

## 8.6 Total Nitrogen Reduction Policy

Onsite wastewater systems that qualify as Best Practical Methods (BPM) for the targeted nitrogen reduction amount appear in **Table 8-1**. Areas of concern, such as nitrate priority areas, areas with shallow soils over bedrock, or a shallow depth to ground water, may be required to use one of these BPMs to reduce the development's or home's environmental impact. Values listed in the total nitrogen (TN) column should not be exceeded in order to assure that the required TN reduction percentage is attained. These TN values may be used in Nutrient – Pathogen (NP) Studies to evaluate impacts on ground water resources.

**Table 8-1. Best Practical Methods for Onsite Wastewater Systems**

Best Practical Method	% Total Nitrate <sup>a</sup> Reduction	Total Nitrate <sup>a</sup> (mg/L)	Minimum Source Water Alkalinity <sup>b</sup>	O&M Provider
Intermittent Sand Filters (ISF)	15% <sup>c</sup>	38	108 mg/L	Property Owner
Recirculating Gravel Filters (RGF)	40% <sup>c</sup>	27	189 mg/L	Property Owner
<b>Extended Treatment Package Systems (ETPS)</b>				
Busse Innovative Systeme GmbH – MF-B-400	30%	32	156 mg/L	Nonprofit O&M Corp.
Delta – Ecopod	30%	32	156 mg/L	Nonprofit O&M Corp.
Delta – Whitewater	30%	32	156 mg/L	Nonprofit O&M Corp.
Nayadic	30%	32	156 mg/L	Nonprofit O&M Corp.
Norweco – Singulair	30%	32	156 mg/L	Nonprofit O&M Corp.
Norweco – Singulair TNT	30%	32	156 mg/L	Nonprofit O&M Corp.
Southern Manufacturing	30%	32	156 mg/L	Nonprofit O&M Corp.
Jet Inc.	32% <sup>d</sup>	31	163 mg/L	Nonprofit O&M Corp.
<b>Recirculating ETPS</b>				
SeptiTech	55% <sup>e,f</sup>	20	180 mg/L	Nonprofit O&M Corp.
Orenco - AdvanTex	65% <sup>e,f</sup>	16	269 mg/L	Nonprofit O&M Corp.
BioMicrobics	65% <sup>f</sup>	16	269 mg/L	Nonprofit O&M Corp.

<sup>a</sup> Quantifiable values (mg/L) will indicate compliance with the Qualitative TN Reduction limit expressed as a percentage (%) reduction.

<sup>b</sup> Minimum recommended source water alkalinity to support nitrification in the denitrification process. Use of water softeners is not recommended due to potentially detrimental effects on the biological processes.

<sup>c</sup> Literature Value

<sup>d</sup> Idaho Testing

<sup>e</sup> 3<sup>rd</sup> party (ETV)

<sup>f</sup> NSF data