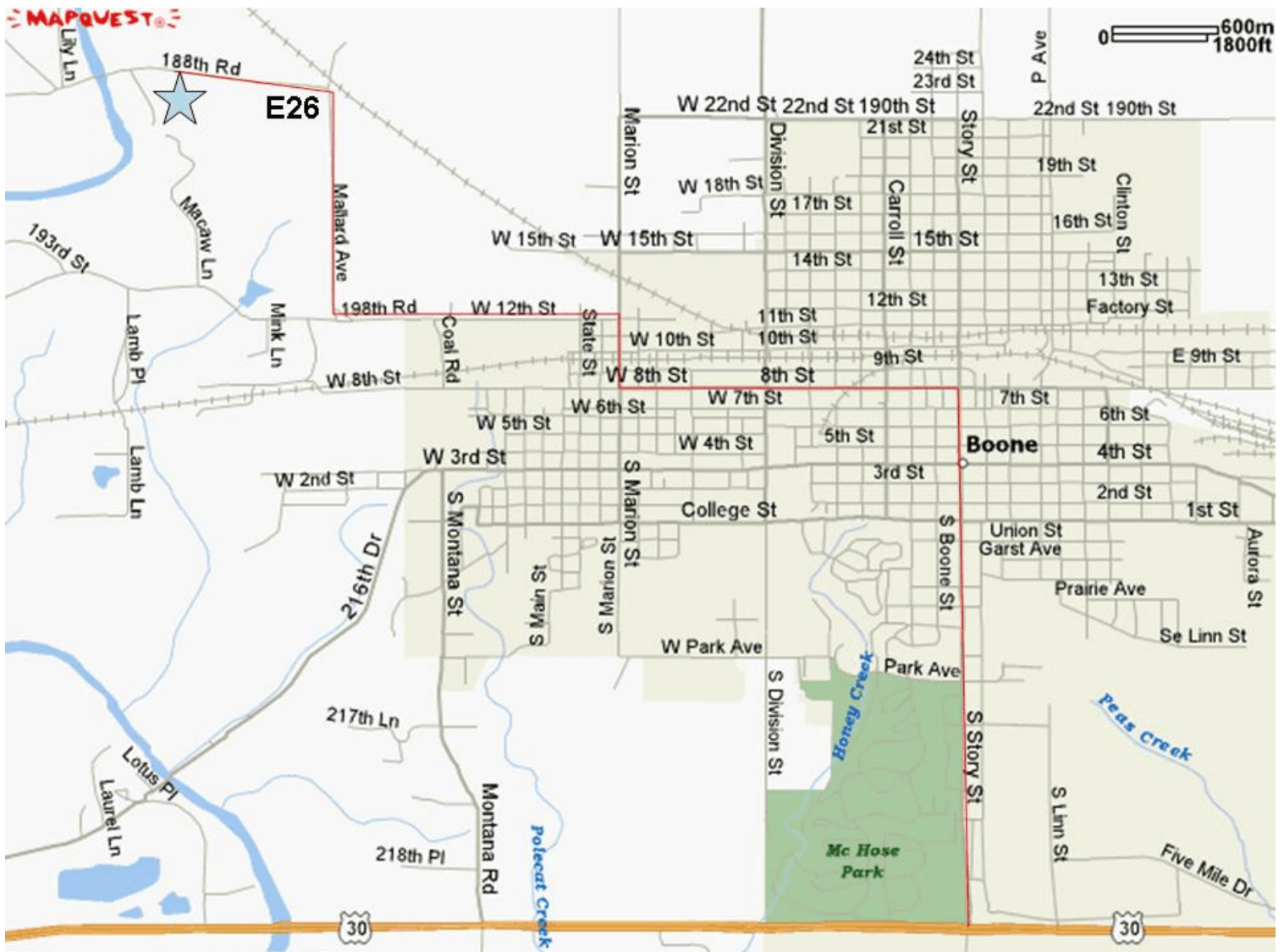


Boone Water Treatment Plant – Field Trip – October 18, 2005
Meet at the plant at 8:00 am (after touring the water plant we will go over to the wwtp)

Directions to the Water Treatment Plant in Boone (433-0536) - see map below. Take 30 West to Stop sign in Boone. Turn right onto Story St. Follow Story into town. Turn left on Mamie Eisenhower (at gas stations). Follow Mamie past nursing homes and school. Turn right onto Marion St. Take Marion across railroad tracks. Turn left onto E26 (also called 198th St.) Stay on E26 (if you go straight you will end up on 198th street). Follow E26 towards Frazier. Once you get near the Des Moines River, the road will descend. On the left (South) side of the road, you will see the Water Treatment Plant (Waterworks Park). The plant is about half way down the hill. If you cross the River, you've gone too far.

Based on your visit to the plant, write a report (about 1 to 1 ½ pages) on the operation of the facility. Briefly discuss the processes used to treat the water. Include in your discussion answers to the following:

1. What is the source water for the plant?
2. What treatment chemicals are used in processing the water?
3. What residues are produced in treating the water and how are they disposed?
4. Draw a flow diagram. Indicate where the chemicals are added and where residues are removed.
5. Based on the tour and/or published information from the plant, how much water does the average family of three use per year? At what cost? What would be their combined water and sewer rate?



Boone Wastewater Treatment Plant – Field Trip –
Meet at the plant at 9:15 am - following the water plant field trip

Directions from the water plant: Retrace steps back to Story St. in Boone. From Story, turn right (west) onto Park Ave. at light. Go straight at next stop, and proceed down hill. At bottom, turn left where sign indicates sledding hill (before crossing stream). You'll see the wastewater treatment plant on your right, about a half mile down.

Report: Based on your visit to the plant, write a report (about 1 -1 ½ page) on the operation of the facility. Briefly discuss the processes used to treat the wastewater. Include in your discussion answers to the following:

1. What are the major contributors of wastewater flow to the plant?
2. What types of pollutants are removed at the plant?
3. What residues are produced in treating the wastewater and how are they disposed?
4. What treatment chemicals are used in processing the wastewater and residues?
5. Draw a flow diagram. Indicate where residues are removed and where the chemicals are added.

Both water and wastewater field trip reports will be due the following week - October 25.

