



STATE OF  
COLORADO

Ebert - DNR, Jared <jared.ebert@state.co.us>

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## Memo related to Purgatoire CHIA

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**Zuber - DNR, Rob** <rob.zuber@state.co.us>

Tue, Dec 14, 2021 at 4:29 PM

To: Jared Ebert - DNR <jared.ebert@state.co.us>

Hi, Jared

I wrote a short memo related to findings at New Elk Mine and Lorencito Canyon Mine and the Purgatoire CHIA. It is attached. I also placed it on the V drive, which constitutes "the file" for this and similar memos and reports.

Let me know if you have questions or comments.

I have it on my To Do list for early 2022 to update the CHIA itself.

Rob

Rob Zuber, P.E.  
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Active Mines Regulatory Program



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**Purgatoire River\_CHIA\_Memo\_\_Update\_Dec2021.doc**  
41K

# MEMORANDUM

**Date: December 14, 2021**

**From: Rob Zuber**

**To: Purgatoire River CHIA file**

**Re: Updates to Purgatoire River CHIA – Summary of findings since 2009 CHIA**

This memorandum is an update to an earlier memorandum, dated February 5, 2019.

The Cumulative Hydrologic Impact Assessment (CHIA) for the Purgatoire River was written in February 2009, with updates in 2011. The 2009 CHIA addresses the impacts of coal mines on the hydrologic balance outside of the permit areas, particularly the potential for material damage. Division jurisdiction over several of the mines in the watershed was terminated many years ago. Most recently, jurisdiction over the Golden Eagle Mine (permit number C-1981-13) was terminated in 2017. In recent years, the impacts of two mines are considered by the Division for the purposes of the CHIA: New Elk (C-1981-12) and Lorencito Canyon (C-1996-84).

When the Division writes findings documents for permit renewals (RNs) and permit revisions (PRs), a discussion is required regarding the minimization of hydrologic impacts within the permit boundary and if material damage to the hydrologic balance outside the permit area has been prevented.

The findings should also address compliance with applicable rules within the Regulations of the Colorado Mined Land Reclamation Board for Coal Mining (e.g., Rules 2.05, 2.07, and 4.05). In addition, the findings should include assessments of the following, as applicable:

- The effectiveness of drainage and sediment control systems. This includes ponds, ditches, and other structures as well as erosion and sediment best management practices (BMPs).
- Past and future compliance with State and Federal water quality requirements including effluent limitations.
- Adherence to approved monitoring plans for surface water and groundwater within the permit area, above the permit area, and down gradient of the permit area.
- The status of wells and well permits.
- The management of mine water, including any discharges to the surface water system.
- Activities within stream buffer zones.

**The connection between the hydrology discussions in these findings documents and the CHIA is the following: unless the hydrology discussions suggest material damage or other issues, it is assumed that the CHIA does not require an immediate update.**

The Division has written seven findings documents for RNs and PRs since February 2009 for the mines that are related to the Purgatoire River CHIA. They are listed in the table below. No findings document was written for PR-04 for the New Elk Mine, as this revision was withdrawn by the operator. The terminated mine, Golden Eagle, is not in the table.

**TABLE OF RENEWALS AND PERMIT REVISIONS SINCE LAST CHIA UPDATE**

(Dates of findings documents in parentheses.)

<b>Mine</b>	<b>Renewal</b>	<b>Permit Revision</b>
New Elk	RN-07 (11/14/2019)	PR-05 (Pending)
	RN-06 (6/5/2017)	PR-04 (NA)
	RN-05 (3/6/2009)	PR-03 (2/10/2011)
		PR-02 (8/24/2011)
Lorencito Canyon	RN-04 (1/11/2018)	
	RN-03 (3/21/2013)	

**None of these documents indicate that the potential for material damage to the hydrologic balance outside of the permit areas of the mines has increased since the CHIA update in February 2009. Nor do these documents suggest other issues or problems related to the hydrologic balance at or near the mines.**