



City of Duluth

411 West First Street
Duluth, Minnesota 55802

Meeting Agenda Civil Service Board.

Wednesday, February 16, 2022

1:00 PM

Webex

Special Meeting

1. ROLL CALL

2. APPEALS

2A. Water Conveyance Leadworker

Attachments: [2A Water Conveyance Leadworker Appeal](#)

3. ADJOURNMENT

To the Civil Service Board for the City of Duluth, Minnesota,

I am Bob Knudsen, working in the Water Conveyance group, since September 2013. I'm making an appeal to the Water Conveyance Leadworker selection.

Nick Economos started his first day as Water Conveyance Leadworker on Monday January 31, 2022. It became obvious he has zero experience with the SCADA system. Monday was Day One (1) working with the system. His actual experience with our Conveyance System is extremely limited, as he needs to use a map to find the location of our Stations. I believe he does not possess the knowledge necessary to independently lead, in the maintenance planning and especially the emergency repairs of our system.

I believe his skill and experience is that of what we have as the minimum qualifications of the Water Conveyance Technician. In our job description series, the Water Conveyance Technician minimum qualifications is four (4) years' experience working with Water and Wastewater.

To become a Water Conveyance Specialist, the minimum experience required is three (3) years working as a Water Conveyance Technician (working with SCADA and the Conveyance System). I believe the job description for the Water Conveyance Leadworker should require a minimum of five (5) years of Water Conveyance experience.

The newly created job description of Water Conveyance Leadworker is the highest paid in our job series and has been written in a way that would allow a person without the skill and experience to make the most critical decisions for our group.

Supervisor Mark Proulx told me that it was Nick's time for a Leadworker promotion is why he was chosen. I believe he was chosen for this position based on favoritism not on skill or experience. This is why I don't think he should be allowed to continue as our Water Conveyance Leadworker. I think the job description should be revised to include five (5) years of Water Conveyance experience. I would like to see us hire a Water Conveyance Technician, which is what our work group truly needs.

I have attached the three (3) Job Descriptions referenced above:

Water Conveyance Technician

Water Conveyance Specialist

Water Conveyance Leadworker

Thank you for your consideration of my concerns.

A handwritten signature in blue ink, appearing to read "Robert Knudsen".

Robert Knudsen

Water Conveyance Specialist

Date February 7, 2022



Water Conveyance Technician

Class Code:
4211

Bargaining Unit: AFSCME

CITY OF DULUTH
Revision Date: Sep 10, 2018

SALARY RANGE

\$25.46 - \$29.90 Hourly
\$4,413.83 - \$5,183.33 Monthly
\$52,966.00 - \$62,200.00 Annually

SUMMARY/PURPOSE:

Ensure the dependability and functionality of water/wastewater/storm water pumping stations and perform flow monitoring and sampling operations of wastewater and storm water.

DISTINGUISHING FEATURES OF THE CLASS

Employees in this classification will perform semi-skilled work and be trained to perform skilled work in the functional areas listed below.

ESSENTIAL DUTIES & RESPONSIBILITIES (OTHER DUTIES MAY BE ASSIGNED):

1. Assist with work in the operation and maintenance of water/wastewater/storm water pump stations.
2. Perform proper safety methods when entering manholes, vaults, reservoirs, wet wells, confined workspaces, working with electricity, using hand and power tools, operating heavy equipment, or driving a motor vehicle.
3. Monitor the daily operation of pumping stations, booster stations, and drinking water storage tanks, with the Supervisory Control & Data Acquisition (SCADA) system to ensure the proper operation of all equipment at each station so the normal flow is not interrupted.
4. Ensure proper operation and maintenance of City-owned water and low pressure sewer systems to include but not limited to, grinder stations, booster stations, pumps, structures, controls, or air release valves.
5. Implement emergency procedures on each pump station in the event of the malfunction of either primary pumping equipment or any auxiliary equipment.
6. Troubleshoot for the cause of any malfunction affecting pumps or any related equipment of each pump station.
7. Maintain and repair all types of water and wastewater pumps.
8. Maintain and repair industrial type electric motors.
9. Monitor, perform, and record required predictive maintenance program tasks.
10. Maintain and operate large standby generators for emergency backup or a planned power

service shutdown.

11. Maintain and repair various wet well and reservoir level sensing systems.
12. Maintain and repair valves, couplings, and drive shafts.
13. Maintain wet wells, reservoirs, storage basins, bar screens, tipping trough systems, and grinder pump stations.
14. Monitor and maintain inventory of parts for proper pump station system operation.
15. Maintain and operate large auxiliary pumps for emergency backup or bypass pumping.
16. Assist in the maintenance and repair of water distribution system regulators, reliefs, pressure reducers, and pressure transmitters.
17. Install various types of flow meters; bubbler, area velocity, ultrasonic and submerged probe.
18. Install, maintain, and collect data from various types of water/wastewater samplers and rain gauges.
19. Monitor and maintain sampling/flow monitor inventory; loggers, batteries, battery chargers, spring rings, flow metering inserts, rapid transfer devices.
20. Monitor and maintain magnetic flow meters to include transmitters.
21. Perform work to download, upload, and review data between computer and field installed data collecting devices.
22. Perform related duties as required.

EDUCATION & EXPERIENCE REQUIREMENTS:

Education & Experience Requirements

- A. Possession of a State of Minnesota Maintenance Electrician's License and one (1) year of verifiable experience working with programmable controllers (MicroLogic); or
- B. Completion of a City of Duluth Water & Gas Maintenance training program, Utility Operator apprenticeship program, or Lift Station Operator apprenticeship program; or
- C. Four (4) years of verifiable experience in wastewater collection systems or water distribution systems.

License Requirements

- A. Possess and maintain a valid Minnesota Driver's License or privilege.
- B. Ability to obtain and maintain a valid Minnesota Pollution Control Agency Wastewater Operators Class S D Certificate within 18 months of hire date.

KNOWLEDGE REQUIREMENTS:

- A. Knowledge of electricity and electronics.
- B. Basic knowledge of personal computers and related data processing equipment.
- C. Knowledge of telemetry/SCADA software and hardware.
- D. Knowledge of the National Electrical Code in relation to pump station functions.
- E. Knowledge of plumbing and building codes in relation to pump stations.
- F. Knowledge of Minnesota Pollution Control Agency regulations pertaining to wastewater discharge.
- G. Knowledge of Minnesota Department of Health regulations pertaining to water distribution systems.
- H. Knowledge of confined space entry procedures.
- I. Knowledge of lock-out tag-out procedures.

SKILL REQUIREMENTS:

- A. Skill in the repair of heavy duty pumps and electric motors.
- B. Skill in the operation/maintenance of sampling/flow meter installation and data collection.
- C. Skill in the operation and use of a variety of maintenance and testing tools and equipment – flow meters, poly phase meter, volt ohm meter, gear pullers, conduit benders, tap and die sets, atmospheric testing meters, portable generators, and electric hoists.
- D. Skill in setting up appropriate traffic controls.

ABILITY REQUIREMENTS:

- A. Ability to create and maintain a positive working environment that welcomes diversity, ensures cooperation, and promotes respect by sharing expertise with team members, fostering safe work practices, and developing trusting work relationships.
- B. Ability to communicate effectively in both written and oral form.
- C. Ability to calculate water and wastewater volumes.
- D. Ability to read and interpret schematic drawings.
- E. Ability to identify good flow monitoring sites.
- F. Ability to successfully complete a "Competent Person" training program.

PHYSICAL REQUIREMENTS:

- A. Ability to transport oneself to, from, and around sites of projects, tests, and other assignments.
- B. Ability to attend work on a regular basis.
- C. Ability to frequently lift and carry equipment and materials weighing up to 50 pounds.
- D. Ability to occasionally lift and carry, with assistance, equipment and materials weighing up to 100 pounds, such as generators and pumps.
- E. Ability to frequently push, pull, stoop, kneel, crouch, and reach to perform maintenance on pumps.
- F. Ability to occasionally climb and balance while working on tanks and basins at heights up to 30 feet.
- G. Ability to work in confined spaces.
- H. Ability to work outside in inclement weather.



Water Conveyance Specialist

Class Code:
3329

Bargaining Unit: AFSCME

CITY OF DULUTH
Revision Date: Mar 26, 2018

SALARY RANGE

\$27.55 - \$32.47 Hourly
\$4,776.08 - \$5,628.67 Monthly
\$57,313.00 - \$67,544.00 Annually

SUMMARY/PURPOSE:

Ensure the dependability and functionality of regulated pressurized distribution systems, water/wastewater/storm water pump stations, and perform flow monitoring and sampling operations of wastewater and storm water.

ESSENTIAL DUTIES & RESPONSIBILITIES (OTHER DUTIES MAY BE ASSIGNED):

1. Perform skilled work in the operation and maintenance of water/wastewater/storm water pump stations.
2. Perform proper safety methods when entering manholes, vaults, reservoirs, wet wells, confined work spaces, working with electricity, using hand and power tools, operating heavy equipment, or driving a motor vehicle.
3. Monitor the daily operation of pumping stations, booster stations, and drinking water storage tanks, with the Supervisory Control & Data Acquisition (SCADA) system to ensure the proper operation of all equipment at each station so the normal flow is not interrupted.
4. Ensure proper operation and maintenance of City-owned water and low pressure sewer systems to include but not limited to grinder stations, booster stations, pumps, structures, controls, or air release valves.
5. Implement emergency procedures on each pump station in the event of the malfunction of either primary pumping equipment or any auxiliary equipment.
6. Troubleshoot for the cause of any malfunction affecting pumps or any related equipment of each pump station.
7. Maintain and repair all types of water and wastewater pumps.
8. Maintain and repair industrial type electric motors.
9. Monitor, perform, and record required predictive maintenance program tasks.
10. Train assigned personnel in proper, safe operating and maintenance procedures.
11. Build, install, adjust, maintain, and repair water distribution system regulators, reliefs, pressure reducers, and pressure transmitters.
12. Maintain and operate large standby generators for emergency backup or a planned power

service shutdown.

13. Maintain and repair various wet well and reservoir level sensing systems.
14. Maintain and repair valves, couplings, and drive shafts.
15. Maintain wet wells, reservoirs, storage basins, bar screens, tipping trough systems, and grinder pump stations.
16. Calibrate water regulators, reliefs, reducers, computerized pressure transducers, and related equipment.
17. Monitor and maintain inventory of parts for proper pump station system operation.
18. Maintain and operate large auxiliary pumps for emergency backup or bypass pumping.
19. Perform skilled work in the installation and collection of data utilizing flow monitor/sampling equipment.
20. Perform work to install, connect, calibrate flow poke equipment.
21. Install various types of flow meters; bubbler, area velocity, ultrasonic, and submerged probe.
22. Install, maintain and collect data from various types of water/wastewater samplers and rain gauges.
23. Monitor and maintain sampling/flow monitor inventory; loggers, batteries, battery chargers, spring rings, flow metering inserts, and rapid transfer devices.
24. Monitor and maintain magnetic flow meters to include transmitters.
25. Perform work to download, upload, and review data between computer and field installed data collecting devices.
26. Other duties may be assigned.

EDUCATION & EXPERIENCE REQUIREMENTS:

Education & Experience Requirements

- A. Completion of the City of Duluth Lift Station Operator Apprenticeship Program; or
- B. Three (3) years of experience as a Water Conveyance Technician.

License Requirements

- A. Possess and maintain a valid Minnesota Driver's License or privilege.
- B. Possess a valid Minnesota Pollution Control Agency (MPCA) Wastewater Facility Operators S-D Certificate.
- C. Ability to obtain and maintain a valid Minnesota Pollution Control Agency (MPCA) Wastewater Facility Operators S C Certificate and Minnesota Department of Health Class C Water Operator Certificate within 18 months of appointment.
- D. Possess and maintain an unlicensed individual electrical registration.

KNOWLEDGE REQUIREMENTS:

- A. Extensive knowledge of the methods, equipment, and materials used in high pressure plumbing, pipe fitting, and related trades as they apply to water distribution.
- B. Knowledge of construction work methods and procedures related to maintenance and repair of water distribution systems.
- C. Knowledge of electricity and electronics.
- D. Knowledge of personal computers and related data processing equipment.
- E. Knowledge of telemetry/SCADA software and hardware.
- F. Knowledge of the National Electrical Code in relation to pump station functions.
- G. Knowledge of plumbing and building codes in relation to pump stations.
- H. Knowledge of Minnesota Pollution Control Agency regulations pertaining to wastewater discharge.

- I. Knowledge of Minnesota Department of Health regulations pertaining to water distribution systems.
- J. Knowledge of confined space entry procedures.
- K. Knowledge of lock-out tag-out procedures.

SKILL REQUIREMENTS:

- A. Skill in diagnosing and repairing water regulated system problems.
- B. Skill in the repair of heavy duty pumps and electric motors.
- C. Skill in the operation/maintenance of sampling/flow meter installation and data collection.
- D. Skill in the operation and use of a variety of maintenance and testing tools and equipment – flow meters, poly phase meter, volt ohm meter, gear pullers, conduit benders, tap and die sets, atmospheric testing meters, portable generators, and electric hoists.
- E. Skill in setting up appropriate traffic controls.

ABILITY REQUIREMENTS:

- A. Ability to communicate effectively in both written and oral form.
- B. Ability to calculate water and wastewater volumes.
- C. Ability to read and interpret schematic drawings.
- D. Ability to diagnose and repair regulators and reliefs.
- E. Ability to identify good flow monitoring sites.
- F. Ability to successfully complete a "Competent Person" training program.
- G. Ability to create and maintain a positive working environment that welcomes diversity, ensures cooperation, and promotes respect by sharing expertise with team members, fostering safe work practices, and developing trusting work relationships.

PHYSICAL REQUIREMENTS:

- A. Ability to frequently lift and carry equipment and materials weighing up to 50 pounds.
- B. Ability to occasionally lift and carry with assistance equipment and materials weighing up to 100 pounds, such as generators and pumps.
- C. Ability to frequently push, pull, stoop, kneel, crouch, and reach to perform maintenance on pumps.
- D. Ability to occasionally climb and balance while working on tanks and basins at heights up to 30 feet.
- E. Ability to work in confined spaces.
- F. Ability to work outside in inclement weather.
- G. Ability to attend work on a regular basis.
- H. Ability to transport oneself to, from, and around sites of projects, tests, and other assignments.



Water Conveyance Leadworker

Class Code:
1764

Bargaining Unit: AFSCME

CITY OF DULUTH

Established Date: Nov 22, 2021

Revision Date: Nov 22, 2021

SALARY RANGE

\$28.73 - \$33.86 Hourly
\$4,979.17 - \$5,868.58 Monthly
\$59,750.00 - \$70,423.00 Annually

SUMMARY/PURPOSE:

To coordinate, schedule, direct, and participate fully in the inspection, maintenance, repair, and operation of the City's conveyance system and oversee the activities of employees and contractors engaged in water, wastewater, and storm water operation and maintenance projects.

DISTINGUISHING FEATURES OF THE CLASS

The Water Conveyance Leadworker is the lead position for employees working in the water conveyance system. At this level, incumbents perform the most complex and specialized work tasks, while exercising broader discretion and independent judgment within established guidelines. This classification serves as the leadworker for the Water Conveyance Specialists, Water Conveyance Technicians, or assigned personnel. An aspect of the work involves dealing with contractors, industry and utility representatives, and the general public in order to work out solutions to problems encountered during the course of the work. Incumbents have final responsibility for the repair and maintenance of the water distribution system or the waste and storm water collection system.

SUPERVISION RECEIVED

The supervisor provides continuing or individual assignments by indicating generally what is to be done, limitations, quality and quantity expected, deadlines, and priority of assignments. The supervisor provides additional, specific instructions for new, difficult, or unusual assignments, including suggested work methods or advice on source material available.

SUPERVISION GIVEN

Does not have direct supervisory responsibility but does have significant oversight of employees or project that require delegation and direction over the work of others.

ESSENTIAL DUTIES & RESPONSIBILITIES (OTHER DUTIES MAY BE ASSIGNED):

1. Lead and coordinate assigned conveyance system installation, repairs, modifications, and maintenance projects.
2. Perform highly skilled work in the operation and maintenance of water/wastewater/storm water pump stations.
3. Review construction plans and specifications for compliance with existing standards and plan projects.
4. Develop traffic control plans for worksites and instruct subordinates in proper installation of the plan, and inspect worksites for appropriate barricades, warning devices, and proper placement of equipment.
5. Monitor work progress and maintain records of work performed and materials used.
6. Interpret maps for the purpose of directing maintenance personnel to locate work projects.
7. Establish work standards and review work performance to ensure proper productivity using all means available including the work order management system.
8. Assign crews to accomplish work; keep records of work complete, in-progress, and work projected for later scheduling; schedule routine and long-range tasks as appropriate.
9. Authorize changes or deviations from proposed methods to suit the work situation; confer with supervisors regarding work progress and tasks or authorized action that facilitates increased production in critical assignments, such as changing crew composition and size, requesting support equipment, operators, new materials, tools, or supplies.
10. Monitor performance measures and initiate process improvements to meet unit level goals and objectives.
11. Visit field sites before major work projects are undertaken to determine probable extent of job and materials required; notify concerned agencies of major shutdowns; advise supervisors of probable complication which may require the cooperation of other departments or may involve the public.
12. Provide clear, sufficient, and timely information to the unit workers about plans, expectations, tasks, and activities.
13. Demonstrate highly-effective leadership by promoting and supporting the mission and vision of the organization, recognizing and defining issues, and moving forward within the work environment.
14. Plan construction and maintenance projects.
15. Provide materials and equipment necessary to perform work projects.
16. Be an effective team member by exhibiting self-motivation, supporting other employees in handling tasks, interacting effectively and respectfully with others, showing a desire to contribute to the team effort, accepting assignments willingly, and completing tasks within agreed upon timelines.
17. Coordinate with various City departments, other government agencies, and community groups to develop methods of sharing resources, minimizing duplication, and simplifying procedures.
18. Provide training on new or modified procedures and policies to all affected parties.
19. In collaboration with the supervisor, organize and direct the work activities of assigned team, and determine work priorities, assignments, and work schedules.
20. Provide input on decisions regarding the hiring processes, onboarding procedures, and discipline of personnel.
21. Establish and maintain positive working relationship with the supervisor and employees by maintaining two-way communication, producing consistent results, advocating for the team when appropriate, and offering expertise to improve processes, systems, and the organization.
22. Other duties may be assigned.

EDUCATION & EXPERIENCE REQUIREMENTS:

- A. A minimum of five (5) years of related education and/or full-time, verifiable professional collection system or water distribution experience.

License Requirements

- A. Possess and maintain a valid Minnesota Pollution Control Agency (MPCA) Wastewater Facility Operators S-C Certificate.
- B. Possess and maintain a valid Minnesota Department of Health Water System Supply Operator Class C Certificate.
- C. Possess and maintain an unlicensed individual electrical registration.
- D. Possess and maintain a valid Minnesota Class B commercial driver's license or privilege.

KNOWLEDGE REQUIREMENTS:

- A. Thorough knowledge of construction work methods and procedures related to maintenance and repair of wastewater collection systems and water distribution systems.
- B. Thorough knowledge of telemetry/SCADA software and hardware.
- C. Knowledge of location and topography of the conveyance and distribution systems within the city of Duluth.
- D. Thorough knowledge of the materials, equipment, procedures, and practices used in the installation, repair, and maintenance of water distribution, sanitary and storm water collection systems.
- E. Knowledge of methods and procedures of flow monitoring and sampling of water, wastewater, and storm water.
- F. Knowledge of problem-solving and conflict-resolution techniques.
- G. Knowledge of applicable safety requirements.
- H. Knowledge of, or the ability to learn, City policies and procedures.
- I. Knowledge of federal, state, and local laws, statutes, regulations, codes, and standards related to the area of responsibility.
- J. Knowledge of effective leadership and personnel practices.
- K. Knowledge of business and management principles involved in strategic planning, resource allocation, human resources practices, leadership technique, and coordination of people and resources.

SKILL REQUIREMENTS:

- A. Skill in diagnosing and performing repairs to water distribution system, and sanitary and storm water collection systems.
- A. Ability to plan and lay out a work project, and develop work crew and equipment schedules.
- B. Skill in the operation/maintenance of sampling/flow meter installation and data collection.
- C. Skill in the operation and use of a variety of maintenance and testing tools and equipment.
- D. Skill in setting up appropriate traffic controls.
- E. Skill in directing and leading others.
- F. Skill in calculation of water and wastewater volumes.
- G. Skill in reading and interpreting schematic drawings.
- H. Skill in reading maps, specifications, and construction plans used in utility construction work.
- I. Skill in the operation of office equipment including, but not limited to, general computer systems, job required software applications, the internet, and modern office equipment.
- J. Skill in completing assignments accurately and with attention to detail.
- K. Skill in mediation and dispute resolution.

L. Skill in using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems.

ABILITY REQUIREMENTS:

- A. Ability to create and maintain a positive working environment that welcomes diversity, ensures cooperation, and promotes respect by sharing expertise with team members, fostering safe work practices, and developing trusting work relationships.
- B. Ability to communicate and interact effectively with members of the public.
- C. Ability to communicate effectively both orally and in writing.
- D. Ability to recognize, analyze, and solve a variety of problems.
- E. Ability to consistently and independently prioritize one's own work and the work of others, including scheduling, assigning staff, and securing resources.
- F. Ability to handle difficult and stressful situations with professional composure.
- G. Ability to work successfully as a member of a team and independently with minimal supervision.
- H. Ability to set expectations and provide training in safe and proper work methods, development, and coaching for employees in conjunction with the supervisor.
- I. Ability to interpret and apply laws, contracts, regulations, policies, and procedures.
- J. Ability to enforce safety rules and regulations and apply them to hazardous situations.
- K. Ability to maintain confidential information.
- L. Ability to demonstrate dependability, responsibility, and consistency in job performance.
- M. Ability to exercise sound judgment in making critical decisions.
- N. Ability to attend work as scheduled and/or required.

PHYSICAL REQUIREMENTS:

Physical Demands

The work requires some physical exertion such as long periods of standing; walking over rough, uneven, or rocky surfaces; recurring bending, crouching, stooping, stretching, reaching, or similar activities; recurring lifting of moderately heavy items such as record boxes. The work may require specific, but common, physical characteristics and abilities such as above.

Work Environment

The work environment involves moderate risks or discomforts requiring special safety precautions (e.g., working around moving parts, carts, or machines, or with contagious diseases or irritant chemicals). Employees may be required to use protective clothing or gear such as masks, gowns, coats, boots, goggles, gloves, or shields.