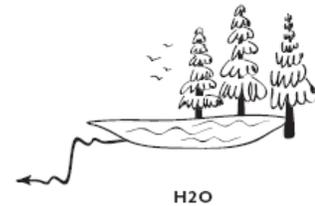


ENVIRONMENTAL FOOTPRINT COMPARISON TOOL

A tool for understanding environmental decisions related to the pulp and paper industry



EFFECTS OF DECREASED GREENHOUSE GAS EMISSIONS ON WATER USE

Emissions from Energy Use in Manufacturing

There are two primary ways in which energy-related emissions can be reduced: a) changing to less greenhouse gas-intensive fuels, and b) increasing energy efficiency so less fuel and purchased electricity is needed.

Reducing greenhouse gas emissions by changing fuels can have direct effects on water requirements at mills, although these would be comparatively small for pulp and paper facilities. Most notable, but still relatively insignificant, would be the potential for saving water by abandoning wet scrubbers in cases where natural gas displaces coal in mill power boilers (or in the opposite direction, adding wet scrubbers if converting from natural gas to biomass). There may also be indirect effects on water use because different fuels may require different amounts of water to produce. These effects would be expected to be relatively small, however, compared to the amounts of water used by most pulp and paper mills.

Water use may be impacted by efforts to reduce greenhouse gas emissions by increasing energy efficiency, but the effects are highly dependent on the specific energy efficiency measures implemented. In cases where energy is saved by finding ways to reuse warm water there may be a direct relationship between energy efficiency and water use. In many other cases, however, there will be no direct relationship between water use and energy efficiency.

Water use at wood products mills is very small compared to pulp and paper mills. Because of this, changes in fuel resulting in changes to wet control devices (scrubbers, biofilters, etc.) would be more significant in the wood products sector.