Ways to lower Manganese at source



- Drill new wells, hope for lower levels of manganese, not recommended
- Treat water
 - Treat at each well, not recommended due to space constraints at wells and treatment costs for 5 separate treatment plants
 - Treat at a centralized treatment plant site, recommendation

Types of Treatment Studied



- Gravity Filtration
 - Would lower levels of manganese and iron
 - Least expensive
- Lime Softening with Gravity Filtration
 - Would lower levels of manganese, iron and hardness
 - Most expensive
- Gravity Filtration with Reverse Osmosis (RO)
 - Would lower levels of manganese, iron, hardness and future/unknown contaminants such as PFA's
 - Most Resilient Option/Recommendation