

MEMORANDUM

TO: Water Right Permit Files 37-22542, and 37-21742

FROM: Daniel A. Nelson

DATE: Various Dates

SUBJECT: Telephone Conversations with Permit Holder

On July 12, 2017, I spoke with Howie Royal concerning water rights 37-22542 and 37-21742. During this conversation, I asked for additional information for the various systems for the Carey School. I asked for the following information:

- 1.) I needed to know the size of the computer room that is only heated and cooled by the propane roof mounted unit.
- 2.) I needed to know more information for the fresh air system. I needed to know how much air in cubic feet was pumped into the school and confirmation of the temperature that the air is heated.

On July 12th, Howie Royal called me and told me that propane roof top heating unit supplied only one room, and it was the computer server room. Mr. Royal told me that the room was 160 square feet in size. He also told me he was still trying to attain the information on the fresh air system.

On July 14th, Mr. Royal left a message saying he had the information on the fresh air system.

On July 17th, I called Mr. Royal to find out about the fresh air unit and to ask what the maximum time they run their irrigation system was, so we could increase the diversion rate if needed. Mr. Royal was not at his office, but he told me he would call me back with the information.

On July 18, 2017, Mr. Royal and I spoke by telephone concerning the questions on the Cary High School. The air handler provides approximately 3,847 to 13,000 Cubic Feet per Minute of air. The system is designed to try to maintain a 55 degree intake air supply. The heating system in the intake air unit has the ability to provide a 6.1 to 80 degree rise. The air expelled from the school is also run through this unit to help heat the incoming air to the needed 55 degrees. The air is delivered to the individual heat pumps for each class room. The water from the well is run through a heat exchanger that heats the water being delivered to the individual classroom heat pumps. The water heat exchanger provides between 2 and 4 degree delta heat exchange between the heat pump water and the well water.

Mr Royal also stated that the irrigation system for the Carey School is operated between 5-6 hours per night. This is done to ensure that the fields has time to dry by the time the fields and playgrounds are in use.