

**IN THE MATTER OF** : **COMPLIANCE**  
**CITY OF NEWARK - DEPARTMENT** : **AGREEMENT & ORDER**  
**OF WATER AND SEWER UTILITIES** :

NEA 180001 - 0714001

This Compliance Agreement and Order (CAO) is entered into pursuant to the authority vested in the Commissioner of the New Jersey Department of Environmental Protection (“Department”) by N.J.S.A. 13:1D-1 et seq., the Safe Drinking Water Act (N.J.S.A. 58:12A-1 et seq.), specifically N.J.S.A. 12A-9(c) and (i) and N.J.S.A. 58:12A-10, the Safe Drinking Water Act regulations (N.J.A.C. 7:10-1 et seq.), and the National Primary Drinking Water Regulations (40 CFR § 141.1 et seq.), and is duly delegated to the Chief of the Northern Bureau of Water Compliance and Enforcement pursuant to N.J.S.A. 13:1B-4.

**FINDINGS**

1. The City of Newark (Newark) through its Department of Water and Sewer Utilities owns and operates a public community water system (system), as defined by N.J.A.C. 7:10-1.3, with Public Water System Identification number 0714001, and is located in the City of Newark, Essex County, New Jersey. The system is considered a large water system because it serves more than 50,000 people. See 40 C.F.R. § 141.2.
2. The New Jersey Safe Drinking Water regulations, specifically N.J.A.C. 7:10-5.1, -5.2(a)(9), incorporate by reference, the Lead and Copper Rule at 40 C.F.R. § 141.80 et seq.
3. The action level (“AL”) for lead is a concentration of lead which triggers certain treatment requirements. See 40 C.F.R. § 141.2. Pursuant to 40 C.F.R. § 141.80(c), the lead AL is exceeded if the concentration of lead in more than 10 percent of tap water samples collected during any monitoring period is greater than 0.015 mg/L (i.e. if the 90<sup>th</sup> percentile lead level is greater than 0.015 mg/L). Newark exceeded the AL for Lead for the 1<sup>st</sup> half of 2017 (January 1, 2017-June 30, 2017), the 2<sup>nd</sup> half of 2017 (July 1, 2017-December 31, 2017), and the 1<sup>st</sup> half of 2018 (January 1, 2018 – June 30, 2018). Exposure to lead can cause serious health problems. Under the Lead and Copper Rule, exceeding the AL for Lead is not a violation; however, an AL exceedance (“ALE”) triggers additional requirements under the Lead and Copper Rule, including increased monitoring, instituting a lead service line (“LSL”) replacement program, conducting public education, installing corrosion control treatment (“CCT”), source water monitoring, and setting optimal Water Quality Parameters (“WQP”). Since exceeding the AL for Lead, Newark is in compliance with these additional requirements.<sup>1</sup> This CAO requires

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<sup>1</sup> Newark failed to comply with the billing notice public education requirements in the last quarter of the 2017 and the first quarter of 2018, but this was rectified in the 2<sup>nd</sup> quarter of 2018. In addition, Newark failed to submit its source water treatment recommendation pursuant to the

Newark to continue its compliance and memorializes Newark's agreement to go beyond what the Lead and Copper Rule requires as well as condensed timeframes where possible.

4. In response to the Lead ALE during the 1<sup>st</sup> half of 2017, on July 11, 2017, the Department issued to Newark a Notice of Non-Compliance ("1<sup>st</sup> NONC").<sup>2</sup> The Notice directed Newark to: 1) Continue follow-up WQP monitoring; 2) conduct source water monitoring for lead and copper; 3) submit the Lead and Copper Sampling Pool Certification (Form BWSE-14) and the Lead and Copper Sample Site Certification (Form BWSE-15); 4) submit a revised Lead and Copper Sampling Plan; 5) submit a description of the measures used to optimize optimal CCT and a recommendation for alternative or additional treatment; 6) commence the LSL replacement; 7) conduct public education; 8) submit a completed Public Education Certification; 9) provide a Lead Consumer Notice to the individuals who provided first-draw samples from their taps; 10) submit a Consumer Notice of Lead Tap Water Monitoring Results Certification Form (BSDW-54); and 11) continue lead and copper monitoring. In response to the Lead ALE during the 2<sup>nd</sup> half of 2017, on January 22, 2018, the Department issued to Newark a second Notice of Non-Compliance ("2<sup>nd</sup> NONC"). The Notice directed Newark to: 1) continue lead and copper monitoring; 2) conduct source water monitoring for lead and copper; 3) continue to conduct follow-up WQP monitoring; 4) provide additional WQP monitoring related to the increased dosages of silica and orthophosphate; 5) repeat public education; 6) submit a completed Public Education Certification; 7) provide a Lead Consumer Notice to the individuals who provided first-draw samples from their taps; 8) submit a Consumer Notice of Lead Tap Water Monitoring Results Certification Form (BSDW-54); and 9) continue the LSL replacement. The Department will be issuing a third Notice of Non-Compliance (3<sup>rd</sup> NONC) in response to the Lead ALE during the 1<sup>st</sup> half of 2018.

#### Lead and Copper Tap Monitoring

5. Pursuant to the 1<sup>st</sup> NONC, Newark was to submit the Lead and Copper Sampling Pool Certification (Form BWSE-14) and the Lead and Copper Sample Site Certification (Form BWSE-15). Newark submitted Form BWSE-14 and Form BWSE-15 on July 20, 2017.
6. The 1<sup>st</sup> NONC required Newark to submit a revised Lead and Copper Sampling Plan. The Department subsequently clarified that Newark was not required to submit an updated Sampling Plan as set forth in the 1<sup>st</sup> NONC if Newark's water system has not substantially changed or if information supporting the Sampling Plan has not changed. Newark submitted a Lead and Copper Sampling Plan on January 20, 2017, which contains information that Newark is required to collect and utilize for choosing sampling locations under 40 C.F.R. § 141.86. The Plan also contains instructions for homeowners for collecting the first-draw samples pursuant to § 141.86(b). To date, Newark has been submitting updated sampling pool information and documentation to demonstrate its compliance with the sampling location requirements under 40 C.F.R. § 141.86. Because Newark's Lead and Copper Sampling Plan

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<sup>2</sup>nd NONC by June 30, 2018. However, it was submitted on July 13, 2018 and no treatment was recommended or required.

<sup>2</sup>As discussed above, exceeding the AL for Lead is not a violation of the Lead and Copper Rule, but instead triggers additional requirements under the Rule.

complied with the requirements set forth in § 141.86 based on the known LSLs in the water system, the Department approved the Plan on January 23, 2017.

7. The 1<sup>st</sup> and 2<sup>nd</sup> NONCs required Newark to continue monitoring for lead and copper. Newark is continuing to monitor for lead and copper every six months as required by the 1<sup>st</sup> and 2<sup>nd</sup> NONCs and 40 C.F.R. § 141.86.

#### Water Quality Parameter Sampling Plan and Monitoring

8. Pursuant to the 1<sup>st</sup> NONC Newark was to continue follow-up WQP monitoring. The 2<sup>nd</sup> NONC required Newark to continue follow-up WQP monitoring and provide additional WQP monitoring related to increases dosages of silica and orthophosphate. To date, Newark has complied with this requirement.
9. The Department requires water systems to submit a WQP Sampling Plan, which contains information that Newark is required to collect and utilize for choosing sampling locations under 40 C.F.R. § 141.87. The Department approved Newark's WQP Sampling Plan on June 27, 2016.
10. Newark is continuing to monitor WQPs every six months as required by the 1<sup>st</sup> and 2<sup>nd</sup> NONCs and 40 C.F.R. § 141.87. There has been no monitoring or reporting violations since the lead ALE in 2017.

#### Source Monitoring

11. The 1<sup>st</sup> and 2<sup>nd</sup> NONCs required source water monitoring for lead and copper. Pursuant to 40 C.F.R. §§ 141.83(a) and 141.88, source water sampling from each entry point to the distribution system and permanent interconnection points must be conducted and a source water treatment recommendation based on those results must be submitted to the Department within 180 days after the end of the monitoring period in which the Lead AL was exceeded. Because Newark had a lead ALE in the 1<sup>st</sup> and 2<sup>nd</sup> halves of 2017, Newark was required to complete source water monitoring and submit a treatment recommendation by December 31, 2017 and June 30, 2018. A system may recommend no source water treatment if it demonstrates that such treatment is not necessary to minimize Lead levels at users' taps. Source water samples collected during the 2<sup>nd</sup> half of 2017 and 1<sup>st</sup> half of 2018 demonstrated Lead and Copper levels below the detection limit (i.e., non-detectable). As such, Newark recommended that no treatment of the source water was necessary and the Department agrees.

#### Corrosion Control Treatment

12. The 1<sup>st</sup> NONC required Newark to submit an optimal CCT recommendation. Pursuant to 40 C.F.R. § 141.81(b)(3)(v), (e)(2), within 12 months after the end of the monitoring period during which a system exceeds the Lead AL, the State may require the system to perform corrosion control studies. Pursuant to §141.81(e)(3), the water system must complete the CCT study within 18 months after the State requires the CCT study. On December 27, 2017, Newark submitted a recommendation to conduct a CCT study, which would include a desktop analysis

of WQPs impacting plumbosolvency, coupon studies and lead pipe loop testing to improve effectiveness of CCT. On April 20, 2018, the Department granted the request and directed Newark to complete the CCT study and to recommend the optimal CCT by October 31, 2019 in accordance with the deadlines set forth in 40 C.F.R. § 141.81(e).

13. The Department requires systems to submit a corrective measures report summarizing optimization of existing treatment within 30 days of exceeding the AL for Lead. The 1<sup>st</sup> NONC issued to Newark required the submission of this report by August 10, 2017 for the Lead ALE during the 1<sup>st</sup> half of 2017, and required Newark to continue to provide any additional WQPs monitoring or other supporting information that may assist the Department in its review of the optimal CCT recommendation for the 2<sup>nd</sup> half of 2017. On July 26, 2017, Newark submitted a preliminary summary of actions taken to evaluate the performance and optimize its existing CCT as required. These actions included increasing the dosage for sodium silicate as silica from 10-12 mg/l to 15 mg/l (or above) to increase the target level of silica in the distribution system from 5.0 mg/l to 6.5 mg/l and converting the quick lime pH control process through lime slacker into a hydrated lime process through direct mixing to maintain a pH above 7.5 in the distribution system.

#### Lead Service Line Replacement

14. The 1<sup>st</sup> NONC directed Newark to commence a LSL replacement program. The 2<sup>nd</sup> NONC directed Newark to continue a LSL replacement program. Pursuant to 40 C.F.R. 141.84, water systems that have existing CCT and exceed the Lead AL are required to replace annually at least 7% of the initial number of LSLs in its water distribution system that it owns. The LSL replacement shall begin on the first day following the end of the monitoring period that the Lead AL was exceeded and proceed with at least 7% of LSLs replacement within one year. If the water system does not own any portion of the LSL, the system must notify at least 7% of their residential customers owning LSLs and offer to replace the LSL at the owners' expense. A water system is not required to pay for any portion of LSL replacements they do not own.
15. Newark represents that the water service lines (from water main to home/building) in Newark are owned completely by the property-owner and not by Newark. Newark's May 2018 LSL inventory indicates that there are 18,465<sup>3</sup> known LSLs. Therefore, Newark is only required to notify, at a minimum, 7% of customers owning LSL annually and to offer to replace their LSLs at the cost of the property-owner. Because Newark had existing CCT and it had an ALE during the 1<sup>st</sup> half of 2017 and continues to exceed the AL. Newark is required to continue to provide offers of replacement annually to 7% of its customers who own LSL. Additionally, Newark was required to submit a list of all LSLs in the water system by September 10, 2017. Newark requested, and the Department granted, a 90-day extension of the deadlines for submitting the list of LSLs to provide adequate time to better identify the LSLs and to provide the Department with a more accurate inventory. On December 8, 2017, Newark submitted an inventory of the known LSLs and an update on implementing a replacement program.

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<sup>3</sup> See paragraph (34) and (35) regarding the calculation of 7% of LSLs.

16. On May 1, 2018, Newark mailed a participation letter, questionnaire/form, and Frequently Asked Questions information to more than 3,100 customers to meet the LSL replacement requirement. In the participation letter, Newark is offering to replace property owners' LSLs at a cost to the property owner not to exceed \$1,000. If performed without Newark's offer, Newark estimates the replacement cost to the property owner to range from \$3,000-\$7,000. Responses to the May 1, 2018 mailing from property owners were due to Newark by May 25, 2018. Newark anticipates continuing the LSL replacement program for the next eight years in order to offer to replace all LSLs within the water system.
17. In late March 2018, Newark applied for \$7,447,630 in Drinking Water State Revolving Funding through the Department to offset some of the cost for the property-owners. Newark may be eligible for 90% principal forgiveness in the amount of \$1 million.

Public Education and Consumer Notices

18. The 1<sup>st</sup> NONC and the 2<sup>nd</sup> NONC required Newark to complete public education requirements, submit public education certifications to the Department, and issue consumer notices. Until Newark's Lead tap sampling shows no lead ALE, Newark is required to continue to conduct Lead public education. Initial public education is required to be completed immediately; however, no later than 60 days following the monitoring period in which there is lead ALE. Newark was required to complete initial public education by August 30, 2017, for the 1<sup>st</sup> half of 2017 and must continue ("repeat") Lead public education as provided in 40 C.F.R. § 141.85 until Newark has a six-month monitoring period in compliance with the Lead AL. Newark is, at a minimum, required to continue Lead public education as long as the Lead AL is exceeded. Newark conducted initial public education as required by August 30, 2017 and submitted quarterly reports to the Department. Newark submitted the public education certifications on September 7, 2017, May 11, 2018, and July 10, 2018. Newark conducted consumer notification and provided a certification to the Department, dated July 19, 2017 and March 20, 2018. See footnote 1.
19. Based on the facts set forth in these FINDINGS, the Department and Newark have agreed to enter into this CAO to memorialize a schedule of compliance actions it will take, including those actions which surpass what is required by the Lead and Copper rules, N.J.A.C. 7:10-5.1, -5.2(a)(9), -5.4(a) and 40 CFR 141.80 et seq.
20. Newark has agreed to the entry of this CAO and to be bound by its terms and conditions.

**ORDER**

**NOW, THEREFORE, IT IS HEREBY ORDERED AND AGREED THAT:**

**A. ENFORCEMENT COMPLIANCE SCHEDULE**

As set forth below, Newark has agreed to comply with the requirements of the Lead and Copper Rule and to be subject to stipulated penalties for failure to comply with these requirements. In addition, Newark has agreed to take actions which surpass the minimum requirements of the Lead

and Copper Rule; as to these actions, the parties have agreed Newark will not be subject to stipulated penalties. Stipulated penalties are set forth in paragraph (41).

#### Lead and Copper Tap Monitoring

21. Pursuant to 40 C.F.R. § 141.86, Lead and Copper tap monitoring shall occur every six months at the 100 sample site locations<sup>4</sup> within the distribution system that are the highest Tier and have been approved by the Department. Monitoring shall continue every six months until the Department authorizes less frequent monitoring.

- A. 40 C.F.R. § 141.85(c) requires Newark to, at a minimum, offer to sample the tap water of any customer who requests it for Lead. The system is not required to pay for collecting or analyzing the sample, nor is the system required to collect and analyze the sample itself.
- B. Newark agrees to sample and analyze the tap water of any customer who requests lead testing at Newark's expense.
- C. Due to Newark's updated May 2018 LSL inventory, pursuant to 40 C.F.R. § 141.86(a), the Lead and Copper Sampling Pool must be updated to reflect only Tier 1 or multi-family Tier 2 sites given that Newark has identified a minimum of 18,465 lead service lines. A revised Lead and Copper Sample Location Spreadsheet (Form BWSE-18) must be submitted by July 31, 2018.

22. Within the first 10 days following the end of each applicable monitoring period Newark shall report Lead and Copper tap monitoring results to the Department (as required by 40 C.F.R. § 141.90(a)) and submit an updated Lead and Copper Sample Location Spreadsheet (Form BWSE-18). If any sampling locations change, Newark shall submit revised sampling pool information and documentation, including but not limited to the Lead and Copper Sample Site Certification (BWSE-15) and the Lead and Copper Sample Site Change (BSDW 56) forms, within 10 days of the end of the monitoring period.

23. Newark shall update its Lead and Copper Sampling Plan within 30 days of any significant changes to its water system, including but not limited to, changes in the system size class (as defined at 40 C.F.R. § 141.86), a change in any sampling sites, any changes in the source water, or significant alteration of the distribution system, interconnections, or other infrastructure. Newark shall keep a copy of the updated Lead and Copper Sampling Plan on site, and make it available for Department review upon request.

#### Water Quality Parameter Monitoring

24. Pursuant to 40 C.F.R. § 141.87, Newark shall continue WQP monitoring as follows:

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<sup>4</sup> 100 samples are required based on Newark's population of 290,000 people.

- A. Newark shall conduct WQP monitoring at the entry points of the distribution system for the existing installed CCT. Such monitoring shall measure for pH, alkalinity, orthophosphate, and silica sampled biweekly (once every 14 days).
  - B. Newark shall conduct WQP monitoring for pH, alkalinity, orthophosphate and silica within the distribution system at the 25<sup>5</sup> locations in the distribution system, which the Department approved on June 27, 2016, twice during every six-month monitoring period.
  - C. Pursuant to N.J.A.C. 7:10-5.4(a), the monitoring results obtained under paragraphs (A) and (B) above shall be reported to the Department within ten days following the end of the month in which the sample was collected.
  - D. Such monitoring shall continue unless the Department authorizes less frequent monitoring pursuant to 40 C.F.R. § 141.87.
25. Newark shall update its WQP Sampling Plan within 30 days of any significant changes in its water system, including but not limited to, system size class (as defined at 40 C.F.R. § 141.86), a change in any sampling sites, any changes in the source water, or significant alteration of the distribution system, interconnections, or other infrastructure. Newark shall keep a copy of the approved WQP Sampling Plan on site and make it available for review upon request.

#### Source Monitoring

26. Pursuant to 40 C.F.R. §§ 141.83(a) and 141.88, Newark shall collect one source water sample from each entry point to the distribution system and permanent interconnection points no later than six months after the end of any monitoring period during which the action level is exceeded. Such monitoring shall measure for lead and copper.
27. Newark shall submit source water monitoring results and a recommendation, based on the monitoring results, whether source water treatment is necessary for lead or copper in accordance with any forthcoming Notice of Non-Compliance based on the ALE in the 1<sup>st</sup> half of 2018.

#### Corrosion Control Treatment and WQP Operations

28. Newark submitted a request to conduct a CCT study on December 27, 2017. The Department approved the CCT study request on April 20, 2018. Newark shall continue to collect WQP data, due every month in 2018, at four locations each from Pequannock and Wanaque distribution systems, to monitor WQPs to further evaluate CCT.

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<sup>5</sup> Pursuant to 40 C.F.R. § 141.87(a)(2)(i), Newark is required to collect two samples at 25 locations because the number of people served by Newark's water system exceeds 100,000.

- A. 40 C.F.R. § 141.81(e) requires Newark to, at a minimum, either perform a CCT study within 18 months after the Department requires a CCT study or to implement the CCT designated by the Department within 18 months after the end of the monitoring period in which the Lead AL is exceeded. Because the Department directed Newark to conduct the CCT study on April 20, 2018, § 141.81(e) requires the study's submission by October 31, 2019.
  - B. Newark agrees to expedite the deadline provided under 40 C.F.R. § 141.81(e) by submitting the results of CCT study and a CCT recommendation by April 30, 2019.
  - C. As part of the CCT study required under paragraph 29, Newark will continue to take corrective measures to evaluate the performance and optimize its existing CCT, which includes studying the measures taken in 2017 (described in paragraph 13) and collecting necessary data.
29. As part of the approved CCT study, Newark shall submit a final report on the Corrosion Control Optimization Desktop Analysis ("CCODA")<sup>6</sup> by October 15, 2018. The report shall include the following:
- A. An evaluation of the following:
    - i. WQPs impacting plumbosolvency as well as simultaneous compliance considerations;
    - ii. Past, current and alternate/changed operational conditions to determine the optimal combination(s) of key WQPs;
    - iii. Impacts to the existing open reservoirs and blending of water supplies from existing wholesale providers.
  - B. Assessment of the root cause of Lead ALEs in the Distribution System.
  - C. Development of recommendations for corrective action (i.e. operational changes, capital improvements, additional assessments/analyses etc.) along with an alternative analysis to weigh the advantages/disadvantages of various options and effectiveness while maintaining compliance.
  - D. Preparation of a technical memorandum summarizing the desktop study analysis which will include recommendations for treatment adjustments/modification, sampling protocols and/or system operational adjustments.
30. Depending on the results of the CCODA model and the results from the on-going EPA Scale Analyses, a Corrosion Control Demonstration Analysis may be necessary. If the Department determines that such Analysis is warranted, Newark shall conduct the following:

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<sup>6</sup> See [www.epa.gov/sites/production/files/2016-03/documents/occtmarch2016.pdf](http://www.epa.gov/sites/production/files/2016-03/documents/occtmarch2016.pdf)



- A. Newark has started the coupon studies to determine the corrosion rate and measure stable metal levels. Newark shall complete the coupon studies and submit an initial report by October 15, 2018 and a final report by January 31, 2019.
  - B. Newark shall conduct Pipe loop testing on lead pipe to study the formation of scales and measure stable metal levels. Newark shall submit an initial report by October 15, 2018 and a final report by January 31, 2019.
31. After Newark submits the completed CCT study and is reviewed by the Department, Newark shall install CCT in accordance with the Department's designation of optimal CCT.
- A. 40 C.F.R. § 141.81(e) requires Newark to, at a minimum, install and operate the CCT within 24 months of the Department designating such treatment.
  - B. Newark agrees to expedite the deadline provided by 40 C.F.R. § 141.81(e) by fully installing and operating the CCT within 12 months of the Department designating such treatment.
32. Pursuant to 40 C.F.R. § 141.81(e)(8), Newark shall operate its water system in compliance with the optimal WQP parameters designated by the Department.
33. Based on the selected alternative for the uncovered finished reservoir (see Paragraph 49 below), Newark will be required to re-evaluate its CCT for Department review and approval if required by 40 C.F.R. § 141.90(a)(3).

#### Lead Service Line Replacement

34. Newark has existing CCT and had an ALE in the 1<sup>st</sup> and 2<sup>nd</sup> halves of 2017 and the first half of 2018, yet it represents that it does not own any LSLs.
- A. 40 C.F.R. § 141.84 requires Newark, at a minimum, to notify at least 7% of customers with known LSLs (which constitutes 1,293 customers based on Newark's May 2018 LSL submission identifying 18,465 LSLs) and to offer to replace their LSL annually at the cost of the property-owner. However, the parties, erring on the side of caution, are considering the uncharacterized 5,119 service connections discussed below in paragraph (35) to be considered LSLs for this purpose, unless and until they are ultimately confirmed to not be LSLs. As such, Newark shall notify and offer LSL replacement to 1651 customers. (7% of 18,465 known LSLs + 5,119 unknown LSLs = 23,584). Pursuant to § 141.84(f), the water system may cease replacing LSLs whenever first draw tap samples meet the Lead AL during each of two consecutive monitoring periods and the system submits the results to the Department.

- B. Newark agrees to go beyond what 40 C.F.R. § 141.84 requires by notifying at least 15% of the 23,584 customers identified in paragraph (A) above<sup>7</sup> and to offer to replace their LSL annually to expedite the LSL replacement.
  - C. Newark further agrees to go beyond what 40 C.F.R. § 141.84(f) requires by continuing the notification and replacement program regardless of whether first draw tap samples meet Lead ALs during two consecutive monitoring periods until all customers with known LSLs are notified and offered a replacement. Newark agrees to notify and offer replacements for all property-owners of known LSLs within eight years of the execution of this CAO.
  - D. As described in paragraph (17), Newark has applied for Drinking Water State Revolving Funding. Newark agrees to use this money to offer to replace property owners' LSLs, at a subsidized cost not to exceed \$1,000 per line, until all known property owners of LSLs have been made this offer.
35. To further identify LSLs in its distribution system, Newark is evaluating its records, updating information during field inspections, and making assumptions based upon the age of the water service installation. Based on this exercise, at this time, Newark has determined there are approximately 18,465 residential LSLs. There are 5,119 service connections, which have not been characterized, i.e. it is not clear whether they are LSLs or made of another substance. To complete the LSL inventory process, Newark shall evaluate the 5,119 additional active service connections. Newark has explained that these connections will be evaluated during the course of a meter replacement project that is expected to take several years. In the meantime, Newark shall send a questionnaire to the owners of the 5,119 service connections, by July 31, 2018, seeking the owners' assistance in determining whether they have LSLs. Any revised LSL inventory shall be used to comply with the requirements of paragraph 34 above. For purposes of complying with 40 C.F.R. § 141.84 and paragraph (34) above, the parties, erring on the side of caution, are considering the uncharacterized 5,119 service connections to be LSLs until they are ultimately characterized.
36. By July 10, 2018, and by January 1<sup>st</sup> and June 30<sup>th</sup> of each subsequent year that the LSL replacement program continues pursuant to paragraph 34 above, Newark shall submit to the Department the following:
- A. a summary of responses that it received from property owners regarding Newark's notice to offer to replace LSLs. The summary required by this paragraph shall include the number of customer responses and whether the offer was accepted, rejected, received no response, or the notice was returned as undeliverable;
  - B. the current construction prioritization schedule, which shall include a summary and map of the LSLs scheduled to be replaced during each current and future phase of

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<sup>7</sup> This constitutes 3,538 customers based on Newark's May 2018 LSL submission. Pursuant to paragraph 35, Newark is required to assess and revise its LSL inventory. Thus, Newark may be required to notify additional customers and offer to replace their LSL based on the revised inventory.

the replacement schedule and an explanation of how Newark prioritized these locations. Newark's construction prioritization is based on 10 factors, including high lead results from drinking water samples, location of children, and road construction; and

- C. a summary and map of LSLs replaced in the previous LSL replacement phase.
- D. Newark shall maintain back-up documentation for Department review, as needed, for the items listed in 36 (A), (B), and (C).

37. The timeframe for replacing customers' LSL who consent to the replacement pursuant to Paragraph 34 is ten (10) phases in eight (8) years with every replacement to be completed by December 31, 2026.

#### Public Education

38. Until Newark's Lead tap monitoring shows no lead ALE, as defined by 40 C.F.R. §141.80, Newark shall continue to conduct Lead public education in accordance with 40 C.F.R. § 141.85. Initial public education was conducted as required by August 30, 2017. Newark shall submit quarterly reports to the Department using the Department's Public Education Certification form.
- A. Because the Lead AL was exceeded in more than one monitoring period, 40 C.F.R. § 141.85(b)(3)(i) requires Newark to, at a minimum, conduct the public education set forth in § 141.85(b)(2)(i), (ii), and (vi) every 12 months.
  - B. Newark agrees to provide the public education more frequently than is required by 40 C.F.R. § 141.85(b)(3)(i) by providing the public education set forth in § 141.85(b)(2) (i), (ii), and (vi) within 60 days after the end of each monitoring period in which a Lead AL exceedance occurs.
  - C. Beyond what is required under the LCR, Newark agrees to provide public education of the risks from lead in drinking water and from other sources in the home through the public education provided in paragraph B, through door hangers, at public events, and on their website.

#### Consumer Notification

39. Newark shall provide a Lead Consumer notice of the individual Lead monitoring tap results to those persons served by the water system who provided a first-draw sample as described below.
- A. 40 C.F.R. 141.85(d) requires Newark to provide, at a minimum, the Lead Consumer notice as soon as practical but no later than 30 days after the water system learns of the results. Also, the Department requires water systems to submit a Lead Consumer Notice Certification form, including a copy of one of the notices distributed, to the Department within 3 months following the end of the monitoring period.

- B. Newark has agreed to expedite the deadline provided by 40 C.F.R. §141.85(d) by providing the Lead Consumer notice as soon as practical but no later than 10 days of receiving the results and to submit the Lead Consumer Notice Certification form, including a copy of one of the notices distributed, to the Department within 10 days following the end of the monitoring period.

**B. PROGRESS REPORTS**

40. Newark shall submit quarterly progress reports to the Department at the address listed in paragraph 57 below until all remaining CAO provisions are satisfied. Each progress report shall be submitted no later than the last day of the month following the end of each calendar quarter. Each progress report shall explain the status of Newark's compliance with this CAO and shall include, but not be limited to, the following:

- A. identification of site and reference to this CAO;
- B. status of permitting and planning approvals and any work at the site and progress to date;
- C. difficulties or problems encountered during reporting period and actions taken to rectify;
- D. activities planned for the next reporting period;
- E. required and actual completion date for each item required by this CAO;
- F. an explanation of any non-compliance with the compliance schedule; and
- G. evaluation of all corrective measures implemented to date.

**C. STIPULATED PENALTIES**

41. Newark shall pay stipulated penalties to the Department, as set forth below, upon the Department's written demand, for Newark's failure to comply with the Enforcement Compliance Schedule provisions of this CAO and/ or the progress report submission deadlines of this CAO unless the Department has notified Newark in writing that a stipulated penalty will not be assessed for violations of the Enforcement Compliance Schedule pursuant to the force majeure provisions of this CAO.

- A. For all violations of the Enforcement Compliance Schedule set forth in this CAO, with the exception of paragraphs 21(B), 28(B), 31(B), 34(C), 34(D), 38(B), 38(C), 39(B), and 40:

<u>Calendar Days After Due Date</u>	<u>Stipulated Penalties</u>
1 <sup>st</sup> -7 <sup>th</sup> calendar days of failure to comply with the schedule	\$100 per calendar day
8 <sup>th</sup> -14 <sup>th</sup> calendar days of failure to comply with the schedule	\$200 per calendar day

15<sup>th</sup> plus calendar days of failure to comply with the schedule \$500 per calendar day

B. For all violations of the progress report submission deadlines:

<u>Calendar Days After Due Date</u>	<u>Stipulated Penalties</u>
Each calendar day that NEWARK fails to submit the report	\$50 per calendar day

42. Within sixty (60) calendar days after Newark's receipt of a written demand from the Department for stipulated penalties, Newark shall submit payment by suitable financial instrument, made payable to "Treasurer, State of New Jersey" in the amount of the stipulated penalties demanded by the Department pursuant to paragraph 42 above. Payment shall be mailed with the bottom portion of the Penalty Invoice Form supplied with the written demand. Payment shall be made to the following address:

New Jersey Department of Treasury  
Division of Revenue  
P.O. Box 417  
Trenton, New Jersey 08646-0417

43. If Newark fails to pay stipulated penalties pursuant to the preceding paragraphs, the Department may take action to collect same, including, but not limited to, instituting civil proceedings to collect such penalties pursuant to Rules Governing the Courts under R. 4:67 and R. 4:70, or assess civil administrative penalties for violations of this CAO.
44. The payment of stipulated penalties does not alter Newark's responsibility to complete all requirements of this CAO.

D. FORCE MAJEURE

45. If any event occurs which is beyond the control of Newark and which Newark believes will or may cause delay in the achievement of the compliance schedule provisions of this CAO, Newark shall notify the Department in writing within seven (7) calendar days of becoming aware of the delay or anticipated delay, as appropriate. In the notification, Newark shall reference this paragraph, describe the anticipated length of the delay, the precise cause or causes of the delay, and any measures taken or to be taken to minimize the delay. Newark shall take all necessary action to prevent or minimize any such delay.
46. The Department may adjust the deadlines in the Enforcement Compliance Schedule of this CAO for a period no longer than the delay if the Department finds that:

A. Newark has complied with the notice requirements of the preceding paragraph;

B. any delay or anticipated delay has been or will be caused by fire, flood, riot, strike, or other circumstances beyond the control of Newark; and

C. Newark has taken all necessary actions to prevent or minimize the delay.

47. If the Department denies Newark's force majeure request, Newark may be subject to stipulated penalties and other civil and/or administrative enforcement actions. The burden of proving that any delay is caused by circumstances beyond the control of Newark and the length of any such delay attributable to those circumstances shall rest with Newark. Increases in the cost or expenses incurred by Newark in fulfilling the requirements of this CAO shall not be a basis for an extension of time. Delay in an interim requirement shall not automatically justify or excuse delay in the attainment of subsequent requirements. Contractor's breach shall not automatically constitute force majeure. No force majeure adjustments will be granted for failure to timely submit progress reports.

#### E. GENERAL PROVISIONS

48. On March 31, 2009, Newark entered into an ACO that required it to cover its finished water reservoir or provide additional treatment of the reservoir water, as required by 40 C.F.R. § 141.714. Nothing herein affects the finished water ACO.
49. Nothing contained in this CAO restricts the ability of the Department to raise the above Findings in any other proceeding, specifically including, but not limited to, proceedings pursuant to N.J.S.A. 13:1E-126 et seq., (commonly referred to as A-901).
50. This CAO settles and resolves only the issues related to this CAO, and is not a settlement of any other action rising from those violations. Nothing in this CAO shall resolve or preclude prosecution of criminal actions against Newark, if any.
51. This CAO shall be binding on Newark, its respective agents, successors, assigns, and any trustee in bankruptcy or receiver appointed pursuant to a proceeding in law or equity. Additionally, this CAO shall be binding on any Newark officials, employees, principals, directors, and officers to the extent that any such individual is a responsible corporate official within the meaning of N.J.S.A. 58:10A-31.
52. This CAO shall be fully enforceable as a final Administrative Order in the New Jersey Superior Court upon the filing of a summary action for compliance pursuant to N.J.S.A. 58:12A-9(b), (c), (i), 58:12A-10, and N.J. Ct. R. 4:67-6.
53. Newark agrees not to contest the terms or conditions of this CAO except that Newark may contest the Department's interpretation or application of such terms or conditions in any action brought by the Department to enforce this CAO's provisions.
54. This CAO shall not relieve Newark from obtaining and complying with all applicable federal, state and local permits as well as all applicable statutes, codes, rule, regulations and orders, including but not limited to the statutes and regulations cited herein.

55. No modification or waiver of this CAO shall be valid except by written amendment duly executed by Newark and the Department or by the Departments written modification pursuant to the force majeure provisions herein.
56. Unless otherwise specifically provided herein, Newark shall submit all documents required by this CAO, except penalty payments, to the Department by certified mail, return receipt requested or by hand delivery with an acknowledgment of receipt form for the Departments signature to:

Donald Hirsch, Chief  
New Jersey Department of Environmental Protection  
Northern Bureau of Water Compliance and Enforcement  
7 Ridgedale Avenue  
Cedar Knolls, New Jersey 07927

The date the Northern Bureau of Water Compliance and Enforcement receives the certified mail or executes the acknowledgment will be the date the Department uses to determine Newark's compliance with this CAO.

57. Unless otherwise specifically provided herein, any communication made by the Department to Newark pursuant to this CAO shall be sent via email with a return receipt requested or by hand delivery to:

Andrea Adebawale, Director of Water & Sewer  
Adebawalea@ci.newark.nj.us  
920 Broad Street, Room B31F  
Newark, New Jersey 07102

58. Newark shall not construe any unwritten or informal advice, guidance, suggestions, or comments by the Department, or by persons acting on behalf of the Department, as relieving Newark of its obligations under its permit(s), this CAO, the New Jersey Safe Drinking Water regulations, and/or the New Jersey Safe Drinking Water Act.
59. In addition to the Department's statutory and regulatory rights to enter and inspect, Newark shall allow the Department and its authorized representatives access to the site at all times for the purpose of determining compliance with this CAO.
60. Nothing in this CAO shall preclude the Department from taking enforcement action against Newark for matters not set forth in the findings of this CAO.
61. No obligations or penalties imposed by this CAO are intended to constitute debt(s) which may be limited or discharged in a bankruptcy proceeding. All obligations and penalties are imposed pursuant to the police powers of the State of New Jersey for the enforcement of the law and the protection of public health, safety, welfare and the environment.

62. Newark shall give written notice of this CAO to any successor in interest thirty (30) calendar days prior to transfer of ownership or control of the facility or facilities which are the subject of this CAO and shall simultaneously notify the Department that such notice has been given. This requirement shall be in addition to any other statutory or regulatory requirements arising from the transfer of ownership or control of Newark's facility. In addition, the parties agree that any contract, lease, deed or any other agreement that Newark enters into to convey the property/facility that is the subject of this CAO shall include a provision which states that the successor, assignee, tenant or purchaser has agreed to assume the obligations imposed by this CAO.
63. The Department reserves all statutory and common law rights to require Newark to take additional action(s) if the Department determines that such actions are necessary to protect public health, safety, welfare and the environment. Nothing in this CAO shall constitute a waiver of any statutory or common law right of the Department to require such additional measures should the Department determine that such measures are necessary.
64. Performance of the terms of this CAO by Newark is not conditioned in any way on the receipt by NEWARK of any federal or state funds.
65. Newark shall perform all work required by this CAO in accordance with prevailing professional standards.
66. This CAO shall be governed and interpreted under the laws of the State of New Jersey.
67. If any provision of this CAO is found invalid or unenforceable, the remainder of this CAO shall not be affected thereby and each provision shall be valid and enforced to the fullest extent permitted by law. The Department does, however, retain the right to terminate the remainder of this CAO if, after such finding, it determines that the remaining CAO does not serve the purpose for which it was intended.
68. This CAO represents the entire integrated agreement between the Department and Newark on the matters contained herein.
69. The Department reserves the right to unilaterally terminate this CAO in the event Newark violates its terms and to take any additional enforcement action it deems necessary.
70. This CAO shall terminate upon receipt by Newark of written notice from the Department that all the requirements of this CAO have been satisfied. Termination of this CAO shall not relieve Newark of any liabilities for unpaid penalties as previously demanded by the Department pursuant to the terms and conditions of this CAO, nor shall it affect in any way the Department's rights and abilities to collect said unpaid penalties.
71. This CAO shall become effective upon the execution hereof by all parties.



**CITY OF NEWARK**

DATE: 7/20/18

BY: Andrea Adebowale  
Andrea Adebowale  
Director of Water and Sewer Utilities  
City of Newark  
Andrea Adebowale

By this signature, I certify that I have full authority to execute this document on behalf of Newark.

**CITY OF NEWARK**

DATE: 7/27/18

BY: K. Stewart  
Kenyatta K. Stewart  
Acting Corporation Counsel  
City of Newark

By this signature, I certify that I have full authority to execute this document on behalf of Newark.

**DEPARTMENT OF ENVIRONMENTAL PROTECTION**

DATE: 7/25/2018

BY: Donald Hirsch  
Donald Hirsch, Chief  
Northern Bureau of Water  
Compliance and Enforcement

By this signature, I certify that I have full authority to execute this document on behalf of the Department.