

Field Trip Summary Notes

Monmouth-Independence Field Trip (Independence City Works)

Compiled by Ricci Keller, Spring 2010

- 8 groundwater wells
- 8 inch casings
- 6 inch suction
- Average depth: 50-60 feet
- Pump 125-200gal/min on average
- Shallow Aquifers
- Treat for iron/manganese
- 9 Bacteria Samples required monthly, usually take 12
- Test for Arsenic, Nitrates in Monmouth, Lead, Copper, Calcium Carbonate
- Flouride/Chorine added
 - Fluoride for children's teeth
- 62-70 psi, 58-60 at night (for Polk)
- 80-100 psi for Monmouth
- Water storage in a tank suspended in air uses a gravity feed for water
 - On a hill
 - Uses booster pumps to control pressure
- 4 Production wells North, Polk
 - Well #1 Pumps 600 gal/min
 - Well #2 and #3 pump 250 gal/min
 - Well #4 pumps 50-60 gal/min, emergency well
 - Wells generally 600 yards from river
- 5 Productions wells South
 - About 150 yards from river
 - Only 3 in use
 - Trichloroethylene contamination found in the other 2
 - Also have been re-drilled because they collapsed 45 years ago due to being inactive
- Treatment Plant for Polk Street
 - 1.5 million gallon reservoir
 - 800,000 gal per day
 - 2.2 million gal per day in August
- MPA testing, 3-4 wells
 - Tests the ground water
 - Hot surface water
 - Comes From Ground
- Lagoon System
 - 4 cell lagoon
 - 56 acres
 - 1st contact chamber effluent to river ?/?/?/?
- Problems
 - Copper electrolysis, underground pipes
 - Hard to fix
 - Distribution during demanding times, ie: August