October 26, 2023

Complaint and Demand For Remediation of Darby Creek

This is a request for immediate county action to stop and remediate the un-permitted, dredging bulldozing and removal of vegetation of the Darby Creek corridor, (click to view) the creek bed, and the surrounding floodplain which recently occurred on a 375-acre property also known as Phase III of Teton Saddleback Vistas subdivision. This property is owned by Vintage II LLC, whose principal owner is Carl Nagel. (hereafter "Nagel") This is also a request for immediate county action to enjoin the construction of any fencing within the bulldozed swath, as it will exponentially increase the risk to public health, safety, and welfare that has already been created by the dredging of this creek.



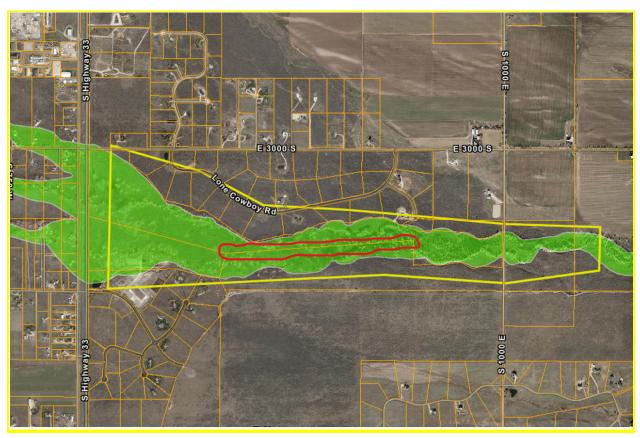
Click image to view drone footage of Nagel's damage to Darby Creek corridor and creekbed.

Credit Brad Boner / JH News and Guide

On information and belief, Nagel recently hired Billy Matkin of Matkin Brothers Excavation Inc. to strip away large amounts of riparian vegetation including trees and understory vegetation along the banks and floodplain of Darby Creek within the Ordinary High Water Mark (OHWM). Also on information and belief, Nagel does not possess any of the necessary permits or authorization from Teton County, Idaho, including (1) a grading and erosion control permit, (2) a floodplain permit, and (3) and remediation plan. Depending

on Nagel' development plans, Stream Alteration permits may also be required from the Idaho Department of Water Resources and the Army Corps of Engineers.

On multiple occasions, Mike Lien, Stream Restoration Director with Friends of the Teton River walked the length of the Darby creek bed, on the property controlled by the Teton Saddleback Vistas Homeowner Association. The destruction to this otherwise intact, nearly pristine stream is shocking. The map below shows the approximate area of observed destruction as it is superimposed over the Teton County floodplain map.



Darby Creek Area of Disturbance: (Red Line=Approximate Area of Disturbance; Green Shading=Effective FEMA Floodplain Map Zone A)

Nagel has removed large swaths of critical vegetation within the ordinary high water mark which includes vegetation along the banks of Darby Creek and within the floodplain of Darby Creek. The end result is a long, and deep clear-cut swath of creek corridor that is approximately 30 wide, and stretches for 3,800 feet almost entirely within the OHWM.



Drone footage of one section of Nagel's damage to Darby Creek corridor and creekbed.

Credit Brad Boner / JH News and Guide

Nagel's changes to Darby creek have created a potentially disastrous and dangerous situation.

Based on visual observation, Nagel has completely disturbed and reshaped over 100 feet of stream channel, filled-in stream beds with sediment, and disturbed an additional 150ft of stream channel and stream banks as he crossed Darby Creek's stream channels in multiple locations. He has removed nearly 3 acres of critical riparian vegetation from streambanks and the floodplain and dozens of truck loads of cottonwoods and woody vegetation are currently piled-up on the floodplain within the OHWM.



Logged cottonwood trees and brush piled up in several places along the Darby floodplain, abutting the creek. Also note sediment piles in the background.

Credit Mike Lien / Friends of the Teton River

Where Nagel reshaped and crossed stream channels and stream banks, he has discharged an estimated 60 tons of sediment. Where he has reshaped the channel and disturbed stream banks he has dredged an estimated 40 tons of sediment which can be seen stock-piled on the floodplain within the OHWM.



Sediment spread over the original stream channel. Note stream bed cobble is now buried.

Photo Credit Mike Lien / Friends of the Teton River

Vegetation root mass is the only thing that holds Darby Creek together since there is no bedrock or other geological features to contain Darby Creek. Removing vegetation from streambanks causes the immediate destabilization and washing-away of stream banks since there is nothing left to hold the streambanks together. Dredging Darby Creek leads to streambank destabilization as water washes away vegetation by scouring under roots causing damage to adjacent and downstream banks and causes damage upstream from the dredging activities through a process called "head-cutting." Removal of vegetation and/or dredging of the stream channel can quickly cause catastrophic damage to Darby Creek and adjacent properties. Past events have shown that without anything to hold the stream banks together, streams like Darby Creek can quickly start to move laterally back and forth like a loose firehose, even during a small flood event.

The Nagel section of Darby Creek sits on an alluvial fan. As such, the Nagel section is especially prone to avulsion events, which occur when a disturbance such as a newly formed debris jams or excessive sediment deposition causes the creek to suddenly cut out new channels or to start flowing in old remnant channels which are located across the alluvial fan. Avulsion events often occur after dredging and/or vegetation disturbances. Even a small amount of debris caught in a fence across the creek can block the channel and send flood waters in a completely new and unpredictable direction.



Note the debris caught in front of the single tree pictured above. Now, imagine what a dozen fences will capture. This will likely lead to avulsion events since the adjacent banks and floodplain no longer have vegetation protection. Also note the cobble substrate.

Photo Credit Mike Lien / Friends of the Teton River

These new channels can quickly wash away homes and infrastructure, especially if vegetation along the adjacent streambanks and floodplain has been removed. The Darby Creek Highway bridge and culverts which are located approximately 2,600 feet downstream from the disturbance can easily plug with debris jams and sediment either

washed downstream from the disturbed area and/or debris and sediment that is mobilized during an avulsion event. The damage done to Darby Creek poses a significant risk to the Highway even during small flood events if it is not remediated prior to next spring's run-off event. Sediment from the damaged section is likely to be mobilized by the up-coming spring flood event and will inevitably be transported to Teton River increasing sedimentation in the river which is 303(d) listed as impaired for sediment by the Idaho Department of Environmental Quality. Additional sediment in the river will degrade water quality and valuable native Yellowstone cutthroat trout habitat.

Nagel must cease all dredging and fencing; he must submit permits and a remediation plan.

Without a permit application showing the project plans, we have know way of knowing what the potential damage to Darby Creek is at this time, or the plans of the landowner. On information at belief, Teton County <u>issued a cease and desist letter to Nagel</u> on October 12, 2023, and county staff placed several follow-up phone calls to Nagel - none of which were returned by Nagel until eleven days later on October 23, 2023. Mike Lien placed a phone call to Nagel on October 17, 2023, which was abruptly ended by Nagel after Lien stated the purpose of this call. Thereafter, Lien called Nagel daily, each time leaving a voice message imploring Nagel to stop the dredging. On information and belief the Idaho Department of Water Resources (IDWR) issued a cease and desist letter on October 19, 2023. IDWR has reported that Nagel finally spoke to one of their agents on October 25, 2023 stating that he would cooperate with their cease and desist order.

From the issuance of the first cease and desist letter on October 12, it appears that Nagel's dredging still continued for days, until a long line of destruction cut straight through 3,800 feet of Darby creek corridor. While Nagel verbally stated he would cooperate with IDWR 13 days later, it appears the damage was already done regarding dredging. Furthermore, it remains unclear what the scope of this stated "cooperation" will mean. Is it a cessation from further dredging? Will Nagel abandon his stated plan to build a cattle fence down the cleared swath of creek bed? Will Nagel proactively implement a full remediation plan? For these reasons, county vigilance is needed now more than ever.

Moreover, this critical issue still remains: despite multiple requests from property owners and non-profit organizations, Teton County did not timely require and administer the necessary floodplain and grading permits. **The damage resulting from this inaction must be promptly addressed.**

Time is of the essence; Darby Creek is a major waterway that, if disturbed, has the potential to cause significant flood damage to property and infrastructure. Darby

Creek frequently floods at Highway 33 recently during the spring flood events of 2011 and 2017; Nagel's dramatic changes to the creek can potentially send significant debris to the highway this upcoming spring runoff.

We ask the following of Teton County:

- 1. Immediately enjoin the installation of all fences on the Nagel property until proper review and permitting is approved.
- 2. Nagel must apply for necessary permits from Teton County, Idaho Department of Water Resources and the Army Corps of Engineers before proceeding with any more work on Darby Creek to determine if their proposed activities are allowed, and to insure that they do not inadvertently cause potentially catastrophic damage to Darby Creek and adjacent properties.
- 3. Nagel must submit a complete floodplain permit application that details the following
 - a. What vegetation has been removed. This volume must be quantified.
 - b. What vegetation they intended to still remove.
 - c. What grading and filling has been done already,
 - d. Any grading or filling plans they intend to still do.
 - e. An engineer-stamped remediation plan.
- 4. The floodplain permit shall first be reviewed by the Idaho Highway Department.
- 5. Depending on the quantity of vegetation removed, a Stream Alteration Permit may be required by the Army Corps of Engineers and the Idaho Department of Water Resources.
- 6. Nagel must submit a complete application for a Grading and Erosion Control Permit, including a remediation plan with an engineer's certification, showing no stream damage.

If the damage done to the Darby Creek stream channel and floodplain is not addressed as soon as possible, the potential property damage and flooding could be devastatingly expensive for private landowners both upstream and downstream, the Idaho Highway Department, and also the taxpayers. Please take swift action to limit the potential harm to all affected entities.

Sincerely,

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