

#10: Water Treatment Plant



Students learn about the inner workings of the Huntington Water Treatment Plant.

Goal:

The students will understand how the Huntington Water Treatment Plant operates.

Objectives:

1. The students will list chemicals used to treat drinking water:
 - Alum
 - Fluoride
 - Chlorine
 - Carbon.
2. The students will recall the steps for water treatment.
3. The students will explain how the Huntington Water Filtration Plant treats our drinking water.
4. The students will name the community source of the drinking water.
5. The students will explain why alum, fluoride, chlorine, and carbon are used at the local water treatment plant.
6. The students will compare their sources of drinking water to other community water sources.

7. The students will examine the cost of having clean drinking water available to people in this community.
8. The students will explain why water for personal consumption must be treated.
9. The students will recall the amount of water available for human use compare to all the water that is located on earth.

Procedures:

Teachers review how a water treatment plant operates in regular Middle School classes. Then, students participate in a fieldtrip to the Huntingdon Water Treatment Plant. Personnel from the plant conduct small group tours and explain the operations of the facility. The students witness various processes that domestic water goes through at the water plant. If time permits, students compare different water treatment plants.

Assessment:

Teacher-Made Test; Alternative Assessment, i.e., students construct model water plant when given all parts to its operation

Resources to Implement:

Teacher handouts:

- Description of Huntingdon Plant
- Flow Diagram of Huntingdon Water Treatment Plant (used with permission of the Huntingdon Water treatment plant)
- Drinking Water Treatment Fact Sheet (The WATER Sourcebook)

Slides:

- Huntingdon Water Treatment Plant (teacher created)

Transparencies:

- Making Water Pure (Water Quality and Pollution, Milken Publishing Company)
- Flow Diagram of Huntingdon Water Treatment Plant (used with permission of the Huntingdon Water treatment plant)

Literature:

- The WATER Sourcebook, 1994, F-31

Equipment:

- Slide Projector/Screen

- Overhead Projector/Screen

Field Study:

- Huntingdon Water Treatment Plant

Huntingdon Borough Water Department

Figure 1.

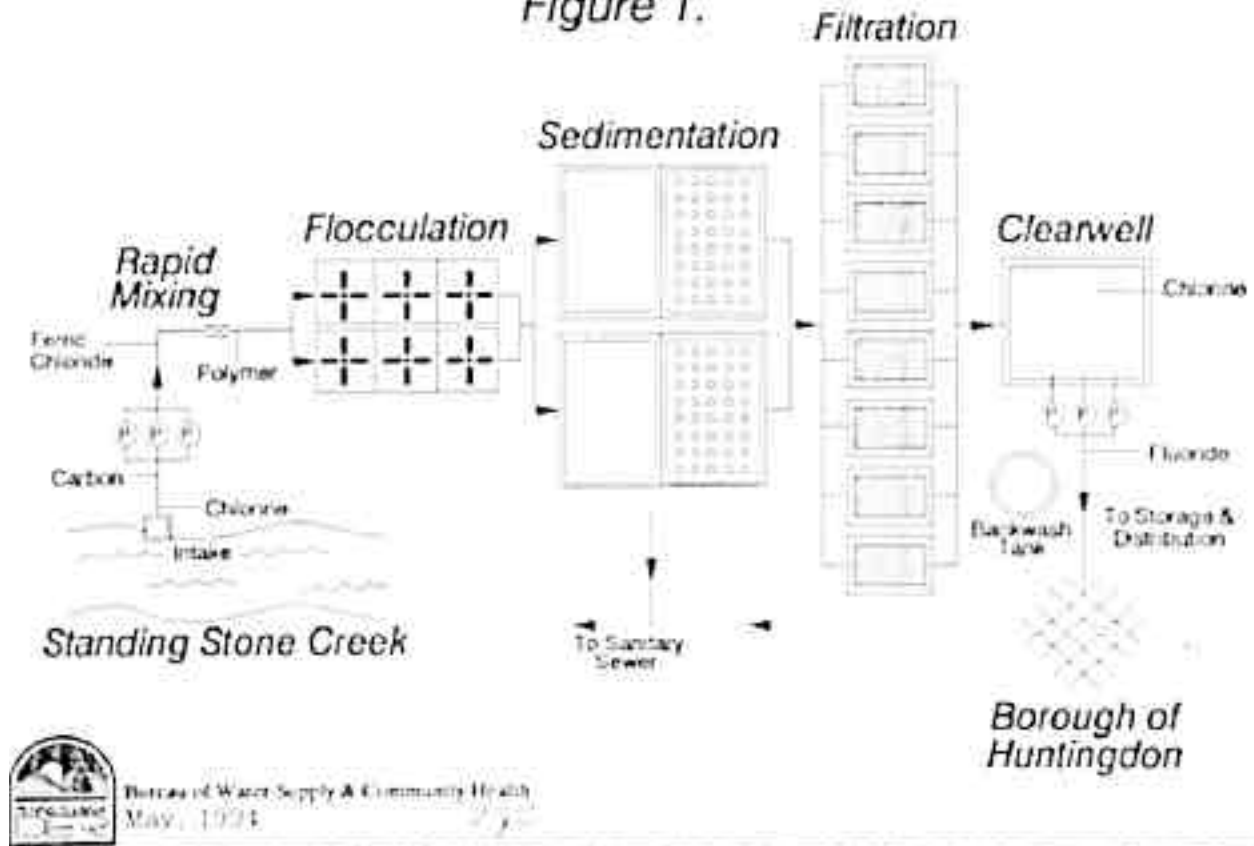


Chart of Huntingdon Water Treatment Plant used with permission of Borough of Huntingdon.

PA Academic Standards for Environment and Ecology:

- 4.2. Renewable and Non-Renewable Resources
Examine renewable resources
- 4.3. Environmental Health
Describe how human actions affect the health of the environment, e.g., water
Describe environmental health issues, e.g., clean water supply
- 4.8. Humans and the Environment
Identify the biological requirements of humans, e.g., water
Know that environmental conditions influence where and how people live
Explain how people use natural resources
- 4.9. Environmental Laws and Regulations
Explain the role of environmental laws and regulations