Site the Landfill

**Location 1:** This deep-woods area is located next to a large river, 6 miles from the nearest highway, and 10 miles from the nearest town. It is 2 miles from a frequently used campsite area. Numerous types of wildlife are found in the area, including many species of birds, reptiles, insects, fish, small mammals (such as rodents, bats, or rabbits), deer, foxes, and bobcats. The area has cold winters with large amounts of snowfall, cool summer temperatures (60-78 degrees Fahrenheit), and an average annual rainfall of 30 inches.

- Sandy soil—Water penetrates quickly; sand has short water-retention time.
- Clay soil—Clay has slow water uptake and long water-retention time; water flows through it very slowly.
- Bedrock—Water generally does not penetrate solid rock.
- Aquifer—Area transmits and holds groundwater.

**Location 2:** This suburban area is located about a mile from a school and 3 miles from a large town. Many types of birds, insects, reptiles, and small mammals (such as rodents, bats, or rabbits) are found in the area. The area has mild winters with little snowfall, hot summer temperatures (75-90 degrees Fahrenheit), and an average annual rainfall of 52 inches.

- Sandy loam—Soil is composed of about 65 percent sand, 20 percent clay, and 15 percent silt; it retains more water than straight sand, but still has quick water penetration.
- Glacial till—This mixture of rock fragments from clay to boulders was deposited by glaciers; it has long water-retention time; water may penetrate faster and further through gaps between the rock fragments.
- Bedrock—Water generally does not penetrate solid rock.

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**Location 3:** This rural area has several neighboring farms, is near a major highway, and is 15 miles from the nearest town. The area, with a pond, is host to many types of birds, insects, reptiles, fish, and small mammals (such as rodents, bats, or rabbits). Livestock is raised on some nearby farms. The area has cold winters with moderate snowfall, hot summer temperatures (70-85 degrees Fahrenheit), and an average annual rainfall of 34 inches.

- **Groundwater**—Subsurface water is in this saturation zone of soil.
- **Sand**—Water penetrates sand quickly and has short water-retention time.
- **Bedrock**—Water generally does not penetrate solid rock.

**Location 4:** This desert area is located near a railway about 20 miles from a large city. A variety of reptiles, birds, insects, small mammals (such as rodents, bats, or hares), foxes, and coyotes are found in the area. The area has mild winters with little frost, very hot summer temperatures (85-100+ degrees Fahrenheit), and an average annual rainfall of less than 10 inches.

- **Sand**—Water penetrates sand quickly and has short water-retention time.
- **Bedrock**—Water generally does not penetrate solid rock.

**Location 5:** This marsh area is located near a river and next to a large urban center. Various birds, amphibians, reptiles, fish, insects, and small mammals (such as rodents and rabbits) are found in the area. The area has mild winters with light snowfall, hot summer temperatures (70-85 degrees Fahrenheit), and an average annual rainfall of 34 inches.

- **Marsh**—A wetland has standing water present year-round and is dominated by patchy growth of grasses or grass-like plants.
- **Sandy loam**—Soil is composed of about 65 percent sand, 20 percent clay, and 15 percent silt; it retains more water than sand but still has quick water penetration.
- **Groundwater**—Subsurface water is in this saturation zone of soil.
- **Clay**—Clay has slow water uptake and long water-retention time; water flows through it slowly.