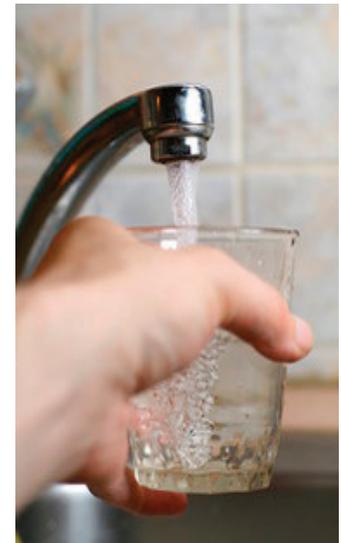
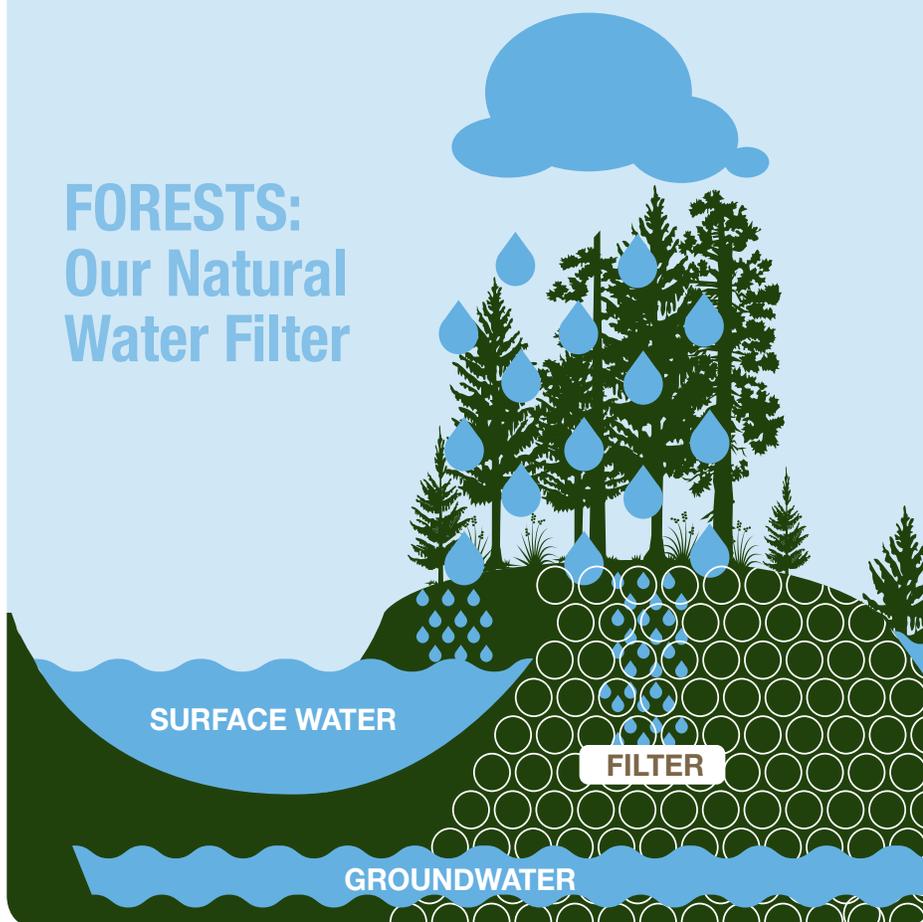


## Minnesota Forest Benefits: Clean Water

Forests create clean water at the source. Clean water up stream means less treatment for our drinking water downstream. Healthy forest soils provide natural filtration for groundwater. Forests slow runoff and reduce sediments entering lakes and rivers. **Retaining and managing forests is one of the best ways to protect drinking water and reduce the cost of water treatment.**

Forests act as a natural filter, resulting in high-quality source water that requires minimal treatment.



### Minnesota's forests provide safe and affordable drinking water.

- A 10 percent increase of forests in a watershed results in a 20 percent decrease in treatment costs downstream.<sup>1</sup>
- Decreased forest cover is significantly related to decreased water quality.<sup>2</sup>

### Forests mean clean water.

#### Minnesota Forests:

- Reduce soil erosion by slowing rain as it hits tree canopies before falling to the ground.
- Increase the soil's ability to absorb water.
- Trap sediment and pollutants from groundwater in underground soil pockets.
- Reduce sediment and pollution entering lakes, rivers, and streams.
- Provide a more stable water cycle and healthy aquatic ecosystem.
- Produce four times less storm runoff than an agricultural field during a 4-inch rainfall.<sup>3</sup>

Minnesota Department of Natural Resources - Forestry  
[mndnr.gov/forestry](http://mndnr.gov/forestry)



#### References:

1. Ernst, Caryn. (2004). *Protecting the source. Land conservation and the future of America's drinking water.* The Trust for Public Land and the American Water Works Association.
2. Freeman, J., Madsen, R., and K. Hart. (2008). *Statistical analysis of drinking water treatment plant costs, source water quality, and land cover characteristics.* Trust for Public Land white paper.
3. Purdue Extension Safe Water Office. *Land use and water quality.* Accessed 2/23/2015. <https://engineering.purdue.edu/SafeWater/watershed/landuse.html>