



## PASSAIC VALLEY WATER COMMISSION

1525 MAIN AVENUE • P.O. BOX 230  
CLIFTON, NEW JERSEY 07011 • (973) 340-4300  
CLIFTON FAX # (973) 340-4321

April 30, 2014

### COMMISSIONERS

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**Robert Vannoy**, Vice President, Paterson  
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**Rigo Sanchez**, Commissioner, Passaic

Mr. Bruce S. Shapiro  
Local Government & Regulatory Affairs Coordinator  
New Jersey Association of Realtors  
295 Pierson Avenue  
Edison, NJ 08837

### Re: Open Drinking Water Reservoirs

Dear Mr. Shapiro:

We have reviewed your April 17, 2014 letter (copy enclosed) and offer the following responses, numbered to be consistent with your letter. As you agreed, please distribute a copy of this letter to all attendees at the previous board meeting. Note that this letter will also be available on the Commission's website.

1. We plan on having another public meeting in late May or early June. The details are still being finalized but it will be held in the evening and will be coordinated through the New Jersey Community Development Corporation (NJCDC). Note that this next public meeting will be focused on the proposed tanks at the Levine Reservoir. The work at the New Street and Great Notch reservoirs is still years away and will be presented in the future.
2. A public meeting was held in the evening on February 24, 2014 in the Paterson City Hall. In addition, numerous meetings with elected officials and representatives of the NJCDC and the Friends of the Great Falls have been held.
3. The design of the new facilities has progressed to the point where there is enough detail to present to the public.
4. The feasibility study was an extensive undertaking that analyzed the governing regulations, existing facilities, operations, maintenance, capital expenditures, and alternatives such as treatment, covers, liners, and tanks. Now that the technical details of the most promising alternatives have been evaluated and identified, we are working with the NJCDC to schedule public meetings.
5. This is a recurring comment which we believe is due to the lack of understanding associated with open drinking water reservoirs. To reiterate, these three reservoirs are not the raw, untreated water which the public is generally familiar with. These reservoirs receive water that has already been treated at our Little Falls Water Treatment Plant. Once in these open reservoirs, the water is then re-contaminated from run-off, animals,

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Mr. Bruce Shapiro  
NJ Association of Realtors  
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vandals, etc. That is why it is imperative that the treated water be stored in covered tanks that are secure and protected from outside contamination.

6. The enclosed figure presents the anticipated rate increases for a typical customer that will result from this reservoir project as well as other planned capital improvements.
7. We understand that there has been public concern but we believe at this point it is partially due to the prevalence of misinformation that is being spread by certain affected parties. **As an example, of the 750 open drinking water reservoirs that existed in the 1970s, less than 20 now remain countrywide and all of these are in the process of being removed, upgraded, or are under an Administrative Consent Order (ACO).** In 2016, the EPA will be reviewing all their Safe Drinking Water Act rules and regulations, including the Long Term Stage 2 Enhanced Drinking Water Rule (LT2). We have been notified, however, by the New Jersey Department of Environmental Protection (NJDEP) that the possibility of LT2 being dismissed is basically zero. Note that the State of Oregon has just settled their lawsuit with the EPA and will comply with the regulations, as will New York. Consequently, eliminating open drinking water reservoirs is the industry standard of care.
8. The Levine Reservoir Tank project must meet with the approval of the State Historic Preservation Office as well as meet the requirements of Section 106 of the National Historic Preservation Act.
9. There have been numerous newspaper articles, presentations, and other public involvement. The process of public comment and involvement will continue in accordance with the requirements of the ACO and applicable permits.
10. Once again, these are not natural lakes but open drinking water reservoirs built and maintained by the Commission and located on Commission property. We recognize that some homes are in proximity to the reservoir but the Commission's primary responsibility is to public health and safety by delivering safe drinking water to hundreds of thousands of customers.
11. As a matter of public safety, all three of these open drinking water reservoirs are fenced in and closed to the public; trespassing is not allowed. Replacing the reservoirs with tanks will not impact the public's access to the adjacent Garret Mountain and Rifle Camp Parks.
12. Probably the most well-known cryptosporidium outbreak occurred in Milwaukee in 1993 when 69 people died and over 400,000 had gastrointestinal illness. No similar outbreak has occurred within the Commission's service area but the potential is there. Note that gastrointestinal illness is very common and no one can say with certainty the degree to which the open reservoirs contribute to this illness. The Commission does regular water quality monitoring throughout our distribution system and, as can be seen on the enclosed

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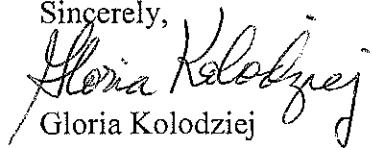
tables, has confirmed the presence of bacteria within the system served by these reservoirs a total of 70 times between August 2010 and July 2013.

13. The costs associated with maintaining the tanks will be significantly less than the present cost of maintaining the reservoirs.

In summary, the Commission appreciates the public's interest and is willing to work with any interested party to help minimize the visual impact of the proposed tanks. Towards that end, we have directed our consultants to minimize the visual impacts of the Levine Tanks by setting them far back from Grand Avenue and providing vegetative screening.

Thank you for your interest in this very important project.

Sincerely,



Gloria Kolodziej  
Board President

Enclosure

cc: Hon. Board of Commissioners, PVWC  
J. Bella, Executive Director, PVWC  
K. Byrne, Principal Engineer, Pumping and Distribution, PVWC  
J. Duprey, Director of Engineering, PVWC



4/1/2014

EXECUTIVE OFFICE: 295 Pierson Avenue, Edison, NJ 08837  
PHONE: (732) 494-5616 FAX: (732) 494-4723



April 17, 2014

Gloria Kolodziej, President  
Passaic Valley Water Commission  
1525 Main Avenue  
Clifton, NJ 07011

Dear President Kolodziej:

On behalf of the Passaic County Board of REALTORS® (PCBOR), I am writing to formally submit the list of questions asked as well as prepared at yesterday's regular meeting of the Passaic Valley Water Commission, as discussed during the public comment portion of this meeting. PCBOR greatly looks forward to the commission's response to these questions in writing as indicated after they were asked.

If you have any questions, please do not hesitate to contact either myself at (732) 494-5616 or [bshapiro@njar.com](mailto:bshapiro@njar.com) or Michelle Perrone Epstein, Chief Executive Officer of PCBOR, at (973) 305-1100 or [michelle@pcbor.com](mailto:michelle@pcbor.com).

Sincerely,

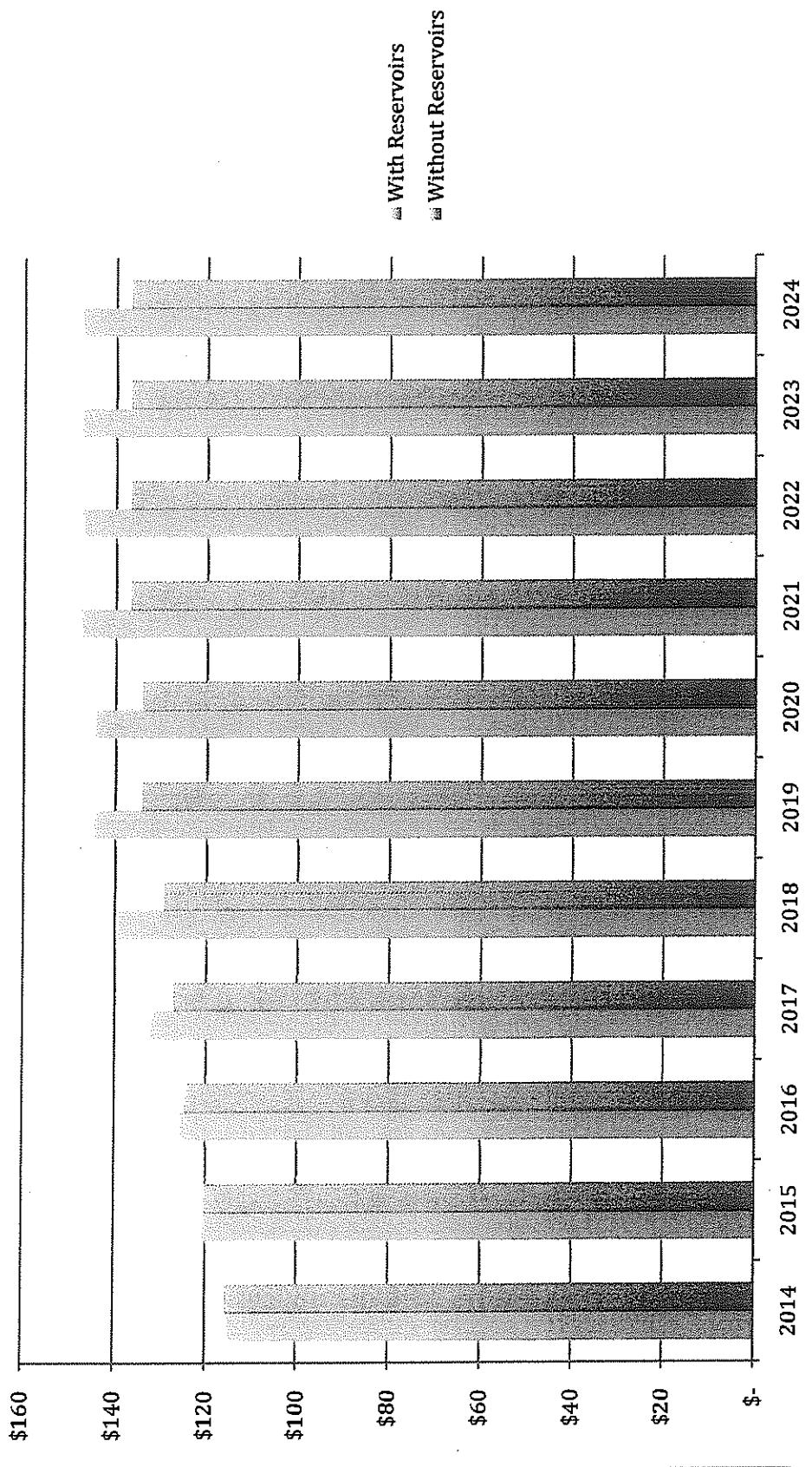
Bruce S. Shapiro  
Local Government & Regulatory Affairs Coordinator  
New Jersey Association of REALTORS®

cc: Passaic Valley Water Commissioners  
Joseph Bella, Passaic Valley Water Commission Executive Director  
Michelle Perrone Epstein, CEO, Passaic County Board of REALTORS®  
William Linteris, President, Passaic County Board of REALTORS®

1. When will the PVWC be holding its next public meeting specific to the plans approved in 2012 to drain the New Street, Great Notch and Levine Reservoirs and replace them with concrete tanks and will this meeting take place at night or on a weekend so that people who work during the week day can attend?
2. Aside from the regularly scheduled commission meetings such as this that take place on weekday mornings, were there any public meetings or information sessions on the plans to drain the reservoirs and construct concrete tanks in Paterson and Woodland Park?
3. Given that the plans to drain the reservoirs at New Street, Great Notch and Levine were approved in 2012 and this commission worked with a consultant and the DEP to develop a plan between 2009 and 2011 according to your website, why was information on the plan just posted within the last few weeks?
4. "Public involvement pertaining to the selected alternative will be addressed once this feasibility study has been approved by the NJDEP and during the conceptual design phase of this project." This is a quote from the feasibility study on your website for this plan. Does this mean the commission did not wish for the public to know or have a say in this project prior to its approval?
5. The documents on the commission website and recent articles pertaining to this project indicate that it will cost approximately \$135 million to drain the reservoirs and construct concrete tanks, yet it will cost over \$200 million to treat the water. Is the water treated already before we drink it and if so, why could we not simply treat the water for this chemical rather than draining the reservoirs/constructing tanks? As a follow up, how is it more expensive to do this massive project which apparently will be bonded for according to your website rather than to simply treat the water?
6. Given that the PVWC has approved a \$135 million project, what is the anticipated cost to ratepayers in terms of rate increases, especially over this 30-year period when the bonds will have to be paid back?
7. Were you aware that in just a little over a month, nearly 700 people have signed a petition expressing their concerns about this plan and asking that the commission hold off until the EPA determines whether the rule that triggered it will change or stay in effect, as entities in Oregon and New York have?
8. Given the proximity of the Levine Reservoir in Paterson to the Great Falls National Historic Site, isn't it true that there are other approvals needed for the project at this reservoir because of its historic designation?
9. Seeing as how over 20 municipalities have adopted resolutions raising concerns about this project as well as Passaic County and the Record ran an editorial on this issue, don't you believe that there should have been some public involvement before the plan was approved in 2012 by this commission?

10. Has the commission considered the impact this will have on the property values of homes living near the three reservoirs in Woodland Park and Paterson?
11. What are the environmental impacts and ramifications of the draining of these three reservoirs and construction of concrete tanks in their place, especially given that many people enjoy recreational opportunities around these areas both in Paterson and Woodland Park?
12. Have there been any reported illnesses related to cryptosporidium or any other items related to the EPA's LT2 rule from water coming from either the Great Notch, New Street or Levine Reservoirs?
13. Beyond the estimated \$135 million cost to drain the reservoirs and construct the tanks, what are the estimated costs to maintain them and what effect will this have on the PVWC ratepayers?

**Figure 1: Typical Quarterly Bill  
Owner Cities 5/8-inch meter  
22,500 Gal Per Quarter**



## COLIFORM SPECIATION

COLIFORM CONFIRMATION/BACTERIOLOGICAL SPECIATION for DISTRIBUTION SYSTEM POSITIVE TOTAL COLIFORM SITES

LOCATION ID:	DATE COLLECTED:	SAMPLE ID:	SAMPLE:	ORIGINAL SAMPLE / PRESSURE GRADIENT:	COLIFORM AND E. COLI:	NUMBER OF IDENTIFICATIONS:	IDENTIFICATION:	FAMILY:	ORIGIN:	CONFIRMED AS COLIFORM (YES or NO):
D-72	7/24/2013	AB389007	Valley Deli & Grocery, 117 Valley Rd, Clifton	425	Coliform P / E. coli A	1 of 1	Enterobacter cloacae	Enterobacteriaceae	Facultative anaerobe and can flourish in oxygen absent environments. Found in human and animal feces, water and	YES
D-28	7/24/2013	AB389934	PWYC, 1525 Main Avenue, Clifton	300	Coliform P / E.coli A	1 of 2	Pseudomonas shigelloides	Enterobacteriaceae	Gram negative, rod shaped bacterium that is a freshwater aquatic organism. Pathogenic organism that cause diarrhea	NO
D-28	7/24/2013	AB389934	PWYC, 1525 Main Avenue, Clifton	300	Coliform P / E.coli A	2 of 2	Enterobacter sakazakii	Enterobacteriaceae	Present in the gut of humans and animals. Associated with outbreaks of meningitis and enteritis. Reported cases	YES
D-103	7/23/2013	AB389929	The Clifton Little School, 391 Broad Street, Clifton	425	Coliform P / E.coli A	1 of 1	Pseudomonas shigelloides	Enterobacteriaceae	Gram negative, rod shaped bacterium that is a freshwater aquatic organism. Pathogenic organism that cause diarrhea	NO
D-99	7/22/2013	AB38841	Daughter's of Miriam, 155 Hazel Street, Clifton	425	Coliform P / E.coli A	1 of 2	Enterobacter cloacae	Enterobacteriaceae	Facultative anaerobe and can flourish in oxygen absent environments. Found in human and animal feces, water and	YES
D-99	7/22/2013	AB38841	Daughter's of Miriam, 155 Hazel Street, Clifton	425	Coliform P / E.coli A	2 of 2	Enterobacter sakazakii	Enterobacteriaceae	Present in the gut of humans and animals. Associated with outbreaks of meningitis and enteritis. Reported cases	YES
D-100A	7/22/2013	AB38859	Rutts Hut 417 River Road, Clifton Women's Room	Normal Hydraulic Conditions : 51" High Pressure	Coliform P / E.coli A	1 of 1	Enterobacter cloacae	Enterobacteriaceae	Facultative anaerobe and can flourish in oxygen absent environments. Found in human and animal feces, water and	YES
D-107	7/22/2013	AB38857	Family Cleaners, 12 Market Street, Clifton Women's Room	51" High Pressure Mix Supply / 330 Gradient	Coliform P / E.coli A	1 of 2	Enterobacter cloacae	Enterobacteriaceae	Associated with urinary tract, respiratory, wound and other infections.	YES
D-107	7/22/2013	AB38857	Family Cleaners, 12 Market Street, Clifton	51" High Pressure Mix Supply / 330 Gradient	Coliform P / E.coli A	2 of 2	Enterobacter cloacae	Enterobacteriaceae	Facultative anaerobe and can flourish in oxygen absent environments. Found in human and animal feces, water and	YES
D-100	7/22/2013	AB38855	Rutts Hut 417 River Road, Clifton	Normal Hydraulic Conditions : 51" High Pressure	Coliform P / E.coli A	1 of 2	Enterobacter cloacae	Enterobacteriaceae	Associated with urinary tract, respiratory, wound and other infections.	YES
D-100	7/22/2013	AB38855	Rutts Hut 417 River Road, Clifton	Normal Hydraulic Conditions : 51" High Pressure	Coliform P / E.coli A	2 of 2	Enterobacter sp.	Enterobacteriaceae	NA	YES

## COLIFORM SPECIATION

COLIFORM CONFIRMATION/BACTERIOLOGICAL SPECIFICATION for DISTRIBUTION SYSTEM POSITIVE TOTAL COLIFORM SITES

LOCATION ID:	DATE COLLECTED:	SAMPLE ID:	SAMPLE:	ORIGINAL SAMPLE / GRADIENT:	NUMBER OF COLIFORM AND E. coli:	IDENTIFICATION:	FAMILY:	ORIGIN:	CONFIRMED AS COLIFORM (YES or NO):	
D-66	7/22/2013	A#38851	The Hearth, 1115 Rt 425 46 West, Clifton	Coliform P / E.coli A	1 of 2	<i>Enteromonas shigelloides</i>	<i>Enterobacteriaceae</i>	Gram negative, rod shaped bacterium that is a freshwater aquatic organism. Pathogenic organism that cause diarrheal Associated with urinary tract, respiratory, wound and other infections.	NO	
D-66	7/22/2013	A#38851	The Hearth, 1116 Rt 425 46 West, Clifton	Coliform P / E.coli A	2 of 2	<i>Enterobacter asburiae</i>	<i>Enterobacteriaceae</i>	Associated with urinary tract, respiratory, wound and other infections.	YES	
D-24	7/22/2013	A#38848	Clifton FS #4-144 Main Avenue, Clifton	Coliform P / E.coli A	1 of 2	<i>Enterobacter sp.</i>	<i>Enterobacteriaceae</i>	NA	YES	
D-24	7/22/2013	A#38848	Clifton FS #4-144 Main Avenue, Clifton	Coliform P / E.coli A	2 of 2	<i>Enterobacter cloacae</i>	<i>Enterobacteriaceae</i>	Facultative anaerobe and can flourish in oxygen absent environments. Found in human and animal feces, water and animal feces; water and animal feces.	YES	
D-63	7/16/2013	A#38812	D-63- Lorenzo's Pizza, 208 New Street, West Paterson	New Street Reservoir/ 300 Gradient	Coliform P / E.coli A	1 of 1	<i>Enteromonas shigelloides</i>	<i>Enterobacteriaceae</i>	Gram negative, rod shaped bacterium that is a freshwater aquatic organism. Pathogenic organism that cause diarrheal	NO
D-56	8/13/2012	A#23317	D-36- Melgutax 469-21st Avenue, Paterson	New Street Reservoir/ 300 Gradient	Coliform P / E.coli A	1 of 1	<i>Enteromonas shigelloides</i>	<i>Enterobacteriaceae</i>	Gram negative, rod shaped bacterium that is a freshwater aquatic organism. Pathogenic organism that cause diarrheal	NO
D-86	8/13/2012	A#23100	D-86- Totowa Bolt and Tackle 10 Albion Avenue, Paterson	New Street Reservoir/ 300 Gradient	Coliform P / E.coli A	1 of 1	<i>Enteromonas shigelloides</i>	<i>Enterobacteriaceae</i>	Gram negative, rod shaped bacterium that is a freshwater aquatic organism. Pathogenic organism that cause diarrheal	NO
D-77	8/7/2012	A#22831	D-77 A&S Lunchbonette, 41 Clark Street, Paterson	New Street Reservoir/ 300 Gradient	Coliform P / E.coli A	1 of 1	<i>Proteus sp.</i>	<i>Proteobacteriaceae</i>	Associated with animals and infections in human. This is a pathogenic organism that is oxidase positive.	NO
Wanaque North	7/26/2012	A#B22266	Wanaque North North Jersey District Water Supply	North Jersey District Water Supply	Coliform P / E.coli A	1 of 1	<i>Mibellicia pneumoniae</i> <i>pneumoniae</i>	<i>Enterobacteriaceae</i>	Human feces and soil.	YES
D-100	7/2/2012	A#20397	Rutts Hut 417 River Road, Clifton	Rutts Hut 417 River Road, Clifton Conditions: 51° High Pressure	Coliform P / E.coli A	1 of 1	<i>Serratia marcescens</i>	<i>Enterobacteriaceae</i>	Common on damp surfaces, feeds on phosphorous containing materials.	YES
NA-18	6/11/2012	A#19750	Arlington Laundromat 493 Ridge Road, North Arlington	Pressure Mix Supply / 300 Gradient	Coliform P / E.coli A	1 of 1	<i>Citrobacter freundii</i>	<i>Enterobacteriaceae</i>	Common in soil, water, and wastewater. Can be found in almost everywhere. Organism uses citrate as a carbon source.	YES

## COLIFORM SPECIATION

COLIFORM CONFERMATION/BACTERIOLOGICAL SPECIATION for DISTRIBUTION SYSTEM POSITIVE TOTAL COLIFORM SITES

LOCATION ID:	DATE COLLECTED:	SAMPLE ID:	SAMPLE:	ORIGINAL SAMPLE / PRESSURE GRADIENT:	NUMBER OF IDENTIFICATIONS:	IDENTIFICATION:	FAMILY:	ORIGIN:	CONFIRMED AS COLIFORM (YES OR NO):
D-51	11/14/2011	AB11776	Northside FS# 4 New Street	Coliform P / E. coli A Gradient	1 of 1	Enterobacteriaceae	Enterobacteriaceae	Facultative anaerobe and can flourish in oxygen absent environments. Found in human and animal feces, water and surfaces in water, soil, and humans.	YES
D-107	11/14/2011	AB10455	Family Cleaners, 12 Market Street, Clifton	51' High Pressure Mix Supply / 330 Gradient	1 of 4	Serratia liquefaciens	Enterobacteriaceae	Is a pathogen which is capable of colonizing a wide variety of surfaces in water, soil, and humans.	YES
D-107	11/14/2011	AB10455	Family Cleaners, 12 Market Street, Clifton	51' High Pressure Mix Supply / 330 Gradient	2 of 4	Citrobacter freundii	Enterobacteriaceae	Common in soil, water, and wastewater. Can be found in almost everywhere. Organism uses citrate as a carbon source.	YES
D-107	11/14/2011	AB10455	Family Cleaners, 12 Market Street, Clifton	51' High Pressure Mix Supply / 330 Gradient	3 of 4	Klebsiella oxytoca	Enterobacteriaceae	Found in the intestinal tract of a healthy colon. However can spread to other parts of the body and cause life-threatening issues, like diarrhea. Capable of causing UTIs in humans with conditions : 51"	YES
D-107	11/14/2011	AB10455	Clifton FS #4 144 Main Avenue, Clifton	Normal Hydraulic Conditions : 51" High Pressure	4 of 4	Citrobacter freundii	Enterobacteriaceae	Is a pathogen which is capable of colonizing a wide variety of surfaces in water, soil, and humans.	YES
D-24	11/14/2011	AB10446	Clifton FS #4 144 Main Avenue, Clifton	Normal Hydraulic Conditions : 51" High Pressure	2 of 2	Klebsiella oxytoca	Enterobacteriaceae	Found in the intestinal tract of a healthy colon. However can spread to other parts of the body and cause life-threatening issues, like diarrhea. Capable of causing UTIs in humans with conditions : 51"	YES
HS-5	11/17/2011	A609769	Borough Hall 214 Ridge Road North Arlington	51' High Pressure Mix Supply / 330 Gradient	1 of 1	Enterobacteriaceae	Enterobacteriaceae	Facultative anaerobe and can flourish in oxygen absent environments. Found in human and animal feces, water and surfaces in water, soil, and humans.	YES
D-51	9/27/2011	AB08246	Northside FS #4 48 Temple Street, Paterson	New Street Reservoir/ 300 Gradient	1 of 4	Klebsiella pneumoniae ss. pneumoniae	Enterobacteriaceae	Human feces and soil.	YES
D-51	9/27/2011	AB08246	Northside FS #4 48 Temple Street, Paterson	New Street Reservoir/ 300 Gradient	2 of 4	Enterobacter cloacae	Enterobacteriaceae	Facultative anaerobe and can flourish in oxygen absent environments. Found in human and animal feces, water and surfaces in water, soil, and humans.	YES
D-51	9/27/2011	AB08246	Northside FS #4 48 Temple Street, Paterson	New Street Reservoir/ 300 Gradient	3 of 4	Enterobacter cloacae	Enterobacteriaceae	Facultative anaerobe and can flourish in oxygen absent environments. Found in human and animal feces, water and surfaces in water, soil, and humans.	YES

## COLIFORM SPECIATION

COLIFORM CONFIRMATION / BACTERIOLOGICAL SPECIATION for DISTRIBUTION SYSTEM POSITIVE TOTAL COLIFORM SITES

LOCATION ID:	DATE COLLECTED:	SAMPLE ID:	SAMPLE:	ORIGINAL SAMPLE RESULTS (COLIFORM AND E. COLI)	TYPIAL SOURCE / PRESSURE GRADIENT:	NUMBER OF IDENTIFICATIONS:	IDENTIFICATION:	FAMILY:	ORIGIN:	CONFIRMED AS COLIFORM (YES OR NO):
D-51	9/27/2011	AB08246	Northside FS #4 48 Temple Street, Paterson	Coliform P / E. coli A	New Street Reservoir/ 300 Gradient	4 of 4	<i>Klebsiella pneumoniae</i> ss. <i>pneumoniae</i>	Enterobacteriaceae	Human feces and soil.	YES
L-22	9/14/2011	AB07463	Stone Center, Inc. 251 Garaldi Avenue, Lodi	Coliform P / E. coli A	Botany Pump Station / 180 Gradient	1 of 3	Enterobacter cloacae	Enterobacteriaceae	Facultative anaerobe and can flourish in oxygen absent environments. Found in human and animal feces, water and	YES
L-22	9/14/2011	AB07463	Stone Center, Inc. 251 Garaldi Avenue, Lodi	Coliform P / E. coli A	Botany Pump Station / 180 Gradient	2 of 3	Enterobacter cloacae	Enterobacteriaceae	Facultative anaerobe and can flourish in oxygen absent environments. Found in human and animal feces, water and	YES
L-22	9/14/2011	AB07463	Stone Center, Inc. 251 Garaldi Avenue, Lodi	Coliform P / E. coli A	Botany Pump Station / 180 Gradient	3 of 3	Enterobacter sp.	Enterobacteriaceae	Facultative anaerobe and can flourish in oxygen absent environments. Found in human and animal feces, water and	YES
NA-5	9/12/2011	AB07297	Borough Hall 214 Ridge Road North Arlington	51" High Pressure Main / 330 Gradient	Coliform P / E. coli A	1 of 1	<i>Pseudomonas putida</i> e	Pseudomonadaceae	Found in most soil and water habitats where there is oxygen present.	NO
LWTP	8/16/2011	AB06050	800 Union Blvd, Totowa, NJ	LWTP Effluent	Coliform P / E. coli A	1 of 1	<i>Klebsiella oxytoca</i>	Enterobacteriaceae	Found in the intestinal tract of a healthy colon. However can spread to other parts of the body and cause life-threatening	YES
D-80	8/9/2011	AB05664	Bartlet Greenhouse & Florist 814 Grove Street, Clifton	Great Notch Reservoir / 425 Gradient	Coliform P / E. coli A	1 of 1	<i>Enterococcus marcescens</i>	Enterobacteriaceae	Common on damp surfaces, feeds on phosphorous containing materials.	YES
D-22	8/9/2011	AB05655	Autocare Station 120 Broad Street, Clifton	Great Notch Reservoir / 425 Gradient	Coliform P / E. coli A	1 of 1	<i>Enterobacter asturiense</i>	Enterobacteriaceae	Associated with urinary tract, respiratory, wound and other infections.	YES
D-100	8/1/2011	AB05173	Rutts Hut 417 River Road, Clifton	Normal Hydraulics Conditions : 51" High Pressure Max Supply / 330 Gradient G/H Regulators are Open : Great Notch Reservoir /425 Gradient	Coliform P / E. coli A	1 of 1	Enterobacter cloacae	Enterobacteriaceae	Facultative anaerobe and can flourish in oxygen absent environments. Found in human and animal feces, water and soil. Has been detected in distribution system and/or biofilms.	YES

## COLIFORM SPECIATION

COLIFORM CONFIRMATION/BACTERIOLOGICAL SPECIATION for DISTRIBUTION SYSTEM POSITIVE TOTAL COLIFORM SITES

LOCATION ID:	DATE COLLECTED:	SAMPLE ID:	SAMPLE:	ORIGINAL SAMPLE RESULTS	NUMBER OF IDENTIFICATIONS:	IDENTIFICATION:	FAMILY:	ORIGIN:	CONFIRMED AS COLIFORM (YES or NO):
Field Duplicate D-25	7/20/2011	AB04656	La Quinta Clifton	Coliform P / E.coli A Nozzel <u>Hydraulic</u> . Conditions : 51° High Pressure Milk Supply / 330 Gradient GM Regulators. Site Open : Great Notch Reservoir /425 Gradient	1 of 1	<i>Ribesielia oxytoca</i>	Enterobacteraceae	Found in the intestinal tract of a healthy colon. However can spread to other parts of the body and cause life-threatening diseases. It is closely related to <i>Klebsiella pneumonia</i> .	YES
D-25	7/20/2011	AB04656	La Quinta 265 Route 3 East, Clifton	Coliform P / E.coli A <u>Nozzel</u> <u>Hydraulic</u> . Conditions : 51° High Pressure Milk Supply / 330 Gradient GM Regulators. Site Open : Great Notch Reservoir /425 Gradient	1 of 1	<i>Enterobacter cloacae</i>	Enterobacteraceae	Facultative anaerobe and can flourish in oxygen absent environments. Found in human and animal feces, water and soil. Has been detected in distribution system and/or biofilms.	YES
D-78	7/12/2011	AB04175	D-78 Hair Designers, 143 Livingston Street, Clifton	Coliform P / E.coli A Great Notch Reservoir / 425 Gradient	1 of 1	<i>Serratia</i> sp.	Enterobacteraceae	NA	YES
D-72	7/12/2011	AB04174	D-72 Valley Deli & Grocery,117 Valley Road, Clifton	Coliform P / E.coli A Great Notch Reservoir / 425 Gradient	1 of 1	<i>Serratia marcescens</i>	Enterobacteraceae	Common on damp surfaces, feeds on phosphorous containing materials.	YES
D-77 Field Duplicate	7/5/2011	AB03746	D-77 A&S Luncheonette, 41 Clark Street, Paterson	Coliform P / E.coli A New Street Reservoir/ 300 Gradient	1 of 1	<i>Serratia marcescens</i>	Enterobacteraceae	Common on damp surfaces, feeds on phosphorous containing materials.	YES
D-77	7/5/2011	AB03744	D-77 A&S Luncheonette, 41 Clark Street, Paterson	Coliform P / E.coli A New Street Reservoir/ 300 Gradient	1 of 1	<i>Serratia marcescens</i>	Enterobacteraceae	Common on damp surfaces, feeds on phosphorous containing materials.	YES
D-63	7/5/2011	AB03710	D-63 Lonestar's Pizza, 225 New Street, Woodland Park	Coliform P / E.coli A New Street Reservoir/ 300 Gradient	1 of 1	<i>Serratia marcescens</i>	Enterobacteraceae	Common on damp surfaces, feeds on phosphorous containing materials.	YES
D-106	6/13/2011	AB02710	D-106 Red White & Blue Thrift Store, 765 River Street, Paterson	Coliform P / E.coli A 150 Gradient	1 of 1	<i>Serratia marcescens</i>	Enterobacteraceae	Common on damp surfaces, feeds on phosphorous containing materials.	YES

## COLIFORM SPECIATION

**COLIFORM CONFIRMATION/ BACTERIOLOGICAL SPECIATION for DISTRIBUTION SYSTEM POSITIVE TOTAL COLIFORM SITES**

LOCATION ID:	DATE COLLECTED:	SAMPLE ID:	SAMPLE:	TYPICAL SOURCE / PRESSURE GRADIENT:	ORIGINAL SAMPLE IDENTIFICATIONS: (COLIFORM AND E. coli):	NUMBER OF IDENTIFICATIONS:	IDENTIFICATION:	FAMILY:	ORIGIN:	CONFIRMED AS COLIFORM (YES or NO):
D-3	6/13/2011	AB02701	D-3: Blue Cross Animal Hospital Rt 20 & Rt 80, D-46	New Street Reservoir / 300 Gradient	Coliform P / E. coli A	1 of 1	<i>Klebsiella pneumoniae</i>	<i>Enterobacteriaceae</i>	Found in the normal flora of the mouth, skin, and intestines.	YES
D-46	2/16/2011	AA96136	D-46: Riverside/E. Side Fire Station #3 236 Lafayette Street, Paterson	New Street Reservoir / 300 Gradient	Coliform P / E. coli A	1 of 2	<i>Enterobacter cloacae</i>	<i>Enterobacteriaceae</i>	Facultative anaerobe and can flourish in oxygen absent environments. Found in human and animal feces, water and environments.	YES
D-46	2/16/2011	AA96136	D-46: Riverside/E. Side Fire Station #3 236 Lafayette Street, Paterson	New Street Reservoir / 300 Gradient	Coliform P / E. coli A	2 of 2	<i>Enterobacter cloacae</i>	<i>Enterobacteriaceae</i>	Flourish in oxygen absent environments. Found in human and animal feces, water and environments.	YES
D-52	10/5/2010	AA90148	D-52: Fire Station #3, 127 Trenton Avenue, Paterson	New Street Reservoir / 300 Gradient	Coliform P / E. coli A	1 of 2	<i>Vibrio tubosilii</i>	<i>Vibrionaceae</i>	A halophilic organism not normally found in fresh water.	NO
D-52	10/5/2010	AA90148	D-52: Fire Station #3, 127 Trenton Avenue, Paterson	New Street Reservoir / 300 Gradient	Coliform P / E. coli A	2 of 2	<i>Spingobacterium sp.</i>	<i>Spingobacterium</i>	A saprophytic organism commonly found in soil and water. The organism is unique because it is able to use organic matter as an energy source.	NO
D-47	10/4/2010	AA90044	D-47: Fire Station #6, 850 Madison Avenue, Paterson	New Street Reservoir / 300 Gradient	Coliform P / E. coli A	1 of 1	<i>Enterobacter cloacae</i>	<i>Enterobacteriaceae</i>	Facultative anaerobe and can flourish in oxygen absent environments. Found in human and animal feces, water and soil. Has been detected in distribution system and/or biofilms.	YES
W- 9	9/28/2010	AA89808	W9: Tommy's Diner, 235 Wellington Avenue, Wallington	Botany Pump Station / 180 Gradient	Coliform P / E. coli A	1 of 1	<i>Serratia marcescens</i>	<i>Enterobacteriaceae</i>	Common on damp surfaces, feeds on phosphorous containing materials.	YES
W- 9	9/21/2010	AA89483	W9: Tommy's Diner, 235 Wellington Avenue, Wallington	Botany Pump Station / 180 Gradient	Coliform P / E. coli A	1 of 1	<i>Serratia marcescens</i>	<i>Enterobacteriaceae</i>	Common on damp surfaces, feeds on phosphorous containing materials.	YES
D-86	9/20/2010	AA89347	D86: Totowa Bld & Tackie, 10 Albion Avenue, Paterson	New Street Reservoir / 300 Gradient	Coliform P / E. coli A	1 of 1	<i>Serratia marcescens</i>	<i>Enterobacteriaceae</i>	Common on damp surfaces, feeds on phosphorous containing materials.	YES
WA-16	9/20/2010	AA89337	WA16: Prospect 203 Avenue, North Arlington	51" High Pressure Mix Supply (330 Gradient)	Coliform P / E. coli A	1 of 1	<i>Enterobacter asturiae</i>	<i>Enterobacteriaceae</i>	Associated with urinary tract, respiratory, wound and other infections.	YES

## COLIFORM SPECIATION

COLIFORM CONFIRMATION/ BACTERIOLOGICAL SPECIATION for DISTRIBUTION SYSTEM POSITIVE TOTAL COLIFORM SITES

LOCATION ID:	DATE COLLECTED:	SAMPLE ID:	SAMPLE:	ORIGINAL SOURCE / PRESSURE	TYPICAL SOURCE / GRADIENT:	NUMBER OF IDENTIFICATIONS:	IDENTIFICATION:	FAMILY:	ORIGIN:	CONFIRMED AS COLIFORM (YES or NO):
Wanaque North	9/6/2010	AA88763	Wanaque North	North Jersey District Water Supply	Coliform P / E.coli A	1 of 2	<i>Raoultella terrigena</i> (another name: <i>Klebsiella terrigena</i> )	Enterobacteriaceae	Human feces, soil, water, grains, fruits and vegetables.	YES
Wanaque North	9/8/2010	AA88763	Wanaque North	North Jersey District Water Supply	Coliform P / E.coli A	2 of 2	<i>Klebsiella pneumoniae</i> ss. <i>pneumoniae</i>	Enterobacteriaceae	Human feces and soil.	YES
D-67	9/8/2010	AA88729	D-67 Capello & Sons, 336 Grand Street, Paterson	New Street Reservoir/ 300 Gradient	Coliform P / E.coli A	1 of 1	<i>Raoultella terrigena</i> (another name: <i>Klebsiella terrigena</i> )	Enterobacteriaceae	Human feces, soil, water, grains, fruits and vegetables.	YES
D-63	9/2/2010	AA88419	D-63 Lorenzo's Pizza, 208 New Street, West	New Street Reservoir/ 300 Gradient	Coliform P / E.coli A	1 of 1	<i>Plesiomonas shigelloides</i>	Enterobacteriaceae	Gram negative, rod shaped bacterium that is a freshwater aquatic organism. Pathogenic	NO
D-28	8/25/2010	AA87969	D-28- PWPC 1525 Main Avenue, Clifton	New Street Reservoir/ 300 Gradient	Coliform P / E.coli A	1 of 1	<i>Serratia marcescens</i>	Enterobacteriaceae	Common on damp surfaces, feeds on phosphorous containing materials. Has been detected in distribution system and/or biofilms.	YES
D-77	8/24/2010	AA87853	D77- A&S Luncheonette, 41 Clark Street, Paterson	New Street Reservoir/ 300 Gradient	Coliform P / E.coli A	1 of 1	<i>Enterobacter asburiae</i>	Enterobacteriaceae	Associated with urinary tract, respiratory, wound and other infections.	YES
D-29	8/23/2010	AA87774	D29- PassMenSch 39 Myrtle & Monroe St, Passaic	New Street Reservoir/ 300 Gradient	Coliform P / E.coli A	1 of 1	<i>Leclercia adecarboxylata</i>	Enterobacteriaceae	Found in the gut of animals, present in human stool and in a variety of environmental sources.	YES
D-108	8/18/2010	AA87595	D-108- Lakeview Deli, 313 Lakeview Avenue, Clifton	New Street Reservoir/ 300 Gradient	Coliform P / E.coli A	1 of 1	<i>Serratia marcescens</i>	Enterobacteriaceae	Common on damp surfaces, feeds on phosphorous containing materials.	YES
D-67	8/18/2010	AA87593	D67-Capello & Son, 236 Grand Street, Paterson	New Street Reservoir/ 300 Gradient	Coliform P / E.coli A	1 of 1	N/A	N/A	No identification. Determination of the biochemical profile given by the <i>Creatin®</i> test suggests that this organism is	NA
D-90	8/10/2010	AA87134	D90-Home Depot, 10-119 Dayton Avenue, Passaic	New Street Reservoir/ 300 Gradient	Coliform P / E.coli A	1 of 1	<i>Raoultella terrigena</i> (another name: <i>Klebsiella terrigena</i> )	Enterobacteriaceae	Human feces, soil, water, grains, fruits and vegetables.	YES

DEFINITION OF COLIFORM: Rod-shaped, Gram-negative, non-spore forming organisms, that are part of the Enterobacteriaceae family and do not produce cytochrome oxidase