

STATE OF
COLORADO

Eschberger - DNR, Amy <amy.eschberger@state.co.us>

Lyons Quarry Planning

Snyder, Travis <Travis.Snyder@hdrinc.com>

Thu, Jul 15, 2021 at 3:18 PM

To: "Eschberger - DNR, Amy" <amy.eschberger@state.co.us>

Cc: Kimberly DENNIS <kimberly.dennis@lafargeholcim.com>, "Phillips, Andrew" <Andrew.Phillips@hdrinc.com>

Hi Amy,

I wanted to give you an update on the bird nesting issue we discussed for the Lyons Quarry site. Andrew Phillips and I, along with another HDR biologist and the Senior Biologist from Boulder County (Susan Spaulding) met onsite on July 2nd to assess the level of migratory bird nesting that is occurring at Lyons Quarry. Attached are the observations conclusions that both Andrew and Susan developed. Both are in agreement that the level of disturbance from earthmoving activities will impact nesting areas along the entire length of the highwall and possibly some lower lying areas such as the sedimentation pond. Aggregate is still making plans to start mobilization as soon as possible but it does look like the timeline for starting earthwork activities may be pushed back to September 1 at the earliest. Before then some possible erosion and traffic control fencing as well as dewatering of the sediment pond (currently required to occur by end of August) may be able to take place, but this is about the limits of disturbance that may be allowed for reclamation. We are working to develop a formal letter describing the situation and how these restrictions will impact the approved reclamation timeline. Just wanted to give you the heads up on this and we plan to have this letter ready by the end of next week. Let us know if you have any questions.

Travis Snyder

M 720.838.6065 D 303.643.6715

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From: Eschberger - DNR, Amy <amy.eschberger@state.co.us>**Sent:** Friday, June 25, 2021 9:07 AM**To:** Snyder, Travis <Travis.Snyder@hdrinc.com>**Cc:** estreng@bouldercounty.org; Atherton-Wood, Justin <jatherton-wood@bouldercounty.org>; Gazzetti, Virginia <vgazzetti@bouldercounty.org>; Kimberly DENNIS <kimberly.dennis@lafargeholcim.com>; trey.poulson@aggregate-us.com; McAnally, Jonathan <Jonathan.McAnally@hdrinc.com>**Subject:** Re: Lyons Quarry Planning

CAUTION: [EXTERNAL] This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Travis,

I appreciate you providing a status update on this project.

If the quarry reclamation project is delayed due to wildlife restrictions, we can work with the operator to extend the reclamation deadline as needed in order to comply with these restrictions. We would hope there would be some portions of the site, located outside of the buffer area, where reclamation could commence. If the wildlife restrictions are expected to have a significant impact on the reclamation project, I recommend the operator submit a letter to our office describing the situation and how these restrictions will impact the approved reclamation timeline.

Our staff engineer is currently reviewing the proposed stabilization plan for the dacite highwall (additional adequacy items sent to operator on 6/23), and it may be that he finds the proposal to be adequate once the operator has satisfied the issues identified, and TR-5 is approved. As the landowner of the affected lands, Boulder County should be aware of any continued maintenance requirements for the highwall and catchment berms. Once the mine permit has been released from our jurisdiction, our agency will have no further involvement, including no further inspections, reporting requirements, or any say in how the site is maintained at that point. While the proposed plan for installing rock bolts, smaller "split-set" bolts, and wire mesh on portions of the dacite highwall may not be the most ideal for future geological observation purposes, it is very likely the minimum highwall stabilization measure our office could approve in this case. As you mentioned, the wire mesh approach would provide better viewing of the highwall than if shotcrete were used.

With regard to the floodplain area (Reclamation Area 2), I recommend the operator submit a letter to our office describing any proposed changes to the reclamation plan approved in TR-4. This letter should also specify how the proposed changes would impact the bond estimate calculated in TR-4. We will review this letter and determine whether the proposed changes are significant enough to require the submittal of an additional Technical Revision. One question that comes to mind is whether the growth medium from LQRA3 will still be used to reclaim other disturbance areas, as approved in TR-4. And if not, will additional growth medium need to be imported to the site for reclamation?

Feel free to reach out with any questions.

Thanks,

Amy Eschberger

Environmental Protection Specialist

[Redacted signature]

[Quoted text hidden]

[Quoted text hidden]

----- Forwarded message -----

From: "Phillips, Andrew" <Andrew.Phillips@hdrinc.com>

To: "Snyder, Travis" <Travis.Snyder@hdrinc.com>, "Spaulding, Susan" <sspaulding@bouldercounty.org>

Cc: "Atherton-Wood, Justin" <jatherton-wood@bouldercounty.org>, "Streng, Ernst" <estrenge@bouldercounty.org>, "Chandler, Jonathan R" <Jonathan.Chandler@hdrinc.com>

Bcc:

Date: Thu, 8 Jul 2021 19:02:34 +0000

Subject: RE: 7/2 Lyons Quarry Visit

Hi Susan,

During the site visit, 5 bird species were detected nesting on or near the quarry rock face. I have detailed the **Survey Observations** in the below Table 1. The *Site Fledging Date* column does account for uncertainty (about two weeks) in phenology across the nesting species in the project area. Project activities prior to fledging date(s) risk indirect disturbances to nesting species.

The American Kestrel nest is within about 150 feet of the proposed upper plateau/work area (i.e., "proposed work area" – **see attached map**). To avoid disturbances, a recommended buffer for major construction activities near active kestrel nests is about 600 feet. Project activities prior to September 1 would occur within the recommended buffer and thus would risk distracting the adult kestrel pair from normal hunting activities. Also, spontaneous instability in the rock face was noted during the July 2 survey which could be increased by using large equipment above the quarry faces.

I do not recommend that project activities begin prior to September 1 due to the (1) significant nesting presence (i.e., multiple bird species) in the project area, (2) instability of the quarry rock faces, and (3) location and extent of proposed project activities. However, after September 1 all nesting species would have finished nesting for the season and juvenile birds would no longer be dependent upon their nests for survival. Therefore, Project activities are recommended to start on or after September 1, 2021 to avoid effects to nesting migratory birds.

Table 1: Nesting Survey Observations (July 2, 2021)

Nesting Species	Nesting Site(s) Location	Site Fledging Date	Broods per season in CO	Site Observations and Notes
Violet-green swallow	lower dacite substrate	August 15	1	Adults regularly returning to nest with food; therefore, assumed young are in most nest(s).
White-throated swift	Upper ledges	August 15	1	Observed several pairs routinely catching insects and returning to nest. Concluded that adults are feeding young due to time of year and even intervals of nest visits. Assuming that young are currently present in nests, fledging will occur in mid-August or sooner for most nests.
Cliff swallow	Most rock faces with overhanging ledges	August 15	1	Most common nesting species. Nests were regularly spaced throughout the entire quarry rock face. Adults were regularly returning to nests after intermittent feeding cycles. Due to the time of year and behavior of adults, it can be assumed that the average nest contains young. This was the only species that was detected nesting in the southwestern quarry.
Rock wren	Specific nest site(s) unknown, but species is likely nesting in low numbers near or on the quarry face	August 31	2+	Heard regularly calling. No nest sites were detected but pairs are almost certainly nesting on or near the quarry face in low numbers. Known to have multiple broods per season.
American kestrel	One nest high on the quarry face	August 31	2	Nest site detected indirectly via behavior of adults. Nesting phenology was not determined but young could be present at the nest site due to the time of year. Second

	(40.199823°, -105.300474°)			broods typically occur in response to first nesting failures and are increasingly uncommon at higher latitudes. Young can be dependent upon nest sites for roosting up to about 12 days post-fledge.
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Andrew Phillips*Biologist*

O 719.272.8816 M 720.876.7667

andrew.phillips@hdrinc.com

From: Snyder, Travis <Travis.Snyder@hdrinc.com>
Sent: Tuesday, July 6, 2021 1:28 PM
To: Spaulding, Susan <sspaulding@bouldercounty.org>; Phillips, Andrew <Andrew.Phillips@hdrinc.com>
Cc: Atherton-Wood, Justin <jatherton-wood@bouldercounty.org>; Strenge, Ernst <estrenge@bouldercounty.org>
Subject: RE: 7/2 Lyons Quarry Visit

Hi Susan,

Thank you again for meeting us out on site last Friday. We did walk up to the top of the quarry and looked at the material that is stockpiled there. We also made note of existing weed species as we traversed across the top and down the east bench road. Andrew will be getting his observations over to you here soon. Attached are some of the pre-mining aerial images you were asking for that are on Google Earth. Looks like they started mining Quarry 2 around 2001. The natural swale formation for this area is what our grading plan intends to restore.

Travis Snyder

M 720.838.6065 D 303.643.6715

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From: Spaulding, Susan <sspaulding@bouldercounty.org>
Sent: Thursday, July 1, 2021 4:29 PM
To: Snyder, Travis <Travis.Snyder@hdrinc.com>; Phillips, Andrew <Andrew.Phillips@hdrinc.com>
Cc: Atherton-Wood, Justin <jatherton-wood@bouldercounty.org>; Strenge, Ernst <estrenge@bouldercounty.org>
Subject: 7/2 Lyons Quarry Visit

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Hello Travis and Andrew,

I will be out at the Lyons Quarry by around 0900 tomorrow. As I understand it, you'll be there around 1000.

I'll be at the mine site itself and not the gate, just FYI.

Thanks in advance for the site visit and discussion.

Susan Spaulding

Susan Spaulding - Senior Wildlife Biologist

Boulder County Parks and Open Space

303-579-8984

sspaulding@bouldercounty.org

----- Forwarded message -----

From: "Spaulding, Susan" <sspaulding@bouldercounty.org>

To: "Snyder, Travis" <Travis.Snyder@hdrinc.com>, "Phillips, Andrew" <Andrew.Phillips@hdrinc.com>, "Chandler, Jonathan R" <Jonathan.Chandler@hdrinc.com>

Cc: "Atherton-Wood, Justin" <jatherton-wood@bouldercounty.org>, "Streng, Ernst" <estrenge@bouldercounty.org>

Bcc:

Date: Thu, 8 Jul 2021 17:29:18 +0000

Subject: Dates for reference RE: 7/2 Lyons Quarry Visit

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Hello,

Thanks again Travis, for sending the imagery, and for the discussion last Friday.

Andrew, here is the information I said I'd send along.

All info is for the swallow species, as it isn't really possible to tell status of the white-throated swifts.

June 4- all cliff nesters active and about half the swallow nests appeared to be completed. Rock wren observed

June 16- swallow nests seemed complete and incubation was suspected. Kestrel present. Rock wren singing

June 25- swallow incubation seemed definite. Kestrel present. Rock wren singing

7/2- our site visit (Andrew, Travis, Jonathan, Susan)

7/8- All nests still active.

Thanks again,

Susan Spaulding

From: Snyder, Travis <Travis.Snyder@hdrinc.com>

Sent: Tuesday, July 6, 2021 11:28 AM

To: Spaulding, Susan <sspaulding@bouldercounty.org>; Phillips, Andrew <Andrew.Phillips@hdrinc.com>

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Susan Spaulding

Susan Spaulding - Senior Wildlife Biologist

Boulder County Parks and Open Space


303-579-8984


sspaulding@bouldercounty.org

3 attachments



Lyons Quarry_Nesting Survey Results.JPG
284K

 **RE: 7/2 Lyons Quarry Visit.eml**
420K

 **Dates for reference RE: 7/2 Lyons Quarry Visit.eml**
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