



## Division of Surface Water Response to Comments

**Project: The National Lime and Stone Company, Receipt of NPDES Permit Application**  
**Ohio EPA ID #: 4IJ00113**

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Ohio EPA held a public hearing April 16, 2014, regarding The National Lime and Stone Co.'s NPDES permit application. This document summarizes the comments and questions received at the public hearing and during the associated comment period, which ended April 26, 2014.

Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. Often, public concerns fall outside the scope of that authority. For example, concerns about zoning issues are addressed at the local level. Ohio EPA may respond to those concerns in this document by identifying another government agency with more direct authority over the issue.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format.

### Well Concerns

**Comment 1:** **Del-Co Water wants to have some comments on the record. Del-Co Water is a member-owned, rural water utility serving a population of over 130,000 people across portions of seven counties. Del-Co Water operates a 4 million gallon per day (MGD) water treatment plant and well field located approximately 1.75 miles east of the quarry. Del-Co has made a significant investment in the preliminary development of a future well field about one mile south of the quarry.**

**Del-Co does not have any particular concerns or objections to the discharge in the Kokosing River,**

**however, we do have concerns about potential impact on the two well fields.**

**Del-Co is interested in collaborating with National Lime and Stone to provide possible alternative solutions that would allow the utility to capture and retain all or a portion of the proposed discharge to supplement our water supply in the future.**

**Response 1:** ODNR, Division of Mineral Resources is evaluating a modification of National Lime and Stone's Mining Permit. They have completed a hydrogeologic study and if wells are impacted, ODNR will determine if National Lime and Stone is responsible.

**Comment 2:** **The water in the pit is an indicator of the water table in this area, and if millions of gallons are pumped out, what effect will this have on the ground water? Most everybody in the area has wells and we are concerned about what effect this will have.**

**Response 2:** Please see Response 1.

**Comment 3:** **Will my 160-foot deep well be affected by planned, decades-long, 24-hour-a-day, seven- days-a-week dewatering? And if so, how will it be affected and what remedies will the company be required to implement, i.e., drilling deeper well?**

**Response 3:** Please see Response 1.

**Comment 4:** **What will the effect of the dewatering have on our well and the wells of our neighbors? Can the residents please see the hydro study (10' draw down study) as soon as available so we understand any impact the dewatering will have on the wells and can work with National Lime early on, vs. waiting till after any issues would occur?**

**Response 4:** Please see Response 1. Please consult with ODNR to see the study.

**Comment 5:** **A hydrologic study should address any changes or adverse impacts to adjacent wells and how this proposed dewatering project may affect wells within the recharge zone of this aquifer. I live within the recharge zone.**

**The company should state in writing how it proposes to mitigate the loss of anyone's well due to this project.**

**I spent over \$12,500 drilling a well 248 feet through the glacial end moraine where I reside. This was in the late 90s. I am sure the costs have increased. I actually prefer well water over any fluoridated and chlorinated water in conventional water systems ( i.e., county or city water). At this stage of my life, I do not want to incur any additional monthly bills should the proposed mitigation be constructing a water line to my home. Additionally, if this is the alternative, who will pay my monthly water bills and tap in fees? This, too, should be addressed in writing.**

**Response 5:** Please see Response 1.

**Comment 6:** With the release of this much water, what effect will it have on the water level in my well? As I understand, the water levels in the pits are an indicator of the level of the water table in this area. Lowering the level of water by 50 to 100 feet will have a negative effect on my well, as well as all the other wells in the surrounding areas.

**Response 6:** Please see Response 1.

**Comment 7:** My father owns the farm directly north of the quarry. The farm has been in our family since the 1800s. We have an artesian well that has flowed for over 100 years. It is a source of water for the home, livestock and pond. We are concerned that lowering the quarry by an estimated 50 feet will adversely affect our artesian well as it is about a quarter mile away.

**Please consider our concerns when evaluating this permit. There is really not a replacement for our flowing well.**

**Response 7:** Please see Response 1.

**Comment 8:** This facility is not a limestone facility. It is a gravel facility. The pit filled with water, became that way from digging into the aquifer. I do not understand how they can "dewater" the pit without totally draining the entire aquifer, thereby affecting the quality of water for those

**residents that obtain their water from the same aquifer?  
I urge the denial of this permit.**

**Response 8:** Please see Response 1.

The director of Ohio EPA has a legal responsibility to act upon all NPDES applications that are submitted to Ohio EPA; OAC Rule 3745-33-04 states:

(1) The director shall issue an Ohio NPDES permit for the discharge if, on the basis of all information available to Ohio EPA, the director determines that:

(a) The authorized discharge levels specified in paragraphs (A), (B), (C), and (D) of rule 3745-33-05 of the Administrative Code are not being exceeded by the applicant; and

(b) An application form completed in accordance with rule 3745-33-03 of the Administrative Code and any supplemental information requested by the director have been submitted; and

(c) Adequate provisions for monitoring to obtain required pollutant discharge information have been made; and

(d) If required by Ohio EPA, performance tests, conducted at the applicant's expense after the application was filed and in accordance with methods prescribed by Ohio EPA, demonstrate that the discharge is in compliance with the authorized discharge levels.

(2) The director shall deny an application for a permit or renewal thereof if:

(a) The secretary of the army determines in writing that anchorage or navigation would be substantially impaired thereby;

(b) The director determines that the proposed discharge or source would conflict with an area-wide waste treatment management plan adopted in accordance with section 208 of the act;

(c) The administrator objects in writing to the issuance or renewal of the permit in accordance with section 402 (d) of the act;

(d) The imposition of conditions cannot ensure compliance with the applicable water quality requirements of all affected states;

(e) The application is for the discharge of any radiological, chemical, or biological warfare agent, or high-level radioactive waste into the waters of the state.

(3) Possession of an Ohio NPDES permit shall not relieve any person of the responsibility to comply with the authorized discharge levels specified in the permit or other provisions of applicable law.

Per the rule above, the director has determined that the conditions detailed in OAC 3745-33-04 (A)(1) have been satisfied and the permit shall be issued.

**Comment 9:** **Several years ago, a large company decided to establish several fresh water wells less than four miles from our home. During that process, the community was concerned with the water levels in the area. Though no scientific data exists, we do have personal experience. Our well went dry. Of course the company claimed the incident a coincidence. We, however, don't believe it was a coincidence but related. So when the National Lime and Stone Co. is now proposing to release this water what effect/affect will this release have on our water in our well?**

**Response 9:** Please see Response 1.

#### Water Quality Concerns

**Comment 10:** **What effect will discharging millions of gallons of water potentially have on the ecosystem of the Kokosing River? There are several aquatic life species in the Kokosing River that aren't found in other parts of the state. This is a pristine river and we would like to keep it that way.**

**Response 10:** The water that will be discharged is required to meet all applicable water quality criteria. The state has standards to protect human health and aquatic life use as well as to protect the following Kokosing River use designations: exceptional warm water habitat, agricultural water supply, industrial water supply and primary contact recreation.

**Comment 11:** National Lime and Stone applies oil brine to deice the gravel. Will this brine make it into the quarry and then into the Kokosing River? To ensure this isn't a problem, will the water be tested prior to discharge? If so, what will it be tested for?

**In the *Toxicological Analysis of Ohio Brine Constituents and their Potential Impact on Human Health* written by Dr. Gerald Poje there are a number of constituents: silver, arsenic, barium, cadmium, total chromium, mercury, lead, selenium, uranium, benzene, ethylbenzene, toluene, xylene, naphthalene, 2-methylphenol and 4-methylphenol.**

**Per state law, you cannot discharge brine into waters of the state; that is a violation of the Clean Water Act. What assurances do we have that the brine will not end up in the Kokosing River?**

**Response 11:** It is reasonable to expect that brine will make it into the quarry. Brine has high concentrations of total dissolved solids (TDS.) To ensure t the brine is not causing a water quality impact, the quarry discharge will be monitored for TDS.

Ohio EPA sampled the quarry water on March 24, 2016. Results for arsenic, barium, cadmium, total chromium, lead, selenium, benzene, ethyl benzene, toluene, xylene and naphthalene, are detailed in Attachment 1. The results show low concentrations that are below water quality standards for arsenic, lead and selenium, and the organic parameters are all below reporting levels.

**Comment 12:** National Lime and Stone uses oilfield waste "brine" on their gravel to make the gravel workable during the winter. As you are aware, "brine" is heavy in chloride (salt). It is imperative that not only are the chloride levels checked but an allowable limit **MUST** be set.

**While total suspended solids (TSS) is being checked, TDS is NOT being checked. TDS affects conductivity and increases chloride levels.**

**No other chemical components of brine are being tested. That is unacceptable since those components are toxic to aquatic and human life.**

**Response 12:** Ohio EPA tested the quarry for chloride and TDS, which were present at 24.9 milligrams per liter (mg/L) and 314 mg/L, respectively. Ohio does not have a water quality standard for chloride, but the water quality standard for TDS is 1,500 mg/L. The level of TDS in the quarry water that will be discharged is less than water quality standards and less than the concentration in the Kokosing River.

On March 24, 2016, Ohio EPA sampled the quarry water that will be discharged to the Kokosing River for TSS, TDS, metals, organic chemicals and oil and grease. The results for many parameters were below the detection level. All parameters that were detected were at levels less than water quality standards and at levels less than background concentrations already present in the Kokosing River. Please see Attachment 1 for details.

**Comment 13:** **Are any chemicals used in their daily operations? I know that brine is sprayed on the grit that is spread on the roads in the winter for ice control. There have been many questions as to what chemicals are in this brine. Will these chemicals be in the millions of gallons that are discharged?**

**Response 13:** Chemicals are not added during sand and gravel mining operations. It is reasonable to expect that brine will make it into the quarry water. However, Ohio EPA tested the quarry water and there were no detections of organic chemicals above reporting levels. Please see Attachment 1 for more details. Brine has high concentrations of TDS. To ensure that the brine is not causing a water quality impact, the quarry discharge will be monitored for TDS.

**Comment 14:** **What would be the effects on aquatic life and the impact downstream from the additional possible 4 MGD being added to it, plus rain water and storm water?**

**There should be baseline testing and follow-up tests to ensure that there is little to no change in water quality or to document how much of a change if there is one.**

**Response 14:** The state has standards that need to be met in the stream to protect human health and aquatic life use as well as to protect the following Kokosing River use designations: exceptional warm water habitat, agricultural water supply, industrial water supply and primary contact recreation. The

water in the quarry was sampled by Ohio EPA and the levels of pollutants in the quarry are below all applicable water quality standards. Please see Attachment 1 which summarizes the quarry sampling results, background levels in the Kokosing River, and applicable water quality standards.

The discharge of the proposed volume of flow would raise the river level less than one foot when discharging, an amount that is unlikely to cause flooding.

A downstream monitoring station has been added to the draft NPDES permit to document any changes in the Kokosing River.

**Comment 15: My family has lived along the Kokosing River for over 78 years. I graduated from Kenyon College in 2009. My alma mater boasts a strong identification to the tranquility and purity the Kokosing River provides, as our founder Philander Chase was looking for such a place when he founded the school in 1829. I am disappointed and very concerned that the tranquility and the purity of the Kokosing will be a faint memory now that National Lime and Stone Co. (waste water identification number 41J00113) is petitioning to dump 4 million gallons of waste water a day into the river. The water the company proposes to dump will contain oil waste from the company's fields. There are numerous environmental, health and economic impacts the community along river will experience.**

**The Kokosing River is a state scenic river. As such, it has enjoyed protection that has allowed state endangered species such as the hellbender salamander to thrive. With the proposed dumping of 4 million gallons of oil waste water a day into the Kokosing, endangered species such as the hellbender salamander will not survive. They will become extinct. Native species of plants and trees along the river will also languish. The river will no longer have the pure water quality and lush greenery that makes it scenic.**

**It is well-established that communities exposed to oil waste can experience health concerns ranging from nose-bleeds to cancer. The impact to individuals, like my family, living along the river is simply too great to risk.**

**The community in Knox County often boasts the Kokosing River as an attraction for visitors to enjoy as they escape their busy lives. Visitors are invited to kayak and explore the river. Businesses offer kayaks for rent. When tourists come to kayak, they will also spend money in local restaurants and in shops. I am concerned that the local business community will suffer if the river becomes polluted. Who will want to escape their busy lives by kayaking in a polluted river?**

**Response 15:**

The water in the quarry that will be discharged is not oil waste. The main sources of water to the quarry are ground water and storm water. These sources are expected to contain low levels of pollutants.

On March 24, 2016, Ohio EPA sampled the quarry water that will be discharged to the Kokosing River for TSS, dissolved solids, metals, organic chemicals and oil and grease. The results for many parameters were below the detection level. All parameters that were detected were at levels less than water quality standards and at levels less than background concentrations already present in the Kokosing River. Ohio has water quality standards to ensure human health, aquatic life and designated uses are protected. The standards protect the water inside the zone where the water is being blended, called the mixing zone and the water after it is blended.

Please see Attachment 1 for sampling results from the quarry, sampling results from the Kokosing River and the applicable water quality standards. The water quality standards listed are the concentrations of pollutants that need to be met in the Kokosing River to be protective.

Endangered Species Concerns

**Comment 16:**

**What will the release of 4 million gallons per day do to the ecosystem of the Kokosing River? The force of this much water will certainly disrupt the normal flow of this river and all its inhabitants. An endangered species of salamander, the hellbender, lives in the Kokosing River and very few other rivers in the state. This salamander deserves to be protected and saved. Will the banks of the Kokosing wash out and flood into the connecting farm fields and yards along the river, as well as threaten homes along the river?**

**Response 16:** The discharge of the proposed volume of flow would raise the river level less than one foot when discharging, an amount that is unlikely to cause flooding.

Ohio EPA does not have the regulatory authority to evaluate flooding concerns. Morrow County has authority on floodplain management. For more information, please see Morrow County's floodplain management website located here:

<http://morrowcountyohio.gov/index.php/property/floodplain>.

The discharge from National Lime and Stone will meet Ohio Water Quality Standards to protect aquatic life. The U.S. Fish and Wildlife Service is the principal partner responsible for administering the Endangered Species Act (ESA). For more information, please see the Fish and Wildlife Service's website at: <http://www.fws.gov/endangered/about/index.html>.

**Comment 17:** **Please reject the permit which would allow discharge of water into the Kokosing River from the quarrying operation at the National Lime and Stone Chesterville facility until extended study is done into the specific effects of such a discharge on the hellbender population in that river. The hellbender is a state endangered species, found in only seven Ohio streams, and the Kokosing is one of two Ohio rivers with the largest populations. Studies on the hellbender universally indicate that a stable riparian environment with a minimum of sediment is necessary to this endangered amphibian's health, growth and lifespan. The designation of the Kokosing River as an Ohio Scenic River also impels an abundance of caution in allowing any rapid changes to the habitat of the river, and the discharge of water containing total suspended solids in the quantity requested by the permit applicant would certainly cause a rapid change that merits significant study.**

**Response 17:** The director of Ohio EPA has a legal responsibility to act upon all NPDES applications that are submitted to Ohio EPA. The conditions detailed in OAC 3745-33-04 (A)(1) have been satisfied and the permit shall be issued. Please see Response 8 for details.

The discharge from National Lime and Stone will meet Ohio Water Quality Standards to protect aquatic life. Ohio EPA tested the quarry water for TSS and the result was 2 mg/L, far less than the permitted limit and less than the background concentration in the Kokosing River. The U.S. Fish and Wildlife Service is the principal partner responsible for administering the Endangered Species Act (ESA). For more information, please see the Fish and Wildlife Service's website at: <http://www.fws.gov/endangered/about/index.html>.

**Comment 18:** I am under the impression that this stream has an exceptional warm water habitat designation by Ohio EPA and the endangered Eastern hellbender, a very large salamander, resides there. The permit should address any adverse impacts to this specie, and any other wildlife that resides within the stream. Moreover, the U.S. Fish and Wildlife and the Ohio Division of Wildlife should review this project for this reason and the fact that this is a branch of the Kokosing River, which has a State Scenic river designation.

**Response 18:** Please see Response 17.

#### Flooding Concerns

**Comment 19:** Will the banks of the Kokosing wash out and flood into the connecting farm fields and yards along the river, as well as threaten homes along the river?

**Response 19:** The discharge of the proposed volume of flow would raise the river level less than one foot when discharging, an amount that is unlikely to cause flooding.

Ohio EPA does not have the regulatory authority to evaluate flooding concerns. Morrow County has authority on floodplain management. For more information, please see Morrow County's floodplain management website located here:

<http://morrowcountyohio.gov/index.php/property/floodplain>.

**Comment 20:** If the dewatering could cause the river to flood higher than normal during heavy rainfall and snow melt times, is there a discharge criterion to prevent such an event?

**Response 20:** There is not a discharge criterion to prevent flooding during heavy rainfall or snow melt. Please see Response 19.

### Archeological Concerns

**Comment 21:** Only coal applications require archaeological investigations in Ohio, IM Oil and Gas permits do not require archaeology to be done...why when most prehistoric and historic archaeological sites are less than a tenth of an acre in size? Do we value our past...if so do the right thing and require archaeological investigations on all of your projects to identify the adverse effects to prehistoric and historic endangered properties/sites and protect or mitigate them prior to permit issuance/approval.

**Response 21:** The Army Corps of Engineers and Ohio State Preservation Office can address archeological concerns.

**Comment 22:** There exists adjacent to, and within, the mining operation prehistoric and historic archaeological sites, known and unknown along the Kokosing River, many of which I am sure are eligible for listing in the National Register of Historic Places, which could be adversely affected by increased river volume and overflow (sometimes reaching as far north as SR 95).

Cultural resources are also an endangered species once gone not renewable so why only consider floral and faunal and not known and unknown potentially eligible and listed National Register properties? I would like to see Phase 1-3 archaeological surveys be done within an agreed upon study area associated with the dewatering application prior to it being approved and issued and all potentially eligible/listed historic and prehistoric properties located investigated protected or mitigated. We need a holistic approach since humans and the environment have a symbiotic relationship whether in the past or present or future.

**Response 22:** Please see Response 21.

### Other Concerns

**Comment 23:** The permit indicates no structures will be placed in the branch of the Kokosing River, though the company proposes to pump 4 million gallons a day into the stream. At a minimum, wouldn't it be safe to say the company would have to place fill (riprap or other

**suitable material) to prevent erosion at the discharge site? If so, shouldn't this be addressed within the plans? If the amount and type of material falls with the Nationwide Permit (NWP) system of the Army Corps of Engineers, then the actual NWP number should be indicated within the permit.**

**Response 23:** If National Lime and Stone does place riprap or other fill material into the Kokosing River, they will need to obtain a 404 permit from the Army Corp and a 401 certification through Ohio EPA.

A Part II condition has been added to the permit that requires National Lime and Stone to control the discharge velocity to prevent stream bank erosion and streambed scour.

**Comment 24:** **The endangered hellbender salamander lives in the Kokosing, only one of seven waterways they live in the state of Ohio. Chloride and other components of brine could harm them.**

**The hellbender habitat is threatened by siltation. Dumping 4 million gallons of water a day into the Kokosing WILL increase the silt level thereby threatening the already endangered Hellbender**

**How will the effect to the water quality be monitored besides TSS and pH? It is irresponsible to wait until a problem is caused to act upon it. We must be proactive in protecting the Kokosing, its inhabitants and those who enjoy the benefits of the river.**

**I urge the testing of TDS, chloride, heavy metals known to be in brine, and the long list of toxic constituents listed in the research by Dr. Poje that I submitted with my oral testimony as well as setting acceptable limits for those components.**

**Response 24:** The discharge from National Lime and Stone will meet Ohio Water Quality Standards to protect aquatic life. The U.S. Fish and Wildlife Service is the principal partner responsible for administering the Endangered Species Act (ESA).

The TSS concentration that will be discharged from the quarry is less than background concentrations in the Kokosing River. A Part II condition has been added to the

permit that requires National Lime and Stone to control the discharge velocity to prevent stream bank erosion and streambed scour.

Dissolved oxygen and TDS monitoring of the discharge and downstream monitoring of the Kokosing River has been added to the NPDES permit.

TDS, chloride, heavy metals and organic chemicals have been tested for in the quarry water. Please see Attachment 1 for detailed results. None of these parameters have the reasonable potential to violate water quality standards, so limits have not been added. However, brine has high TDS concentrations and TDS monitoring has been added to the NPDES permit.

**Comment 25: Is the EPA aware or is National Lime aware of any harmful effects to the residence, the environment or wildlife that the dewatering will cause?**

**Response 25:** Ohio EPA has tested the quarry water that will be discharged to the Kokosing River and has evaluated the results. No parameter that was tested for has the reasonable potential to violate water quality standards and Ohio EPA is not aware of any harmful effects to the residence, environment, or wildlife based on the quality of water that will be discharged.

**Comment 26: When I spoke to Amber Kent the following day after the public hearing, she stated that most times these permits are issued, and if there are problems after issuance, then they will deal with those problems then. I really think we need to be very proactive in this permit process. This discharge could have extreme negative ramifications on a lot of my neighbors and their livelihoods.**

**Response 26:** The NPDES program does not issue permits expecting problems later. NPDES permits are written to ensure all water quality standards are met in stream and that all designated uses are protected.

**Comment 27: Ohio EPA should deny National Lime and Stone's permit to discharge waste water into the Kokosing River until further research and data can be collated as to assure the more likely effects of what the ramifications of this practice will be.**

**EPA should err on the conservative side of this issue until more facts can be presented, not practice "doing damage control after something has manifested itself."**

**Response 27:** The director of Ohio EPA has a legal responsibility to act upon all NPDES applications that are submitted to Ohio EPA. The conditions detailed in OAC 3745-33-04 (A)(1) have been satisfied and the permit shall be issued. Please see Response 8 for details.

Ohio EPA has sampled the quarry, analyzed the results and has written the NPDES permit to ensure all water quality standards are met in the Kokosing River and that all designated uses are protected.

**Comment 28:** **How will the permit be enforced? There are people that are unaware of these changes.**

**Response 28:** Self-monitoring data reports are required to be submitted to Ohio EPA on a monthly basis. Frequency of sampling and monitoring the effluent varies for each pollutant, from daily to monthly, depending on the potential of the pollutant to exceed water quality standards. Each time a monthly report is received, it is reviewed by the Agency. Pollutants that exceed permitted limits are flagged as a violation. The facility is required to notify the Agency of a violation. The Ohio EPA inspector will follow up with the facility to ensure violations do not continue and enforcement protocols are followed as appropriate. In addition, facilities with NPDES permits are routinely inspected and Ohio EPA can perform compliance monitoring.

To facilitate public awareness, Ohio EPA has held two public hearings and has public noticed the NPDES application and draft NPDES permit.

**Comment 29:** **The wildlife in the river must be the priority because even though the Kokosing River is one of the cleanest rivers in Ohio and is also a Scenic River, this is a "Monkeys to Monkeys" comparison to other filthy rivers in the state of Ohio; it is still a water way that suffers from many pollutants. Adding even a slight amount of more pollutants to this river could tip the scale in the wrong direction and kill off wildlife that may be already struggling including the hellbender salamander, which is on the endangered species list, and the new family of bald eagles that have recently built a nest over the east**

**side of the river on the east side of route 13 heading south into Mt. Vernon near Green Valley Road.**

**The pollutants, the water table, the increased flooding potential in an area that already struggles with this many times a year (which does not need to be exacerbated even slightly), the potential loss of the artesian well that has existed on TWP Road 176 for generations that is a mere half mile or less north of the quarry and the quality and quantity of the water that everyone in this area has in their wells are all good reasons for delaying this permit until at least two baselines can be established as reference points as to what true changes may affect this area including testing the Kokosing River water, and at least 10 different wells in 10 different areas around the quarry.**

**Response 29:** The discharge from National Lime and Stone will meet Ohio Water Quality Standards to protect aquatic life. The U.S. Fish and Wildlife Service is the principal partner responsible for administering the Endangered Species Act (ESA). Please see Attachment 1 for details on water quality in the Kokosing River, in the quarry, and Ohio water quality standards. The concentrations of many pollutants in the quarry are less than concentrations in the Kokosing River.

The discharge of the proposed volume of flow would raise the river level less than one foot when discharging, an amount that is unlikely to cause flooding.

ODNR has completed a hydrogeologic study and will determine if National Lime and Stone is responsible should wells be impacted.

**Comment 30:** **The Kokosing River is not a large, nor a fast-flowing tributary. Four million gallons a day seems like a large amount. In relation to the current flow, how might this discharge disrupt or change the current flow, erosion, pH, sediment levels and habitat of both plant and animals?**

**Response 30:** A comparison of flow conditions was made at the U.S. Geological Survey (USGS) gage at Mount Vernon. While this gage is downstream of the proposed discharge, and the river is larger there, it is an available flow comparison. The minimum flow recorded at that gage is 90 cubic feet per second(cfs), which is the equivalent of 58 million gallons per

day (MGD). The average flow at Mt. Vernon is 373 cfs, which is the equivalent of 241 MGD. A discharge of 4 MGD is a small percentage of these flows. Water is a vital component of aquatic habitat. Dewatering activities will help support the flow regime in the river during times of low flow.

**Comment 31:** **The mining facility was family owned and provided a great service to our community in many ways. Being a neighbor to the facility the noise, dust and basic disruptions from the operation were minimal. How might this request change our quality of life and the value of our property? We are not totally blaming the trucks that travel into and out of the pit but the cupping of State Route 95 is very noticeable during rain events making the road somewhat dangerous for us, our children and other cars on the road. How might this request impact the infrastructure even more?**

**Response 31:** Ohio EPA does not regulate noise or road infrastructure and does not have the technical expertise to address these concerns. Any issues associated with dust can be directed to Ohio EPA's Central District Office, Division of Air Pollution Control.

**Comment 32:** **I believe National Lime and Stone owns property directly across from our house and east of the current "pit." Does this request have any affect/effect that should be considered? Especially as it impacts the value of our property and once again the quality of life we have enjoyed in our country setting?**

**Response 32:** Ohio EPA does not have the authority to regulate these kinds of impacts. Your local zoning (township or county) administration have ordinances to address your concerns.

**Comment 33:** **Is this a one-time only occurrence or is the plan to be done on a regular basis, and if so how often?**

**Response 33:** The plan is to do this on a regular basis to keep the water level in the quarry down enough to continue mining. However, it is unlikely that National Lime and Stone will need to discharge 4 MGD every day.

**Comment 34:** **What are the positive and negative (adverse) effects of the proposed dewatering upon the following:**

- a. the adjacent landowner's well water levels within a 1.5 mile radius of the operation;**
- b. the river bank i.e., instability;**
- c. the aquatic life including endangered species;**
- d. the nearby Delco Water plant pumping station;**

**Response 34:**

- a. and d. DSW does not have regulatory authority over ground water levels. ODNR, Division of Mineral Resources is evaluating a modification of National Lime and Stone's Mining Permit. They have completed a hydrogeologic study and if wells are impacted, ODNR will determine if National Lime and Stone is responsible.
- b. A Part II condition has been added that requires National Lime and Stone to control the discharge velocity to prevent stream bank erosion and streambed scour
- c. The discharge will contain cool, relatively high quality ground water, which is good for aquatic life. The discharge from National Lime and Stone will meet Ohio water quality standards to protect aquatic life.

**Comment 35:**

**It is standing operating procedure for a coal and IM applicant to submit as part of their application a report of the proposed undertaking with factual data and both positive and negative effects. Why has a report not been submitted to your agency and ODNR and other agencies for comment as well as the public? Why is the ODNR Division of Mineral Resources Management doing the applicant's work for them instead of the DMRM reviewing the applicant's report on dewatering and its consequences?**

**Response 35:**

Ohio EPA cannot comment on what needs submitted to ODNR. National Lime and Stone submitted a complete NPDES application and antidegradation addendum, which is all that is required in order to obtain an NPDES permit.

**Comment 36:**

**I am a fireboard representative for Chester Township. It has come to my attention from a local arson investigator that discharging this amount of water daily may negatively impact our current fire protection system and design. He further claims that this draining of the lake could possibly be a suppression to our national disaster**

**relief system. Four regional fire departments will be affected by the discharging of water from the lake: Chesterville, Johnsville, Big Walnut Fire Department and Fredericktown.**

**Response 36:** Please see Response 1. Ohio EPA does not have the authority to address this concern.

**End of Response to Comments**

### Attachment 1

Parameter	Units	Quarry Water	Kokosing River <sup>A</sup>	WQS <sup>B</sup>
Oil and Grease	mg/L	<2.2	NT	10
Total Dissolved Solids	mg/L	314	292	1,500
Total Suspended Solids	mg/L	2	36	--
pH	S.U.	8.25	7.5	6.5-9.0
Arsenic	µg/L	<2.0	2.6	100
Barium	µg/L	78	79.5	220
Cadmium	µg/L	<0.20	<0.20	4.7
Chloride	mg/L	24.9	27.6	--
Chromium	µg/L	<2.0	<2.0	100
Copper	µg/L	<2.0	<2.0	19
Iron	µg/L	196	1,659	5,000
Lead	µg/L	0.3	1.95	18
Nickel	µg/L	2.4	<2.0	100
Selenium	µg/L	<2.0	<2.0	5
Strontium	µg/L	334	680	21,000
Zinc	µg/L	<10	10.5	240
Ammonia	mg/L	0.382	<0.05	1.4
Nitrate+Nitrite	mg/L	0.11	NT	100
Phosphorus	mg/L	<0.10	0.015	--
<b>Organic Analysis</b>				
Benzene	µg/L	<0.50	NT	160
Bromobenzene	µg/L	<0.50	NT	--
Bromochloromethane	µg/L	<0.50	NT	--
Bromodichloromethane	µg/L	<0.50	NT	460
Bromoform	µg/L	<0.50	NT	230
Bromomethane	µg/L	<0.50	NT	16
n-Butylbenzene	µg/L	<0.50	NT	--
sec-Butylbenzene	µg/L	<0.50	NT	--
tert-Butylbenzene	µg/L	<0.50	NT	--
Carbon tetrachloride	µg/L	<0.50	NT	44
Chlorobenzene	µg/L	<0.50	NT	47
Chloroethane	µg/L	<0.50	NT	--
Chloroform	µg/L	<0.50	NT	140
Chloromethane	µg/L	<0.50	NT	--
2-Chlorotoluene	µg/L	<0.50	NT	--
4-Chlorotoluene	µg/L	<0.50	NT	--
Dibromochloromethane	µg/L	<0.50	NT	340
1,2-Dibromo-3-chloropropane	µg/L	<0.50	NT	--
1,2-Dibromoethane	µg/L	<0.50	NT	--
Dibromomethane	µg/L	<0.50	NT	--
1,2-Dichlorobenzene	µg/L	<0.50	NT	23
1,3-Dichlorobenzene	µg/L	<0.50	NT	22

Parameter	Units	Quarry Water	Kokosing River <sup>A</sup>	WQS <sup>B</sup>
1,4-Dichlorobenzene	µg/L	<0.50	NT	9.4
Dichlorodifluoromethane	µg/L	<0.50	NT	--
1,1-Dichloroethane	µg/L	<0.50	NT	--
1,2-Dichloroethane	µg/L	<0.50	NT	990
1,1-Dichloroethene	µg/L	<0.50	NT	32
cis-1,2-Dichloroethane	µg/L	<0.50	NT	--
trans-1,2-Dichloroethene	µg/L	<0.50	NT	140,000
1,2-Dichloropropane	µg/L	<0.50	NT	390
1,3-Dichloropropane	µg/L	<0.50	NT	--
2,2-Dichloropropane	µg/L	<0.50	NT	--
1,1-Dichloropropene	µg/L	<0.50	NT	--
cis-1,3-Dichloropropene	µg/L	<0.50	NT	--
trans-1,3-Dichloropropene	µg/L	<0.50	NT	--
Ethylbenzene	µg/L	<0.50	NT	61
Hexachlorobutadiene	µg/L	<0.50	NT	500
Isopropylbenzene	µg/L	<0.50	NT	4.8
4-Isopropyltoluene	µg/L	<0.50	NT	16
Methylene chloride	µg/L	<0.50	NT	1,900
Napthalene	µg/L	<0.50	NT	21
n-Propylbenzene	µg/L	<0.50	NT	--
Styrene	µg/L	<0.50	NT	32
1,1,1,2-Tetrachloroethane	µg/L	<0.50	NT	85
1,1,2,2-Tetrachloroethane	µg/L	<0.50	NT	110
Tetrachloroethene	µg/L	<0.50	NT	53
Toluene	µg/L	<0.50	NT	62
1,2,3-Trichlorobenzene	µg/L	<0.50	NT	--
1,2,4-Trichlorobenzene	µg/L	<0.50	NT	940
1,1,1-Trichloroethane	µg/L	<0.50	NT	76
1,1,2-Trichloroethane	µg/L	<0.50	NT	420
Trichloroethene	µg/L	<0.50	NT	220
Trichlorofluoromethane	µg/L	<0.50	NT	--
1,2,3-Trichloropropane	µg/L	<0.50	NT	--
1,2,4-Trimethylbenzene	µg/L	<0.50	NT	15
1,3,5-Trimethylbenzene	µg/L	<0.50	NT	26
Vinyl chloride	µg/L	<0.50	NT	930
o-Xylene	µg/L	<0.50	NT	--
Total m&p-xylenes	µg/L	<0.50	NT	27
Aldrin	µg/L	<0.0019	NT	0.0014
a-BHC	µg/L	<0.0019	NT	0.13
b-BHC	µg/L	<0.0019	NT	0.46
d-BHC	µg/L	0.0023 <sup>C</sup>	NT	--
γ-BHC	µg/L	0.0015 <sup>D</sup>	NT	0.057

Parameter	Units	Quarry Water	Kokosing River <sup>A</sup>	WQS <sup>B</sup>
4,4'-DDD	µg/L	<0.0058	NT	0.0084
4,4'-DDE	µg/L	<0.0019	NT	0.0059
4,4'-DDT	µg/L	<0.0058	NT	0.0059
Dieldrin	µg/L	<0.0019	NT	0.0014
Endosulfan I	µg/L	<0.0019	NT	240
Endosulfan II	µg/L	<0.019	NT	240
Endosulfan sulfate	µg/L	<0.0019	NT	240
Endrin	µg/L	<0.0058	NT	0.036
Endrin aldehyde	µg/L	<0.0019	NT	0.036
Heptachlor	µg/L	<0.0019	NT	0.0021
Heptachlor epoxide	µg/L	<0.010	NT	0.0011
Methoxychlor	µg/L	<0.010	NT	--
Mirex	µg/L	<0.0019	NT	0.00011
Hexachlorobenzene	µg/L	<0.10	NT	0.0077
PCB-1016	µg/L	<0.10	NT	0.0017 <sup>E</sup>
PCB-1221	µg/L	<0.10	NT	0.0017 <sup>E</sup>
PCB-1232	µg/L	<0.10	NT	0.0017 <sup>E</sup>
PCB-1242	µg/L	<0.10	NT	0.0017 <sup>E</sup>
PCB-1248	µg/L	<0.10	NT	0.0017 <sup>E</sup>
PCB-1254	µg/L	<0.10	NT	0.0017 <sup>E</sup>
PCB-1260	µg/L	<0.10	NT	0.0017 <sup>E</sup>
Acenaphthylene	µg/L	<5.6	NT	--
Anthracene	µg/L	<2.3	NT	0.02
Benzo[a]anthracene	µg/L	<2.3	NT	0.49
Benzo[a]pyrene	µg/L	<2.3	NT	0.49
Benzo[b]fluoranthene	µg/L	<2.3	NT	0.49
Benzo[g, h, i]perylene	µg/L	<2.3	NT	--
Benzo[k]fluoranthene	µg/L	<2.3	NT	0.49
bis(2-Chloroethoxy)methane	µg/L	<5.6	NT	--
bis(2-Chloroethyl)ether	µg/L	<2.3	NT	14
bis(2-Chloroisopropyl)ether	µg/L	<2.3	NT	170,000
bis(2-Ethylhexyl)phthalate	µg/L	<11.2	NT	8.4
4-Bromophenyl-phenylether	µg/L	<5.6	NT	--
Butylbenzylphthalate	µg/L	<2.3	NT	23
4-Chloro-3-methylphenol	µg/L	<11.2	NT	--
2-Chloronaphthalene	µg/L	<5.6	NT	4,300
2-Chlorophenol	µg/L	<2.3	NT	32
4-Chlorophenylphenylether	µg/L	<2.3	NT	--
Chrysene	µg/L	<2.3	NT	0.49
Di-n-butylphthalate	µg/L	<5.6	NT	12,000
Di-n-octylphthalate	µg/L	<2.3	NT	--
Dibenz[a,h]anthracene	µg/L	<2.3	NT	0.49

Parameter	Units	Quarry Water	Kokosing River <sup>A</sup>	WQS <sup>B</sup>
2,4-Dichlorophenol	µg/L	<2.3	NT	11
Diethylphthalate	µg/L	<5.6	NT	220
2,4-Dimethylphenol	µg/L	<11.2	NT	15
Dimethylphthalate	µg/L	<5.6	NT	1,100
4,6-Dinitro-2-methylphenol	µg/L	<5.6	NT	770
2,4-Dinitrophenol	µg/L	<22.5	NT	14,000 <sup>F</sup>
2,6-Dinitrotoluene	µg/L	<2.3	NT	81
2,4-Dinitrotoluene	µg/L	<2.3	NT	44
Fluoranthene	µg/L	<2.3	NT	0.8
Fluorene	µg/L	<2.3	NT	19
Hexachlorocyclopentadiene	µg/L	<2.3	NT	17,000
Hexachloroethane	µg/L	<5.6	NT	89
Indeno[1,2,3-cd]pyrene	µg/L	<2.3	NT	0.49
Isophorone	µg/L	<2.3	NT	920
N-Nitroso-di-n-propylamine	µg/L	<2.3	NT	14
N-Nitrosodiphenylamine	µg/L	<5.6	NT	160
Naphthalene	µg/L	<2.3	NT	21
Nitrobenzene	µg/L	<2.3	NT	380
2-Nitrophenol	µg/L	<2.3	NT	73
4-Nitrophenol	µg/L	<22.5	NT	--
Pentachlorophenol	µg/L	<11.2	NT	18 <sup>G</sup>
Phenanthrene	µg/L	<2.3	NT	2.3
Phenol	µg/L	<2.3	NT	400
Pyrene	µg/L	<2.3	NT	4.6
1,2,4-Trichlorobenzene	µg/L	<2.3	NT	940
2,4,6-Trichlorophenol	µg/L	<5.6	NT	4.9

<sup>A</sup> Samples were taken from the Kokosing River at River Mile 45.44, approximately one mile upstream of the proposed discharge. Samples were taken 2006-2008 and the table shows mean values.

<sup>B</sup> The lowest applicable water quality standard for each parameter is presented in the table.

<sup>C</sup> d-BHC was also present in the lab control at 0.0022 µg/L.

<sup>D</sup> y-BHC present at a level lower than the reporting level, but higher than the method detection level.

<sup>E</sup> 0.0017 µg/L is the water quality standard for PCBs.

<sup>F</sup> 14,000 µg/L is the water quality standard for Dinitrophenols.

<sup>G</sup> Value at a pH of 8.0.