumberge Trust, which owns land with frontage on both banks of the Beaver Creek. Post owns 333 acres of farmland with frontage on the Wabash River. Minch owns 163 acres of farmland with frontage on the Wabash River. The Minch property is leased by Linn. Linn also owns 193 acres of farmland with frontage on the Wabash River.

{¶ 8} Grand Lake St. Marys was originally constructed as a canal facility between 1837-1841 as a water supply source for the Miami-Erie Canal. It was created by damming the headwaters of the Wabash and St. Marys rivers and flooding the area between. Trees and other debris were not removed and the lake is very shallow. The lake discharges water from a western spillway first into Beaver Creek, which in turn

discharges into the Wabash River. The Wabash River flows in a westerly direction from Ohio into Indiana. The western spillway of the dam at Grand Lake St. Marys has a 37-foot weir with four, thirty-inch gates. A gate exists at the eastern end of the lake for limited discharge.

{¶ 9} After the decline of the Miami-Erie Canal use in the early twentieth century, use of Grand Lake St. Marys changed to recreational purposes. The State of Ohio designated the lake as part of a state park in 1949 and placed it under the authority of several divisions of the Ohio Department of National Resources. The park is located in Mercer and Auglaize Counties and consists of the lake and 500 acres of surrounding land. Currently, the lake is approximately 8.2 miles long and has a surface area of 13,500 acres.

{¶ 10} Since 1963, the Division of Water enforces the dam safety statutes (R.C. 1521.06-1521.09). Newly constructed and existing dams must meet the safety requirements set forth in Ohio Adm. Code 1501:21. These rules ensure the stability of the dam and its ability to withstand certain design floods. The dam at Grand Lake St. Marys is a Class I dam and, therefore, must be able to pass 100 percent of the probable maximum flood. To meet this standard, the rainwater must flow entirely through the spillway rather than over the top of the dam. The function of this requirement is to prevent destruction of the earthen dam and catastrophic flooding.

{¶ 11} The dam at Grand Lake St. Marys is an earthen embankment, about 5,540 feet long and 22 feet high. The elevation level of the top of the dam is 877 feet. Prior to

1997, the dam had a curved 39.4-foot-long concrete overflow spillway. The spillway had four 30-inch diameter gated outlet conduits, but only two of the gates were operational from 1985-1977. Normal pool of the lake is at 870.6 feet.

{¶ 12} In 1978, the dam was inspected pursuant to the federal Dam Inspection Act of 1972. The inspection disclosed that the western spillway could not pass the probable maximum flood without overtopping for 48 hours. This situation would result in eventual failure of the dam. While the spillway replacement project remained high on the priority list for dam repairs by the Division of Water, the department did not have the funding to complete the project.

{¶ 13} In 1990, the controlling board allocated funds for the replacement of the western spillway. The Division of Water determined that a 500-foot long spillway was needed to pass the probable maximum flood test. The department also studied how the amount of the flow over the spillway would affect Beaver Creek. Concern was expressed from the very beginning that the replacement project would result in the possibility of greater flooding downstream along Beaver Creek. Therefore, in the fall of 1990, the Ohio Department of Natural Resources changed the spillway design to include a 50-foot notch that was 0.9 feet lower.

{¶ 14} In a September 1991 memorandum from Richard Goettemoeller, Chief of the Division of Water, to the Director, Frances Buchholzer, Goettemoeller reported that the greatest number of people who raised concerns about potential flooding as a result of the size of the proposed replacement spillway came from farmers who owned land along

Beaver Creek. They questioned whether the flooding problem along Beaver Creek would be exacerbated by the enlargement of the spillway. Goettemoeller noted that the department believed that by providing flood storage with the 50-foot notch in the weir, flooding of the agricultural land would be minimized. Goettemoeller dismissed the county engineer's concerns about the impact of the flooding on county bridges crossing Beaver Creek on the basis that the Department of Water calculations indicated that the modified spillway should not have a significant effect on the bridges.

{¶ 15} Goettemoeller also advised Buchholzer that the Beaver Creek owners suggested that a portion of the runoff be diverted to the St. Marys River to more closely model the flow conditions prior to construction of the lake. Goettemoeller stated that this was not feasible because the capacity of the gate and feeder canal at the east end of the lake and construction of a new spillway at the outlet channel would be economically infeasible.

{¶ 16} The second concern raised was the flooding of the south shore of the lake during periods of high lake levels. In 1988, the elevation of the lake was raised four inches by placing stop logs across the spillway to increase recreational value to boaters. The proposed new spillway would permanently establish the higher elevation. The department determined that the longer spillway length would relieve some of the long-term south shore flooding through greater discharge of the excess flood storage, which would return the elevation level to normal in a shorter period.

{¶ 17} Keith Earley, a Mercer County engineer, wrote to the Ohio Department of Natural Resources in November 1991 after reviewing the information supplied by the Ohio Department of Natural Resources and the 1981 "Survey Report for the Flood Control and Allied Purposes" prepared by the Louisville, Kentucky District of the Army Corps. of Engineers. Earley found that the two sources of data contained wide discrepancies and that this factor alone warranted additional detailed analysis. Earley was most concerned with the Corps report indicating "* * * an observed bankful flow of the Beaver Creek outlet being about 250 c.f.s. while the O.D.N.R. records indicated a capacity of over 700 c.f.s." Furthermore, he stated, the Corps report "indicates peak stage lake levels for the ten-year through 100-year storms being approximately one foot higher than the O.D.N.R. based on 51 years of record measurements." He concluded that "[i]f the Corps report is correct, larger outflow will pass uncontrolled for long periods over the proposed 40 percent enlarged spillway to an outletting stream of very limited capacity." Even if the O.D.N.R.'s figures were correct, Earley opined that enlarging the spillway crest would cause more damage than good. He suggested that a study be done regarding the widening of the upper three miles of Beaver Creek by approximately six feet to accommodate the increased flows.

{¶ 18} Again in February 1994, Earley wrote to the Ohio Department of Natural Resources expressing concerns that the study of Beaver Creek by the Army Corps. of Engineers did not contemplate enlarging only the upper three miles nor the proposed conditions. He did not oppose the planned project, but suggested further study was

necessary. Earley suggested that it would be worth studying the cost and benefits of enlarging the upper three miles to a 26 foot wide bottom width and enlarging the controlled outlet capacity of the structure. He questioned whether there would be increased flooding in the upper three miles of Beaver Creek after replacement of the spillway. His concern was not "at the three mile point but upstream from constrictions such as bridges in the upper three miles." He based his opinion upon the fact that flooding is affected by the duration of the outflows above the capacity of the restrictions as well as the peak outflow. He also asserted that peak outflow upstream from the bikeway bridge would most certainly be significantly increased.

{¶ 19} Construction of the replacement spillway began in 1996 and was completed by 1997 as proposed by the Ohio Department of Natural Resources.

{¶ 20} The parties presented the following additional evidence at a hearing before the trial court. Zumberge testified that portions of his farm are located less than a mile from the spillway along Beaver Creek. He has observed a significant increase in the flooding along Beaver Creek since the new spillway was installed. As a result of the increased flooding, Zumberge has systematically tilled 90 percent of the farmland that he owns at intervals of 40-45 feet. However, he has still lost crops due to flooding since 1997. He has also suffered from an inability to plant or a need to replant crops, bank erosion on Beaver Creek, soil compaction, a need to replace tile, and silk and other debris left after the flooding. He estimated that 80-to-85 acres of his 380 acres have been affected. Even in the years that he has not lost crops due to flooding, he has seen

flooding along Beaver Creek for a short period of time. Prior to the new spillway, he had 30-35 acres that would occasionally be affected by flooding. For five years out of the last seven years since the new spillway was constructed, he has had water backing up on his land to the extent that he cannot use it.

{¶ 21} Baucher testified that his 80 acre farmland is located approximately five miles from the spillway. Beaver Creek splits his farm into two parcels. He testified that he has always had flooding on this property, with the worse flooding occurring in 1980. However, since the new spillway was installed, the frequency of the flooding has increased, the amount of water invading his land has increased, and the water remains on the land two-to-three days longer. His farm is not tiled systematically, but does contain tile. He has experienced tile failures, but does not believe that these were the cause of the flooding. Approximately 35 acres have been inundated with floodwater. He has changed his crops because of the late planting date. He believes that the value of his farm has decreased because of the flooding issues.

{¶ 22} Post testified that his farmland is located on the Wabash River near the state line. Based upon his experience, he believes that the new spillway has caused more frequent flooding and more intense flooding (two and one-half feet higher). The water also remains on his land three-to-eight days longer. As a result, he has had to change his farming operation. He has also seen the Wabash Riverbanks erode to the extent that the river is now 12-15 feet wider in certain places. Most of his land is tiled systematically and some of the tile has failed because the river backs up into the tile. He now

experiences flooding of 10-12 acres a year resulting in crop losses. He believed that the value of his farm has decreased because of the known flooding. While he acknowledged that he has always had some flooding in the area because of constrictions in the Wabash River in Indiana, he believes that the increased flooding is due to the fact that the Wabash River cannot handle the excessive amount of water coming in from Beaver Creek, which joins the Wabash River just east of his property. The excess water from Beaver Creek overflows the Wabash River right at his property. Stones and sand from the river are washed onto his property, as well as stones from the road.

{¶ 23} Minch testified that his farm is located along the Wabash River near the state line, approximately 11 miles from the spillway. Since the new spillway was installed, Minch has observed a change in the flooding. The floodwater gets higher and even floods across the highway. He has not seen more frequent flooding, but the flooding is much more severe and does not recede as quickly. The water has remained twice as long since the new spillway was constructed. Approximately 113 acres of his land is inundated with water. He has always experienced field erosion during the large floods. He has changed his farming operation to handle the flooding better and believes that his land is not worth as much because of the recent flooding. While the clearing of Beaver Creek did not cause increased flooding on his property, he believes that the water flows more quickly now so that his property is flooded earlier in the day than it use to be. He also acknowledged that the condition of the Wabash River might be contributing to the flooding.

{¶ 24} Linn testified that he owns 300 acres of farmland and rents 128 acres of farmland that is located approximately 11 miles from the spillway. Some of the land is located on Beaver Creek, and some is about a quarter mile from of the creek, near the confluence of Beaver Creek and the Wabash River. While his land is not systematically tilled, there is tile that was placed 10-15 years ago that is sufficient to drain the fields if the river is not overflowing. He did not notice more frequent flooding after the new spillway was installed, but he did observe that the flooding is occurring more quickly and remains longer. As a result, he has suffered damage to his crops five out of the last six years. The flooding also decreases the value of his land and caused him to change his farming operation to accommodate the flooding. When Beaver Creek was cleaned in 1984-1985, he did not notice additional flooding afterward. It was only after the new spillway was constructed that Linn saw an increase in the flooding.

{¶ 25} Padden, CEO of Mercer County Joint Township Community Hospital, testified that while the Community Medical Center he oversees was not built in an historic flood plain, the center experienced extensive flooding in 2003 and again in 2004. Even though the center is located just a couple miles northwest of the spillway, Padden testified that the center had never experienced flooding in the prior 18-20 years that the center has been in operation. The cost of flood recovery was in excess of \$1.25 million. In 2005, damage from the flooding was averted solely by sandbagging.

{¶ 26} William Ringo, president of the Lake Improvement Association, testified that the level of the lake affects the members of the association because they are unable to

utilize the lake if the levels are too low. When the lake was 23 inches below the spillway, many people were experiencing damage to their boats.

{¶ 27} Two experts testified, one for appellees and one for appellant. John Warns, P.E., testified on behalf of appellees. Warns is currently employed as a professional engineer by the Poggemeyer Design Group specializing in civil engineering, hydrology, and open channel hydraulics. He began researching the hydrology of the area surrounding Grand Lake St. Marys in the fall of 2001 while he was self-employed. While Warns has considerable experience in the field of hydrology, he had never worked on a dam and reservoir project the size of Grand Lake St. Marys.

{¶ 28} Based upon his research, Warns prepared a report dated April 23, 2002, for appellees regarding his conclusions of the before and after conditions created by the spillway constructed at Grand Lake St. Marys. In conclusion, Warns found that under many different hypothetical scenarios for storms, there would be an increase in downstream flooding because of the new spillway design.

{¶ 29} Warns explained that while the height of the spillway was not significantly changed, the new spillway is significantly wider, 450 feet plus a 50 foot long notch that was slightly lower in elevation versus 39.4 feet. As a result, water is discharged significantly faster and the lake level does not rise. Warns testified that a spillway, in connection with other mitigating activities, could have been designed which would have operated more like the old spillway and discharged the water more slowly. Warns noted in his report that the Ohio Department of Natural Resources attempted to eliminate the

impact of this increased discharge rate during the more frequent storm events by adding the 50-foot notch.

{¶ 30} Warns reviewed 20 years of data supplied by the Ohio Department of Natural Resources to determine whether the new spillway would adversely affect flooding along Beaver Creek and the Wabash River. He also visited the area, performed a field inspection, and reviewed historical documents concerning the previous spillway. A significant portion of the information used to prepare his report was compiled before construction of the new spillway.

{¶ 31} He then prepared graphs depicting the amount of flooding that could be expected to occur under various hypothetical scenarios (a 10-, 25-, 50-, and 100-year rain event). He determined that because of the new spillway design, considerably more water would flow over the new spillway than under the old spillway. He had no doubt that under various scenarios significant longer-duration flooding can and may occur downstream because of the change in the spillway even where flooding had not occurred before under similar events.

{¶ 32} Warns explained that the charts he prepared represent precipitation frequencies, not flooding frequencies. Therefore, the charts show the increase in flow down Beaver Creek due to the new spillway, not necessarily the effect of the flow on downstream landowners. He recognized that the impact of other basins in the area masks the impact of the change in the flow over the spillway. Other variable factors such as flooding caused by the lack of proper tiling, moisture conditions, or flooding caused by

the downstream watershed also affected the flooding in the area. Warns did not consider water from any other source also flowing into Beaver Creek because the confluence of Beaver Creek and the Wabash River occurs far enough downstream from the spillway that Warns did not believe that there was a backwater impact from the Wabash River.

{¶ 33} Nonetheless, he concluded the new spillway is contributing to the increased flooding and its increased duration regardless of what other type of regional flooding event occurs. Warns also evaluated the impact of lowering lake levels in the fall and determined that this would favorably affect the discharge from the spillway and ultimate the downstream flooding. Thus, Warns concluded that the change in the drawdown policy had also increased the flooding downstream.

{¶ 34} Warns acknowledged that he did not evaluate the specifics of how appellees were damaged by the flooding because the purpose of his report was to show the change in water flow over the spillway based solely upon the information supplied by the Ohio Department of Natural Resources. He acknowledged that for the hypothetical 100-year flood, appellees who lived along the Wabash River should not experience flooding due to the new spillway.

{¶ 35} Mark Ogden, the section administrator for the water management section of the Department of Natural Resources, Division of Water, testified that he reviewed Warns' report. Ogden found that the cases Warns looked at were not realistic because he did not consider the effect of a storm event over the entire watershed. Doyle Hartman, a civil engineer specializing in hydraulics who prepared a hydraulics analysis for appellant,

testified that while he did not dispute Warns conclusions, Hartman believed that his analysis was more comprehensive.

{¶ 36} Hartman testified that he prepared an analysis of the flooding in the area in March 2004 on behalf of appellant. He also reviewed data supplied by the Ohio Department of Natural Resources. He used this information to analyze the overall hydrologic system of the area and create a model of the entire watershed of the downstream area. Since the prior studies focused on the water coming over the spillway and the area surrounding Grand Lake St. Marys, he decided to expand his analysis to include the effect of the entire downstream watershed, including the entire area encompassed by the Beaver Creek and Wabash River watersheds. Hartman explained that in a dam safety study, the Ohio Department of Natural Resources would typically focus on rain events and how much water was coming into the lake and how it can be passed through without damaging the dam. The focus is on the amount of water generated and potentially stored, not the effect of the release. He also believed that it was possible to design a spillway that would not alter the overflow into Beaver Creek. However, such an option was not practical because it would also necessitate raising the height of the dam.

{¶ 37} Following a similar process to Warns, Hartman, generated a model to determine the effect of certain rainfall conditions from all the little creeks and streams that flow into Beaver Creek and the Wabash River. The results of this model would show whether release of water under the new spillway alters the flooding along Beaver

Creek and Wabash River. He was able to utilize the downstream watershed model previously generated for Beaver Creek but split it up differently so that he could get a better distribution of the inflow coming into Beaver Creek. He generated his own information for the Wabash River. He then created a composite of the two. He based his model on an average rainfall and average seasonal condition.

{¶ 38} Hartman created three graphs based on his watershed study. These graphs show the flooding impact with the old spillway, with the new spillway, and without the presence of the lake and any spillway. He found that the presence of the lake reduced the amount of water flow because the lake temporarily stores some of the rainwater. Therefore, he concluded that the presence of the dam and lake significantly reduce the flooding in the area. However, he generally found no difference in the flooding based on the old or new spillway. With the exception of the 100-year storm, the peak effect and the duration of flood during more frequent storm events is the same before and after the new spillway. In the 100-year flood model, the new spillway resulted in one foot higher flooding for the first six miles of Beaver Creek.

{¶ 39} Hartman also created a graph for the 2003 storm. The graph generated from that model revealed a three-foot increase in flooding at the point of the new spillway and increased flooding within the first six miles downstream from the spillway. The cause for the increase in flooding was a combination of the nature of the storm and the larger width of the new spillway.

{¶ 40} Warns criticized Hartman's testimony because he failed to explain that the graph also depicted that, at the area near the spillway, the flood stage at day seven of the storm peaked at five feet higher than it would have under the old spillway. It also showed that the area remains at flood stage for 11 days, approximately seven days longer than under the old spillway. Warns also criticized Hartman's analysis because he only considered one set of conditions. Warns believed that there were many different conditions that could be considered when determining whether the new spillway altered the flooding in the area. Like Warns, Hartman considered one set of conditions. Warns also criticized Hartman's model because he assumed a stationary rainfall over the entire 300-square-mile basin at once; he assumed that the Wabash River would peak prior to the influx of water from the spillway; and he did not segregate all of the tributaries of the Wabash River in making his model.

{¶ 41} In conclusion, Hartman testified that although the discharge rate for the new spillway design is always higher, the new design did not affect flooding during the more frequent flood events (one-to-two-year storm events). However, he also testified that if the lake's normal pool is at its maximum point, then any rainfall will result in flooding along the first several miles of Beaver Creek. For the less frequent events (such as the ten-year storm), there was no increase in the flooding depth because of the new spillway, but there was an increase in the duration of the flooding up to near the point of the Wabash River and Beaver Creek confluence. For the rare storm events (both the 100-year storm and the 2003 storm), there was an increase in flooding depth (an increase of

three feet and five feet respectively at the point of the new spillway and decreasing to no affect near the confluence of the Wabash River and Beaver Creek). There was also an increase in the duration of the flooding with the new spillway.

{¶ 42} He explained that the volume of water going over the new spillway is the same as that which passed over the old spillway. However, because of a change in the timing of the water flow, the flow rate is incrementally greater. Hartman concluded, therefore, that the increased flow rate due to the new spillway causes more flooding than under the old spillway only during the larger storm events, but even then only as far as the confluence of Beaver Creek and the Wabash River. The further west from the spillway he considered, he found that the increase became incrementally smaller because of the increased flooding attributable to the watersheds. Under general circumstances, however, Hartman concluded that the peak flood levels downstream do not change because of the new spillway. Furthermore, he emphasized that under all storm events, the presence of the lake and dam substantially reduces the depth and duration of the flooding.

{¶ 43} Mark Ogden, the section administrator for the water management section of the Department of Natural Resources, Division of Water, testified that he oversees the dam safety program, the floodplain management program, and the canal operations program for the state of Ohio. He became involved with the Grand Lake St. Marys in 1991 as the project engineer for the Division of Water. He reviewed the final calculations for the new spillway design and designed a notch to handle a ten-year

precipitation event. He did not consider any data from the downstream watershed in determining how to design the notch. His focus was the safety of the dam.

{¶ 44} Ogden met with the people in the area to discuss the need for the new spillway. He investigated the concerns of county engineers regarding the impact of the water flow over the new spillway on downstream county bridges. In doing so, he then took into consideration the impact of downstream watershed of Beaver Creek. His analysis revealed that the peak flood elevations in different areas would increase by increments of hundredths of a foot because of the new spillway. He did not consider seasonal differences, which he admitted could have altered the results.

{¶ 45} Ogden also considered widening Beaver Creek, but he concluded that widening the creek would have little impact because the floodplain is extremely broad and very flat. Once the capacity of the channel was exceeded, any additional water flow would not alter the peak elevation levels. Because he addressed all of the concerns that different parties raised, the entire design process took six years, which was longer than usual. However, because of the broad base of interest around the lake, he had to balance all of the competing concerns.

{¶ 46} He further testified that the east end gate of the lake releases water for use by neighboring cities and other entities under contract and for use in the canal. The gate does not and could not be used to release water as a spillway. The release of additional water through the east gate would flood the canal and cause it to fail.

{¶ 47} Michelle Hoffer, the assistant to the director of special projects at the Ohio Department of Natural Resources, testified that she reviewed the draft of a letter sent by the department to Keith Earley in response to his letter raising concerns about the design of the new spillway. She believed that the department considered all of the issues in this case and resolved them in the best way possible for all parties concerned. If there was no storage in the lake, the peak discharge would be greater into Beaver Creek. Because the lake is there, however, the peak flow is decreased. The spillway had to be modified in this case to meet today's safety standards and avoid failure of the dam. The safety of the dam was the key issue for the department. The only way to decreased the amount of water released into Beaver Creek would have been to increase the size of the dam. The notch was added to contain the ten-year storm event and lessen the flow downstream. Up to that level of precipitation, the notch operates similar to the former spillway.

{¶ 48} However, in her memorandum to Bruce Pickens, the chief engineer, she indicated that the department's draft of a letter to Keith Earley did not address his concerns that the duration of the flooding would increase from 30 hours to 110 hours. She suggested that his concerns should be evaluated based on the type of property affected to determine if widening the channel would be justifiable. She did not believe that the water coming over the spillway would cause flooding ten miles away because by that point the runoff would have already peaked at a level higher than that caused by water coming over the spillway. The spillway flow would only contribute minimally to the overall flow (less than a foot). However, she agreed that the spillway flow would

increase the duration of the flood. However, the lake was not designed as a flood control reservoir and cannot be used for that purpose. The level can be lowered, but it must be done slowly to prevent damage to the earthen banks.

{¶ 49} Glen Cobb testified that he was the park manager at Grand Lake St. Marys from 1991 through 1999. He kept daily records of the lake levels during that time. These daily logs were used by the assistant park manager to calculate a monthly average lake level. Before the new spillway was constructed, the lake levels would rise during a storm event and there was flooding in the area. The gates in the old spillway were sometimes opened during significant rain events to discharge some of the water more quickly. He also testified that there was a previous policy that the lake levels would be drawn down one foot in the fall and winter months for flood control, dock maintenance, and to prevent dock damage. However, the park does not have a policy to keep the lake at any set level. With a "draw down" in the fall, there was always a risk that the lake would not reach normal pool level during the next recreational season. The plan under the new spillway was to design a spillway to be self-regulating. Thus, a draw down policy is not necessary. In an emergency, however, it is still possible to manually release water.

{¶ 50} Although Cobb had moved on to another position, he returned to the area in 2003 and 2005 to observe the significant flooding in the areas above and below the spillway. For the 2003 flood, 18 counties were declared disaster areas; for 2005, approximately 60 counties were affected.

{¶ 51} Following the trial, the trial court granted the writ of mandamus on May 24, 2005. The court found that Warms' expert testimony was more credible and that other evidence confirms that more water is passing over the new spillway. As a result, the court concluded that appellees are entitled to compensation for the flooding caused on their property. Appellant then sought an appeal to this court.

{¶ 52} The United States and Ohio Constitutions guarantee that public entities cannot take private property for public purposes without just compensation. Fifth and Fourteenth Amendments to the United States Constitution and Sec. 19, Art. I, Ohio Constitution. Appellant does not dispute that appellees were required to file a complaint for a writ of mandamus in order to compel the Ohio Department of Natural Resources to institute appropriation proceedings if an involuntary taking occurred. *State ex rel. Levin v. City of Sheffield Lake*, 70 Ohio St.3d 104, 108, 1994-Ohio-385. In *Coles v. Granville*, (C.A. 6, 2006), 448 F.3d 853, 861-863, the Sixth Circuit Court of Appeals held that pursuant to R.C. 163.01-163.62 and R.C. 2737.01, a party may seek a writ of mandamus to compel a public official to bring an appropriation action because of the taking of private property for a public purpose. To establish a taking, the landowner must prove that the state entity caused a "substantial or unreasonable interference with his property rights. *State ex rel. OTR v. Columbus* (1996), 76 Ohio St.3d 203, 206.

{¶ 53} A writ of mandamus is an order to a public officer or entity to perform an act that the law specifically imposes upon the officer or entity as a duty. R.C. 2731.01. The writ of mandamus is an extraordinary writ and, therefore, is only available where the

court finds "that the relator has a clear legal right to the relief prayed for, that the respondent is under a clear legal duty to perform the requested act, and that relator has no plain and adequate remedy at law." *State ex rel. Bd. of Edn. of Middletown City School Dist. v. Butler Cty. Budget Comm.* (1987), 31 Ohio St.3d 251, 253, quoting *State ex rel. Westchester Estates, Inc. v. Bacon* (1980), 61 Ohio St.2d 42, paragraph one of the syllabus. See, also, R.C. 2731.05. The court exercises judicial discretion, based upon all the facts and circumstances in the case and the justice to be done, when considering whether to allow or deny the writ. *State ex rel. Pressley v. Industrial Comm.* (1967), 11 Ohio St.2d 141, paragraph seven of the syllabus.

{¶ 54} On appeal, the appellate court first considers as a matter of law whether the relator has proven the requirements for issuing the writ. If the court finds that the relator has proven the prerequisites for issuing the writ, the appellate court considers only whether the lower court abused its discretion by granting or denying the writ. *State ex rel. Myers v. Chiaramonte* (1976), 46 Ohio St.2d 230, paragraph three of the syllabus; *State ex rel. Pressley v. Industrial Comm.*, supra at paragraph ten of the syllabus. The factual findings of the trial court are reviewed only insofar as determining whether there is competent and credible evidence to support them. *C.E. Morris Co. v. Foley Construction Co.* (1978), 54 Ohio St.2d 279, syllabus.

{¶ 55} In this case, appellant challenges in its first and second assignments of error whether the trial court properly determined appellant's duty and whether the manifest weight of the evidence supports a finding that appellant breached his duty to appellees.

We begin by addressing the issue of the duty of appellant, the Ohio Department of Natural Resources.

{¶ 56} The cases cited by appellant discuss the concept of duty as it applies to negligence liability. However, the case at hand involves an appropriation proceeding, not a tort action. The duty at issue in this case is the duty of a public entity to initiate appropriation proceedings. The Ohio Department of Natural Resources has a duty under statutory law to initiate appropriation proceedings if a portion of the relators' properties were in fact appropriated by the action of department. As we stated previously, *Coles v. Granville*, supra held that pursuant to R.C. 163.01-163.62, a public agency must bring an appropriation action prior to taking private property. Thus, if the taking occurs, the property owner may seek a writ of mandamus to compel the public agency to comply with this statutory duty. Therefore, appellant's second assignment of error is not well-taken.

{¶ 57} The central issue in this case is whether the property was in fact physically appropriated by appellant. Federal law clearly holds that if " * * * the government by the construction of a dam or other public works so floods lands belonging to an individual as to substantially destroy their value, there is a taking within the scope of the 5th Amendment." *U.S. v. Lynah* (1903), 188 U.S. 445, 470, reversed in part on other grounds by *U.S. v. Chicago, M., St. P. & P. R. Co.* (1941), 313 U.S. 543, 598. The taking claim requires that " * * * a servitude must have been imposed upon the land, that is to say, a subjection of the land for a more or less definite time to a use inconsistent with the rights

of the owner.” *North Counties Hydro-Electric Co. v. United States* (1947), 108 Ct.Cl. 470, 485, 70 F.Supp, 900, 903. Anything less than this circumstance may give rise to an action for damages in a tort action, but the action of the government will not constitute a taking. *Sanguinetti v. United States* (1924), 264 U.S. 146, 147, and *Barnes v. United States* (1976), 538 F.2d 865, 870.

{¶ 58} The flooding servitude can arise either from constant flooding or from intermittent, frequent, and inevitably recurring flooding. In the latter case, the government has taken a flowage easement over the private land and must pay just compensation for the taking pursuant to the Constitution. *Baird v. United States* (1984), 5 Cl.Ct. 324, 328. While the flooding can be intermittent, it must still be an inevitable and recurring event caused by the natural and probable consequences of governmental action. *Barnes v. United States*, supra at 870-871, citing *United States v. Cress* (1917), 243 U.S. 316. The longer the time between the flooding episodes, the less likely the circumstances will result in a taking. *Fromme v. United States* (1969), 412 F.2d 1192, 1197 (flooding every 15 years was not enough to establish a taking). The permanent or inevitably-recurring requirement satisfies the intent element of a taking. *Turner v. United States* (1989), 17 Cl.Ct. 832, 835-836, reversed on other grounds by (1990), 901 F.2d 1093.

{¶ 59} Likewise, the Ohio Supreme Court held in *Lake Erie & W. R. Co. v. Commrs. of Hancock Cty.* (1900), 63 Ohio St. 23, at paragraph 3 of the syllabus, and again later in *City of Norwood v. Sheen* (1933), 126 Ohio St. 482, paragraph one of the

syllabus that "[a]ny direct encroachment upon land, which subjects it to a public use that excludes or restricts the dominion and control of the owner over it, is a taking of his property, for which he is guaranteed a right of compensation by section 19 of the bill of rights." This right is applicable even when the owner is only partially deprived of the uses of his land. The rationale behind recognizing a pro tanto taking is that the act of depriving an owner of any valuable use of his land is the equivalent of depriving him of his land. *State ex rel. OTR v. City of Columbus*, 76 Ohio St.3d 203, at 207, 1996-Ohio-411. The issue is not whether the public entity acted negligently or contrary to its authority. Rather, the issue is solely whether the landowner was deprived of an economically valuable use of his property because as a consequence of governmental action. *Masely v. Lorain* (1976), 48 Ohio St.2d 334, 341, and *Lucas v. Carney* (1958), 167 Ohio St. 416, 423.

{¶ 60} In conclusion, we find that appellees were required to prove that appellant, the Ohio Department of Natural Resources, caused an increase in the extent of and duration of the flooding by installing the new spillway, the flooding increase resulted in damage to appellees sufficient to establish a taking rather than tortuous damages, and that the increased flooding is permanent or will frequently and inevitably recur.

{¶ 61} The trial court concluded that relators met this burden. On appeal, appellant argues that the trial court's finding on each of these elements was contrary to the manifest weight of the evidence. Whether the frequency and predictability of flooding results in a taking is a factual question that must be based in part on the

character and use of the land. *Baird v. United States*, supra at 329. Flooding issues are very complex matters and therefore, generally, require the use of expert testimony to prove the cause and frequency of flooding. Compare, *Baskett et al. v. United States* (1985), 8 Cl.Ct. 201, 225-226. However, as an appellate court, we must accept the factual findings of the lower court if the findings are supported by sufficient credible, competent evidence. *C.E. Morris v. Foley Construction Co.* (1978), 54 Ohio St.2d 279, syllabus.

{¶ 62} Appellant first argues that there was no evidence to support a finding that there was an increase in flooding for each property. Appellant argues that appellees only presented non-expert evidence that flooding increased during two massive storms. We disagree. There was evidence from the property owners themselves and photographs to establish that there was excessive flooding since the installation of the new spillway and especially during the 2003 and 2005 storms. While the cause of the flooding is a complex factual issue that must be proven through expert witnesses, the existence of flooding can certainly be proven through the testimony of the landowners and photographs.

{¶ 63} Appellant also argues that appellees did not provide any competent and credible evidence that the flooding was caused by the new spillway design rather than just record levels of precipitation. Appellant contends that appellees' only expert witness based his opinion on a study of hypothetical storms over the lake and not over the entire watershed to determine the change in water flow over the spillway. Rather, appellant argues, the trial court should have focused on the expert testimony of Doyle Hartman,

who analyzed the hydrologic system of the entire watershed to determine whether the increased flooding was the result of the massive amount of precipitation that occurred over the entire watershed or the changes in the water flow over the spillway during the storm.

{¶ 64} Appellant specifically challenges the trial court's factual finding No. 17: "Mr. Warns concluded from his review of the technical material that, in every scenario which he reviewed there was a substantial increase in the volume of water over the new spillway versus the old spillway. As such, after the installation of the new spillway, there are now a multitude of situations that can occur where flooding will result downstream, when flooding would not occur under the old spillway configuration." Appellant argues that this factual conclusion is an incomplete representation of Warn's testimony and does not address Warns' recognition of the value of Hartman's analysis. We disagree.

{¶ 65} Warns himself acknowledged that other variable factors could lessen the impact of the increased flow of water. However, even if there were other factors at play, Warns concluded that the amount of the increase in flow by itself (ranging from 164.47 percent up to 1,826 percent under different scenarios) is so significant that it will increase downstream flooding and its duration. Therefore, we find that the trial court properly summarized Warns' testimony.

{¶ 66} Furthermore, appellees all testified that they had been experiencing increased flooding along Beaver Creek and the Wabash River in the recent years and had adjusted their farming operation because of the flooding pattern. Some of appellees

testified that the increased flooding could have been caused by other factors such as: the development in the area; the decrease in the flow of the Wabash River due to a logjam further downstream; an increase in flow of Beaver Creek after it was cleaned out; a change in the lake management policy of the lake which eliminated a drawdown in the winter which enabled the lake to have the capacity to take on winter and spring rains; and unusual weather patterns in the prior few years. Nonetheless, all of the appellees testified that after the new spillway was constructed, that the flooding along Beaver Creek and the Wabash River was more frequent, more extensive, and did not recede as quickly. Such testimony, although not expert testimony, supports the hypothetical analysis that flooding will increase because of the new spillway. Appellees were not required to prove that every increased flooding event they had experienced was solely caused by the change in the spillway design.

{¶ 67} Appellant also argues that Warns' testimony did not contain the necessary degree of certainty required of expert opinions. Appellant argues that Warns only testified that there were situations that could cause flooding. We find that this argument lacks merit. The very nature of what was involved in this case requires scientific, yet hypothetical, analysis based on actual data. Warns clearly concludes that in almost every hypothetical analysis he made, there was significantly more water passing over the spillway which would lead to flooding. He could not speculate as to how other variables would influence a specific instance of flooding. But, he did testify to a reasonable degree

of scientific certainty that his models accurately projected potential future flooding events.

{¶ 68} Finally, appellant argues that Warns' testimony established that there was no link between the new spillway design and the flooding that three of the appellees experienced downstream from the confluence of Beaver Creek and the Wabash River. Appellant relies upon the testimony and graph prepared by Warns projecting that during a 100-year rain event, there would be no flooding along the Wabash River.

{¶ 69} Warns did not specifically testify as to where flooding would occur except for the hypothetical 100-year rain event. In that one case, Warns testified that the model did not project flooding along the Wabash River. But, Warns testified that there were other hypothetical events in which appellees would experienced flooding where they had not prior to the installation of the new spillway. Furthermore, there was testimony from each of the appellees that they were experiencing an increase in flooding, including the farms adjacent to the Wabash River. While Post and Minch testified that the condition of the Wabash River has caused flooding in their area, they both experienced an increase in flooding after the installation of the new spillway to the extent that they can no longer work around the flooding. Such expert testimony, in conjunction with lay witnesses testimony regarding the actual events that were observed, is sufficient to establish that the increased extent and duration of flooding that all of the appellees experienced is attributable to the change in the spillway design.

{¶ 70} Second, appellant argues that the trial court's finding of actual damage was not supported by competent and credible evidence. In factual finding No. 19, the court found that: "* * * In each instance, the Plaintiffs [appellees] detailed physical invasions to their property of water causing crop loss, soil erosion, loss of use, and diminishing value.* * *." Appellant argues that the testimony does not support this finding. He outlined all of the testimony that supported a finding that no damage had occurred. Furthermore, he argued that any crop loss was just as likely due to the massive rainfalls as a change in the spillway. Appellant equated this case with that of *Sanguinetti v. United States* (1924), 264 U.S. 146 and *United States v. Sponenbarger* (1939), 308 U.S. 256, which both involved a taking issue in an area historically subject to periodic flooding. He argues that there was no evidence that the increase in flooding caused substantial damage beyond what appellees typically experienced from flooding in the area. Appellant also argues that Warns admitted that he did not study whether appellees had been specifically damaged by the increase in the extent of and duration of flooding.

{¶ 71} Warns acknowledged that he did not evaluate the specifics of how the plaintiffs were damaged because his report was based solely upon the information supplied by the Ohio Department of Natural Resources and the department did not include such specific information. However, each of the appellees did testify as to the effect of the increased flooding on their property.

{¶ 72} With one exception, all of the appellees experienced the worst flooding in July 2003 after a four-day rain. Again, in January 2005, the flooding was so extensive

that the first five roads that cross Beaver Creek west of the spillway were flooded. None of the appellees could recall a time in the past where the flooding caused roads to be closed. All of the appellees testified that they had suffered in some way from the increased and excessive flooding; either an inability to plant or a need to replant crops, changing their farming operation to avoid lost crops due to the flooding, a decrease in the value of their farm, bank erosion on Beaver Creek and the Wabash River, soil compaction, damaged tiles, and silk and other debris left after the flooding.

{¶ 73} Based upon a review of this testimony, we find that there was detailed evidence from each of the appellees to support a finding that they had all experienced significant damages from the increased flooding.

{¶ 74} Finally, as to the last element, appellant argues that the record does not support the finding of the trial court that flooding would occur with regularity. Warns testified that his hypothetical models indicate that there will be increased flooding during the 25-, 50- and 100-year storms. He also concluded that for the more frequent storms, the new spillway design prevented increased flooding.

{¶ 75} However, each of the appellees testified that they have experienced an increase in the extent of flooding and its duration since the new spillway was replaced in 1997. The worse flooding most of them had experienced was in 2003 and 2005. Appellant focuses much of its case on the fact that these two storms were uniquely massive and, therefore, cannot be used to prove that there was frequent, recurring flooding. All of the appellees testified that they have experienced an increase in flooding.

There is no evidence that the every year since 1997 involved unusually large storms. Thus, even if these two large storms are not considered, there is sufficient evidence to establish that the extent of the flooding and its duration has increased since the new spillway was installed. We find that this evidence is sufficient to support the trial court's finding that the flooding is occurring with regularity.

{¶ 76} In conclusion, we find that the trial court's factual findings were supported by sufficient, credible evidence. We further find that the trial court's finding that a taking had occurred was not contrary to the manifest weight of the evidence. Therefore, appellant's first assignment of error is not well-taken.

{¶ 77} Having found that the trial court did not commit error prejudicial to appellant and that substantial justice has been done, the judgment of the Mercer County Court of Common Pleas is affirmed. Appellant is ordered to pay the costs of this appeal pursuant to App.R. 24. Judgment for the clerk's expense incurred in preparation of the record, fees allowed by law, and the fee for filing the appeal is awarded to Mercer County.

JUDGMENT AFFIRMED.

State ex rel. Post
v. Speck, Director of Ohio
Dept. of Natural Resources
10-2006-001

A certified copy of this entry shall constitute the mandate pursuant to App.R. 27.
See, also, 6th Dist.Loc.App.R. 4.

Peter M. Handwork, J.

JUDGE

Mark L. Pietrykowski, J.

JUDGE

Arlene Singer, P.J.
CONCUR.

JUDGE

Judges Peter M. Handwork, Mark L. Pietrykowski and Arlene Singer, Sixth District Court of Appeals, sitting by assignment of the Chief Justice of the Supreme Court of Ohio.

This decision is subject to further editing by the Supreme Court of Ohio's Reporter of Decisions. Parties interested in viewing the final reported version are advised to visit the Ohio Supreme Court's web site at:
<http://www.sconet.state.oh.us/rod/newpdf/?source=6>.