

Addendum to Regulatory Impact Analysis

Date: April 15, 2026

This addendum supplements the previously approved 2025 Regulatory Impact Analysis for the mining rule readoptions because, after approval, it was determined that additional analysis was needed for the bonding provisions in 15A NCAC 05B .0103, specifically the fiscal effects of updating the bond-factor table and statutory bond limits. This addendum provides that additional analysis so the rulemaking record reflects the likely impacts of the proposed bond changes on regulated entities, including permittees using surety bonds, cash security, assignments of savings, and letters of credit.

Total Mining Permits

There are 730 Mining permits in North Carolina. 211 of those permits have either a multi-site Assignment of Savings, Single site Assignment of Savings, or Cash Security for a total of 211, representing 29% of the total. There are 512 permits that are backed by a single or multisite letter of credit or a single or multisite bond representing 70% of the total permits.

Bond Type	Number of Permits	
Assignment - Multi Sites	21	
Assignment - Single Site	161	
Cash/Bank Check	29	
	211	29%
Exempt (DOT/Military)	7	1%
Letter of Credit - Multi	21	
Letter of Credit - Single	119	
Surety Bond - Multi Sites	218	
Surety Bond - Single Site	154	
	512	70%
Grand Total	730	

When looking at unique financial instruments, there are 507 unique financial instruments to cover the 730 permits. The difference between the total permits and the unique instruments is a result of multisite bonds. For example, a company that has 38 permits may choose to post a single \$1,000,000 blanket bond to cover all their sites pursuant to NCGS 74-54(b). The table below summarizes how the 507 unique financial instruments are distributed as well as the total amount of each of those.

Bond Type	Number of Unique Bonds		Sum of Bond Amount	
Assignment - Multi Sites	13		\$3,444,355.34	
Assignment - Single Site	161		\$8,696,283.92	
Cash/Bank Check	29		\$601,758.65	
	203	40%	\$12,742,397.91	17%
Exempt (DOT/Military)	0			
Letter of Credit - Multi	6		\$2,062,200.00	
Letter of Credit - Single	118		\$8,559,500.00	
Surety Bond - Multi Sites	34		\$23,433,949.20	
Surety Bond - Single Site	146		\$26,696,756.00	
	304	60%	\$60,752,405.20	83%
Grand Total	507		\$73,494,803.11	

In total, across 730 permits there are 88,073 bonded acres that are permitted for disturbance and would need to be reclaimed. The average \$/acre is \$834.48/acre. The current rule 15A NCAC 05B .0103(d) states that “the bond amount shall be based on a range of five hundred dollars (\$500.00) to five thousand (\$5,000.00) per acre of land approved by the Department to be affected.” This average of \$834.48/acre is on the lower end of the range, which is understandable because the largest area at most mining operations is the excavation area. The current cost per acre for reclaiming a mine excavation to a lake is \$500/acre for sand or construction aggregate mines. Additionally, an operator that has 38 permits and 1,738 acres bonded under a single \$1 Million bond would only average \$575/acre, so the more blanket bonds the Department has on file the lower the average \$/acre overall.

Assuming a 64% increase to account for 32 years of simple 2% increase, the proposed rule would increase the values in the reclamation table from \$500 to \$5,000, to a range of \$820 to \$8,200. However, if it is assumed that the same breakdown exists on the area designation as well as the number of blanket bonds when increasing the average \$/acre of the existing to the new proposed values we expect that the average \$/acre to increase from \$834.48 to \$1,368/acre. This average is still within the range of the existing rule that is proposed to be updated.

Projected 5 year Increase from New or Permit Revisions

Between 2020-2024 (5 years) there were 243 new or modified permits issued. 73 of those permits had bonds of \$1 Million and would not be affected by the proposed increases since they are already at the statutory limit pursuant to NCGS 74-54(b). The remaining 170 have bonds less than \$1 Million and would have seen their reclamation bonds increase if this proposed change were implemented in 2020. The average bond for those 170 revisions is \$78,955 (mean), and the median is \$35,150. The median is a better representation describing what a “typical” member of the bond populations looks like. There are 93 surety bonds or letters of credit representing 55% of the 5 year submissions and 75 Cash or Assignment of Savings Accounts

representing 45% of the submissions. In dollars, the cash and assignments represent 33% whereas Bonds and Letters of Credit represent 67% of the 5 year submissions.

Bond Type	Number of bonds 2020-2024		Sum of Bond		Sum of Bonded Acres	
Assignment - Single Site	56		\$ 3,918,256.72		1,982.87	
Cash/Bank Check	19		\$ 450,958.40		406.19	
"Cash" Subtotal	75	44%	\$ 4,369,215.12	33%	2,389.06	32%
Exempt (DOT/Military)	2		\$ -		11.30	
Letter of Credit - Single	45		\$ 3,687,400.00		2,673.97	
Surety Bond - Multi Sites	3		\$ 910,500.00		787.00	
Surety Bond - Single Site	45		\$ 4,455,300.00		2,243.43	
"Bond"/LOC Subtotal	93	55%	\$ 9,053,200.00	67%	5,704.40	78%
Grand Total	170		\$ 13,422,415.12		7,357.90	

Again, if the assumption is made that all things remain equal when calculating the bond according to the disturbed acres and the number of blanket bonds, the median bond would increase by 64% from \$35,150 to \$57,646 (increased by \$22,496.) When increasing the 75 “cash or assignment of savings accounts” by \$22,496 each, it would account for a \$1,687,200 increase to the regulated community over the 5 year period.

Premiums on mining performance bonds are estimated between 6%-10%. When increasing the 48 “Bonds” by \$2,496 each (10% of \$22,495), it would account for a \$107,980.80 increase to the regulated community over the 5 year period.

There were 45 Letters of credit that would have been increased by \$22,496 each, for a total of \$1,012,320.00. However, Letters of credit are not a direct cost increase and would need to be evaluated based on the assets of the permittees.

- Cash/assignments (75 instruments): $\$22,496 \times 75 = \mathbf{\$1,687,200}$ direct increase.
- Surety bonds (48 instruments): $\$2,250$ premium increase (10% of \$22,496) $\times 48 = \mathbf{\$107,981}$ increase.
- LOCs (45 instruments): **No direct cost**, as DEMLR collects no fee. The higher amount may require additional collateral or credit capacity from permittees (total capacity increase of \$1,012,320 across 45), depending on bank terms, but this is not a uniform expenditure.

Total projected 5-year direct impact to regulated community: \$1,795,181 (cash + surety premiums only). Indirect effects from LOC capacity requirements are entity-specific and not aggregated here. Using a 7% discount rate, the 5-year NPV of these direct costs for years 2026-

2031 is approximately \$1,470,000 (assuming even annual distribution of \$359,036). LOC opportunity costs, while not monetized due to variability, represent additional financial burden.

Post-increase, the system-wide average rises to ~\$1,368/acre -- still within the existing rule's \$500 - \$5,000 range and equivalent to 1994 values after inflation.

Alternatives analysis

1. No change

A first alternative would be to retain the existing bonding factors in 15A NCAC 05B .0103 without any inflation adjustment since their adoption in 1994. Under this approach, the bond amounts would remain unchanged despite 32 years of cost increases in reclamation labor, equipment, materials, and contractor overhead.

Retaining 1994 factors unchanged results in bond amounts that fall well below current reclamation costs. Current third-party contractor estimates for excavation reclamation exceed the \$500/acre floor (addendum baseline), and the system-wide average bond of \$834/acre reflects heavy reliance on \$1M statutory caps rather than per-acre adequacy. This option would preserve current financial assurance requirements for permittees but risks insufficient reclamation funds that could burden taxpayers if sites default.

For that reason, the no-change alternative was rejected. The proposed 64% simple-interest adjustment provides a reasonable update that restores the 1994 bond factors to approximate current value while avoiding potential shortfalls in reclamation funding.

1994 Original Factors

Type	Tailings/ Sediment Ponds (Lake)	Tailings/ Sediment Ponds (Filled In)	Stockpiles	Wastepiles	Processing Area/Haul Roads	Mine Excavation	Mine Excavation
						(Lake)	(Positive Drainage)
Sand and Gravel, Gemstone, Borrow Dirt	\$500	\$1,500	\$1,800	\$2,000	1800	\$500	\$2,000
Crushed or Dimension Stone, Feldspar, Mica Lithium, Prophyllite, Olivine, Kyanite	\$500	\$1,500	\$1,800	\$2,000	\$2,000	\$500	\$2,500
Phosphate	\$1,000	\$2,500	\$2,500	\$5,000	\$5,000	\$2,000	\$5,000
Clay/Shale	\$1,000	\$2,500	\$2,500	\$5,000	\$5,000	\$2,000	\$3,700
Peat, Gold, Titanium, Other	\$1,000	\$2,500	\$2,500	\$3,000	\$3,500	\$2,000	\$5,000

Proposed change (64% Increase)

Type	Tailings/ Sediment Ponds (Lake)	Tailings/ Sediment Ponds (Filled In)	Stockpiles	Wastepiles	Processing Area/Haul Roads	Mine Excavation	Mine Excavation
						(Lake)	(Positive Drainage)
Sand and Gravel, Gemstone, Borrow Dirt	\$820	\$2,460	\$2,952	\$3,280	\$2,952	\$820	\$3,280
Crushed or Dimension Stone, Feldspar, Mica Lithium, Prophyllite, Olivine, Kyanite	\$820	\$2,460	\$2,952	\$3,280	\$3,280	\$820	\$4,100
Phosphate	\$1,640	\$4,100	\$4,100	\$8,200	\$8,200	\$3,280	\$8,200
Clay/Shale	\$1,640	\$4,100	\$4,100	\$8,200	\$8,200	\$3,280	\$6,068
Peat, Gold, Titanium, Other	\$1,640	\$4,100	\$4,100	\$4,920	\$5,740	\$3,280	\$8,200

2. CPI-Based Adjustment

A second alternative would be to update the bonding factors in 15A NCAC 05B .0103 by indexing the 1994 bond amounts to the Consumer Price Index (CPI) from 1994 to the present rather than using a flat 2% simple annual increase. Under this approach, the bond amounts would more closely track cumulative inflation and would better reflect the present-day cost of reclamation labor, equipment, materials, and contractor overhead.

Using CPI growth since 1994 results in a larger increase than the proposed 64% simple-interest adjustment. Based on the draft analysis, a CPI-based adjustment would increase the 1994 bond factors by approximately 126%, which would produce substantially higher bond amounts than the proposed rule. This option would likely better preserve the real value of the reclamation security, but it would also impose greater financial assurance requirements on permittees, particularly those with larger acreages or multiple sites.

For that reason, the CPI-based alternative was rejected. A 64% simple-interest adjustment provides a reasonable and more moderate update that restores the 1994 bond factors to approximate current value without overcorrecting for inflation or creating a higher-than-necessary impact on the regulated community.

CPI change (126% since 1994)

Type	Tailings/ Sediment Ponds (Lake)	Tailings/ Sediment Ponds (Filled In)	Stockpiles	Wastepiles	Processing Area/Haul Roads	Mine Excavation (Lake)	Mine Excavation (Positive Drainage)
Sand and Gravel, Gemstone, Borrow Dirt	\$1,129	\$3,388	\$4,066	\$4,517	\$4,066	\$1,129	\$4,517
Crushed or Dimension Stone, Feldspar, Mica Lithium, Prophylite, Olivine, Kyanite	\$1,129	\$3,388	\$4,066	\$4,517	\$4,517	\$1,129	\$5,647
Phosphate	\$2,259	\$5,647	\$5,647	\$11,293	\$11,293	\$4,517	\$11,293
Clay/Shale	\$2,259	\$5,647	\$5,647	\$11,293	\$11,293	\$4,517	\$8,357
Peat, Gold, Titanium, Other	\$2,259	\$5,647	\$5,647	\$6,776	\$7,905	\$4,517	\$11,293

Benefits

The primary benefit of updating bond factors is ensuring reclamation funds remain adequate for third-party contractor costs, protecting taxpayers from potentially ~\$470,000 in unfunded liability if just 1% of 88,073 bonded acres default (current \$73.5M bonds vs. \$120M inflation-adjusted need across DEMLR's active permit portfolio). The difference between the current average \$834/acre and the proposed \$1,368/acre is \$534/acre. If applied as an estimate to 880.37 acres (1% of the total bonded acres), the result is \$470,000. Enhanced financial assurances reduce fiscal risk to the State while maintaining environmental restoration standards, preventing degraded sites from becoming public liabilities. Improved rule clarity also minimizes disputes over bond adequacy during permit actions, supporting consistent program administration.

Summary

This addendum supplements the 2025 Regulatory Impact Analysis for mining rule readoptions by providing focused analysis of bonding changes in 15A NCAC 05B .0103. The proposed 64% increase to 1994 bond factors ensures reclamation security keeps pace with 32 years of inflation, projecting \$1.8M in 5-year direct costs to permittees (NPV \$1.47M at 7% discount rate). LOC opportunity costs are described but not monetized due to entity-specific variability. Two alternatives -- no change and CPI adjustment (126%) -- were rejected in favor of the balanced approach that maintains environmental restoration standards with improved fiscal certainty.