

# Design Guidance

## Rainwater Harvesting

### DESCRIPTION

Rainwater harvesting is the process of collecting water from an impervious surface, such as a roof, and routing it to a location where it is beneficially used.



### METHOD OF PHOSPHORUS REDUCTION

Rainwater harvesting does not directly reduce the amount of phosphorus in runoff. However, because rainwater is captured in barrels or cisterns, the amount of runoff that carries phosphorus to the Lake during precipitation events is decreased. In addition, harvested rainwater can be connected to other HIP projects, such as native landscaping, rain gardens, and underground pollution filters, where the water is slowed and cleaned prior to reaching Lake Whatcom.



### DESIGN REQUIREMENTS

- All individual tanks hold less than 320 gallons
- Total system storage is less than 5,000 gallons when all tanks are full
- Height to width ratio of tanks are 2:1 or less
- Water from tanks are not used for indoor purposes such as drinking and cooking
- Tanks not meeting these requirements may be permitted through alternative pathways outside of the HIP permitting process
- Overflow/outflow water must be directed to a HIP BMP for tanks to be reimbursable under HIP

### CONSTRUCTION METHOD/ CRITICAL PATH

1. Install primary BMP
2. Choose a location for cistern
3. Choose a material that is compatible with water use
4. Design connectivity to other HIP water quality projects

Note: This design methodology is applicable for HIP projects only. These methods may not be suitable for, and have not been evaluated for, compliance with regulations which require professional engineering.

For more guidance on rainwater harvesting for residential beneficial uses visit [cob.org/rainwater](http://cob.org/rainwater).