

Monthly Operating Report
July, 2012
Concord Wastewater Treatment Facility
Operated by Woodard & Curran

Date: August 22, 2012

To: Alan Cathcart, Concord Water & Sewer Superintendent
cc: Chris Whelan, Town Manager
Richard Reine, Director Concord Public Works

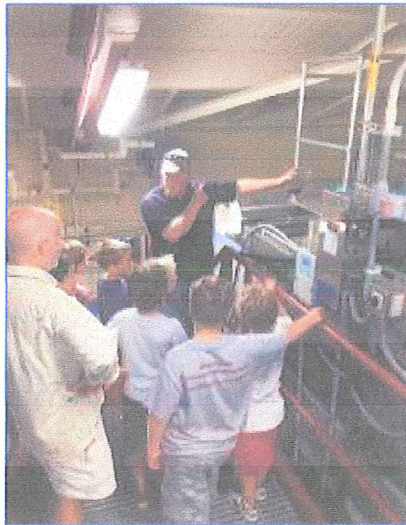
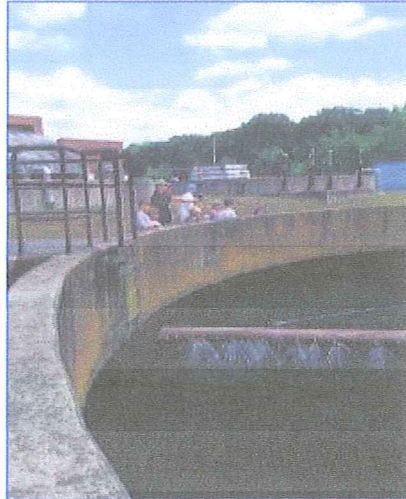
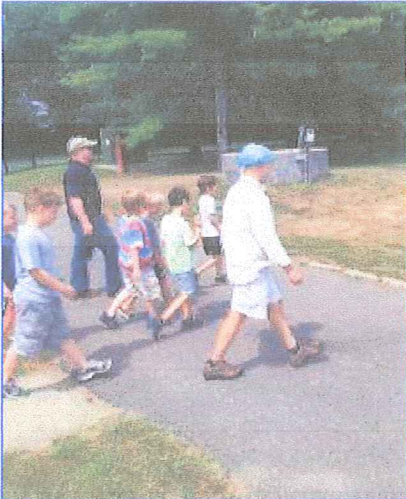
From: John Parkhurst and Staff

Key Activities This Month/Capital Program:

During July all treatment processes were either operational or in ready standby. Flow through the facility in June averaged 0.82 million gallons per day (MGD) and the permit critical 12-month average flow dropped slightly to 1.09 MGD. This is the fifth consecutive month that the 12-month average flow dropped and moved further from the 1.20 MGD limit for 12-month average flow.

Events that are more notable or tasks accomplished in July include:

Friday July 12th, 2012: Staff conducted a plant tour with the local youth bike club. (See Photos below)



Photos: Youth bike club observing the plant processes and getting an explanation on how it all works.

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Health and Safety Activities or Training:

Wednesday July 27th, 2012: Plant staff completed an online training on the proper procedures of cleaning a respirator protection

Maintenance Management

The following is a brief list of a portion of maintenance items completed in July:

July 1st, 2012: South clarifier door alarmed out. No intrusion-detected alarm reset.

July 5th, 2012: Staff painted primary clarifier #1.

July 12th, 2012: Plant staff conducted two tours of the facility. One with the Woodard & Curran interns and the other was with the local summer bike club for kids.

July 15th, 2012: Power shed event from 1:47PM – 4:20PM. During event SCADA server #1 went down. In addition, the PLC for the muffin monster on sludge pump #1 is not responding.

July 16th, 2012: Woodard & Curran SCADA technician onsite to repair server #1

July 19th, 2012: Staff cleaned MCC fan filter.

July 20^h, 2012: Odor control wet well sump pump out of service. Using portable sump until replacement parts come in.

July 28th, 2012: Plant had two power outages. Reset equipment.

Environmental Compliance

Parameter	Monthly Avg.	Permit Limit	Notes
Flow, MGD	1.1 MGD (12-month avg.)	1.2 MGD	July avg. = 0.82 MGD Max. Daily Flow = 2.43 MG on Mon. 7/16
BOD5 (mg/l)	2 mg/l	30 mg/l	99% average BOD removal in July
TSS (mg/l)	3 mg/l	30 mg/l	99% average TSS removal in July
Coliform, Geo.Mean #/100ml	0 cfu*/100ml	200 cfu/100ml	0 f-coliform counts daily max
Phosphorus	0.2 mg/l	0.2 mg/l Apr '12– Oct '12	0.35 mg/l daily max. occurred on Mon. 7/23
Total Ammonia Nitrogen	0.44 mg/l	Report Only	0.89 mg/l daily max. on Mon. 7/09

*cfu = coliform forming unit or colony.

Throughout July, the Concord WWTF performed continuous two-stage total phosphorus (TP) removal using aluminum sulfate. First stage chemical TP treatment occurred in the two secondary clarifiers, while second stage TP treatment took place within the CoMag® advanced treatment process. The monthly average effluent TP concentration in July is 0.2 mg/l, thereby meeting the CWWTF's summer permit limit not to exceed 0.2 mg/l TP as a monthly average.

Additionally during July, all effluent disinfection performed using ultra violet light.

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Alarm Activity

This section provides the Town information on events that activate the facility's alarm response system. The events occur while the plant is unmanned and while both the plant's SCADA system and The *Lexington Alarm* are monitoring the facility's alarm system. This report identifies alarm activity from the start of the calendar year to the present.

Concord WWTF Off-Hours Alarm Log

Date	Time	Alarm Source	Observations/Corrective Action/Comments
Jan. '12	Various	Intrusion	South Clarifier Rm. single door triggered several nuisance intrusion alarms in January. Plant personnel replaced wiring to the magnetic pickup on the door and slightly adjusted the position of the pickup- so far so good.
Feb. 11, 2012	3:28 AM	Numerous	A very brief loss of utility power lead to a number of motor faults that required reset by an onsite operator as the SCADA system was inaccessible too.
Mar. '12	NA	NA	No off hours alarms in March.
Apr. 29, '12	10:30 am	Numerous	A very brief loss of utility power lead to a number of motor faults that required reset by an onsite operator who was performing weekend (Sat.) rounds.
May '12	NA	NA	No off hours alarms in May.
Jun. 17, '12	8:30 PM	Numerous	Plant water alarm came in. Plant staff cleaned intake screens and reset system. (All OK)
Jul. 28, '12	8:00 AM	Numerous	A very brief loss of utility power lead to a number of motor faults that required reset by an onsite operator who was performing weekend (Sat.) rounds.

Septage Receiving

The Concord WWTF receives septage only from in-Town sources. A total of 137,750 gallons of septage received at the Concord WWTF in July.

WWTF Septage Receipts in gallons

	2012	2011	2010
January	56,000	44,050	32,500
February	34,000	31,750	25,750
March	83,000	102,950	171,750
April	111,500	139,750	211,500
May	110,250	113,500	125,950
June	112,750	130,000	184,950
July	137,750	73,750	90,800
August		69,500	173,250
September		98,750	182,250
October		82,250	210,250
November		90,250	194,100
December		117,250	132,750
Annual Totals:	645,250	1,093,500	1,735,800

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Sludge Production

During July, 116,141 gallons of liquid sludge, equivalent to 22.36 dry tons, transported to Upper Blackstone Water Pollution Abatement District (UBWPAD) in Millbury, Massachusetts.

	WWTF Sludge Production in gallons /dry tons		
	2012	2011	2010
January	112,896/17.12	98,309/16.78	89,000/15.61
February	62,183/11.1	72,916/13.5	90,000/16.81
March	99,452/13.71	72,617/13.89	90,000/15.65
April	97,796/11.75	81,000/14.90	135,000/23.57
May	107,500/16.66	108,000/27.85	97,980/15.76
June	116,530/18.53	108,000/19.67	99,000/18.28
July	116,141/22.36	106,060/17.69	99,000/16.81
August		135,224/18.83	108,000/18.61
September		108,008/15.10	106,160/17.88
October		141,003/23.05	107,558/17.31
November		114,905/20.28	142,500/21.18
December		105,573/18.56	134,750/21.73
Annual Totals:	712,498/111.23	1,251,615/205.18	1,298,945/219.20