

# ENVIRONMENTAL FOOTPRINT COMPARISON TOOL

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



## EFFECTS OF DECREASED RELEASE OF BOD/COD & TSS ON DISCHARGE TO WATER

### Receiving Water Quality

In the U.S., state environmental regulatory agencies have had the principal responsibility for identifying impaired waters and addressing the contributing sources of impairment. In practice, the process has been hampered by technical, scientific, and procedural challenges. Among these challenges have been

- the quality and quantity of monitoring data upon which impairment judgments are based, and
- the development and proper application of predictive tools for identifying the relative roles of contributing sources of impairment.

National inventories of impaired waters have been regularly compiled over the years, but these are not well-suited for defining trends in water quality improvements, given the inconsistencies among states in terms of how they undertake water quality assessments, and due to differing definitions of “impaired” waters. That said, the water quality inventory compiled by EPA provides the best available snapshot of water quality impairment in the United States.

Industrial point source discharges are one of roughly two dozen or more sources of water quality impairment identified by EPA for purposes of state water quality inventories. The relative prominence of one contributing source or another varies with the character of the water body, as illustrated by Table B4 summarized from EPA’s National Summary of State Information reported in January 2012. It is based upon information largely compiled in 2010.

**Table B4. Relative Significance of Sources Contributing to Threatened or Impaired Waterways**  
(Source: USEPA at [http://iaspub.epa.gov/waters10/attains\\_nation\\_cy.control#prob\\_source](http://iaspub.epa.gov/waters10/attains_nation_cy.control#prob_source))

Probable Source Group	“River” Miles Threatened or Impaired	“Lake” Acres Threatened or Impaired	“Estuary” Sq. Miles Threatened or Impaired
Agriculture	124,282†	1,817,549	3,020
Atmospheric Deposition	98,107	4,740,142	7,721
Unknown	86,761	3,258,186	5,439
Hydromodification	58,879†	905,925	2,513
Urban-Related Runoff/Stormwater	51,725	856,530	1,869
Natural/Wildlife	51,582†	1,374,576	4,225
Municipal Discharges/Sewage	51,236	794,158	4,406
Unspecified Nonpoint Source	46,985	759,087	2,607
Habitat Alterations*	32,387†	359,237	2,057
Resource Extraction	26,356	560,919	1,292
Silviculture (Forestry)	19,444†	242,583	0
Industrial	14,433	221,830	3,752
Construction	13,532	314,515	16
Other	10,167	863,640	3,630
Land Application/Waste Sites/Tanks	8,394	77,005	53

(Continued on next page)

Effects of Decreased Release of BOD/COD & TSS on Discharge to Water  
Receiving Water Quality

**Table B4. Continued**

Probable Source Group	"River" Miles Threatened or Impaired	"Lake" Acres Threatened or Impaired	"Estuary" Sq. Miles Threatened or Impaired
Legacy/Historical Pollutants	4,915	763,320	1,469
Spills/Dumping	2,420	194,422	26
Recreation and Tourism (Non-Boating)	1,741	106,703	0
Aquaculture	318	4,620	0
Groundwater Loadings/Withdrawals	178	98,032	158
Recreational Boating and Marinas	132	126,390	1,053
Military Bases	42	2,436	--
Commercial Harbor and Port Activities	--	109,240	470

\* Not directly related to hydromodification.

† Based on a separate analysis conducted by NCASI. This value is artificially high by several thousand because of unusual reporting methods in assessment data submitted to EPA by one or more states.