

Bridger Pines Complaint

Site Visit 09/20/2012

Report Date 09/21/12

Gallatin City County Health Department
Thomas Moore, RS (406-582-3120)

Abstract:

This report summarizes a complaint received by the Gallatin City-County Health Department (GCCHD) about subdivision sewage being discharged from a lagoon into Bridger Creek in Gallatin County. The complaint was not found to be substantiated although a flow from the pond is reaching the creek.

Background:

Bridger Pines Subdivision was approved in the 1970's by DEQ (then DHES) and was to utilize a lagoon system to dispose of wastewater. Upon construction of the lagoon and the building of a certain number of housing units it was discovered that the pond had been built on the site of a spring and leakage was occurring. DEQ placed a moratorium on any new home construction until the situation could be resolved. This past year the property owners (existing homes and un-built lots) created a Water & Sewer District and received State Revolving Fund monies for the installation of a new wastewater system that did not involve using the existing lagoon. The lagoon area and spring is to be reclaimed under the new proposal. Construction of the new system is in progress and is currently about 3-weeks from completion.

Complaint and Investigation:

- 1) On 09/20/2012 GCCHD received a complaint from Mr. Lonnie Ball who stated the lagoon dam was being breached and sewage from the pond is flowing all at once into Bridger Creek – *'more sewage in one day than has been leaking from the lagoon in the past 30 years'*.
- 2) I contacted the engineering firm and the design engineer Robert Seamons, PE, Stahly Engineering (406-522-9526) who stated (and provided an email with discussion points) the pond is being dewatered, the minimal incoming sewage is being contained in a small walled off area, and finally that the main pond was twice sampled and found to have low levels of pollutants with the majority of water entering the pond being the spring (estimated at 500+ gpm). He also stated that a DEQ representative (Mr. Jerry Paddock – 444-5323) was on site 09/19/2012 and recommended the course of action they are now taking to close the lagoon 'in on itself' and return the spring to a natural function.
- 3) The Gallatin County Health Department was paged and notified by Mr. Tom Bovington, DEQ Enforcement (4-6-444-2711) of this same complaint. He asked us to investigate if possible.
- 4) Thomas Moore, GCCHD, met with the complainant and was shown the site and discharge. The following was found:

- a. The complainant and I walked below the lagoon area and did not find any discharge (large or small) other than a dewatering pump on the edge of the pond. The engineer states the green color of the pond is due to an algae (duckweed) bloom. Two excavators were working on the face of the pond. See photo 1 below.



- Our route took us to the right of the excavators (in the photo), along the bottom, to the small red object visible on the far edge of the pond. This was the area of a dewatering pump that had a 4 inch collapsible line pulling water up and out of the pond putting it into the trees below. Again, there was no discharge or wet ground currently noted below the lagoon.
- b. The pump discharge caused a small waterway (a little larger than 'step across') that began in the trees noted to the right of the excavators above. The water appeared brown and had an odor, with some organic foam. See photo 2 below.
- c. We followed the discharge approximately one-quarter mile. It would alternately spread out into meadows, forming marshy areas with no discernible flow, then collect in narrow channels with evident movement. About 1/3 mile below the lagoon it collected at the edge of an abandoned road, where it moved until it came to a culvert, crossed the road and restarted movement down slope again in an old evident creek channel that likely carries snow runoff. We did not follow further but that creek channel continued in the direction of Bridger Creek below.



Photo 2: Pump flow discharge showing size and foam (visible in the center of photo).

- d. The water crossing the road was very clear and non-odorous by the time it exited the meadow flat areas due to percolation and filtration.

Discussion & Summary:

Again, I did not find evidence of a 'dam breach' or massive sewage leak. I was also unable to tell if the existing pump discharge is more than normal for this historically leaking lagoon. But there is water from the pond reaching Bridger Creek after flowing down slope and through meadows a distance of about 1/3rd mile.

The engineer's talking points state:

- Raw sewage still incoming is being sequestered.
- The primary inflow to the pond is currently the spring located beneath it.
- Main pond has twice been sampled and has low levels of pollutants.
- DEQ has given approval for their current approach.
- This lagoon has been discharging for the past almost 40 years.

These are the apparent 'facts on the ground'. This report will be provided to Tom Bovington, DEQ Enforcement, and we will leave any further action on this complaint to DEQ. *Please keep us informed as to any further activity or resolution to this issue.*