11-29-11

1. Water quality monitoring
   1. 43 sites in SD
   2. Someone on campus
   3. Parameters monitored are based on env. Concerns
      1. Heavy metals
   4. SWD permits
      1. Water discharge
      2. Biosolids
      3. Treatments
         1. Newer permits
         2. Monitor chemical dumps
      4. Pesticides
      5. Temporary dewatering
      6. Limits
         1. Ammonia
         2. Dissolved oxygen
         3. Temperature
         4. Set standards for fecal, BOD, TSS
   5. Storm water program began in 1987
      1. 1999 DENR got involved
      2. Construction sites add a lot of sediment into streams
      3. MS4 programs
         1. Sioux Falls is the only individual permit, others are state permit
            1. Commercials about dust are part of the program
         2. Two phases
            1. I: permits
            2. II: construction sites

SWPPP

1. Inspected Rapid City water station in 2010
   1. Waste water sent to trickling filter (north side of plant)
      * 1. Allow organisms to grow that help treat water
      1. Water sent to secondary clarifier
         1. Settle out solids
      2. Sent to rotating biological contractors
         1. Further treatment
   2. Waste water sent to aeration basin (south side of plant)
      1. Secondary clarifier
      2. UV disinfection Parshall flume
      3. Outfall to Rapid Creek
   3. WWTF sampling parameters
      1. Metal testing
2. Questions?
   1. Separate ground water program?
      1. Not to my knowledge
   2. How did you get rid of the blue dye?
      1. Extra sampling
      2. Diluted it
      3. Basically dissipated
      4. Similar to food coloring, but don’t know where it came from
   3. How long did it take for the dye to run through?
      1. Slug at 6:30/7pm
      2. Pictures were taken the next day
      3. Took around two days
      4. Tried to push as much through the south side as possible
   4. Where are samples stored?
      1. All of ours are processed elsewhere and data is sent back to us
         1. Publicly available information
   5. Pesticide permits?
      1. 2009 EPA expanding permits to farming
         1. Taken to court
            1. Supreme court said point discharges
            2. Need surface water discharge permit
         2. Already regulated (FIFERA)
            1. Now doubly regulated
            2. Wrote general permit
      2. Very few farmers will meet these requirements for a permit
         1. DOT will probably be the only ones
   6. What does the dumping in Rapid Creek depend on?
      1. First take 25 year flow
      2. Try to fit inside those
   7. What do you monitor in Black Hills area?
      1. Every city have waste water facilities
         1. Separate division for septic tanks
            1. Campgrounds have surface water discharge permits that are inspected
3. SOAP application process needs to start soon
   1. Overview
   2. Submit volunteer events
   3. Last day for submittal review is this Friday
      1. Meet after meeting
4. Christmas party
   1. December 2 5:30pm in room 113 and lobby area right outside that
   2. Apple cider and hot chocolate packs downstairs will be provided
   3. Juniors and seniors provide snack or beverage
   4. Other activities for the party?
   5. Reasonably tasteful gag gifts to the teachers given by santa?
5. High School outreach over break?
   1. Slides available for use
      1. Dr. Gilcrease can do a demo of the ppt
      2. Will be on shared drive
   2. Make it personal
   3. Have teacher send Dr. Gilcrease an email saying you did it and you can get reimbursed $50 traveling expenses
   4. If interested, send an email to Travis