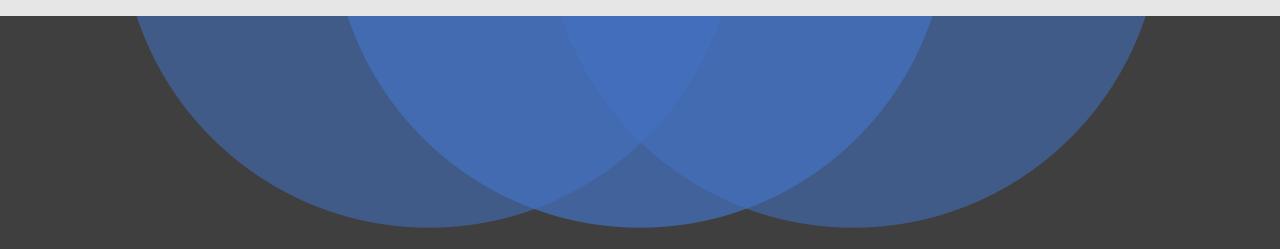


### Timber Harvest Task Force: Forest Harvesting BMP Recommendations



## Forest Harvest BMPs

Forest Harvests use a wide variety of practices to minimize water quality impacts including:

- Water bars
- Culverts
- Maintaining forest buffers (also highly effective for N removal)
- Stream crossings where necessary (many harvests aim to avoid crossings)
- Avoiding depositing organic material from harvest in streams



# Current Forest Harvest BMP in CAST:

Forest Harvest BMPs decrease total loads by:

- Total Suspended Solids (TSS) 60%
- Total Nitrogen (TN) **50%**
- Total Phosphorus (TP) 60%
- Determined via 2009 report by Pamela Edwards & Karl Williard
- 1-year credit duration
- <u>More information in the BMP</u> <u>Guide, Page 162</u>

	Original recommended loading rate ratio	Current forest harvesting BMP efficiency	Loading rate ratio after BMP application	% of additional loads over True Forest removed by BMPs
TN	7.03	50%	3.52	58%
ТР	3.12	60%	1.25	88%
TSS	3.05	60%	1.22	89%

# BMP efficiency re-evaluation

- Evaluated studies published 2009 present and conducted interview with experts
- Initial review looked at TN, TP and TSS. Re-focused on TN given already high efficiencies for TP and TSS
- Focused on research evaluating impacts on TN loads (not concentrations)
  - Loads measure the total amount of a pollutant entering a waterway over a period of time (accounting for changes in streamflow)
- Identified one additional study evaluating effects of harvest on TN loads. Calculated a 58% efficiency from BMPs to achieve loading rate ratios (Boggs et al. 2015)
- Literature reviewed by Edwards and Williard found a 60-80% efficiency for TN loads (Wynn et al. 2000)

### Forest Harvesting BMP Recommendations

#### **Decision Requested** (previously approved by WTWG and FWG)

- Recommend changing the efficiency rates of forest harvest BMPs to:
  - TN from 50% to 60%
  - Maintain efficiencies for TP and TSS
- 2. Recommend changing the **credit duration for forest harvest BMPs to three years.**