

**Status of Nutrient Removal at Waste Water Treatment Facilities in Rhode Island (updated 10/3/01)**

	WWTF	Advanced Treatment Status	Permit or Mod	CA or CA Mod	Facility Plan		Preliminary Design		Final Design		Complete Construction		Estimated Cost	Comments
					Due	Status	Due	Status	Due	Approved	Due	Comp		
1	BRISTOL	Nitrogen Not Evaluated	7/28/99											
2	BURRILLVILLE	Ammonia (8.9), Nitrogen (Max extent)	9/7/00	2001										In compliance (Need for additional modifications under review)
3	CRANSTON	Ammonia (2), Nitrogen (8), Phosphorus (1)	6/1/00	2000	12/31/01 (N & P)								(\$12.7 M) <sup>1</sup>	Ammonia treatment constructed cost of \$6.55 M.
4	EAST GREENWICH	Nitrogen (5)	9/28/01	2001		approved	2/1/02.		14 mos. PD		30 months OA		(\$5.0 M) <sup>1</sup>	
5	EAST PROVIDENCE	Nitrogen	9/27/91										(\$12.8 M) <sup>1</sup>	Providence/Seekonk TMDL
6	JAMESTOWN	Not Anticipated	9/25/00											
7	NARRAGANSETT	Ammonia (32)	3/29/00											In Compliance
8	NARRAGANSETT BAY COMM-BUCKLIN	Ammonia, Nitrogen	12/31/90			approved		approved		9/01			(\$12 M) <sup>1</sup>	Final Design Annual Ave 8 mg/l approved 9/01 Providence/Seekonk TMDL
9	NARRAGANSETT BAY COMM-FIELDS	Ammonia, Nitrogen	9/30/92										(\$25.2 M) <sup>2</sup>	Facility Planning initiated 2001 Prov/Seekonk TMDL
10	NEW SHOREHAM	Ammonia (11.2 mg/l)	5/2/00		1/15/02									In Compliance (Need for additional modifications under review)
11	NEWPORT	Nitrogen Not Evaluated	11/10/97											
12	RIEDC/QUONSET	Nitrogen Not Evaluated	12/30/99											
13	SMITHFIELD	Ammonia (2.7 mg/l), Nitrogen and Phosphorus (0.2 mg/l)	6/8/01	2001	12/8/01								\$6.5 M	Facilities Plan due 12/8/01
14	SOUTH KINGSTOWN	Not Required	5/7/01											
15	WARREN	Ammonia, Nitrogen	11/26/96										\$5.2 M	Limits expected from Palmer River TMDL (final TMDL completion 12/01)
16	WARWICK	Ammonia (2 mg/l), Phosphorus (1 mg/l), Nitrogen (8 mg/l)	6/1/00	4/26/01		approved		approved	received		31 mos Final Design		(\$26.3 M) <sup>1</sup>	Final Design resubmitted. 6/11/01. Meet Limits 34 months OA
17	WEST WARWICK	Ammonia (2 mg/l), Phosphorus (1 mg/l), Nitrogen (8 mg/l)	6/1/00	2000		approved		approved	received				(\$25 M) <sup>1</sup>	Final Design Comments issued 9/10/01
18	WESTERLY	Ammonia (5.5 mg/l), Nitrogen (no limit)	3/11/97	1998			8/30/01	received					\$6.4 M	Draft Consent Agreement Modification. PDR received

19	WOONSOCKET	Ammonia (2 ) Nitrogen (10 mg/l), Phos (1 mg/l)	6/14/00	2000		approved		approved		approved	9/01	9/01	(\$8.0 M) <sup>3</sup>	Providence/Seekonk TMDL may modify limits
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Notes: Unless otherwise noted costs are based on formula developed by the Water Environment Federation (WEF), actual costs will vary.

<sup>1</sup>Cost based on recent Facility Planning or Design Report submitted to DEM.

<sup>2</sup>Estimated from Bucklin Point costs, since the WEF formula did not appear representative for larger facilities and no specific cost information is available for this facility.

<sup>3</sup>Estimated cost of additional modifications to reduce Nitrogen from 10 mg/l (under construction at a cost of \$5.2 M) to 8 mg/l.