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May 8, 2020

VIA e-mail to Dennis.Conger@tn.gov

Dennis Conger, NPDES Permitting Coordinator
State of Tennessee
Department of Environment and Conservation
Division of Water Resources
Mining Section
3711 Middlebrook Pike
Knoxville, Tennessee 37921-6538

CC: *Bonnie Craighead*, Bonnie.Craighead@tn.gov
Dan Murray, Dan.Murray@tn.gov

Re: Volunteer Sand & Gravel NPDES Draft Permit TN0082236

Dear Mr. Conger,

The Southern Environmental Law Center, Harpeth Conservancy, Hurricane Mills Mining Opposition, Tennessee Scenic Rivers Association, Tennessee Clean Water Network, Tennessee Chapter Sierra Club, and Defenders of Wildlife ask the Tennessee Department of Environment and Conservation (“TDEC” or “the Department”) to revise Draft Permit TN0082236 to adequately account for discharges that will occur during and as a result of flood conditions and to ensure compliance with Tennessee’s water quality standards, including the Biological Integrity standard. Once flood-related discharges are adequately taken into account, the Department must find that degradation would be more than de minimis, requiring Volunteer Sand & Gravel to satisfy the appropriate alternatives and economic and social analyses. The Department must not exempt overflow total suspended solids (“TSS”) discharges from effluent limitations, and in fact must establish more stringent TSS effluent limitations to protect water quality. The Department also must require Aquatic Resource Alteration Permits (“ARAP”) for all wetlands on site. Finally, we object to the Department’s decision to proceed with the permitting process during the COVID-19 pandemic, when the public cannot adequately participate in permitting decisions. If the Department proceeds, it should circulate a revised draft and host a public hearing that provides access to all who wish to participate.

I. The planned mine is within a flood plain next to a biologically rich and sensitive stretch of the Duck River.

Volunteer Sand & Gravel plans to place a mine pit next to the Duck River in Hurricane Mills, posing a serious threat to one of Tennessee’s most beloved rivers. With at least 147

species of fish, 54 freshwater mussel species, and 22 freshwater snail species, the Duck may be the most biologically diverse river in North America.¹ The stretch of the Duck River adjacent to the proposed mine has been designated as Exceptional Tennessee Waters because it is critical habitat for the Purple Bean and Cumberlandian Combshell, mussels that are federally listed as endangered.² The U.S. Fish & Wildlife Service notes that gravel mining “can cause severe impacts” on the Cumberlandian Combshell.³ Sedimentation “poses a continuing threat to the long-term survival of these remaining mussel populations,” and “[w]ater pollution from various sources such as mines” adversely impacts the endangered species. Likewise, habitat loss and alteration, often due to siltation and water pollution, are the primary reasons for the Purple Bean’s decline.⁴

In addition, “[f]ederally endangered Clubshell, Pygmy Madtom, Birdwing Pearlymussel, and Oyster Mussel have been identified within the waters, along with state threatened Coppercheek Darter and Water Stitchwort.”⁵ Sedimentation is particularly harmful to freshwater mussels,⁶ and scientists have warned that the Duck River’s mussel populations have declined, in part, due to “[n]on-point source runoff of sediment and agricultural chemicals into the river, gravel mining, and destruction of the riparian zone corridor.”⁷ Runoff and siltation from mining sites likewise threaten the Pygmy Madtom.⁸

Because of this unique and vulnerable biodiversity, Tennessee has designated the stretch of the Duck immediately downstream of the mine site as “Very High” or “High” Aquatic Habitat Priority under the State Wildlife Action Plan, the state’s comprehensive plan for the conservation of nongame species.⁹ The map provided on the following page shows the planned mine site in relation to biologically rich stretches of the Lower Duck River.

¹ Att. 1, Steven A. Ahlstedt et al., *Historical and Current Examination of Freshwater Mussels (Bivalva: Margaritiferidae: Unionidae) in the Duck River Basin Tennessee, U.S.A.*, *Malacological Rev.* 45: 1-163 (2017) (“Ahlstedt”).

² Att. 2, Draft NPDES Permit TN0082236 at R-8 (“Draft Permit”).

³ Cumberland Combshell, Fish & Wildlife Service, <https://www.fws.gov/southeast/wildlife/mussels/cumberland-combshell/>.

⁴ Att. 3, Fish & Wildlife Service, *Purple Bean*, https://www.fws.gov/northeast/pdf/Purple_bean_1010.pdf.

⁵ Draft Permit at R-8.

⁶ Att. 4, Elizabeth M. Schilling & James D. Williams, *Freshwater Mussels (Bivalvia: Margaritiferidae and Unionidae) of the Lower Duck River in Middle Tennessee: A Historic and Recent Review*, *Southeastern Naturalist*, 1(4):403–414, 403 (2002).

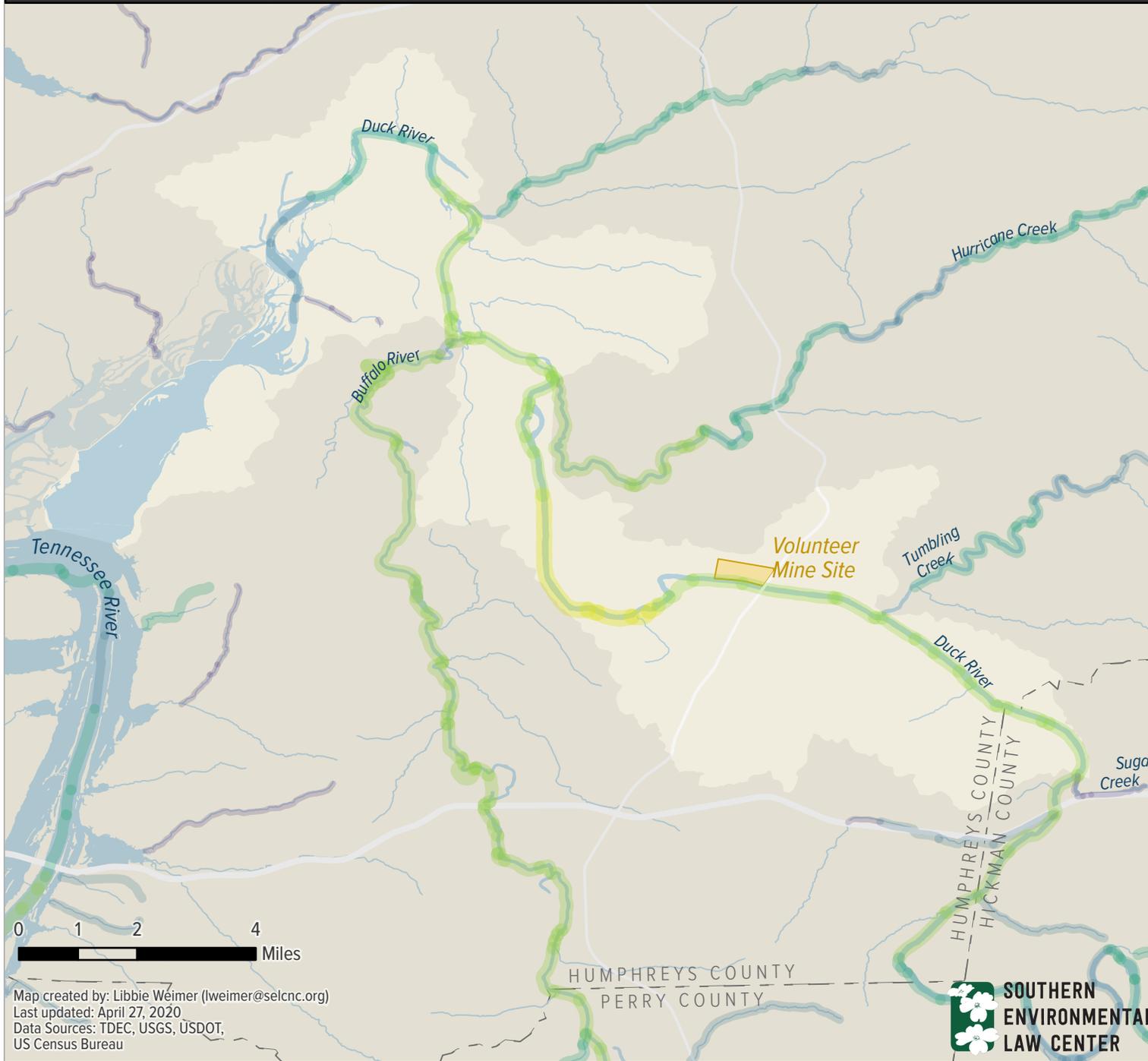
⁷ Ahlstedt at 100.

⁸ Att. 5, Fish & Wildlife Service, *Amended Recovery Plan for Pygmy Madtom*, https://ecos.fws.gov/docs/recovery_plan/Pygmy%20Madtom%20Recovery%20Plan%20Amendment_1.pdf.

⁹ Att. 6, Libbie Weimer, Southern Envtl. Law Center, *Threatened and Endangered Species on the Lower Duck River* (April 2020).

Threatened & Endangered Species on the Lower Duck River

Highest priority habitat immediately downstream from the Volunteer mine site



Species found in the highlighted watershed

Federally Listed

- Clubshell - Endangered
- Slabside Pearlymussel - Endangered
- Spectaclecase - Endangered
- Pygmy Madtom - Endangered
- Rabbitsfoot - Threatened

State Listed

- Blue Sucker - Threatened
- Coppercheek Darter - Threatened
- Golden Darter - DNM*
- Highfin Carpsucker - DNM*
- Slenderhead Darter - DNM*

*Deemed in Need of Management

Map Legend

Duck River Outlet sub-watershed (HUC 12)

State Wildlife Action Plan

Aquatic Habitat Priority

- Very High
- High
- Medium
- Low
- Very Low

Location in Tennessee



0 1 2 4 Miles

Map created by: Libbie Weimer (lweimer@selcnc.org)
Last updated: April 27, 2020
Data Sources: TDEC, USGS, USDOT, US Census Bureau

HUMPHREYS COUNTY
PERRY COUNTY



This incredible biodiversity is at risk because the entire mine site lies within a flood plain.¹⁰ The May 2010 flood devastated the Lower Duck River Basin, and Hurricane Mills may have been hardest hit: while flood levels fell short of all-time highs for other parts of the river basin, the flood broke the previous record for Hurricane Mills, set in 1975, by 5.6 feet.¹¹ Just since 2017, the area has flooded 27 times.¹² With decreasing permeable surface due to nearby land use and with increasingly severe and frequent storms due to climate change, this flooding will only get worse.¹³ With so many threatened or endangered species likely to suffer from water pollution and sedimentation, the planned sand and gravel mine presents a real, imminent threat to Tennessee's unique and irreplaceable natural resources.

The following pages include a site map and flood gauge data showing the increasing frequency of flooding along this stretch of the Lower Duck River.

¹⁰ Att. 7, Libbie Weimer, Southern Env'tl. Law Center, *Volunteer Gravel & Sand Mine Site Map* (April 2020).

¹¹ Att. 8, U.S. Army Corps of Engineers, *Duck River Watershed Plan* 19 (May 2018).

¹² Libbie Weimer, Southern Env'tl. Law Center, *Seasonal Flooding on the Lower Duck River* (April 2020).

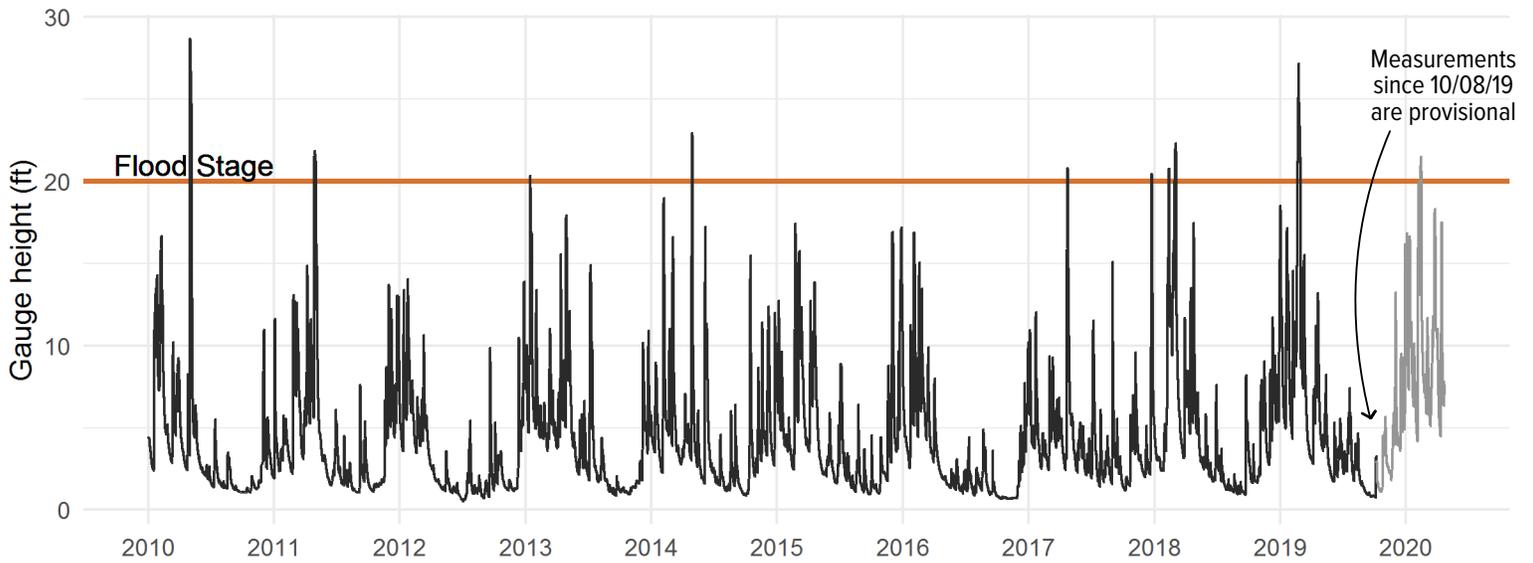
¹³ See U.S. Army Corps of Engineers, *Duck River Watershed Plan*, Executive Summary ("The watershed's ecosystem is under stress from rapid urban development, land use changes, incompatible agricultural practices, wastewater management and water supply practices, and resource extraction activities. Many communities in the watershed are experiencing periodic flooding which is only expected to worsen as development continues.").

Volunteer Gravel & Sand Mine Site

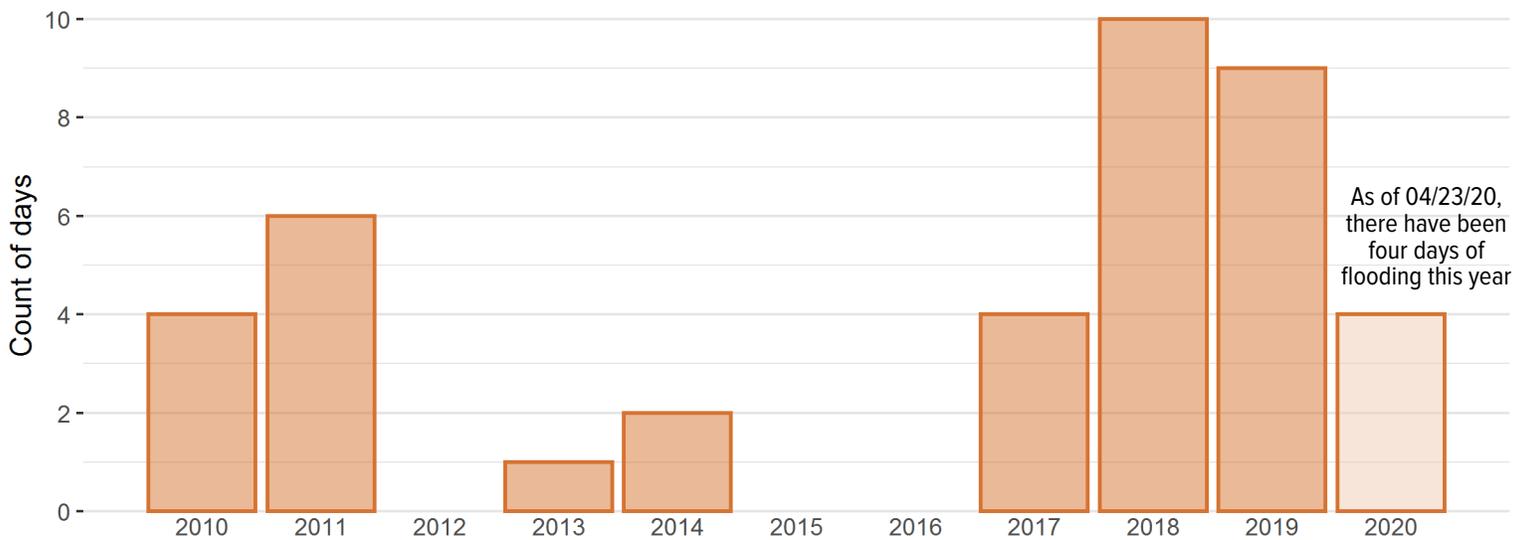


Seasonal Flooding on the Lower Duck River

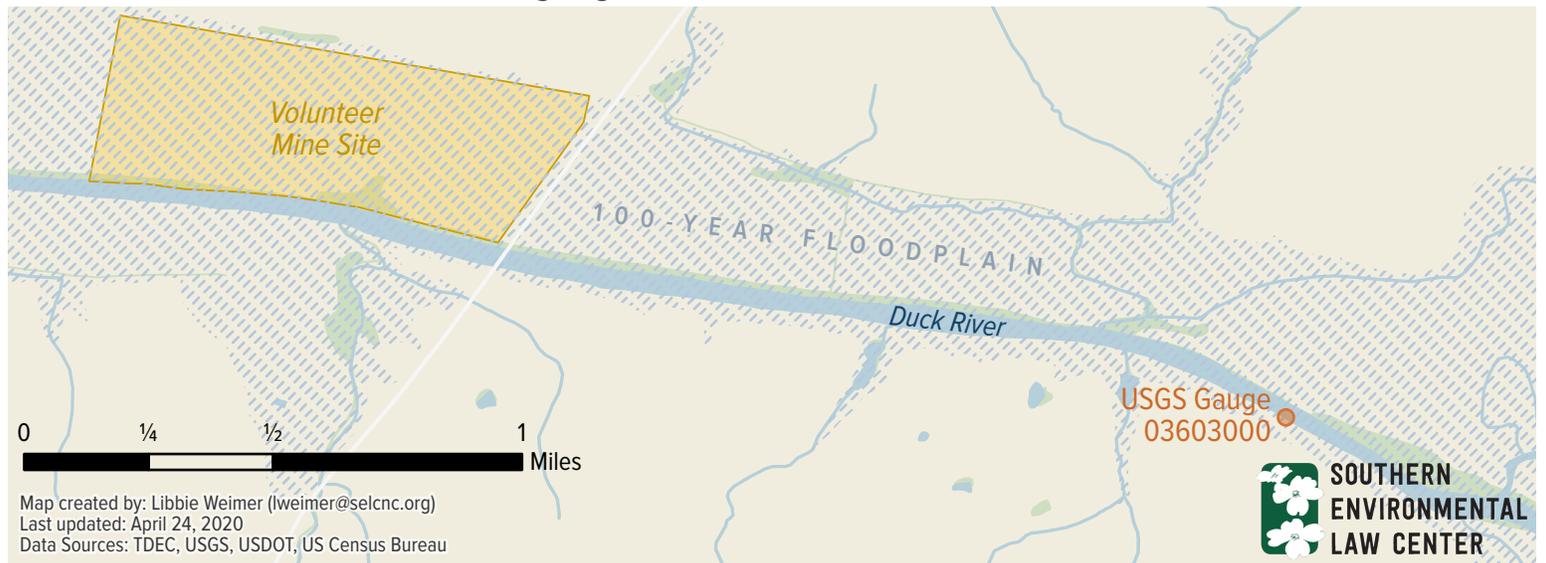
Stream gauge height over the last 10 years



Days of flooding per year (count of days when stream gauge rose above 20')



Location of nearest USGS stream gauge - Duck River above Hurricane Mills



II. The Draft NPDES Permit is unlawful.

The Draft NPDES Permit is deficient in several ways. It fails to adequately account for discharges related to flooding, which will likely violate state water quality standards and result in greater than de minimis discharges. The extension of the overflow exemption to TSS discharges is unreasonable at a site where the Department only anticipates discharges during overflow events, and where such discharges are likely to violate the Biological Integrity water quality standard. And the Department must protect all wetlands on site or require Aquatic Resource Alteration Permits for wetland impacts.

A. The Draft Permit unreasonably ignores flood-related discharges.

The Department must take into account all likely flood-related discharges associated with the planned mine. Within the permit and at the public hearing, the Department has issued contradictory messages. The Department insists that it does not regulate flooding.¹⁴ At the same time, the Department asserts that the only reason it is issuing a permit at all is because the mine will discharge when the site floods.¹⁵ When flooding associated with a point source will cause the discharges of pollutants into state or federal waters, the Department has the obligation to regulate those discharges.¹⁶

The Department's antidegradation analysis ignores the problems flooding will cause. The Department cites the 25-year/24-hour storm capacity of the mine pit as sufficiently protective of water quality, concluding, "Based on the pit storage capacity and no anticipated discharges, the Division has determined this activity will cause de minimis degradation."¹⁷ But the pit's storage capacity is for *stormwater* runoff, not floodwater capacity. If there are "no anticipated discharges," then why is the Department issuing a permit? The application makes clear that "[i]f the Duck River reaches flood stage, the site may be inundated with flood waters, *causing a discharge of water from the active quarry*."¹⁸ Moreover, as evidenced by its ill-founded attempt to exempt overflow TSS discharges from effluent limitations, discussed below in Section II.C, the Department plainly anticipates flood-related discharges from the slurry pit. It must therefore evaluate the level of degradation those discharges will cause and whether that degradation

¹⁴ See Att. 9, Public Hearing PowerPoint Presentation at 34 ("The State of Tennessee – Mining Section does not regulate . . . [f]looding").

¹⁵ "No discharge from the facility is expected unless the Duck River overflows and inundates the quarry. All discharges must comply with the NPDES permit requirements." Draft Permit at R-2.

¹⁶ See *Sierra Club v. Abston Construction Co., Inc.*, 620 F.2d 41, 47 (5th Cir. 1980) (holding that "surface runoff from rainfall, when collected or channeled by the [miners] in connection with mining activities, constitutes point source pollution"); see also *United States v. Earth Sciences, Inc.*, 599 F.2d 368, 374 (10th Cir. 1979) ("When [the gold leaching operation] fails because of flaws in the construction or inadequate size to handle the fluids utilized, with resulting discharge, whether from a fissure in the dirt berm or overflow of a wall, the escape of liquid from the confined system is from a point source.").

¹⁷ Draft Permit at R-2.

¹⁸ Att. 10, Permit Application, Form 3510-1, p. 3 (emphasis added).

violates Tennessee's water quality standards, including the narrative Biological Integrity standard discussed below in Section II.B.

The Department also unreasonably assumes that the slurry pit will be the only point source and O-1 will be the only outfall.¹⁹ The Department has not shared data to support its assumption, and the permit application directly contradicts it. The applicant expects discharges from elsewhere on the site when the Duck River floods: "Emergency (i.e., riprap spillways) will be utilized as necessary to manage potential discharges from the slurry pit *or site perimeter berms*."²⁰ The Department has not analyzed or taken into account discharges that pass over or through the berms, yet Part C of the Draft Permit seems to anticipate them, as it purports to cover "[p]umped or gravity drainage from the permitted area" and "[d]ischarges from sediment control structures and/or treatment facilities."²¹ Discharges from the berms, slurry pit, or anywhere within the mine site would be point source pollution requiring a permit.²² TDEC must account for these discharges, particularly in its analysis of whether degradation would be de minimis and whether discharges would violate water quality standards.

Finally, a major flood event presents the likelihood that the perimeter berms and other structures may collapse or be washed away, causing a catastrophic release of sediment into the Duck River or altering its channel.²³ Such an alteration is prohibited by the Tennessee Water Quality Control Act and implementing regulations.²⁴ Under the terms of this Draft Permit, TDEC requires construction of wastewater treatment structures and treatment facilities to "be constructed according to approved plans and certified after construction by a Tennessee Registered Professional Engineer."²⁵ The Department must approve the certification. Similarly, the Draft Permit requires the Department to approve various engineering plans associated with the proposed mine prior to construction and operation.²⁶ The Department must exercise that

¹⁹ Draft Permit at R-2.

²⁰ Permit Application, Form 3510-1, p. 3.

²¹ Draft Permit at 14.

²² See *Sierra Club v. Abston Construction Co., Inc.*, 620 F.2d 41, 47 (5th Cir. 1980) (holding that "surface runoff from rainfall, when collected or channeled by the [miners] in connection with mining activities, constitutes point source pollution"); see also *United States v. Earth Sciences, Inc.*, 599 F.2d 368, 374 (10th Cir. 1979) ("When [the gold leaching operation] fails because of flaws in the construction or inadequate size to handle the fluids utilized, with resulting discharge, whether from a fissure in the dirt berm or overflow of a wall, the escape of liquid from the confined system is from a point source.").

²³ Att. 11, Jacobs & Moroka, *Review of Floodplain Mining and Risks*, FPM/01/079 8–11 (November 2014).

²⁴ "Alteration of the physical, chemical, radiological, or bacteriological properties of any waters of the state" without a permit is prohibited. TCA §§ 69-3-108, 69-3-108(b)(1); Tenn. Comp. R. & Regs. 0400-40-07-.01 ("The discharge of dredge or fill material, dredging, stream channel modifications, water withdrawals, wetlands alterations including drainage, and other construction activities which result in the alteration of the waters of the state" prohibited without ARAP permit).

²⁵ Draft Permit at 4.

²⁶ Draft Permit at 14 (Parts III.A, B.).

authority to prevent disastrous prohibited discharges and stream alteration by ensuring that those structures and facilities will not fail when the site inevitably floods.²⁷

B. Flood-related discharges would violate the Biological Integrity water quality standard and result in more than de minimis degradation.

The Clean Water Act requires the Department to ensure that every National Pollutant Discharge Elimination System (“NPDES”) permit complies with state water quality standards.²⁸ Further, EPA regulations prohibit the Department from issuing a permit “[w]hen the imposition of conditions cannot ensure compliance with the water quality requirements of all affected States.”²⁹

Tennessee has established a Biological Integrity water quality standard for the Duck River and its tributary, prohibiting pollution that substantially decreases the diversity or productivity of aquatic wildlife.³⁰ The Biological Integrity standard provides:

The waters shall not be modified through the addition of pollutants or through physical alteration to the extent that the diversity and/or productivity of aquatic biota within the receiving waters are substantially decreased or, in the case of wadeable streams, substantially different from conditions in reference streams in the same ecoregion.³¹

As the Department acknowledges, this section of the Duck has been designated critical habitat for two federally listed endangered species, and other threatened and endangered species have been documented nearby.³² Flood-related discharges from the sand and gravel mine could harm or even destroy these populations. In addition to violating state³³ and federal³⁴ endangered species law, doing so would violate the Biological Integrity water quality standard by substantially decreasing the diversity and productivity of aquatic life.

²⁷ The preferred alternative identified by Jacobs is “locating sand and gravel mines in upland areas away from the river valley floors,” or at a minimum “locate mining on terraces and inactive floodplain areas, that are above the 100-year floodplain.” Jacobs at 11. These alternatives should be explored in a revised Draft Permit that complies with the requirements of the Antidegradation Statement for greater than de minimis degradation.

²⁸ The Clean Water Act requires each NPDES permit to incorporate “any more stringent limitation, including those necessary to meet water quality standards.” 33 U.S.C. § 1311(b)(1)(C).

²⁹ 40 C.F.R. § 122.4(d).

³⁰ Both the Duck River and the Unnamed Tributary are classified for Fish & Aquatic Life uses. Draft Permit at R-2. The Fish & Aquatic Life classification includes the Biological Integrity standard. Tenn. Comp. R. & Regs. 0400-40-03-.03(3)(m).

³¹ Tenn. Comp. R. & Regs. 0400-40-03-.03(3)(m).

³² Draft Permit at R-8.

³³ TCA § 70-8-108(a) (unauthorized taking of any nongame wildlife is a Class B misdemeanor); TCA § 70-8-108(b) (an unpermitted take of a state-listed species is a Class A misdemeanor).

³⁴ 16 U.S.C. § 1538(a)(1)(B) (it is unlawful for any person to take any endangered or threatened species without a permit).

During the public hearing, Department officials referenced a finding that soil loss from the site would decrease if the site transitions from its current agricultural uses to sand and gravel mining. Yet the Department's analysis does not appear to account for discharges related to site-specific flooding.³⁵ As described throughout this letter, the Draft Permit fails to account for all flood-related discharges at the site. At a minimum, the Department must take a hard look at the impact the inevitable flood-induced discharges will have on aquatic life. Unless and until it can ensure compliance with the Biological Integrity standard, the Department cannot issue the NPDES permit.

The Department also must reverse its preliminary determination that any degradation would be de minimis. Degradation is de minimis when a single discharge uses 5% of assimilative capacity,³⁶ or when multiple discharges use 10%.³⁷ Assimilative capacity is "the load of a pollutant that the waterway can assimilate without violating water quality standards."³⁸ If a flood-induced discharge from the mine violates water quality standards, then it *exceeds* assimilative capacity. Because even a single major flood event is likely to result in discharges of sediment that would violate the Biological Integrity standard, thereby using more than 100% of assimilative capacity, the Department cannot find that a discharge would lead to de minimis degradation. Moreover, the Department acknowledges that multiple flood events are likely at this site.³⁹ Multiple flood-related discharges of sediment from the mine are likely to result in the conditions prohibited by the Biological Integrity standard, i.e., "the diversity and/or productivity of aquatic biota within the receiving waters are substantially decreased or, in the case of wadeable streams, substantially different from conditions in reference streams in the same ecoregion."⁴⁰ Accordingly, the discharges associated with the planned mine will result in greater than de minimis degradation.

Because this stretch of the Duck is an Exceptional Tennessee Water and any degradation would be more than de minimis, the burden is on Volunteer Sand & Gravel to show that (1) there are no practicable alternatives, (2) the project fulfills social and economic need, and (3) the project will not violate water quality standards.⁴¹ To assess practicable alternatives, TDEC should consider alternatives that would be more protective of the Duck River, including greater setback from the river and highway. The social and economic needs evaluation should consider the impacts sand and gravel mining might have on the region. The Duck River is a hub for

³⁵ See Att. 12, Post Mine Soil Loss Worksheet and Att. 13, RUSLE2 Worksheet Erosion Calculation Record.

³⁶ Tenn. Comp. R. & Regs. 0400-04-03-.04(4)(a)(1).

³⁷ Tenn. Comp. R. & Regs. 0400-04-03-.04(4)(a)(3).

³⁸ Att. 14, Kenneth J. Warren, *Total Maximum Daily Load: A Watershed Approach to Improved Water Quality*, SH041 ALI-ABA 113 (October 2002).

³⁹ Att. 15, Email from Dan Murray, TDEC, to Rob Todd, TWRA (Feb. 24, 2020) ("[A] sand and gravel dredging and processing operation would be developed within the flood prone area (flood plain) of the Duck River . . . [T]he dredge operation would cease when periodically flooded by the Duck River.") (emphasis in original).

⁴⁰ Tenn. Comp. R. & Regs. 0400-40-03-.03(3)(m).

⁴¹ Tenn. Comp. R. & Regs. 0400-04-03-.06.

outdoors recreation, attracting many who seek to enjoy its pristine aquatic resources by kayaking, tubing, angling, swimming, and hiking. Hurricane Mills is the site of Loretta Lynn's Ranch, where tourists enjoy the museums and activities available at the legendary country singer's bucolic estate. The region has a rich Native American history, highlighted by the Mississippian-period mound complexes in nearby Link Farm State Archaeological Area.⁴² And as discussed, TDEC must take a hard look at whether the project will violate the Biological Integrity water quality standard.

If Volunteer Sand & Gravel cannot meet its three burdens under Tennessee's Antidegradation Statement, the Department cannot issue the NPDES permit.

C. There is no basis for extending the overflow exemption to TSS discharges, for which both technology- and water quality-based effluent limits must be established.

The Draft Permit impermissibly seeks to exempt the mine site's TSS discharges from any effluent limitations whatsoever if they are "overflow" discharges following 10-year/24-hour precipitation events. Because EPA has not established a nationwide Best Available Technology ("BAT") for TSS for this industry, the Department must use its "best professional judgment" ("BPJ") to determine BAT for this site.⁴³ BAT limitations "must be based on the performance of the single best-performing plant in an industrial field."⁴⁴ BAT sets a stringent treatment standard that requires "elimination of discharges of all pollutants if . . . such elimination is technologically and economically achievable."⁴⁵

By using BPJ to exempt overflow TSS discharges, the Department has paradoxically concluded that the best sediment control technology is none at all. This is particularly arbitrary because the Department asserts that the only discharges from the site will be during overflow events.⁴⁶ Without sharing site-specific data or reasoning, the Department concludes that there is nothing—no berms, dikes, spillways, sediment traps, vegetative buffers—that can control the amount of sediment Volunteer Sand & Gravel would discharge into the Duck and its tributary during heavy storms. The Department's own *Erosion & Sediment Control Handbook* reviews numerous technologies and best management practices, including some capable of controlling sediment in up to 25-year storms.⁴⁷ TDEC's inability to identify a control technology is

⁴² Link Farm State Archaeological Area, Tenn. Dep't of Env't. & Conservation, <https://www.tn.gov/environment/program-areas/arch-archaeology/state-archaeological-parks---areas/link-farm-state-archaeological-area.html>.

⁴³ Tenn. Comp. R. & Regs. 0400-40-05-.09(1)(b)(2).

⁴⁴ *Sw. Elec. Power Co. v. EPA*, 920 F.3d 1006, 1019 (5th Cir. 2019) (internal citations omitted).

⁴⁵ 33 U.S.C. § 1311(b)(2)(A).

⁴⁶ Draft Permit, R-2 ("No discharge from the facility is expected unless the Duck River overflows and inundates the quarry").

⁴⁷ See Att. 16, *Tennessee Erosion and Sediment Handbook* (Erosion Handbook) at 7.23 (outlet protection designed for 25-year/24-hour storm); 7.31 (sediment basin spillways capable of handling 25-year/24-hour storm); 3.36

especially perplexing because Volunteer Sand & Gravel itself proposes a control technology with capacity for a 25-year/24-hour precipitation event.⁴⁸ TDEC cannot reasonably find that a control technology is unavailable and infeasible when the applicant has proposed to install it. Therefore, TDEC cannot reasonably exercise BPJ to exempt TSS overflow discharges in circumstances exceeding 10-year/24-hour precipitation events.

Even if the exercise of BPJ to exempt TSS overflow discharges were reasonable, which it is not, the Department would be independently obligated to ensure that such overflow discharges comply with water quality standards, including the Biological Integrity standard discussed in Section II.B of these comments. Federal regulations for the Clean Water Act require that NPDES permits contain both technology-based effluent limitations and water-quality based limitations as necessary to “control all pollutants ... which the Director determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, *including State narrative criteria for water quality.*”⁴⁹ If the permitting authority determines there is a reasonable potential to exceed a water quality standard, “the permit must contain effluent limits for that pollutant.” *Id.* As discussed in Sections II.A and II.B, flood-related discharges are likely to violate the Biological Integrity standard. Accordingly, TDEC must set water-quality based effluent limitations for TSS.⁵⁰

D. The Draft Permit must identify all wetlands, requiring either greater protection or Aquatic Resources Alteration Permits.

The Draft Permit appears to have failed to identify a wetland the mining activities are likely to impair. Surrounding the Unnamed Tributary, there is a wetland listed on the National Wetlands Inventory.⁵¹ Any discharge from the initial slurry pit appears likely to pass directly through the wetland, yet the permit application failed to disclose and assess the wetland. Volunteer Sand & Gravel must assess the wetland, and the Department must delay the NPDES application until it determines whether an Aquatic Resources Alteration Permit is required for the likely physical alterations to the unassessed wetland.⁵²

(drainage systems for construction road stabilization must handle up to 25-year/24-hour storm). While the Department broadly requires the permittee to use “Best Management Practices” from the Erosion Handbook, the Department does not prescribe any particular practice in any detail. The Department should perform a site-specific analysis to determine the practices and minimum design requirements that would suffice for this site.

⁴⁸ See Att. 17, Email from Bonnie Craighead, TDEC, to Regina Ballard, April 7, 2020 (“The applicant’s registered professional engineer has sized treatment structures to treat the amount of water expected during a 25-year/24-hour storm, which exceeds the Division’s preferred design criteria of treating a 10-year/24-hour storm.”).

⁴⁹ 40 C.F.R. § 122.44(d); 33 U.S.C. § 1312 (emphasis added).

⁵⁰ *Miccosukee Tribe of Indians of Fla. v. United States*, 706 F. Supp. 2d 1296, 1318 (S.D. Fla. 2010), modified in part, No. 04-21448-CIV, 2011 WL 1624977 (S.D. Fla. Apr. 26, 2011) (noting that when a state agency “issues an NPDES permit . . . it stands in the shoes of EPA and must meet federal requirements”).

⁵¹ Libbie Weimer, Southern Env’tl. Law Center, *Volunteer Sand & Gravel Mine Site* (April 2020).

⁵² An ARAP permit is required for the “alteration of the physical, chemical, radiological, or bacteriological properties of any waters of the state.” TCA §§ 69-3-108, 69-3-108(b)(1).

Similarly, the Draft Permit would authorize Volunteer Sand & Gravel to dig all around the 1.4-acre wetland in the middle of the site, and dig along a large wetland at the northern border of the site. Mining all around the 1.4-acre wetland and along the border of the larger wetland would likely physically alter them, impairing or destroying their hydrological functions. An ARAP is required for “the discharge of dredge or fill material, dredging, stream channel modifications, water withdrawals, *wetlands alterations including drainage*, and other construction activities which result in the alteration of the waters of the state.”⁵³ TDEC must require an ARAP for the planned physical alteration of these wetlands.

III. The Department should publish a revised draft permit and hold another public hearing.

Given the significant public interest in this permit and the difficulties of the global COVID-19 pandemic, the Department should have granted requests to delay the permit hearing.⁵⁴ Doing so would not have risked violation of the “Bill of rights for permit applicants.”⁵⁵ Instead, TDEC held a hearing that fell considerably short of the ideals and requirements of the Clean Water Act.⁵⁶ Numerous participants reported technical problems that impaired their ability to hear or speak, preventing many from fully participating in the public hearing. Because of the Draft Permit’s deficiencies outlined above, TDEC should convene another public hearing on a revised draft. Whenever the Department does so, it must ensure that any interested persons may fully and easily participate.

⁵³ Tenn. Comp. R. & Regs. 0400-40-07-.01 (emphasis added).

⁵⁴ As Tennessee Clean Water Network and other organizations pointed out in a recent letter to Commissioner Salyers, regulations require a public hearing “in the geographical area of the proposed discharge,” Tenn. Comp. R. & Regs. 0400-40-05-.06(12), but many communities affected by proposed permits lack consistent access to broadband internet and may not be able to participate in the video portion of any public hearing convened via WebEx. Att. 18, Letter from TCWN et al. to Gov. Lee and Comm. Salyers, March 30, 2020. Several participants in the public hearing on the Draft Permit reiterated that problem for Humphrey’s County in particular.

⁵⁵ “Applications for new or modified pollutant discharge elimination system (NPDES) permits shall be issued or denied within three hundred sixty-five (365) days of the date the department determines an application is complete. If a public hearing is scheduled, in response to comments by interested parties or additional time is requested by the EPA, an additional ninety (90) days shall be added to the allowable time limit.” TCA § 69-3-141(b)(5)(C). TDEC determined the application to be complete on January 22, 2020, allowing at least until April 21, 2021 to make a decision.

⁵⁶ The Clean Water Act (CWA) emphasizes the importance of public participation “in the development, revision, and enforcement of any regulation, standard, effluent limitation, plan, or program . . .” 33 U.S.C. § 1251(e). The CWA requires a state administering its own NPDES permitting program to show that it has “adequate authority . . . [t]o insure that the public, and any other State the waters of which may be affected, receive notice of each application for a permit and to *provide an opportunity for public hearing* before a ruling on each such application.” 33 U.S.C. § 1342(b) (emphasis added).

Thank you for your consideration of these comments.

Sincerely,

A handwritten signature in blue ink, appearing to be 'Trey Bussey', written over a light blue grid background.

Trey Bussey
Amanda Garcia
Southern Environmental Law Center

Jim Redwine
Harpeth Conservancy

Sally Barr
Tennessee Scenic Rivers Association

Maegan Gordon
Hurricane Mills Mining Opposition

Axel Ringe
Tennessee Chapter Sierra Club

Kathy Hawes
Tennessee Clean Water Network

Kat Diersen
Defenders of Wildlife

List of Attachments

Attachments provided via ShareFile at
<https://southernenvironment.sharefile.com/d-sc5a85779d174d9c9>

- Att. 1, Steven A. Ahlstedt et al., Historical and Current Examination of Freshwater Mussels (*Bivalva: Margaritiferidae: Unionidae*) in the Duck River Basin Tennessee, U.S.A., Malacological Rev. 45: 1-163 (2017)
- Att. 2, Draft NPDES Permit TN0082236
- Att. 3, Purple Bean, Fish & Wildlife Service
- Att. 4, Elizabeth M. Schilling & James D. Williams, Freshwater Mussels (*Bivalvia: Margaritiferidae* and *Unionidae*) of the Lower Duck River in Middle Tennessee: A Historic and Recent Review, Southeastern Naturalist, 1(4):403–414 (2002)
- Att. 5, Fish & Wildlife Service, Amended Recovery Plan for Pygmy Madtom
- Att. 6, Libbie Weimer, Southern Env'tl. Law Center, Threatened and Endangered Species on the Lower Duck River (April 2020)
- Att. 7, Libbie Weimer, Southern Env'tl. Law Center, Volunteer Gravel & Sand Mine Site Map (April 2020)
- Att. 8, U.S. Army Corps of Engineers, Duck River Watershed Plan (May 2018)
- Att. 9, Public Hearing PowerPoint Presentation
- Att. 10, Permit Application, Form 3510-1
- Att. 11, Jacobs & Moroka, Review of Floodplain Mining and Risks, FPM/01/079 8–11 (November 2014)
- Att. 12, Post Mine Soil Loss Worksheet
- Att. 13, RUSLE2 Worksheet Erosion Calculation Record
- Att. 14, K. J. Warren, Total Maximum Daily Load: A Watershed Approach to Improved Water Quality, SH041 ALI-ABA 113 (October 2002)
- Att. 15, Email from Dan Murray, TDEC, to Rob Todd, TWRA (Feb. 24, 2020)
- Att. 16, Tennessee Erosion and Sediment Handbook
- Att. 17, Email from Bonnie Craighead, TDEC, to Regina Ballard, April 7, 2020
- Att. 18, Letter from TCWN et al. to Gov. Lee and Comm. Salyers, March 30, 2020