

**Department of Human Resources**

Employee Health & Safety Division
Disability Services Section
500 4th Avenue, Room 500
Seattle, WA 98104
(206) 477-3350
(206) 296-0514 FAX
www.kingcounty.gov

Employee :

Claim # :

JOB ANALYSIS

Job Title:	Wastewater Utility Worker I		
Department:	Natural Resources and Parks	Division:	Wastewater
DOT Title:	Sewage Disposal Worker	DOT #:	955.687-010
SVP:	2	Requestor:	Autumn Musch
Worksite Address:	1400 Discovery Park Boulevard Seattle, WA 98199	Office Contact Name/ Phone/ Email:	Raymond Balles 206-477-9742 Raymond.balles@kingcounty.gov
Original Analyst:	Kyle Pletz, VRC, CDMS		Analysis Date: 9/12/19
Update Analyst:			Update Date:

☒ On-Site ☐ Interview ☐ Representative

JOB DUTIES:

Perform a wide variety of routine manual/labor tasks in support of the operation and maintenance functions at a wastewater treatment plant and associated facilities.

ESSENTIAL FUNCTIONS ACCORDING TO THE EMPLOYER:

All King County jobs require ability/essential function to:

- Demonstrate predictable, reliable, and timely attendance.
 - Follow written and verbal directions to complete assigned tasks on schedule.
 - Read, write, and communicate in English & understand basic math.
 - Learn from directions, observations, and mistakes and apply procedures using good judgment.
 - Work independently or as part of a team and interact appropriately with others.
-
1. Assist other staff in carrying out general preventive maintenance such as, but not limited to, cleaning, operating equipment, and assisting operations and maintenance positions in accomplishing work assignments at wastewater treatment plant and associated facilities.
 2. Operate a variety of basic hand and power tools and equipment, machinery, motorized vehicles, power and riding mowers and landscape equipment; follow established industrial safety standards, guidelines and procedures.
 3. Perform light maintenance tasks such as, but not limited to, changing light bulbs, inspecting safety equipment, inspecting HVAC systems to change filters, fire hydrant inspections, washing windows, hosing, sweeping and moping buildings and grounds.
 4. Perform digester cleaning, tank cleaning, odor control, carbon changes, storm drain and catch basin cleaning, influent containment channel cleaning in-plant and off-site locations.
 5. Respond to unusual occurrences and assist in emergency responses.
 6. Act as back up for specific gardening, custodial, painting and other support assignments.
 7. Maintain daily written and/or computerized logs and complete work requests for assignments.
 8. Use and work around chemicals associated with wastewater treatment facilities, buildings, and grounds such as cleaning agents, solvents, fertilizers, herbicides, etc.
 9. Perform other duties as assigned.



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EXPERIENCE, QUALIFICATIONS, KNOWLEDGE, SKILLS:

MINIMUM QUALIFICATIONS:

Knowledge of mathematics to do calculations and use mathematical formulas

Basic knowledge of the operation and use of hand and power tools

Basic knowledge of the operation of small and large equipment

Basic knowledge of computers and associated software

Demonstrated skill in oral and written communication skills to read, write and to apply oral and written instructions

Skill in working in a team environment

Licensing/Certification Requirements

Washington State Driver's License

Additional licenses, certifications and other requirements determined to be necessary to meet the business needs of the employing unit may be required

The position requires the ability to work all shift schedules and required to report to work during adverse and inclement weather conditions

Incumbents perform field work at a wastewater treatment plant and associated facilities and are required to lift and carry equipment weighing up to 50 pounds, work in confined spaces, climb in and out of tanks using ladders, and work around noxious odors and high noise levels

Machines, Tools, Special Equipment, Personal Protective Equipment Used:

Shovel, broom, hoses, light bulbs, pressure washer, filters, truck, dump truck, forklift, pump, sewer cleaner, steam cleaner, cart, garden tractor, all-terrain vehicle (ATV), tractor, drill, hand tools, grinder, reciprocating saw, snow plow, scissor lift, knuckle boom, load-all telehandler, handsaw, skill saw, chainsaw, pneumatic air wrench, inclinometer, crane, back hoe, wrenches, hacksaw, computer, edge trimmer, blower, power lawnmower, riding lawnmower, and heating ventilation and air conditioning (HVAC) filters.

Hard hat, eye protection, reflective vest, ear protection, fall protection, foot protection (steel toe or rubber boots), gloves, rain gear and breathing protection including air fed and self-contained breathing apparatuses.

PHYSICAL REQUIREMENTS

Frequency Scale	Strength	Work Pattern
N = Never	<input type="checkbox"/> Sedentary	<input checked="" type="checkbox"/> Full-time
S = Seldom (1-10 %, up to 48 min)	<input type="checkbox"/> Light	<input type="checkbox"/> Part-time
O = Occasional (11-33%, 49 min. – 2 hr 40 min)	<input type="checkbox"/> Medium	<input type="checkbox"/> Seasonal
F = Frequent (34-66%, 2 hr 41 min – 5 hr 20 min)	<input checked="" type="checkbox"/> Heavy	10 Hours Per Day
C = Constant (67-100%, more than 5 hr 20 min)	<input checked="" type="checkbox"/> Very Heavy	4 Days Per Week
Work Pattern (continued)		FLSA Exempt <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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The employee must be available for day and night work, weekend and holiday work, and split shifts. Overtime is mandatory, in accordance with emergency response. This position is designated for emergency response, level 1.

Job Demand	Frequency and Weight (lbs.)					Activity Description
	N	S	O	F	C	
Lifting floor – waist		21-80		11-20	1-10	<p>Up to 1.5 hrs./time, 8 hrs. total in. Most commonly occurs with weights of 7-8 pounds while pressure washing, manipulating a fire hose and using hand tools.</p> <p>Up to 2-3 min./ time, 5 hrs. Most commonly occurs with weights of 15-17 pounds while shoveling as well as loading and unloading hoses, buckets, and power tools.</p> <p>Up to 3-5 sec./ time, 5 min. total. Most commonly occurs with weights of 30-45 pounds while loading and unloading ladders, pallets, hoses and inclinometer lines.</p> <p>Up to 3-5 sec./ time, 2 min. total. Most commonly occurs with weights of 60-80 pounds while lifting manholes and drainage grates.</p>
Lifting waist–shoulder						<p>Up to 1.5 hrs./time, 8 hrs. total in. Most commonly occurs with weights of 7-8 pounds while pressure washing, manipulating a fire hose and using hand tools.</p> <p>Up to 2-3 min./ time, 5 hrs. Most commonly occurs with weights of 15-17 pounds while shoveling as well as loading and unloading hoses, buckets, and power tools.</p> <p>Up to 3-5 sec./ time, 5 min. total. Most commonly occurs with weights of 30-45 pounds while loading and unloading ladders, pallets, hoses and inclinometer lines.</p> <p>Up to 3-5 sec./ time, 2 min. total. Most commonly occurs with weights of 60-80 pounds while lifting manholes and drainage grates.</p>
Lifting above shoulder		1-15				<p>Up to 1 min./time, 20 min. total while hanging filters 91-12 lbs.), stacking paper, connecting hoses on vactor (15 lbs.), pressure washing,</p>



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Job Demand	Frequency and Weight (lbs.)					Activity Description
	N	S	O	F	C	
Carry (Distance/Surface)			21-50	11-20	1-10	<p>Up to ¼ mile, 3 hrs./ time, 9 hrs. total. Most commonly occurs with weights of 3-8 pounds while transporting tools, using various hoses, carrying a 2-way radio, and transporting the inclinometer.</p> <p>Up to 150', 5 min./ time, 4 hrs. total. Most commonly occurs with weights of 11-20 pounds while transporting hoses, the inclinometer and boxes of HVAC filters.</p> <p>Up to ¼ mile, 20 min./time, 2 hrs. total. Most commonly occurs with weights of 30 pounds while carrying the inclinometer through thick vegetation to measuring site, case of paper (50 lb.), bag of rock salt (50 lbs.), ladders (30-45 lbs.).</p>
Job Demand	Frequency and Weight (lbs.)					Activity Description
	N	S	O	F	C	
Pushing/Pulling (Distance/Surface)		31-100		1-30	1	<p>Up to 300', 3 min./ time, with a force of up to 300 lbs., for 3 hrs. total while pushing and pulling flex lines, brooms, shovels, pressure washer, wheel barrow, digester hoses, and hydraulic hoses.</p> <p>For up to 15 sec./time, with a force of up to 100 lbs., 30 min. while moving flex lines and hydraulic hoses.</p>

Physical Demands	Frequency					Activity Description
	N	S	O	F	C	
Sitting					X	Up to 2 hrs./time, 9 hrs. total on an automobile seat, office chair or conference room chair while driving, performing vector truck duties, performing data entry and retrieval as well as attending training and meetings. The employee is required to attend 50+ hours of training per year, which may require sitting in a chair for up to 10 hours in a shift.
Standing					X	Up to 2 hrs./time, 8 hrs. total on flat linoleum, flat cement, steep inclines, uneven ground, thick vegetation and wet/slippery surfaces while shoveling, cleaning with a fire hose, as well as using the inclinometer and cleaning a digester
Walking					X	Up to ¼ mile, 30 min./time, 9 hrs. total on flat linoleum, flat cement, steep inclines, uneven ground, thick vegetation and wet/slippery surfaces while moving from building to building, performing the fire extinguisher checklist, performing emergency lighting duties, and walking to inclinometer site.
Perform Work on Ladders		X				Up to 42', for up to 3 min./time, 20 min. total while cleaning/pressure washing tanks.



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Physical Demands	Frequency					Activity Description
	N	S	O	F	C	
Climbing			X			Up to 42', for up to 3 min./time, 2 hrs. total while cleaning/pressure washing tanks, traversing scaffolding.
Balancing					X	Up to 3 hrs./time, 9 hrs. total on wet/slippy surfaces, uneven ground, steep slopes, scaffolding and ladders while carrying inclinometer gear on a hillside with thick vegetation and cleaning tanks.
Stooping / Bending				X*		Up to 10 min./time, 4-5 hrs. total on wet/slippy surfaces, uneven ground and steep slopes while weeding, wrapping hoses, shoveling and reading the inclinometer. *Can alternate with squat/kneel on most occasions.
Twisting at Neck				X		Up to 2-3 min./time for up to 5.5 hours total while climbing ladders, replacing light bulbs, locating items on upper shelves, pressure washing, using hoists and setting up ladders.
Twisting at Waist				X		Up to 2 min./time, 4-5 hr. total pulling hoses, loading salt, shoveling, pressure washing, mopping
Squatting / Kneeling				X*		Up to 10 min./time, 4-5 hrs. total on wet/slippy surfaces, uneven ground and steep slopes while weeding, wrapping hoses, shoveling and reading the inclinometer. *Can alternate with bending/stooping on most occasions.
Crawling			X			Up to 20' for up to 1 min./time for up to 1 hr. total on flat cement surfaces or vegetation while replacing HVAC filters, cleaning floor drains and weeding; traversing digester annular space.
Reach waist to shoulder					X	Up to 3 hrs./time, 9 hrs. total while driving a vehicle, operating a fire hose, using a weed eater, pressure washing, and operating hand and power tools.
Reach above shoulder			X			Up to 2-3 min./time, 2 hrs. total while changing lights, removing lighting covers and pressure washing.
Reach below waist				X		Up to 10 min./ time for up to 5.5 hrs. total while weeding, replacing HVAC filters, wrapping hoses, shoveling and reading the inclinometer.
Keyboarding			X			Up to 10 min/time, 2 hrs. total while completing time cards, MainSaver, composing work requests, creating lockout/tag out documents, online training, etc.
Wrist Flexion/Extension					X	Up to 3 hrs./time, 9 hrs. total while pressure washing, driving, manipulating hoses, digging, and using power and hand tools.
Handle/Grasp					X	Up to 3 hrs./time, 9 hrs. total while pressure washing, driving, manipulating hoses, digging, and using power and hand tools.
Forceful Grasp				X		Up to 3 hrs./time, 5.5 hrs. total while pressure washing, manipulating hoses, digging, and using power and hand tools.



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	N	S	O	F	C	
Fine Finger Manipulation				X		Up to 15 min./time, 5 hrs. total in a work shift while writing, keyboarding, replacing light bulbs, replacing HVAC filters, performing data entry, using the computer mouse, performing paperwork, and assembling pumps.
Hand Controls					X	Up to 3 hrs./time, 9 hrs. total while pressure washing, driving, performing vector truck duties and using hand tools.
Foot Controls					X	Up to 3 hrs./time, 9 hrs. total while driving a truck, tractor, material mover, pickup, back hoe, dump truck, vacuum truck, and an ATV.
Repetitive Motion				X		Body Part: Upper extremities Cycles/hr: 250+
Vibratory Tasks – High				X		Up to 15 min./time, 3 hrs. total while using jackhammer, impact tools, concrete vibrator, air chisel, etc.
Vibratory Tasks – Low			X			Up to 10 min./time, 2 hrs. total while manipulating vector hose, jet cleaner hose, driving on rough terrain.
Talking			X			Up to 5 min./time, 2 hrs. total in a work shift while attending meeting, conversing with superiors and co-workers, ordering parts, and using the 2-way radio.
Hearing					X	Up to 3 hrs./time, 9 hrs. while driving as well as listening for moving machines, back-up sirens, alarms, faulty machinery, and other safety hazards.
Visual – Near Acuity			X			Text, computer screen, etc.
Visual – Far Acuity					X	Must be able to utilize far acuity at all times for safety purposes.
Visual – Depth Perception					X	Driving, traversing around fall hazards, operating cranes, etc.
Visual – Color Discrimination			X			Color coded beacons, safety labels.
Visual – Accommodation				X		Driving various vehicles and operating machinery.
Visual – Field of Vision					X	Driving, traversing around fall hazards, operating cranes, etc.
Exposure to Weather					X	The job is performed outside.
Extreme Cold			X			Underground tunnels.
Extreme Hot			X			Boilers, generator engines, industrial motors, overheating pumps, steam cleaners, etc.
Wet and / or Humidity					X	Work environment is a wastewater treatment facility.
Proximity to Moving Mechanical Parts					X	Constantly around various vehicles, heavy machinery, cranes, industrial motors, pumps, power tools, etc.
Exposure to Explosives			X			Digester propane area
Atmospheric Conditions				X		Methane, dust, mists, propane, exhaust, steam, etc.
Exposed Heights			X			Ladders, digesters, rooftops, etc.
Exposure to Electricity			X			Industrial equipment with high voltage.
Exposure to Toxic / Caustic Chemicals			X			Hypochlorite, polymer dust, cleaning chemicals.
Exposure to Radiation	X					

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	N	S	O	F	C	
Noise Intensity	<input type="checkbox"/> Very Quiet	<input type="checkbox"/> Quiet	<input checked="" type="checkbox"/> Moderate	<input checked="" type="checkbox"/> Loud	<input type="checkbox"/> Very Loud	Approximately 90-120 decibels. The noise is caused by various power tools, jackhammer, large machinery, trucks and cogeneration raw sewage engines. The work areas can range from quiet to loud.
Other:					X	Work is performed in an industrial wastewater setting where the worker is exposed to or in close proximity to heavy operating machinery, high voltage, sewage, adverse weather conditions, uneven surfaces, cat walks/metal grating, noxious or toxic gasses and chemicals, as well as loud noises. The noise level is quiet to very loud. Hearing protection, eye protection, breathing protection and hard hats are required in some areas.

COGNITIVE and BEHAVIORAL REQUIREMENTS

Frequency Scale	Strength	Work Pattern
N = Never	<input checked="" type="checkbox"/> Sedentary	<input checked="" type="checkbox"/> Full-time
S = Seldom (1-10 %, up to 48 min)	<input type="checkbox"/> Light	<input type="checkbox"/> Part-time
O = Occasional (11-33%, 48 min. – 2 hr 25 min)	<input type="checkbox"/> Medium	<input type="checkbox"/> Seasonal
F = Frequent (34-66%, 2 hr 26 min – 5 hr 35 min)	<input type="checkbox"/> Heavy	Hours Per Day
C = Constant (67-100%, more than 5 hr 35 min)	<input type="checkbox"/> Very Heavy	Days Per Week

This is classified as a **SEMDENTARY** job by the US Department of Labor. This is an exempt position which may require overtime work.

COGNITIVE DEMANDS	FREQUENCY					ACTIVITY DESCRIPTION
	N	S	O	F	C	
Articulating and comprehending information in conversations				X		Radio communications, employee/supervisor interaction, etc.
Reading, comprehending, and using written materials				X		Signs, schedules, lockout out/tag out documents, work orders.
Understanding and solving problems involving math and using the results		X				Complete time cards, inventory.



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	N	S	O	F	C	
Using technology/instruments/tools & information systems			X			Computer for training, work orders, documents, procedures and time cards.
Remembering spoken instructions					X	Employee follows instructions on a daily basis regarding work activities, protocols and schedules.
Remembering written instructions					X	Employee follows instructions on a daily basis regarding work activities, protocols and schedules.
Remembering visual information					X	Must be able safety signals and signage. Visually roofing, filters, digesters, equipment, etc.
Recalling information incidental to task at hand Memorizing facts or sequences					X	Lock and Tag out procedures, cleaning digesters, equipment operation, Safety Operating Procedures; operating vactor, cranes, lifts, machinery, etc.
Remembering simple instructions					X	Following basic work assignments such as schedule, procedures, etc.
Remembering detailed instructions				X		Employee follows instructions on a daily basis regarding work activities, protocols, standard operating procedures and schedules. Safety Operating Procedures.
Effectively learning and mastering information from classroom training		X				Online and classroom training 50 hrs. per year.
Effectively learning and mastering information from on-the-job training			X			Hands on training is provided for all equipment operated.
Learning from past directions, observations, and/or mistakes					X	This is performed with supervisors and coworkers on a continuous basis.
Using common sense in routine decision making					X	Required as this is a safety sensitive position.
Recognizing and anticipating potential hazards and taking precautions					X	Required as this is a safety sensitive position which is performed around industrial machinery.
Thinking critically and making sound decisions					X	Required as this is a safety sensitive position.
Integrating ideas and data for complex decisions	X					



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	N	S	O	F	C	
Determining and following precise sequences				X		Lock out and tag out procedures.
Coordinating and compiling data and information			X			Lock out tag out document revisions.
Performing repetitive or short-cycle work			X			Operating hand controls.
Working under specific instructions					X	Employee follows instructions on a daily basis regarding work activities, protocols and schedules.
Completing complex tasks				X		Lock out and tag out procedures.
Directing, controlling, or planning for others as necessary for basic tasks	X					
Multi-tasking					X	Operating equipment while identifying traffic, signs, switches, safety hazards, moving machinery, etc.
Planning, prioritizing, and structuring daily activities				X		Preparing tools, equipment and materials for projects.
Maintaining predictable and reliable attendance					X	Required at all times.
Being punctual					X	Required at all times.
Taking rest periods at set times or only at times determined by breaks in job responsibilities					X	Set breaks.
Adjusting to a flexible schedule of work days and or shifts		X				May need to responds to emergency situations. The facility operates 24 hrs./day.
Receiving criticism and accepting limits appropriately			X			Work performance is reviewed by superiors and feedback is provided accordingly.
Maintaining emotional control and organization under increased stress					X	Required at all times as the position may have to respond to emergency situations.
Maintaining socially appropriate affect, temperament, and behavior					X	Continuously.
Monitoring own quality of performance and altering behaviors to correct mistakes or improve outcome					X	Employee should continuously monitor work performance as it is a safety sensitive position. Lock and tag out procedures.
Working independently and/or unsupervised			X			The employee works at a large wastewater treatment plant where the work is performed in various areas which may not be near the supervisor.



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Adapting to frequent interruptions, changes in priorities, or changes in work location			X			The employee works at a large wastewater treatment plant where the work is performed in various areas which may not be near the supervisor. Must be able to respond to emergency situations.
Responding effectively to emergency situations			X			Employee responds to emergency situations such as overflows, spills, flooding, inclement weather, catastrophic events, etc.

Analyst's Comments:

Possible Employer Modifications:

Update Comments (if applicable):



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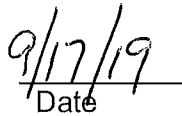
Claim # :

Note: The information for this job analysis was gathered by either on-site observation, interview and / or is representative of the labor market as indicated on page one. Additional data may have been obtained from standardized industry resources such as the DOT, GOE, COJ, OOH, WOIS and O-NET. On occasion, practicality and feasibility prevent the direct observation and/or gathering of objective, quantifiable data. For this reason, a "best estimate" may have been used.

Analyst:



Vocational Consultant



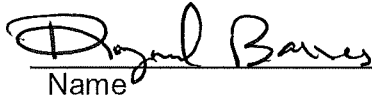
Date

Update (if applicable):

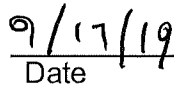
Vocational Consultant

Date

Employer Verification:



Name



Date

Employee Verification: (optional)

Name

Date



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MEDICAL PROVIDER:

- ☐ I agree that the employee can perform the physical activities described in this job analysis and can return to work. Date employee is released to return to work if different from today's date: _____
- ☐ I agree the employee can perform the described job but only with modifications (describe in comments section). Modifications are needed on a ☐ permanent basis or ☐ temporary basis.
- ☐ The employee temporarily cannot perform this job based on the following physical limitations:

Anticipated release date: _____

Treatment plan: _____

- ☐ The employee is permanently restricted from performing the physical activities described in this job analysis based on the following physical limitations (state objective medical findings):

Comments:

Signature

Date

Print Name

- ☐ Attending Physician ☐ Consulting Physician ☐ Pain Program Physician
- ☐ IME Physician ☐ PCE Therapist ☐ OT / PT Therapist ☐ PEP Physician