Accident Prevention Program

City of Ridgefield Public Works Department

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Safety Policy

The City of Ridgefield places a high value on the safety of its employees. It is committed to providing a safe workplace for all employees and has developed this program for accident prevention as a systematic means of involving management and employees in identifying and eliminating hazards that may develop during the performance of the duties of department.

It is the basic safety policy of the City that no task is so important that an employee must violate a safety rule or take a risk of injury or illness in order to get the job done.

Employees are required to comply with all City safety rules and are encouraged to actively participate in identifying ways to make our City and Public Works Department a safer place to live and work.

Supervisors are responsible for the safety of their employees and, as a part of their daily duties, must monitor the workplace for unsafe conditions, employees for unsafe actions, and when necessary take prompt action to eliminate any hazards.

Management will insure the implementation for this program by devoting the resources necessary to form a safety committee composed of management and employees for developing procedures for identifying and correcting hazards and planning for foreseeable emergencies. The City will provide initial and ongoing training for employees and supervisors, and implement a disciplinary policy to insure that safety policies are followed.

Safety is a team effort. We must all work together to maintain a safe and healthy workplace.

Safety Notification

There is a safety bulletin board located on the east wall of the break/lunch room of the Operations Shop. Notices required by law and other information that may improve safety shall be posted on this bulletin board. Required posters are on this board that must remain visible at all times include:

- WISHA poster of employee rights and Employer Responsibilities F416-081-00
- Industrial Insurance poster P242-191-000
- Emergency telephone numbers
- OSHA 200 Log Summary of Injuries Illnesses
- Any Citation and Notice document received from the Department of Labor and Industries following an inspection.

SAFETY AND HEALTH RESPONSIBILITIES

Management Responsibilities

The Public Works Department management consists of the Public Works Director and City Engineer. Management is responsible for implementing and enforcing the safety program. Their responsibilities are to ensure that each public works employee is trained to work safety in all aspects of the duties they perform. Management will:

1. Ensure that a Public Works Department safety committee is formed and is carrying out its responsibilities as described in this program.

2. Ensure that sufficient employee time, supervisor support, and funds are budgeted for safety equipment, training and to carry out the safety program.
3. Evaluate supervisors each year to make sure they are carrying out their responsibilities as described in this program.
4. Ensure that incidents are fully investigated and corrective action taken to prevent the hazardous conditions or behaviors from happening again.
5. Ensure that a record of injuries and illnesses is maintained and posted as described in this program.
6. Serve as a good example by following established safety rules and attending required training.
7. Report unsafe practices or conditions to the supervisor of the area where the hazard was observed.
8. Serve as members on the Accident Review Board for post-accident review of all accidents.

Supervisor Responsibilities

The Public Works Department supervisors consist of the Utilities Supervisor and Streets/Drainage/Facilities Supervisor. Supervisors are responsible for day-to-day implementation and enforcement of the safety program. Supervisors will:

- Ensure that each employee has received an initial orientation before beginning work and that the orientation is documented (Appendix A).
- Ensure that each employee is competent and receives training on correct and safe operation of specific equipment or tasks before starting work on that project or equipment.
- Ensure that each employee has been issued applicable personal protective equipment (PPE) before starting work on a project.
- Complete a daily safety check of the work area(s) and promptly take corrective action for any hazards discovered.
- Periodically observe and document work performance of each employee for compliance with safety rules contained in, or referenced by, this program. Provide training and take corrective action as necessary.
- Serve as a good example for employees by following established safety rules and attending required training.
- Complete a preliminary investigation of all accidents and serve as members on the Accident Review Board for post-accident review.
- Communicate with management changes to work practices or equipment that will improve employee and/or public safety.

Employee Responsibilities

Employees will:

1. Follow established safety requirements and procedures contained in this program, WISHA safety standards and training completed.
2. Immediately report unsafe conditions or actions to your direct supervisor.

3. Promptly report all injuries to your direct supervisor, regardless of the severity of the injury.
4. Promptly report all near miss accidents to your direct supervisor.
5. Always use applicable personal protective equipment (PPE), which is in sound working condition.
6. Do not remove or defeat any safety devise or safeguard provided for employee protection.
7. Encourage co-workers by your words and behavior through use of sound work practices on the job.
8. Freely recommend to your supervisor, safely committee or management changes to work practices or equipment that you believe will improve employee and/or public safety.

EMPLOYEE PARTICIPATION

Safety Committee

A safety committee has been formed to help employees and management work together to identify safety problems, develop solutions, review incident reports and evaluate the effectiveness of our safety program. The committee is made up of the Public Works Director, Utilities Supervisor, Streets/Drainage/Facilities Supervisor and Public Works Employee Representative.

- Employees in each division will elect from among themselves a representative to be on the committee. If there is only one volunteer or nomination, the employees will approve the person by voice vote at a short meeting called for that purpose. If there is more than one volunteer or nomination, a secret paper ballot will be used to elect the representative.
- Elected representatives will serve for one year before being re-elected or replaced. If there is a vacancy then an election will be held before the next scheduled meeting to fill the balance of the term.
- In addition to the employee-elected representatives, management will designate no more than three representatives but a minimum of one who will serve until replaced by management.
- A chairperson will be selected by majority vote of the committee members each year. If there is a vacancy, the same method will be used to select a replacement.
- In addition to the committee responsibilities explained above, duties of safety committee members include:
  - A monthly self-inspection of the area they represent
  - Communicating with the employees they represent on safety issues and
  - Encouraging safe work practices among co-workers.
- The regularly scheduled meeting time is 8:00 a.m. on the first Monday of each month, at the Operations Shop. This may be changed by vote of the committee.
- A committee member will be designated each month to keep minutes on the attached minutes form. A copy will be posted on the wall in the break room in the box containing the facility Material Safety Data Sheets (MSDS) after each meeting. After being posted for one month, the minutes will be filed for one year. The minutes form contains the basic monthly meeting agenda.

HAZARD RECOGNITION

An employee who observes a safety hazard must immediately report the hazard to the supervisor of the area where the hazard was observed. The observation of the hazard and corrective action(s) implemented shall be documented in the safety logbook.

Record Keeping and Review

Employees are required to report to their immediate supervisor, regardless of severity, any personal injury or accident which results in damage to public or private equipment or property. An Employee Injury/Illness Report (Appendix A) shall be completed within 24 hours of the incident by each employee reporting an injury. The direct supervisor shall investigate the incident using procedures in the Incident Investigation section of this document and complete an Incident Investigation Report (Appendix A). These reports shall provided to the City Clerk for determination whether or not the incident is subject for recording in the OSHA Injury and Illness Log and Summary. A summary of accidents will be posted on the safety bulletin board.

The City Clerk will:

- Determine from the Employee Injury/Illness Report, Incident Investigation Report, and any L&I claim form associated with the incident, whether it must be recorded on the OSHA Injury and Illness Log and Summary according to the instructions for that form.
- Enter a recordable incident within six days after the company becomes aware of it.
- If the injury is not recorded on the OSHA log, add it to a separate incident report log, which is used to record non-OSHA recordable injuries and near misses.
- Each month before the scheduled safety committee meeting, make any new injury reports and investigations available to the safety committee for review, along with an updated OSHA and incident report log.

The Safety Committee will review the log for trends and may decide to conduct a separate investigation of any incident.

The Safety Committee Chairperson will post a signed copy of the OSHA log summary for the previous year on the safety bulletin board each February 1 until April 30. The log will be kept on file for at least five (5) years. Any employee can view an OSHA log upon request at any time during the year.

Incident Investigation

An incident investigation shall be conducted following all accidents and reported near misses. The depth of the investigation shall be dependent upon the severity of the accident.

If an employee dies while working or is not expected to survive, or when two or more employees are admitted to a hospital as a result of a work-related incident, the Public Works Director will contact the Department of Labor and Industries within 8 hours after becoming aware of the incident. During weekends and evenings, the toll -free notification number is: 1-800-321-6742. The Public Works Director must talk with a representative of the department. Fax and answering machine notifications are not acceptable. The Public Works Director must report: the employer name, location and time of the incident, number of employees involved, the extent of injuries or illness, a brief description of what happened and the name and phone number of a contact person.

- **DO NOT DISTURB the scene except to aid in rescue or make the scene safe**.

Whenever there is an incident that results in death or serious injuries that have immediate symptoms, a preliminary investigation will be conducted by the immediate supervisor of the

injured person(s), a person designated by management, an employee representative of the safety committee, and any other persons whose expertise would help the investigation.

The investigation team will take written statements from witnesses, photograph the incident scene and equipment involved. The team will also document as soon as possible after the incident, the condition of equipment and any anything else in the work area that may be relevant. The team will make a written “Incident Investigation Report” of its findings. The report will include a sequence of events leading up to the incident, conclusions about the incident and any recommendations to prevent a similar incident in the future. The report will be reviewed by the safety committee at its next regularly scheduled meeting.

When a supervisor becomes aware of an employee injury where the injury was not serious enough to warrant a team investigation as described above, the supervisor will write an "Incident Investigation Report" to accompany the "Employee's Injury/Illness Report Form" and forward them to the Public Works Director.

Whenever there is an incident that did not but could have resulted in serious injury to an employee (a *near-miss*), the incident will be investigated by the supervisor or a team depending on the seriousness of the injury that would have occurred. The Incident Investigation Report form will be used to investigate the near-miss. The form will be clearly marked to indicate that it was a near miss and that no actual injury occurred. The report will be forwarded to the Safety Committee Chairperson to record on the incident log.

An Incident Investigation Checklist form can be found in Appendix A to help the supervisor carry out his/her responsibilities as described above.

Safety Inspection Procedures

The Ridgefield Public Works Department is committed to identifying hazardous conditions and practices, evaluating potential remedies, and implementing appropriate corrective actions. Realizing that conditions may change, following presents various facets of the safety program and the frequency with which each shall be reviewed for revision to more accurately reflect current conditions:

Safety Program. This program shall be reviewed annually and revisions made to eliminate or control hazards.

Periodic Safety Practice Survey. On a quarterly basis, the Safety Committee shall perform an analysis of the work environment and identify any new equipment or tasks that have been added since the last survey. Proper procedures for safe use of the equipment or safe completion of the task will be reviewed with the Safety Committee and incorporated into the safety plan.

Monthly Safety Inspection. Each month, before the regularly scheduled safety committee meeting, safety committee representatives will inspect their areas for hazards using the standard safety inspection checklist. They will talk to co-workers about their safety concerns. Committee members will report any hazards or concerns to the whole committee for consideration. The results of the area inspection and any action taken will be posted in the affected area. Occasionally, committee representatives may agree to inspect each other's area rather than their own. This brings a fresh pair of eyes to look for hazards.

Job Hazard Analysis. Whenever a task or workstation is identified by the Safety Committee as potentially hazardous, then a Job Hazard Analysis shall be completed and the task/workstation shall be modified, or appropriate personal protective equipment identified, to eliminate or control the hazard. Job Hazard Analyses will be analyzed by the Safety Committee at least once every two years, whenever there is a change in how the task is

done, or if there is a serious injury while performing the task. Job Hazard Analyses applicable to Ridgefield Public Works operations are provided in Appendix B.

HAZARD PREVENTION AND CONTROL

Eliminating Workplace Hazards

The Ridgefield Public Works Department is committed to eliminating or controlling workplace hazards that could cause injury or illness to our employees. The Department commits to meeting the requirements of State safety standards where there are specific rules about a hazard or potential hazard in the workplace. Whenever possible, facilities and equipment are designed to eliminate employee exposure to hazards. Where these engineering controls are not possible, work rules are written that effectively prevent employee exposure to the hazard. When the above methods of control are not possible or are not fully effective, employees are required to use appropriate personal protective equipment (PPE).

Basic Safety Rules

The following basic safety rules have been established for you and protection of the public. Failure to comply with these rules will result in disciplinary action. These rules are in addition to rules established elsewhere in this program for specific jobs and sites.

- Never do anything that is unsafe in order to get the job done. If a job is unsafe, report it to your supervisor or safety committee representative. We will find a safer way to do that job.
- Do not remove or disable any safety device! Keep guards in place at all times on operating machinery.
- Never operate a piece of equipment unless you have been trained and are authorized.
- Use PPE (personal protective equipment) whenever it is required.
- Obey all safety warning signs.
- Working under the influence of alcohol or illegal drugs or using them at work is prohibited.
- Do not bring firearms or explosives onto company property.
- Smoking is not permitted in City building or vehicles. Smoking is not permitted in hazardous environments.
- Horseplay, running and fighting are prohibited.
- Good housekeeping is an important part of accident prevention. Clean up spills immediately. Replace all tools and supplies after use. Because employees work with sewage, good sanitation and disinfection is required.

Task-Specific Safety Rules

In addition to basic safety rules, the City of Ridgefield Public Works Department has developed Job Hazard Analyses (JHAs) for specific tasks performed by Department operations staff. A complete compilation of Department JHAs is provided in Appendix B and defines appropriate procedures and personal protective equipment (PPE) to be used when performing specific job functions.

Personal Protective Equipment

Ridgefield Public Works Department requires personal protective equipment (PPE) in many situations. PPE may include, but is not limited to steel toed boots, safety glasses and/or face

shields, respirators, hard hats, safety vests, and clothing suitable for existing weather conditions. The City is committed to providing its employees the necessary safety equipment. For specific PPE requirements associated with specific tasks, please refer to the applicable Job Hazard Analysis provided in Appendix B.

Specific Hazard Control Programs

In addition to the basic safety procedures provided in this manual, the Public Works Department has written procedures for specific areas of concerns. These are provided as appendices to this document.

- Lockout/Tagout Program (Appendix C) defines procedures for securing machinery for maintenance and repair.
- Confined Space Program (Appendix D) defines procedures for entering enclosed areas that meet the criteria for definition as a confined space.

Disciplinary Policy

Public works employees are expected to use good judgment when completing their work and to follow established safety rules. Failure to follow safety guidelines can lead to disciplinary actions. This policy is designed not so much to punish as to bring unacceptable behavior to the employee's attention in a way that the employee will be motivated to make corrections. The following consequences apply to the violation of the same rule or the same unacceptable behavior:

- First Instance – verbal warning, notation in employee file, and instruction on proper actions.
- Second Instance – One-day suspension, written reprimand, and instruction on proper actions.
- Third Instance – One-week suspension, written reprimand, and instruction on proper actions.
- Fourth Instance – Termination of employment.

An employee may be subject to immediate termination if the safety violation places the employee, co-worker or public at risk of serious injury or death. Example would be operating vehicle or equipment while under the influence of illegal drugs or alcohol, fighting, intentional operation of equipment in a reckless or dangerous manner.

Emergency Planning

In the Event of Fire

An evacuation map for the building is posted on the bulletin board located in the Operations Facility. It shows the location of exits, fire extinguishers, first aid kits, and where to assemble outside. A copy of the map is provided in Appendix A. Fire extinguishers are located in each vehicle, in several places in the Operations Shop, and in the administration building.

All employees will receive training on how to use of fire extinguishers as part of their initial orientation. A fire evacuation drill will be conducted once a year during the first week of April.

<u>If you discover a fire</u>:

- Tell another person immediately. Call or have them call 911 and a supervisor.
- If the fire is small (such as a wastebasket fire) and there is minimal smoke, you may try to put it out with a fire extinguisher.
- If the fire grows or there is thick smoke, do not continue to fight the fire.

- Tell other employees in the area to evacuate.
- Go to the designated assembly point outside the building (Parking lot adjacent to the wastewater treatment plant headworks).

If you are a supervisor notified of a fire in your area:

- Tell your employees to evacuate to the designated assembly location. Check that all employees have been evacuated from your area.
- Verify that 911 has been called.
- Determine if the fire has been extinguished. If the fire has grown or there is thick smoke, evacuate any employees trying to fight the fire.
- Tell supervisors in other areas to evacuate the building
- Go to the designated assembly point and check that all your employees are accounted for. If an employee is missing, *do not* re-enter the building! Notify the responding fire personnel that an employee is missing and may be in the building.

In the Event of an Earthquake

The west coast of the United States is subject to earthquakes. There will be no advance warning. The shock will be your only warning. An earthquake drill will be conducted each year during the first week of September. In the event of an earthquake:

If you are inside a building:

- Drop under a desk or table, cover your head and hold on. Stay away from windows, heavy cabinets, bookcases or glass dividers.
- When the shaking stops, Supervisors are to check for damage and available evacuation routes then begin an evacuation of their area to the designated assembly location (Parking lot adjacent to the wastewater treatment plant headworks).
- Evacuation should proceed as quickly as possible since there may be aftershocks.
- Supervisors must account for each employee in their work group as quickly as possible.
- First aid certified employees should check for injuries and help evacuate injured employees. Do not attempt to move seriously injured persons unless they are in immediate danger of further injury.
- If a gas odor is in the building, tell a supervisor to turn off the gas at the main. Open windows. At the Operations Shop, the meter is to the right of the main entrance and at City Hall, the meter is on the north wall of the building.
- Supervisors and first aid employees must not re-enter the building once evacuation is complete.
- Do not approach or touch downed power lines or objects touched by downed power lines.
- Do not use the phone except for emergency use.
- Turn on a radio and listen for public safety instructions.

If you are outside:

Stand away from buildings, trees, telephone and electric lines.

If you are on the road:

Drive away from underpasses/overpasses. Stop in a safe area. Stay in the vehicle.

In the Event of an Injury

First aid kits are kept wastewater treatment plant laboratory (right side of sink in laboratory, second drawer down), the Operations Shop (break room, southeast wall) and in each Department vehicle. These kits are checked monthly by members of the safety committee. An inventory of each kit is taped to the inside cover of the box. If an injury occurs, promptly report it to any supervisor.

All operations employees are required to be certified in CPR/First Aid. A list of current first aid and CPR certified employees is posted on the safety bulletin board along with the certification expiration dates.

In case of serious injury, do not move the injured person unless absolutely necessary. Only provide assistance to the level of your training. Call for help. If there is no response, call 911.

Aids/HIV and Hepatitis B are the primary infectious diseases of concern in blood. *All blood should be assumed to be infectious.* These diseases can both be deadly. Employees are *not* required to perform first aid as part of their job duties. In the event of a bleeding injury where first aid is needed, use gloves if possible to prevent exposure to blood or other potentially infectious materials. The injured person can often help by applying pressure to the wound. Gloves and a mouth barrier for rescue breathing are available in the first aid kits. If you are exposed to blood while giving first aid wash immediately with soap and water and report the incident to a supervisor. The appropriate follow-up procedures will be initiated, including medical evaluation, counseling, Hepatitis B vaccine and blood testing of the source person if possible. For further information, refer to WAC 296-62-08001(6).

Safety and Health Training and Education

Training is an essential part of our plan to provide a safe work place in the Ridgefield Public Works Department. To ensure Public Works Operations employees are trained in the safe completion of all job functions, the City has entered into a contract with the Northwest Regional Training Center (NWRTC) operated by Clark County Fire District No. 5 in Vancouver, Washington for safety training. Following provides a list of training courses offered by NWRTC that is required by all Public Works Department Operations employees:

- Bloodborne Pathogens (annual)
- Confined Space (every 4 years)
- Defensive Driving (every 5 years)
- Fall Protection (every 4 years)
- Fire Extinguisher/Evacuation (annual)
- First Aid/CPR (every 2 years)
- Flagging/Traffic Control (every 3 years)
- Hearing Conservation (annual)
- Lockout/Tagout (every 4 years)
- Trenching/Shoring (every 4 years)

In addition, specific employees have been identified for the following training:

- Truck Cranes & Rigging (every 5 years)
- Emergency Response Awareness (annual)
- Backhoe/Loader Operator (every 4 years)
- HAZWOPPER – Hazardous Material (annual)

Appendix A
Accident Prevention Program Forms

Employee Safety Orientation Form

Instructions: Each employee must be given a safety orientation before beginning work. This checklist documents that each required item was explained to the employee. The supervisor is to place a check in each box after the item has been explained. **Employees are not to sign this form unless all items have been explained and all questions have been answered satisfactorily.**

The employee _____ has been:

- ❑ Told about parts of the written safety program that describe the employer's safety efforts.
- ❑ Given a copy of the employee safety manual and general safety rules and has read it.
- ❑ Told who his/her elected safety committee representative is.
- ❑ Told when required safety meetings are scheduled.
- ❑ Told to report all injuries and shown how to do this.
- ❑ Told to report all hazards to his/her supervisor and shown how to do this.
- ❑ Shown where first aid supplies are located and who to call for first aid.
- ❑ Shown where the exits are located and the route from the assigned workstation.
- ❑ Told what to do during any emergencies that could be expected to occur.
- ❑ Shown how to operate a fire extinguisher.
- ❑ Trained on chemical hazards according to Chemical Hazard Communication Program training requirements.
- ❑ Shown where to find the Material Safety Data Sheet (MSDS) file and program document.
- ❑ Taught how to read labels and use the MSDSs.
- ❑ Told generally what kinds of chemicals we se and their hazards.
- ❑ Informed about the hazards and precautions related to chemicals he/she will be using.
- ❑ Trained on safe methods to perform the job/task the employee was assigned including any hazards associated with that job/task.

Initial job/task assignment:_____

❑ Given any personal protective equipment (PPE) required and trained on how to use and care for it. PPE required for the job:

_____

❑ Provided any formal training required to do his/her job such as proper lifting, defensive driving, etc. Initial formal training given:

_____

The signatures below document that the above orientation was completed on the date below. Both parties accept responsibility for keeping our workplace safe and healthful.

Employee:_____ Date:_____

Supervisor:_____ Date:_____

Employee Injury/Illness Report

Instructions: Employees may use this form for reporting work-related injuries, illnesses, and other events that could have caused an injury or illness – no matter how minor. This helps the City identify and correct hazards before they cause serious injuries. Complete this form and give it to your supervisor as soon as possible after you are injured or become ill on the job. Also, use this form to report a near miss. **Please Print.**
I am reporting a work-related: ❑ Injury ❑ Illness ❑ Other:
Your Name:
Job Title:
Supervisor:
Have you told your supervisor about this injury/near miss? ❑ Yes ❑ No
Date of injury/near miss: Time of injury/near miss:
Names of witnesses (if any:
Where, exactly, did it happen?
What were you doing at the time?
Describe, step-by-step, what led up to the injury/near miss (continue on back if necessary):
What could have been done to prevent this injury/near miss?
What parts of your body were injured? If a near miss, how could you have been hurt?
Did you see a doctor about this injury/illness? ❑ Yes ❑ No
If yes, whom did you see? Doctor's phone number:
Date: Time:
Has this part of your body been injured before? ❑ Yes ❑ No
If yes, when? Employer (if applicable):
Your signature (optional): Date:
Report received by: Date:

Incident Investigation Report

Instructions: Complete this form as soon as possible after an incident that results in serious injury or illness. (Optional: Use to investigate a minor injury or near miss that could have resulted in a serious injury or illness). **Please Print.**

<table>
<tr><td colspan="3">This is a report of a: ❑ Death ❑ Lost Time ❑ Dr. Visit Only ❑ First Aid Only ❑ Near Miss</td></tr>
<tr><td colspan="3">Date of Incident: This report is made by: ❑ Employee ❑ Supervisor ❑ Team ❑ Final Report</td></tr>
<tr><td colspan="3">Step 1: Injured employee (complete this part for each injured employee)</td></tr>
<tr><td colspan="3">Name: Sex: ❑ Male ❑ Female Age:</td></tr>
<tr><td colspan="3">Department/Division: Job title at time of incident:</td></tr>
<tr><td>Part(s) of body affected:</td><td>Nature of injury (most serious one):
❑ Abrasion, scrapes
❑ Amputation
❑ Broken bone
❑ Bruise
❑ Burn (heat)
❑ Burn (chemical)
❑ Concussion (to head)
❑ Crushing injury
❑ Cut, laceration, puncture
❑ Illness
❑ Sprain, strain
❑ Damage to a body system (nervous, respiratory, or circulatory)
❑ Other:</td><td>This employee works:
❑ Regular, full time
❑ Regular, part time
❑ Seasonal
❑ Temporary

Months with employer:

Months doing this job:

Other injury information:</td></tr>
<tr><td colspan="3">Step 2: Describe the incident</td></tr>
<tr><td colspan="3">Exact location of the incident: Exact time:</td></tr>
<tr><td colspan="3">What part of employee's workday? ❑ Entering or leaving work ❑ Doing normal work activities
❑ During meal period ❑ During break ❑ Working overtime ❑ Other:</td></tr>
<tr><td colspan="3">Name of witnesses (if any):</td></tr>
<tr><td colspan="3">Number of attachments: Written statements: Photographs: Maps/drawings:</td></tr>
<tr><td colspan="3">What personal protective equipment was being used (if any)?</td></tr>
<tr><td colspan="3">Describe, step-by-step, the events that led up to the injury. Include names of any machines, parts, objects, tools, materials and other important details.

continue on next page</td></tr>
</table>

Incident Investigation Report (Continued)

Step 3: Why did the incident happen?	
Unsafe workplace conditions (check all that apply): ❑ Inadequate guard ❑ Unguarded hazard ❑ Safety device is defective ❑ Tool or equipment defective ❑ Workstation layout is hazardous ❑ Unsafe lighting ❑ Unsafe ventilation ❑ Lack of needed personal protective equip. ❑ Lack of appropriate equipment/tools ❑ Unsafe clothing ❑ No or insufficient training ❑ Other:	**Unsafe acts by people (check all that apply):** ❑ Operating without permission ❑ Operating at unsafe speed ❑ Servicing equipment that has power to it ❑ Making a safety device inoperative ❑ Using defective equipment ❑ Using equipment in an unapproved way ❑ Unsafe lifting by hand ❑ Taking an unsafe position or posture ❑ Distraction, teasing, horseplay ❑ Failure to wear personal protective equip. ❑ Failure to use the available equip./tools ❑ Other:
Why did the unsafe conditions exist?	
Why did the unsafe acts occur?	
Is there a reward (such as "the job can be done more quickly", or "the product is less likely to be damaged") that may have encouraged unsafe conditions or acts? ❑ Yes ❑ No If yes, describe:	
Were the unsafe acts or conditions report prior to the incident? ❑ Yes ❑ No	
Have there been similar incidents or near misses prior to this one? ❑ Yes ❑ No	
Step 4: How can similar incidents be prevented?	
What changes do you suggest to prevent this injury/near miss from happening again? ❑ Stop this activity ❑ Guard the hazard ❑ Train the employee ❑ Train the supervisor ❑ Redesign task steps ❑ Redesign workstation ❑ Write new policy/rule ❑ Enforce existing policy ❑ Routinely inspect for hazard ❑ Personal protective equipment ❑ Other:	
What should be (or has been) done to carry out the suggestion(s) checked above? Description continued on attached sheets ❑	
Step 5: Who completed and reviewed this form?	
Written by: Department/Division:	Title: Date:
Names of investigation review team members:	
Reviewed by:	Title: Date:

Incident Investigation Checklist

Instructions: This form is intended to assist you in conducting an incident investigation. It can be used after you become aware of an incident to investigate and make changes in your workplace to prevent a similar incident in the future. **The shaded box in the left-hand column indicates steps that are required by law.**

	Part 1. How serious is the injury?	**GO TO**
■	If an employee has died, is expected to die or two employees are admitted to the hospital	Part 2
■	If an employee has suffered a serious injury with immediate symptoms	Part 3
	If the injury is minor or a near miss	Part 4
	Part 2. Fatal or Multiple Hospitalization	**GO TO**
■	Do not disturb the incident scene except to aid in rescue or make the scene safe	
■	Report the incident to Labor & Industries within 8 hours. Call: L&I at 1-800-4-BE-SAFE or OSHA at 1-800-321-6742 and leave a message OR call local L&I office (do not fax or leave a voice mail message at the local office)	
■	Assist the Labor & Industries investigator	Part 3
	Part 3. Investigate Serious Injuries/Illnesses	
■	Organize an investigation team: • Supervisor or other employer representative • Employee representative • An other persons with needed expertise	
	Get written statements from victims and witnesses as soon as possible	
	Take photographs to document the injury scene as soon as possible	
	Make measurements of anything remotely relevant as soon as possible	
■	Enter recordable injuries on the OSHA log within 6 days	
	Based on the facts gathered above, develop a theory about what happened and why	
	Check your theory against the facts. Does it fit? If not, develop a new theory and/or continue fact finding	
	Make recommendations for changes to prevent a similar incident in the future	
■	Document the findings in an injury/illness investigation report	
	Implement the recommended changes	
	Check to see that the changes are effective in preventing a future incident. If not, make additional changes as needed.	
■	Review the findings and changes with the safety committee or at an employee safety meeting	
	Make additional changes as necessary based on their input and review **Investigation Complete**	
	Step 4. Minor Injury or Near Miss	**GO TO**
	If the injury or near miss could have resulted in a serious injury or death	Part 3
■	Enter recordable injuries on the OSHA log within 6 days	
	Review the OSHA and incident logs with the safety committee	
	Make changes to the workplace as necessary based on input and review **Investigation Complete**	

Insert Operations Facility Evacuation Map (include eye wash locations)

Appendix B
Job Hazard Analyses

Job Hazard Analysis
Water Utility Operation

Date of Analysis: March 26, 2007

Participants:

Justin Clary	Fred Crippen	Nick Stolberg
Steve Wall	Nick Crockford	Jim Strickler
Tad Arends	John Duback	Krystal Varney
Jeff Bolling	Doug Forsberg	

Task/Job	Potential Injury Cause	Personal Protective Equipment
Water Line Repair	• Trench cave-in resulting from lack of shoring or inadequate stepping of trench sides • Equipment contact (backhoe, saw, etc) from lack of communication from operator or failure to operate inn accordance with manufacturer's manual • Collision with traffic due to inadequate traffic control • Contact with power lines (overhead) or other utilities (underground) due to operation of equipment within vicinity of lines without proper identification • Cut from sharp edges on pipe • Back injury due to improper lifting techniques	Standard Issue, plus: • hard hat • leather gloves • safety glasses • hearing protection (cutting/equipment operation) • shoring (when trenching exceeds 4 feet depth)
Chlorine Handling	• Chemical contact (eye or skin) due to lack of PPE or care in handling • Back injury due to improper lifting techniques • Slip/trip/fall due to wet surfaces or inadequate cleanup of workstation	Standard Issue, plus: • splash-proof goggles with face shield • rubber glove • apron
Water Meter Reading	• Back injury due to improper lifting techniques (vault lids) or bending over during general meter reading • Collision with traffic due to inattention to surrounding conditions • Insects (e.g., spiders, bees, etc.) residing within meter boxes • Loose dogs	Standard Issue
Pump Out of Vaults	• Confined space hazards (refer to Confined Space Program) • Electrical hazards during generator operation • Back injury due to improper lifting techniques	Standard Issue
Reservoir Maintenance	• UNDER NO CIRCUMSTANCE ARE CITY EMPLOYEES TO ENTER WATER RESERVOIRS • Fall hazard due to improper or failure to use fall protection	Standard Issue, plus: • hard hat • fall protection

Task/Job	Potential Injury Cause	Personal Protective Equipment
Hydrant Flushing	Collision with traffic due to inattention to surrounding conditions in inadequate traffic control Cap strike due to improper flushing procedures allowing release of the cap under high water pressures Muscle strain due to inadequate tools for the job	Standard Issue, plus: • safety glasses • leather gloves

Standard Issue Personal Protective Equipment to be worn, independent of task/job shall consist of steel-toed boots with slip-resistant soles and safety vest (orange/neon with reflective material)

Job Hazard Analysis
Sewer Utility Operation

Date of Analysis: March 26, 2007

Participants:

Justin Clary	Fred Crippen	Nick Stolberg
Steve Wall	Nick Crockford	Jim Strickler
Tad Arends	John Duback	Krystal Varney
Jeff Bolling	Doug Forsberg	

Task/Job	Potential Injury Cause	Personal Protective Equipment
Handling of Wastewater	• Infection due to improper or lack of appropriate PPE	Standard Issue, plus: • safety glasses • rubber gloves
Conveyance Line Repair	• Trench cave-in resulting from lack of shoring or inadequate stepping of trench sides • Equipment contact (backhoe, saw, etc) from lack of communication from operator or failure to operate inn accordance with manufacturer's manual • Collision with traffic due to inadequate traffic control • Contact with power lines (overhead) or other utilities (underground) due to operation of equipment within vicinity of lines without proper identification • Cut from sharp edges on pipe • Back injury due to improper lifting techniques	Standard Issue, plus: • hard hat • rubber gloves inside leather gloves • safety glasses • hearing protection (cutting/equipment operation) • shoring (when trenching exceeds 4 feet depth)
Equipment Maintenance	• Electrocution due to failure to properly lockout/tagout equipment • Overhead hazard if moving equipment via rigging • Back injury due to improper lifting techniques	Standard Issue, plus: • hard hat • rubber gloves inside leather gloves • safety glasses • hearing protection (equipment operation)
Polymer and Bioxide Handling	• Chemical hazard due exposure to skin/eyes • Slip/trip/fall due to inadequate cleanup of work area • Back injury due to improper lifting techniques	Standard Issue, plus: • rubber gloves • goggles
Pump Removal from Wet Wells	• Confined space hazards (refer to Confined Space Program) • Electrical hazards by crossing of locked out pump line with active pump line or by failure to properly isolate equipment	Standard Issue, plus: • hard hat • rubber gloves inside leather gloves

Task/Job	Potential Injury Cause	Personal Protective Equipment
	• Overhead hazard • Back injury due to improper lifting techniques	• safety glasses
Cleaning Clarifiers	• Fall hazard due to improper or failure to use fall protection	Standard Issue, plus: • hearing protection • rubber gloves • safety glasses
Cleaning UV Light Bank	• Electrocution due to improper lockout/tagout • Falling into waste stream due to inadequate isolation following UV light bank removal • Back injury due to improper lifting techniques • Cut should UV light break	Standard Issue, plus: • rubber gloves • safety glasses
Line Jetting	• Collision with traffic due to inadequate traffic control • Confined space hazards, should manhole entry be necessary (refer to Confined Space Program) • Exposure to gases from lines/manholes due to inadequate ventilation • Contact with jetting equipment under high pressure • Falling into a manhole due to inadequate isolation • Back injury due to improper lifting techniques	Standard Issue, plus: • rubber gloves inside leather gloves • safety glasses • hearing protection
Pump Out of Vaults	• Confined space hazards (refer to Confined Space Program) • Electrical hazards during generator operation • Back injury due to improper lifting techniques	Standard Issue, plus: • rubber gloves
Vac Truck Operation	• Collision with traffic due to inadequate traffic control • Confined space hazards, should manhole entry be necessary (refer to Confined Space Program) • Exposure to gases from lines/manholes due to inadequate ventilation • Falling into a manhole due to inadequate isolation • Back injury due to improper lifting techniques	Standard Issue, plus: • rubber gloves inside leather gloves • safety glasses • hearing protection
Cleaning Wet Wells	• Collision with traffic due to inadequate traffic control • Confined space hazards, should manhole entry be necessary (refer to Confined Space Program) • Electrocution due to improper lockout/tagout • Exposure to gasses in lines/manholes due to inadequate ventilation • Falling into a manhole due to inadequate isolation • Back injury due to improper lifting techniques	Standard Issue, plus: • rubber gloves inside leather gloves • safety glasses • hearing protection

Standard Issue Personal Protective Equipment to be worn, independent of task/job shall consist of steel-toed boots with slip-resistant soles and safety vest (orange/neon with reflective material)

Job Hazard Analysis
Stormwater Utility Operation

Date of Analysis: March 26, 2007

Participants:

Justin Clary	Fred Crippen	Nick Stolberg
Steve Wall	Nick Crockford	Jim Strickler
Tad Arends	John Duback	Krystal Varney
Jeff Bolling	Doug Forsberg	

Task/Job	Potential Injury Cause	Personal Protective Equipment
Conveyance Line Repair	• Trench cave-in resulting from lack of shoring or inadequate stepping of trench sides • Equipment contact (backhoe, saw, etc) from lack of communication from operator or failure to operate inn accordance with manufacturer's manual • Collision with traffic due to inadequate traffic control • Contact with power lines (overhead) or other utilities (underground) due to operation of equipment within vicinity of lines without proper identification • Cut from sharp edges on pipe • Back injury due to improper lifting techniques	Standard Issue, plus: • hard hat • rubber gloves inside leather gloves • safety glasses • hearing protection (cutting/equipment operation) • shoring (when trenching exceeds 4 feet depth)
Line Jetting	• Collision with traffic due to inadequate traffic control • Confined space hazards, should manhole entry be necessary (refer to Confined Space Program) • Exposure to gases from lines/manholes due to inadequate ventilation • Contact with jetting equipment under high pressure • Falling into a manhole due to inadequate isolation • Back injury due to improper lifting techniques	Standard Issue, plus: • rubber gloves inside leather gloves • safety glasses • hearing protection
Mowing Bioswales and Ponds	• Slope hazard (equipment rollover) • Flying debris from mower/weed eater • Insects	Standard Issue, plus: • leather gloves • safety glasses • hearing protection
Treatment System Filter Replacement	• Confined space hazards (refer to Confined Space Program) • Drowning due to flash flood while in manhole • Back injury due to improper lifting techniques	Standard Issue, plus: • leather gloves • safety glasses • hard hat

Task/Job	Potential Injury Cause	Personal Protective Equipment
Detention System Inspection/Maintenance	• Confined space hazards (refer to Confined Space Program) • Drowning due to flash flood while in manhole • Back injury due to improper lifting techniques	Standard Issue, plus: • leather gloves • safety glasses • hard hat

Standard Issue Personal Protective Equipment to be worn, independent of task/job shall consist of steel-toed boots with slip-resistant soles and safety vest (orange/neon with reflective material)

Job Hazard Analysis
Streets/Right-of-Way Maintenance

Date of Analysis: March 26, 2007

Participants:

Justin Clary	Fred Crippen	Nick Stolberg
Steve Wall	Nick Crockford	Jim Strickler
Tad Arends	John Duback	Krystal Varney
Jeff Bolling	Doug Forsberg	

Task/Job	Potential Injury Cause	Personal Protective Equipment
Pavement Maintenance (pothole repair, crack sealing, etc.)	• Collision with traffic due to inadequate traffic control • Chemical and burn hazard due exposure to skin/eyes (crack sealant and/or paint) • Equipment contact from lack of communication from operator or failure to operate inn accordance with manufacturer's manual • Hearing damage due to inadequate use of hearing protection • Back injury due to improper lifting techniques	Standard Issue, plus: • leather gloves • safety glasses • hard hat
Vegetation Control (mowing, weed eating, herbicide application, etc.)	• Collision with traffic due to inadequate traffic control • Slope hazard (equipment rollover) • Flying debris from mower/weed eater • Insects • Chemical hazard due exposure to skin/eyes (herbicide) - ONLY EMPLOYEES WITH HERBICIDE APPLICATORS CERTIFICATION ARE PERMITTED TO COMPLETE HERBICIDE APPLICATION • Hearing damage due to inadequate use of hearing protection • Overhead hazard when pruning/removing tree limbs	Standard Issue, plus: • leather gloves • safety glasses • hearing protection (mowing/weed eating) • hard hat (tree pruning) • long sleeve shirts (herbicide application)
Road Striping, Curb Painting, Sign Repair/Replacement	• Collision with traffic due to inadequate traffic control • Chemical and burn hazard due exposure to skin/eyes (crack sealant and/or paint) • Equipment contact from lack of communication from operator or failure to operate inn accordance with manufacturer's manual • Hearing damage due to inadequate use of hearing protection • Back injury due to improper lifting techniques	Standard Issue, plus: • leather gloves • safety glasses
Flagging	• Collision with traffic due to inadequate traffic control - ONLY EMPLOYEES WITH FLAGGER CERTIFICATION ARE PERMITTED TO PROVIDE TRAFFIC CONTROL	Standard Issue

Task/Job	Potential Injury Cause	Personal Protective Equipment
Road Kill/Animal Removal	• Collision with traffic due to inadequate traffic control • Infectious disease due exposure	Standard Issue, plus: • rubber gloves • safety glasses
Road Sanding	• Pinch points during placement of sander in truck • Accident while operating vehicle in icy conditions	Standard Issue, plus: • leather gloves • safety glasses • hard hat

Standard Issue Personal Protective Equipment to be worn, independent of task/job shall consist of steel-toed boots with slip-resistant soles and safety vest (orange/neon with reflective material)

Job Hazard Analysis
Park/Cemetery Maintenance

Date of Analysis: March 26, 2007

Participants:

Justin Clary	Fred Crippen	Nick Stolberg
Steve Wall	Nick Crockford	Jim Strickler
Tad Arends	John Duback	Krystal Varney
Jeff Bolling	Doug Forsberg	

Task/Job	Potential Injury Cause	Personal Protective Equipment
Vegetation Control (mowing, weed eating, edging, tree pruning, herbicide application, etc.)	• Slope hazard (equipment rollover) • Flying debris from mower/weed eater • Insects • Chemical hazard due exposure to skin/eyes (herbicide) - ONLY EMPLOYEES WITH HERBICIDE APPLICATORS CERTIFICATION ARE PERMITTED TO COMPLETE HERBICIDE APPLICATION • Hearing damage due to inadequate use of hearing protection • Overhead hazard when pruning/removing tree limbs	Standard Issue, plus: • leather gloves • safety glasses • hearing protection (mowing/weed eating) • hard hat (tree pruning) • long sleeve shirts (herbicide application)
Grave Location	• Back injury due to over exertion	Standard Issue
Leaf Blowing	• Flying debris from mower/weed eater • Hearing damage due to inadequate use of hearing protection	Standard Issue, plus: • leather gloves • safety glasses • hearing protection
Equipment Repair	• Pinch points due to improper tool use • Cuts due to inadequate PPE or inattention	Standard Issue, plus: • leather gloves • safety glasses
Irrigation System Maintenance	• Electrocution due to improper lockout/tagout • Back injury due to bending	Standard Issue, plus: • leather gloves • safety glasses

Standard Issue Personal Protective Equipment to be worn, independent of task/job shall consist of steel-toed boots with slip-resistant soles and safety vest (orange/neon with reflective material)

Appendix C
Lockout/Tagout Program

Lockout/Tagout Program
City of Ridgefield Public Works Department

The purpose of this program is to establish the minimum requirements for the lockout and tagout of energy material sources associated with the public infrastructure systems (water, sewer, stormwater, park/cemetery, roads, facilities) of the City of Ridgefield, Washington. Lockout/tagout procedures shall be followed anytime servicing or maintenance activities associated with the energy sources at applicable systems are required.

Lockout/Tagout Associated Personnel

The following are definitions of personnel associated with the lockout/tagout program of the Ridgefield Public Works Department.

Affected Employee – An employee whose job requires him/her to operate or use a machine or equipment on which servicing or maintenance is being performed under lockout and tagout, or whose job requires the employee to work in an area in which isolation of hazards is necessary to provide a safe workplace.

Authorized Employee – A person who locks out or tags out machines or equipment in order to perform servicing or maintenance on that machine or equipment. An affected employee becomes an authorized employee when that employee's duties include servicing or maintenance.

Site Supervisor – A person responsible for verifying that all proper lockout/tagout procedures are being followed. The site supervisor must ensure that the power disconnects, appropriate attachment of locks and tags, and proper documentation of the procedure are implemented. He/she is also the designated custodian and controller for all locks and tags issued to authorized employees.

Circumstances Requiring Lockout/Tagout

Lockout/tagout procedures shall be implemented anytime the following equipment/appurtenances require servicing or maintenance:

- Electrically-powered mechanical devices (e.g., blowers, pumps, etc.)
- Control panels
- Heat trace
- Power pole and associated meter and meter socket (maintenance to be performed by power company only)
- Electrical connections
- Automated systems

Lockout/Tagout Locations

The following lists potential locations where lockout/tagout can be implemented:

- Electrical disconnect on power pole
- System control panel
- Main junction box

Lock and Tag Requirements

Locks and tags shall be capable of withstanding the environment to which they are exposed for the maximum period of time that exposure is expected. Locks must be capable of controlling the equipment in such a manner that the equipment can not be operated until the lock is removed. A tag stating "This lock and tag to be removed only by authorized personnel" should

accompany all locks. All tags must contain the authorized employee name, date of application of the lock, equipment name, and reason for lockout.

Lockout/Tagout Procedures

Due to system electrical instrumentation, it is important that specific procedures be followed when shutting down the power to a system or piece of equipment. Anytime maintenance or servicing is to be performed, lockout of the power supply to the system is required. Prior to performing maintenance or servicing, the system should be shutdown in accordance with the manufacturer's manual or approved procedures. Upon system shutdown, the main power disconnect on the power pole should be locked out of service. The following presents procedures to be followed for lockout of each system:

1. Prior to initiating servicing or maintenance activities, the Authorized Employee shall contact the Site Supervisor to receive authorization for instituting lockout.
2. The Site Supervisor shall provide an appropriate lock(s) for the system and fill out the Lockout Log (attached).
3. The Authorized Employee may then mobilize to the site, perform controlled shutdown of the system and lockout the system at the main power disconnect.
4. Upon installing the lock, the employee will affix a tag to the lock. Refer to the Lock and Tag Requirements section for requirements of the tag.
5. After installing the lock, the Authorized Employee will try to start the system to ensure that no power is being supplied to the system.
6. The Authorized Employee may then initiate servicing or maintenance activities.
7. Upon completion of maintenance activities, the Authorized Employee may remove the lock and tag from the main power disconnect and perform system startup consistent with manufacturer's manual or approved procedures.
8. The Authorized Employee will notify the Site Supervisor of removal of the lock and tag within one workday of restarting the system.

Lockout Log

AUTHORIZED EMPLOYEE	DATE	EQUIPMENT NAME	EQUIPMENT NUMBER	REASON FOR LOCKOUT

Appendix D
Confined Space Entry Program

Confined Space Entry Program
City of Ridgefield Public Works Department

This confined space entry program has been generated by the City of Ridgefield Public Works Department to:

- Identify all permit-required confined spaces in our workplace, and
- Describe procedures for worker safety and health in permit-required confined spaces.

Employees will participate in developing and implementing the program in the following ways:

- Review of the program following hire and annually thereafter
- Maintenance of confined space entry certification (every four years)
- Implementation of this program through adherence to policies defined within.

The City of Ridgefield Public Works Department will treat all confined spaces as permit-required spaces until they have been evaluated **and** are documented to be nonpermit-required. Conducting work around and within a confined space presents a number of potential hazards that an individual should remain aware of at all times:

- Engulfment and drowning
- Presence of toxic gases equal to or more than 10 parts per million (ppm) hydrogen sulfide measured as an eight-hour time-weighted average. If the presence of other toxic contaminants is suspected, specific monitoring programs will be developed.
- Presence of explosive/flammable gases equal to or greater than ten percent of the lower flammable limit (LFL)
- Oxygen deficiency resulting from a concentration of oxygen in the atmosphere equal to or less than 19.5% by volume.

ROLES & RESPONSIBILITIES

The following shows which employees are responsible for the tasks outlined:

Responsibility	Responsible Person
Evaluate work locations and determine: • Confined space(s) exist at the worksite. • Permit-required confined space(s) exist at the worksite.	Public Works Supervisor
Evaluate the confined space(s) to determine whether hazards are present.	Public Works Supervisor
Evaluate hazards and determine the appropriate entry procedure for the space. **Note:** • Until evaluated and documented otherwise, all confined spaces will be considered permit-required spaces. • Alternate entry procedure may apply when the only hazard remaining in the space is a potential hazardous atmosphere controlled by the use of forced air ventilation.	Public Works Supervisor
Re-evaluate the space when the use, configuration, or hazards of a confined space change.	Public Works Supervisor
Monitoring and testing as follows: • Conduct initial monitoring to identify and evaluate any potentially hazardous atmospheres • Complete atmospheric testing in the following order: – Oxygen – Combustible gases – Toxic gases and vapors • Record the data on entry form • Keep these records on-site (west wall of Operations Facility break room)	Individual identified by the Public Works Supervisor for a given task
Inform exposed or potentially-exposed employees of the existence and hazards of confined spaces using the methods described below under “Control Confined Space Entry.”	Public Works Supervisor
Provide employees entering confined spaces, or their designated representative, an opportunity to observe pre-entry testing and any subsequent testing. - All test results will be provided to the entrants or their representatives upon request. - The space will be re-evaluated if entrants or their representatives believe that the permit space was inadequately tested.	Public Works Supervisor
Make sure that all equipment needed for safe entry into any confined space is available and in proper working order.	Public Works Supervisor
Conduct a review using the canceled entry permits to identify and correct any deficiencies in our program.	Public Works Supervisor

IDENTIFY CONFINED SPACES AND HAZARDS

The following table provides a list of City of Ridgefield confined spaces and hazards:

Confined Space	Type of Space	Location	Hazards[a]
Wastewater Treatment Plant:			
WWTP-001	Influent Wet Well	refer to WWTP figure	1, 2, 3, 4
WWTP-002	Influent Check Valve Vault	refer to WWTP figure	1, 2, 3, 4
WWTP-003	No. 1 Sludge Digester	refer to WWTP figure	1, 2, 3, 4
WWTP-004	No. 2 Sludge Digester	refer to WWTP figure	1, 2, 3, 4
WWTP-005	Polymer Injection Elec. Vault	refer to WWTP figure	1, 2, 3, 4
WWTP-006	Sludge Storage Basin	refer to WWTP figure	1, 2, 3, 4
WWTP-007	Aeration Basin No. 1	refer to WWTP figure	1, 2, 3, 4
WWTP-008	Aeration Basin No. 2	refer to WWTP figure	1, 2, 3, 4
WWTP-009	Distribution Box	refer to WWTP figure	1, 2, 3, 4
WWTP-010	Anoxic Zone	refer to WWTP figure	1, 2, 3, 4
WWTP-011	North Electrical Vault	refer to WWTP figure	1, 2, 3, 4
WWTP-012	In-Plant Wet Well	refer to WWTP figure	1, 2, 3, 4
WWTP-013	In-Plant Valve Vault	refer to WWTP figure	1, 2, 3, 4
WWTP-014	No. 1 Clarifier	refer to WWTP figure	1, 2, 3, 4
WWTP-015	No. 2 Clarifier	refer to WWTP figure	1, 2, 3, 4
WWTP-016	Scum Pump Station	refer to WWTP figure	1, 2, 3, 4
WWTP-017	Scum Valve Vault	refer to WWTP figure	1, 2, 3, 4
WWTP-018	Headworks Grit Chamber	refer to WWTP figure	1, 2, 3, 4
WWTP-019	Headworks Receiving Box	refer to WWTP figure	1, 2, 3, 4
Wastewater Collection System:			
WWCS-001	All Manholes	Multiple	1, 2, 3, 4
WWCS-002	Abrams Lift Station Wet Well	700 E Division St	1, 2, 3, 4
WWCS-003	Cassini Lift Station Wet Well	1508 24th Place	1, 2, 3, 4
WWCS-004	Cassini Lift Station Flowmeter Vault	1508 24th Place	1, 2, 3, 4
WWCS-005	Cassini Lift Station Check Valve Vault	1508 24th Place	1, 2, 3, 4
WWCS-006	Gee Creek Lift Station Wet Well	1745 Pioneer St	1, 2, 3, 4
WWCS-007	Gee Creek Lift Station Flowmeter & Check Valve Vault	1745 Pioneer St	1, 2, 3, 4
WWCS-008	Gee Creek Lift Station Pig Launching Station	1745 Pioneer St	1, 2, 3, 4
WWCS-009	Heron Ridge Lift Station Wet Well	440 Heron Dr	1, 2, 3, 4
WWCS-010	Heron Ridge Lift Station Check Valve Vault	440 Heron Dr	1, 2, 3, 4
WWCS-011	Junction Lift Station Wet Well	225 S 56th Pl	1, 2, 3, 4
WWCS-012	Junction Lift Station Check Valve Vault	225 S 56th Pl	1, 2, 3, 4
WWCS-013	Mill St Lift Station Wet Well	5 Mill St	1, 2, 3, 4
WWCS-014	Osprey Lift Station Wet Well	2219 S 13th Circle	1, 2, 3, 4
WWCS-015	Osprey Lift Station Flowmeter Vault	2219 S 13th Circle	1, 2, 3, 4
WWCS-016	Osprey Lift Station Check Valve Vault	2219 S 13th Circle	1, 2, 3, 4
WWCS-017	Port Lift Station Wet Well	111 W Division St	1, 2, 3, 4
WWCS-018	Taverner Lift Station Wet Well	1220 Great Blue Rd	1, 2, 3, 4
WWCS-019	Taverner Lift Station Flowmeter Vault	1220 Great Blue Rd	1, 2, 3, 4
WWCS-020	Taverner Lift Station Check Valve Vault	1220 Great Blue Rd	1, 2, 3, 4
WWCS-021	Tri-Mountain Golf Lift Station Wet Well	1896 NW 299th St	1, 2, 3, 4
WWCS-022	Tri-Mountain Golf Lift Station Check Valve Vault	1896 NW 299th St	1, 2, 3, 4
WWCS-023	Wishing Wells Lift Station Wet Well	2064-S 26th Ct	1, 2, 3, 4
WWCS-024	Wishing Wells Lift Station Check Valve Vault	2064 S 26th Ct	1, 2, 3, 4

Confined Space	Type of Space	Location	Hazards[a]
WWCS-025	Taverner Pressure System Vault No. 1	1330 Great Blue Rd	1, 2, 3, 4
WWCS-026	Taverner Pressure System Vault No. 2	843 S Hillhurst Rd	1, 2, 3, 4
WWCS-027	Taverner Pressure System Vault No. 3	116 N 5th Ave	1, 2, 3, 4
WWCS-028	Taverner Pressure System Vault No. 4	102 Division St	1, 2, 3, 4
WWCS-029	T-7 Pressure System Vault No. 1	1600 Pioneer St	1, 2, 3, 4
WWCS-030	T-7 Pressure System Vault No. 2	701 E Division St	1, 2, 3, 4
WWCS-031	T-7 Pressure System Vault No. 3	507 E Division St	1, 2, 3, 4
WWCS-032	T-7 Pressure System Vault No. 4	310 E Division St	1, 2, 3, 4
WWCS-033	T-7 Pressure System Vault No. 5	202 Maple St	1, 2, 3, 4
WWCS-034	T-7 Pressure System Vault No. 6	602 Railroad Ave	1, 2, 3, 4
WWCS-035	T-7 Pressure System Vault No. 7	2 Hall St	1, 2, 3, 4
WWCS-036	STEP System Chamber No. 1 (Café)	6370 Pioneer St	1, 2, 3, 4
WWCS-037	STEP System Chamber No. 2 (Café)	6370 Pioneer St	1, 2, 3, 4
WWCS-038	STEP System Chamber No. 3 (AM-PM)	6300 Pioneer St	1, 2, 3, 4
WWCS-039	STEP System Chamber No. 4 (Res)	139 N 19th Ct	1, 2, 3, 4
WWCS-040	STEP System Chamber No. 5 (Res)	870 S Hillhurst Rd	1, 2, 3, 4
WWCS-041	STEP System Chamber No. 6 (Res)	1068 S Hillhurst Rd	1, 2, 3, 4
WWCS-042	STEP System Chamber No. 7 (Res)	1070 S Hillhurst Rd	1, 2, 3, 4
WWCS-043	STEP System Chamber No. 8 (Res)	1104 S Hillhurst Rd	1, 2, 3, 4
WWCS-044	STEP System Chamber No. 9 (Res)	2361 S Hillhurst Rd	1, 2, 3, 4
WWCS-045	STEP System Chamber No. 10 (Res)	2065 N 20th Pl	1, 2, 3, 4
Water Supply & Distribution System:			
WSDS-001	Well No. 7 Flowmeter Vault	Abrams Well Field	1, 4
WSDS-002	Well No. 8 Flowmeter Vault	Abrams Well Field	1, 4
WSDS-003	Well No. 9 Flowmeter Vault	Abrams Well Field	1, 4
WSDS-004	Well Nos. 7 & 8 Chlorine Inject Vault	Abrams Well Field	1, 4
WSDS-005	Well No. 9 Chlorine Inject Vault	Abrams Well Field	1, 4
WSDS-006	Abrams PRV Vault	Abrams Well Field	1, 4
WSDS-007	Cassini View PRV Vault	1512 S 24th Pl	1, 4
WSDS-008	Junction Reservoir Valve Vault	225 S 56th Pl	1, 4
WSDS-009	Junction Reservoir Altitude Valve Vault	225 S 56th Pl	1, 4
WSDS-010	Gee Creek PRV Vault	1651 Pioneer St	1, 4
WSDS-011	Heron Ridge PRV Vault	959 Heron Dr	1, 4
WSDS-012	Hillhurst PRV Vault	921 S 8th Way	1, 4
WSDS-013	WSDOT Rest Area Meter Vault	Gee Creek Rest Area	1, 4
WSDS-014	Junction Booster Station Valve Vault	225 S 56th Pl	1, 4
WSDS-015	Low Zone Reservoir Check Valve Vault	214 Riverview Dr	1, 4
WSDS-016	Low Zone Reservoir PRV Vault	214 Riverview Dr	1, 4
WSDS-017	Osprey PRV Vault	1507 S 21st Pl	1, 4
WSDS-018	Dollar Tree Meter Vault	75095 S 5th St	1, 4
WSDS-019	Dollar Tree Deduct Meter Vault	75095 S 5th St	1, 4
WSDS-020	Tri-Mountain RV Meter Vault	109 S 65th Ave	1, 4
Stormwater Collection System:			
SWCS-001	All Manholes	Multiple	1, 2, 3, 4

[a] Hazards include:

1. Engulfment and drowning
2. Presence of toxic gases equal to or more than 10 parts per million (ppm) hydrogen sulfide measured as an eight-hour time-weighted average. If the presence of other toxic contaminants is suspected, specific monitoring programs will be developed.
3. Presence of explosive/flammable gases equal to or greater than ten percent of the lower flammable limit (LFL)
4. Oxygen deficiency resulting from a concentration of oxygen in the atmosphere equal to or less than 19.5% by volume

Insert WWTP Figure Identifying Confined Space Locations

CONTROL OF CONFINED SPACE ENTRY

The Public Works Department employs the following method(s) to inform employees and the general public about the existence and hazards of confined spaces, and prevent unauthorized entry:

- Posting danger signs at each permit space reading "Danger-Confined Space - Do Not Enter"
- Maintaining of locks on entry locations, where feasible

PERMIT ENTRY PROCEDURES

Prior to entry of a confined space, the following procedures will be evaluated and implemented, as appropriate:

- All manholes, wet wells, vaults, etc. are considered permit-required confined spaces until the pre-entry procedures demonstrate otherwise.
- Any employee required or permitted to pre-check or enter a confined space has successfully completed, at a minimum, the training outlined in the training procedures section of this program.
- A written copy of operating and rescue procedures as required by these procedures is at the worksite for the duration of the job.
- The entry permit is completed before approval can be given to enter a confined space (the required confined space entry permit form is provided at the end of this program).
- The permit verifies completion of items required to protect employees.
- The permit is kept at the job site for the duration of the job.
- The rescue services provider (Vancouver Fire Department Technical Rescue Team, 360-619-4165, point-of-contact – Dan Monaghan) shall be contacted prior to entry into a permit-required confined space.
- If circumstances cause an interruption in the work or a change in the alarm conditions for which entry was approved, a new sewer entry permit needs to be completed.
- The surrounding area is surveyed to avoid hazards such as drifting vapors from tanks, piping, or sewers.
- The sewer atmosphere is tested to determine whether dangerous air contamination or oxygen deficiency exists.
- A direct reading gas monitor is used.
- Testing is performed by a supervisor who has successfully completed the gas detector training for the monitoring method used.
- The minimum parameters to be monitored are oxygen deficiency, Lower Flammable Level (LFL), and hydrogen sulfide concentration.
- A written record of the pre-entry test results is made and kept at the worksite for the duration of the job.
- Affected employees are able to review the testing results.
- The most hazardous conditions will determine when work is being performed in two adjoining, connected spaces.
- Mechanical ventilation systems, where required, are set at one hundred percent of the outside air.
- Where possible, open additional manholes/vault lids to increase air circulation.
- Use portable blowers to increase natural circulation if needed.
- After a suitable ventilation period, repeat the testing.
- Entry may not begin until testing has demonstrated that the hazardous atmosphere has been eliminated or controlled.

The following table defines the procedures to be implemented when entering a confined space:

If you have any of the following conditions	Then follow these procedures
Testing demonstrates the existence of dangerous or deficient conditions and additional ventilation cannot reduce concentrations to safe levels	- All personnel are trained - A self-contained breathing apparatus is worn by any person entering the sewer. - At least one worker stands by the outside of the confined space ready to give assistance in case of emergency. - The rescue worker(s) has a self-contained breathing apparatus available for immediate use. - There is at least one additional worker within sight or call of the standby worker. - Continuous powered communications is maintained between the worker within the sewer and standby personnel.
The atmosphere tests as safe but unsafe conditions can reasonably be expected to develop	
It is not feasible to provide for immediate exit from spaces equipped with automatic fire suppression systems and it is not practical or safe to deactivate such systems	
An emergency exists and it is not feasible to wait for pre-entry procedures to take effect	

ALTERNATE ENTRY PROCEDURES

Certification:

- Confined spaces may be entered without the need for a written permit or attendant if the space can be maintained in a safe condition for entry by mechanical ventilation alone.
- All confined spaces are considered permit-required confined spaces until the pre-entry procedures demonstrate otherwise.
- Any employee required or permitted to pre-check or enter a confined space will have successfully completed, at a minimum, the training outlined in our training procedures.
- A written copy of operating and rescue procedures as required by these procedures needs to be at the worksite for the duration of the job.
- The sewer pre-entry checklist is completed by the lead worker before entry into a sewer. This list verifies completion of items listed below. This checklist is kept at the job site for the duration of the job.
- If circumstances dictate an interruption in the work, reevaluate the sewer and complete a new checklist.

Pumps and lines supporting ventilation shall:

- All pumps and lines which may reasonably cause contaminants to flow into the confined space are disconnected, blinded, and locked out, or effectively isolated by other means to prevent development of dangerous air contamination or engulfment.
- Not all lateral lines to confined spaces require blocking. However, where experience or knowledge of use indicates a reasonable potential for contamination of air or engulfment into an occupied confined space, then all affected lateral lines are to be blocked.
- If blocking or isolation requires entry into the confined space, the provisions for entry into a permit-required confined space are implemented.

Throughout the term of the entry of the confined space, surveillance shall include surveying of the surrounding area to avoid hazards such as drifting vapors from the tanks, piping, or sewers. In addition testing will consist of:

- The atmosphere within the confined space will be tested to determine whether dangerous air contamination or oxygen deficiency exists.
- Detector tubes, alarm only gas monitors, and explosion meters are examples of monitoring equipment that may be used to test sewer atmospheres.
- Testing is performed by a lead worker who has successfully completed the gas detector training for the monitoring method to be used.

- The minimum parameters to be monitored are oxygen deficiency, LFL, and hydrogen sulfide concentration.
- A written record of the pre-entry test results are made and kept at the worksite for the duration of the job.
- The supervisor will certify in writing, based upon the results of the pre-entry testing, that all hazards have been eliminated or controlled.
- Affected employees are able to review the testing results.
- The most hazardous conditions will determine when work is being performed in two adjoining, connecting spaces.

When entering without permit or an attendant, entry into and work within may proceed if:

- There are no non-atmospheric hazards present
- The pre-entry tests show there is no dangerous air contamination or oxygen deficiency within the space; and there is no reason to believe that any is likely to develop
- Continuous testing of the atmosphere in the immediate vicinity of the workers within the space is accomplished
- Workers will immediately leave the confined space when any of the gas monitor alarm set points are reached as defined
- Workers will not return to the area until a supervisor who has completed the gas detector training has used a direct reading gas detector to evaluate the situation and has determined that it is safe to enter.
- If you are entering a space without a permit or an attendant

Arrangements for rescue services are not required for entries that do not require a permit. See the “rescue” section for instructions regarding rescue planning where an entry permit is required.

CLASSIFY A CONFINED SPACE AS A NONPERMIT SPACE

A space will be classified nonpermit only for as long as all the hazards remain eliminated. If someone must enter the space to eliminate of any of the hazards, we will follow all the requirements listed under the permit entry procedures.

Documentation that no permit-required confined space hazards exist will include the following:

- The date, location, and signature of the person making the determination.
- How the non-permit requirement was determined that no permit-required confined space hazards exist.
- Documentation will be available to entrants or their authorized representatives by posting at the entry to the space.

NONPERMIT SPACE DOCUMENTATION FORM

Nonpermit confined space name or number	*(Insert your specific information here)*
Location	
Documentation	
Date	
Signature	

TRAINING

Confined space entry training will be provided to employees at the following times:

- When hired, so new employees are aware of our confined spaces
- Before they are assigned permit space entry duties
- When their assigned duties change
- When there is a change in a space that creates hazards for which they have not been trained.

Following are seven (7) basic categories of training, based on duties and potential exposure:

1. Awareness training provided to all employees potentially exposed to permit spaces, covering the following:
   a. The location and hazard of each space
   b. The company program for confined spaces
   c. Emphasis on **not** entering the space for any reason.
2. Entry and exit training for the following team members:
   a. Entrants
   b. Attendants
   c. Supervisors
   d. Rescue team members
3. Training on how to manage confined space entries for entry supervisors.
4. Rescue training for rescue team members.
5. Pre-entry procedure training for all:
   a. Entrants
   b. Supervisors
   c. Attendants
   d. Rescue team members
6. Training on evaluating and testing confined spaces for:
   a. Entry supervisors
   b. Staff assigned to test and evaluate the space
7. Retraining for employees when you have any reason to believe they are not proficient at their confined space duties.

RESPONSIBILITIES FOR CONTRACTORS

When a private contractor is hired to complete work within a confined space on behalf of the City, a copy of this Confined Space Entry Program will be provided to each contractor involved in permit space entry work at our company. Each contractor will be briefed on the following:

- The location of the permit spaces at our facility.
- Entry into permit spaces is only allowed by following the written entry program.
- The reasons for listing the space as a permit space, including both of the following:
  - The identified hazards
  - Our experience with the particular space.
- Precautions we have implemented to protect employees working in or near the space.
- Who will debrief the contractor at the completion of entry operations, or during entry if needed, on whether any hazards were confronted or created during their work.

RESCUE AND EMERGENCY SERVICES

Following defines the procedures to be immediately implemented should rescue from a confined space be required:

- Call the local rescue services for rescue (911 or Clark County Fire District No. 12 at 360-887-4609)

- Rescue entries into confined spaces are made only by trained and properly equipped personnel.
- If immediate hazards to injured personnel are present, workers at the site implement emergency procedures without entering the confined spaced.
- Continuous gas monitoring is performed during all confined space entry operations. If alarm conditions occur, entry personnel exit the sewer and a new entry permit is issued.
- When dangerous air contamination is attributable to flammable or explosive substances, lighting and electrical equipment needs to be Class 1, Division 1 rated per National Electrical Code (NEC) and no ignition sources may be introduced into the area.
- When it is practical, the full-body harness is used to suspend a person upright and a hoisting device or similar apparatus is available for lifting workers out of the confined space.
- If at any time the use of a hoisting device or full-body harness and attached lifeline may endanger the worker, their use may be discontinued.

Following defines the procedures for safely removing workers from confined spaces:

If	Then
There is any questionable action or non-movement by the worker inside	– Perform a verbal check. – Immediately remove the worker from the confined space if there is no response or a questionable response from them.
The worker is disabled due to falling or impact	– Do not remove the worker unless there is immediate danger to the worker's life. – Notify local rescue personnel immediately. – Make sure the standby worker doesn't enter the confined space in this case. ▪ Only trained rescue personnel (wearing self contained breathing apparatus-SCBA) may enter to perform a rescue. – Make sure all workers entering the space use a full-body harness with attached lifeline with the free end of the line secured outside the entry opening. – Make sure the standby worker uses the lifeline to attempt to rescue a disabled worker without entering the space and summons rescue services based on their assessment of the situation.

CONFINED SPACE PROGRAM REVIEW

At least every 12 months, the Ridgefield Public Works Department will conduct a review using canceled entry permits to identify any deficiencies in the program. The program will be reviewed immediately if there is reason to believe that the program does not adequately protect our employees, such as the following situations:

- Unauthorized entry of a permit space
- Discovery of a hazard not covered by the permit
- Detection of a condition prohibited by the permit
- An injury or near-miss during entry
- Change in the use or configuration of the space
- Employee complaints of permit space program ineffectiveness.

Corrective measures will be documented by revising the program. Employees will participate in revising the program, and will be trained on any changes.

If no permit space entry operations are conducted during the year, no review is needed.

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Confined Space Entry Permit

PERMIT VALID FOR 8 HOURS ONLY. ALL PERMIT COPIES MUST REMAIN AT THE SITE UNTIL JOB IS COMPLETED.		
Date:	Site Location/Description:	
Purpose of Entry:		
Supervisor(s) in Charge of Crews	Type of Crew	Telephone Number
Communication Procedures:		
Rescue Procedures (telephone number on back):		

BOLD INDICATES MINIMUM REQUIREMENTS TO COMPLETE AND REVIEW PRIOR TO ENTRY
Note: For items that do not apply, enter N/A in the blank.

REQUIREMENTS COMPLETED	DATE	TIME	REQUIREMENTS COMPLETED	DATE	TIME
Lockout/De-energize/Tagout			**Full Body Harness w/ D-Ring**		
Line(s) Broken-Capped-Blank			**Emergency Escape Retrieval Equipment**		
Purge-Flush and Vent			**Lifelines**		
Ventilation			Fire Extinguishers		
Secure Area (Post and Flag)			Lighting (Explosive-proof)		
Breathing Apparatus			Protective Clothing		
Resuscitator-Inhalator			Respirator(s) (Air Purifying)		
Standby Safety Personnel			Burning and Welding Permit		

Continuous Monitoring: ❑ Yes ❑ No

Periodic Monitoring Frequency:

TEST(S)	PERMISSIBLE ENTRY LEVEL
Percent of oxygen	**19.5% TO 23.5%**
Lower flammable limit	**UNDER 10%**
Carbon monoxide	**+35 PPM**
Aromatic Hydrocarbon	+1 PPM *5 PPM
Hydrogen Cyanide	(Skin) *4 PPM
Hydrogen Sulfide	+10 PPM *15 PPM
Sulfur Dioxide	+2 PPM * 5 PPM
Ammonia	+35 PPM

* Short-term exposure limit: Employees can work in the area up to 15 minutes.
+ 8-hour Time Weighted Average: Employees can work in the area 8 hours (longer with appropriate respiratory protection).

REMARKS:

Continue on next page

Confined Space Entry Permit (Continued)

Gas Tester Name	Instructions Used	Model and/or Type	Serial and/or Unit Number

SAFETY STANDBY IS REQUIRED FOR ALL CONFINED SPACE WORK

Safety Standby Person(s)	Confined Space Entrant

SUPERVISOR AUTHORIZATION – ALL CONDITIONS SATISFIED:

Department or phone number: 360-887-3897

EMERGENCY CONTACT PHONE NUMBERS:

Ambulance: 911 or 360-887-4609 (Clark County Fire District No. 12)

Fire: 911 or 360-887-4609 (Clark County Fire District No. 12)

Safety: 360-887-3897

Gas Coordinator:

Rescue Team: 360-619-4165 (Vancouver Technical Rescue Team)