



RFP 23/28/P

Engineer for Redesign and Rehabilitation Plan for BDD

Questions and Answers Part Two Site visit.

2/16/23

1.

Q: Has there ever been a situation where you couldn't pull water out?

A: We've always been able to pump, but below 300 cfs it would be discretionary. If we were ever to get as low as 200 cfs, which we haven't had to, we would shut down.

2.

Q: What is the turbidity level you stop diverting?

A: Turbidity levels can be detected 5-2000, but when it reaches 600 or above, it becomes an area of concern, and BDD Operators cease diverting water at that level to spare wear and tear on the equipment.

3.

Q: Do you notice if surge though the system is more frequent?

A: No it has not happened.

4.

Q: What is the Diversion capacity?

A: 24 cfs. The BDD is sized for 15 mgd diversion.

5.

Q: What is the screen size?

A: 1.75mm, 0.069" or close to 1/17 screen size to keep small debris, fish, tadpoles, rocks, from entering the system.

6.



Q: Will that constraint on silvery minnow continue?

A: No, that was determined to be a concern downstream but not a concern at the BDD diversion site.

7.

Q: Do you need to get approval from San Ildefonso on any structural changes at the diversion?

A: No, but out of courtesy BDD will inform them of any construction or change we would make at the diversion.

8.

Q: Where does San Ildefonso ownership start, at the middle of the river?

A: Their property line starts at the river banks of their property.

9.

Q: Do we have formal ownership?

A: The diversion structure land is owned by the Forest Service which we lease.

10.

Q: Is it BLM or Forest?

A: We're on Forest service land now at diversion, but other facilities of BDD are on BLM land.

11.

Q: Should we include Environmental portion on this team?

A: No. We have EPA Permission, and we have NEPA Permit in place.

12.

Q: As part of this (construction), do we need an environmental impact assessment? (EIS)

A: Discussion on EIS had been put in place before and any construction or changes necessary, we would continue to follow those guidelines, but a new EIS would not be needed. Footprint is not the deciding driver on design. It's a consideration, but functionality of the diversion should be the main driver.

13.



Q: Does BDD have Self-Funding?

A: BDD bills the partners for actual costs incurred. BDD does not set water rates, we are essentially a wholesaler that delivers water to the retailers; the City, County and Las Campanas.

14.

Q: I noticed the pump hours on each of the pumps is different one was 890, one was 632, do you expect more consistency on pump hours per each?

A: No, they are all run at different times for different times, they do not need to be run the same amount of time.

15.

Q: Do staff work on check valves themselves?

A: Mostly BDD staff do, but we contract with a vendor sometimes if needed.

16.

Q: Are pumps (at RWLS) undersized?

A: No, but the pump stands seem to be undersized.

17.

Q: Do you think vibration to shaft is causing shearing?

A: Possibly but most of the damage is due to pump harmonics, and excessive sediment abrasion.

18.

Q: You had 2 pumps out of service, are they being rebuilt?

A: Yes

19.



Q: Did you install this Solar Project by the diversion to help power the diversion?

A: The solar array by the diversion was recently built and came online. It is not a BDD project, it is a Public Works project which they gained funding to place solar arrays around city buildings and is run by the Public Works department. This one will help to power the BDD during the day to reduce high electrical costs. BDD mostly runs the plant at night when PNM rates are more favorable.

20.

Q: Do the pumps at 2A have similar issues at 1A?

A: Pump issues are identical to 1A, only difference is that it does not have LAKOS sand removal system at BS2A.

21.

Q: Do you own the land, or lease BLM land?

A: BLM receives about \$72K in annual lease payments from BDD.

22.

Q: Distance and Elevation?

A: 11 Miles from BDD main plant to the river and 1100 feet elevation incline from the river to the main plant

23.

Q: What has been the demand projection since 2007?

A: Demand creeps up but has been stable

24.

Q: Have the Intake Screens not always been completely submerged?

A: On occasion they have been partially exposed but not significantly exposed.

25.

Q: What is the daily volume of water produced through BS1A

A: The maximum design capacity is 15 mgd, but we limit it to 11 or 12 mgd at a maximum amount in the summer as requested on the water call. As some equipment has been out of service, we don't over stress the system.



26.

Q: What happens if 2 pumps are out?

A: BDD can still produce between 8 and 9 mgd assuming conditions in the river are acceptable.

27.

Q: Do we have a lot of tours?

A: We have tours or site visits as requested by industry professionals/operators, government VIPs, schools, university students. Since COVID occurred we have limited the number of visits to the public and only providing on individual request.

28.

Q: Do you have an EPA discharge permit for slurry renewed?

A: Yes. Every 5 years the NMDES is submitted; it was recently renewed.

29.

Q: Is 18.3 mgd and/or 15 mgd diversion able to be obtained by the 3 operational pumps? Are you able to pump 15 mgd per each?

A: We can pump up to 15 mgd if needed; and we are permitted to pump up to 18.3 absolute max but have never had a request or the need to divert that amount. Yes each has the capacity to pump 15 mgd if required.

30.

Q: Are you seeing a lot of decrease in capacity?

A: Yes, some decrease.

31.

Q: How many pumps are there?

A: There are 5 pumps at Raw Water Lift Station diversion, and 4 pumps each at BS1A, BS2A. Redundancy was built into the plant so that treatment can be produced while some pumps are offline for repairs or to rotate usage of pumps.



32.

Q: You don't have same vibration issues here at BS1A as RWLS?

A: Not as bad at BS1A. All pumps vibrate but to varying degree due to wear and run time on the equipment

33.

Q: Are any offline for repairs?

A: Yes they are taken offline as needed and taken to the shop for repair. BDD always tries to produce what is needed even if only one pump is online. This assumes we are not shut down due to temporary river water quality conditions.

34.

Q: Are repairs done in place on the Lakos separators?

A: Yes, they are not able to be moved.

35.

Q: Where is the slurry returned?

A: The sediment removed at the Lakos part of the process is returned from BS1A in a slurry back to the river upstream from the diversion screens.

36.

Q: Do you have a list of priorities you can share with the group?

A: We have a list of concerns we put into the lawsuit documentation but that is separate from the RFP and a new list of priorities will need to be created by the new team.

37.

Q: So there is no updating?

A: Not currently

38.

Q: Will the engineer selected for this project be selected for the repairs?

A: No



39.

Q: Are you still using seal water for the pumps?

A: We are still using seal water and vegetable oil on some pumps as able

40.

Q: Is that for sediment?

A: Yes

41.

Q: Is that the same issue at the raw water lift station/diversion?

A: Yes

42.

Q: Are you doing same seal water options at BS2A? Is the same shaft-wearing occurring?

A: Yes. Yes.

43.

Q: Any issues with piping besides settling?

A: No, none

44.

Q: Is BS2A on BLM land?

A: Yes

45.



Q: Do they both run at the same head?

A: No, although have same pump config, there is a shorter distance from BS1A to BS2A than from BS2A up to the treatment plant.

46.

Q: Are you relying on other water in the system?

A: When BDD is not running, the City's other water resources can supply drinking water. BDD water is blended with the city's wells and reservoir sources.

47.

Q: What was the horsepower at BS2A?

A: 700 HP

48.

Q: Water though the plant comes strictly from the Rio Grande and is not blended?

A: Yes. Blending of the city's and BDD sources of finished water occurs at the 10 mg tank for distribution city wide based on the city's requirements.

49.

Q: From your standpoint what is success? Pumps to handle to silica or remove at the river so doesn't have that component to deal with?

A: A redesign that the Silica does not continue to have an impact on and be able to achieve maximum gallons per day. Success would be the ability to meet the original design and production goals of the BDD, primarily the ability to produce 15 mgd. A better approach to handling sediment would be a key component.

50.

Q: With sheet demand projects, have the demands started to creep up?

A: Due to conservation

51.

Q: Can the plant be shutdown?





A: The plant can only be shut down for a week for a variety of reasons and varying durations. If the issue is high turbidity in the river, BDD is usually up and running again with 24 hours of the water quality event in the river.

52.

Q: What is the storage capacity?

A: Total water storage at BDD is 12 million gallons; 8 mg of raw untreated water in the pre-sed basins, and 4 mg of treated drinking water stored in the finished water tank.

53.

Q: What's the capacity for being able to call for the amount of water?

A: 24.5 cfs, or 16 mgd

54.

Q: A question regarding treatment of water for transportation in the distribution lines was asked.

A: We use Zinc Orthophosphate in the distribution lines as a corrosion control

