

ENVIRONMENTAL Fact Sheet



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2015

Large Surface Water Treatment Plants in New Hampshire

This fact sheet provides a convenient reference for identifying larger drinking water treatment plants in New Hampshire and their treatment methods.

Most of these facilities treat surface water (i.e. water from lakes or rivers). There are substantial regulations that govern the operation of these plants under the Federal Safe Drinking Water Act and N.H. Administrative Rules Env-Dw 716 Filtration, Disinfection, and Waste Recycling.

These plants must be operated by a certified person. The typical certification level is either grade 3 or 4 (highest). Operators of many of these plants will provide tours.

FOR MORE INFORMATION

Please contact the Drinking Water and Groundwater Bureau at (603) 271-2513 or dwgbinfo@des.nh.gov, or visit our website at <http://des.nh.gov/organization/divisions/water/dwgb/index.htm>. All of the bureau's fact sheets are online at <http://des.nh.gov/organization/commissioner/pip/factsheets/dwgb/index.htm>.

Town EPA ID	Water System	Contact (O: Office Phone, P: Plant Phone)	Population	Capacity	Plant/ Treatment Processes
Andover 0081010	Andover Village Dist. Box 147 Andover, NH 03216	Todd Cartier, Op. O: 477-6540	650	0.20 mgd	<u>Surface Water: Kinetic Plant</u> Sodium hypochlorite, sodium hydroxide, pressure filtration, waste to infiltration lagoon.
Bartlett 0161010	Bartlett Vill. Pct. Box 336 Bartlett, NH 03812	Scott Hayes, Op. O: 383-4948	625		<u>Surface Water: Slow Sand Plant</u> Slow sand filter: sodium hypochlorite, hand cleaned, waste to landfill.

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Berlin 0231010	Berlin Water Works 55 Willow St. Berlin, NH 03570	Craig Carrigan, Supt. O: 752-1677	9,500	4 mgd	Ammonoosuc River; Microfloc Plant PC-605, nonionic polymer, sodium hypochlorite, multi media gravity filter, sodium hydroxide, waste to sewer.
Bethlehem 0241010	Bethlehem Vill. Dist. PO Box 667 359 Maple St. Bethlehem, NH 03574	Terry Welch, Op. O: 869-3440	1,700	.05 mgd	<u>Surface Water: Slow Sand Plant</u> Slow sand filter, sodium hypochlorite, sodium hydroxide, hand cleaned, waste to landfill.
Canaan 0351010	Town of Canaan Water Dept. 1168 Rte. 4 PO Box 38 Canaan, NH 03741	John Coffey, Cont. O: 523-4501	600	0.1 mgd	<u>Surface Water: Slow Sand Plant</u> Sodium hydroxide, slow sand filter, sodium hypochlorite, hand cleaned, waste to landfill.
Claremont 0461010	City of Claremont Water Dept. 58 Opera House Sq. Claremont, NH 03743	Rob Lauricella, Op. O: 542-7020 P: 542-6531	9,000	4 mgd	<u>Surface Water:</u> <u>Conventional Plant</u> Poly aluminum hexachlorate, rapid mix, gravity filtration, sedimentation, ABW gravity filters, granular activated carbon, sodium hypochlorite, sodium hydroxide, polyphosphate, waste to sewer.
Concord 0501010	City of Concord, Dept. of General Services 311 N. State St. Concord, NH 03301	Marco Philippon Op. P: 230-3951	30,000	10 mgd	<u>Surface Water:</u> <u>Conventional Plant</u> Alum, sodium hypochlorite, rapid mix, sedimentation, mixed media gravity filtration, sodium hypochlorite, sodium fluoride, sodium hydroxide, carbon dioxide, ammonium sulfate, waste to sewer.

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Durham 0691010	Durham Water Works University of NH 42 Water Works Rd. Durham, NH 03824	Wesley East, Op. O: 862-1232 (seasonal) P: 862-1390	16,000	1.5 mgd	<u>Surface Water:</u> <u>Conventional Plant</u> Poly aluminum chloride (PCH 180), rapid mix, potassium permanganate, sedimentation, Ciba (magnafloc LT 225), gravity multi media filtration, sodium hypochlorite, sodium fluoride, sodium hydroxide, waste to lagoon with recycle.
Exeter 0801010	Exeter Water Dept. 13 Newfields Rd. Exeter, NH 03833	Paul Roy, Supt. O: 773-6157	11,000	3.4 mgd	<u>Surface Water:</u> <u>Conventional Plant</u> Poly aluminum chloride, powdered activated carbon, sodium hydroxide, potassium permanganate, polymer betz 1160, roughing filter, multi media filtration w/ surface wash, sodium hypochlorite, zinc orthophosphate, waste to sewer.
Goffstown 0911010	Goffstown Vill. Pct. 183 N. Mast. Rd PO Box 689 Goffstown, NH 03045-0689	Lee Minnich O: 497-3621	3,000	0.6 mgd	<u>Surface water: Kinetico Plant</u> Calcium carbonate, pressure filtration, sodium hypochlorite, waste to lagoon with NDPES discharge.
Gorham 0921010	Gorham Water & Sewer 8 Main St. Gorham, NH 03581-1397	David Patry, Op. O: 466-3302 P: 466-3105	2,630	1.0 mgd	<u>Surface Water; Slow Sand Plant</u> Sodium hypochlorite, slow sand (Filter beds are backwashable), waste to lagoons.
Greenville 0991010	Town of Greenville PO Box 343 Greenville, NH 03048-0343	Gerry Curran, Op. P: 878-2800	1,100	0.4 mgd	<u>Surface Water:</u> <u>Conventional Plant</u> Sodium hydroxide, alum, sodium aluminate sedimentation, sodium hydroxide, ABW gravity filter, waste to infiltration lagoon.

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Haverhill (Woodsville) 1101040	Woodsville Water & Lt. 4900 Dart. Coll. Highway Woodsville, NH 03785	Robert Fagnant Bill Harris O: 747-2442 P: 747-8115	2,000	1.0 mgd	<u>Surface Water: Microfloc Plant</u> Poly aluminum chloride (Stern pac), polyacrylamide surflo M300, (sodium bicarbonate, seasonally) powdered activated carbon, sedimentation, gravity filtration, sodium hypochlorite, Calgon C9, sodium hydroxide, waste to sewer.
Hillsborough 1141010	Town of Hillsboro Water & Sewer PO Box 2216 Hillsboro, NH 03244	Joe Damour, Contract O: 428-3525	2,000		<u>Surface Water: Slow Sand</u> Sodium hypochlorite, potassium hydroxide, slow sand filter, hand cleaned, waste to landfill.
Hopkinton 1191010	Contoocook Vill. Pct. PO Box 414 Contoocook, NH 03229	Steve Clough, Supt O: 746-3389	1,600	0.2 mgd	<u>Surface Water: Kinetico Plant</u> Calcium carbonate, pressure filtration, sodium hypochlorite, waste to infiltration lagoons.
Jackson 1211010	Jackson Water Precinct PO Box 151 Jackson, NH 03846	Scott Hayes, Op. O: 383-4083	500	0.35 mgd	<u>Surface Water: Kinetico Plant</u> River bank infiltration intake, polymer, coarse pressure filtration, fine pressure filtration, air sparge cleaning, sodium hypochlorite, calcium carbonate, waste to lagoon with NDPES discharge, sodium bisulfate.
Keene 1241010	City of Keene Water Dept. 350 Marlboro St. Keene, NH 03431	Ben Crowder, Op. O: 352-6550 P: 357-8483	25,000	6.0 mgd	<u>Surface Water: Microfloc Plant</u> Cationic polymer, static mixer, sodium hypochlorite, soda bicarbonate, sodium hydroxide, waste to recycle and sewer. Chlorine dioxide trial.

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Laconia 1281010	Laconia Water Works Box 6146 Laconia, NH 03247	Floyd Dungenman, Op. O: 524-0901 P: 524-1096	12,000	6.0 mgd	<u>Surface Water: Microfloc Plant</u> Alum, sodium hypochlorite, sedimentation, gravity mixed bed filtration, sodium fluoride, sodium hypochlorite, zinc orthophosphate, waste to recycle.
Lancaster 1291010	Lancaster Water Dept. 25 Main St. Lancaster, NH 03584	Tim Bilodeau O: 788-3391 P: 788-2824	2,450		<u>Surface Water: Slow Sand Plant</u> River bank infiltration intake, slow sand filter, sodium hypochlorite, sodium fluoride.
Lebanon 1321010	Lebanon Water Works 51 North Park St. Lebanon, NH 03766	Jim Angers P: 448-2514	10,050	4.0 mgd	<u>Surface Water: Conventional Plant</u> Poly aluminum chloride, rapid mix, sedimentation, gravity multimedia filtration, sodium hypochlorite, soda ash, sodium fluoride, waste to infiltration lagoon.
Lincoln 1351010	Town of Lincoln Water Dept. PO Box 25 Lincoln, NH 03251	William Willey O: 745-6250	2,750 Seasonal	1.0 mgd	<u>Surface Water: Microfloc Plant</u> Alum, cation polymer (Nalco 8105), upflow clarifier, sodium hypochlorite, sodium bicarbonate, sodium hydroxide, waste to sewer.
Littleton 1381010	Littleton Water & Light 65 Lafayette Ave. Littleton, NH 03561	Tom Considine O: 444-2915	6,000	1.5 mgd	<u>Surface Water: Slow Sand Plant</u> Slow sand filter, sodium hypochlorite, sodium bicarbonate.

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Manchester 1471010	Manchester Water Dept. 281 Lincoln St. Manchester, NH 03103	David Miller P: 624-6482	125,000	40 mgd	<u>Surface Water:</u> <u>Conventional Plant:</u> <u>Current Plant:</u> Poly aluminum chloride/alum, Sodium hydroxide, rapid mix, sedimentation, zinc orthophosphate, sodium hypochlorite, Ozone using LOX; sodium bisulfite destruct; GAC/ anthracite filtration, soda ash, chloramines., sodium hydrofluorosilicic acid., waste to lagoon w/ recycle. Also, an activated carbon fluidized bed regeneration furnace onsite
Meredith 1521010	Town of Meredith Water Dept. 41 Main St. Meredith, NH 03253	Daniel Leonard, Supt. O: 279-4538 P: 279-3046	2,635	1.0 mgd	<u>Surface Water; Microfloc Plant</u> Alum, upflow clarifier, mixed media filter, sodium hypochlorite, sodium hydroxide, aquamag phosphate, waste to sewer.
Nashua 1621010	Pennichuck Water Works PO Box 1947 25 Manchester St. Merrimack, NH 03054	Chris Countie O:882-5191 P:913-2372	86,630	20 mgd	<u>Surface Water;</u> <u>Dregmont/Pulsator;</u> Lime, ferric chloride, General Chem F60600PWG nonionic polymer, rapid mix, upflow pulsator clarifier, gravity media filtration, blended phosphate (sequest), sodium hypochlorite, lime, waste to sewer and recycle.
New Hampton 1691010	New Hampton Pct. PO Box 506 New Hampton, NH 03256	Joel Powers P:744-2134	600		<u>Surface Water: Kinetico Plant</u> Sodium hypochlorite, filtration, waste to infiltration lagoon.
Newport 1741010	Newport Water Dept 15 Sunapee St. Newport, NH 03773	Bob Naylor O:863-4271 P:863-4271	5,000	0.7 mgd	<u>Surface Water: Slow Sand Plant</u> Slow sand filter, sodium hypochlorite, sodium silicate, waste harrowed to lagoon with NDPES discharge.

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Pittsfield 1911010	Pittsfield Aqueduct Co. 25 Manchester St. Merrimack, NH 03054	Curt Sheing O: 913-2365	1,595	0.25mgd	<u>Surface Water: Microfloc Plant</u> Alum, soda ash, General Chem P64010PWG noionic-, soda ash, filtration, sodium hypochlorite, zinc orthophosphate, waste to infiltration lagoon.
Portsmouth 1951010	Portsmouth Water Dept. 680 Peverly Hill Road Portsmouth, NH 03801	Brian Goetz P: 766-1420	33,000	5.0 mgd	<u>Surface Water: Conventional Plant</u> Poly aluminum chloride, sodium hydroxide, (powdered activated carbon-seasonally), rapid mix, coag/floc sedimentation, sodium hypochlorite, gravity rapid sand filtration, sodium hypochlorite, sodium hydroxide, orthophosphate- calciquest, hydrofluorosilicic acid, waste to lagoon with recycling.
Portsmouth 1951020	Pease Trade Port 601 Spaulding Tpke Portsmouth, NH 03801	(See Portsmouth)	500	1.0 mgd	<u>Ground Water: Gravel Wells</u> Inoperative VOC treatment plant. Proposed upgrade to address nitrate contamination. Existing treatment calcium hypochlorite pellet feeder, hydrofluorosilicic acid, calciquest.
Rochester 2001010	City of Rochester Water Dept. 45 Old Dover Rd. Rochester, NH 03867	Ian Rohrbacher, Op. O: 332-4096	20,000	5.0 mgd	<u>Surface Water: Conventional Plant</u> Alum, sodium hydroxide, rapid mix, flog/coag sedimentation, sodium hypochlorite, ABW gravity filtration, ABW activation carbon adsorption, sodium hypochlorite, hydrofluorosilicic acid, sodium hydroxide, waste to pressure sewer.

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Salem 2051010	Salem Water Dept. 33 Geremonty Dr. Salem, NH 03079	Frank Giordano P: 890-2150	18,000	6.0 mgd	<u>Surface Water: Microfloc Plant</u> Alum or poly aluminum chloride, polymers, contact clarifiers, dual media gravity filtration, sodium hypochlorite, zinc orthophosphate, sodium hydroxide, waste to recycle to sewer.
Somersworth 2151010	Somersworth Water Dept 18 Lilac Ln Somersworth, NH 03878	Greg Kirchofer P:692-2268	12,000	3.0 mgd	<u>Surface Water: Microfloc Plant</u> Potassium permanganate, Nalco 8105-cation charge, alum seasonally, powdered activated carbon, polydyne pw3 poly8-cation charge, upflow clarifer, multimedia, gravity filtration, sodium hypochlorite, sodium hydroxide, waste to recycle and sewer.
Sunapee 2271010	Sunapee Water/Sewer Box 347 Sunapee, NH 03782	David Bailey 763-2115	1,640	0.5 mgd 0.2 mgd	Sunapee: <u>Surface Water: Slow Sand Plant</u> Sodium hypochlorite, RS-5 phosphate blend, slow sand filter, waste to mulch. Georges Mills: <u>Groundwater: Bedrock wells</u> aeration, sodium hypochlorite, C-5 zinc orthophosphate
Westmoreland 2494010	Maplewood Home 201 River Rd, Westmoreland, NH 03467	Rob Riendeau, Op. O: 399-4912 ext. 362	400 R/ 400 E	0.1 mgd	<u>Surface Water: Microfloc Plant</u> Cyclone separator, strainer, sodium hydroxide, Culligan alum, static mixer, pressure course pressure filter, fine pressure filter, granular activated carbon, sodium hypochlorite, waste to sewer.

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Wolfeboro 2561010	Wolfeboro Water Dept. PO Box 629 Wolfeboro, NH 03894	Scott Pike O:569-8176 P:569:2450	5,000(w) 6,500(s)	2.0 mgd	<u>Surface Water: Microfloc Plant</u> Alum, soda ash, sodium hypochlorite, upflow clarifier, multimedia filter including activated carbon, soda ash, sodium hypochlorite, waste to infiltration lagoon.