



Level 2 Coliform Investigation Form

Oregon Health Authority, Drinking Water Services

PWS Name:		PWS ID #:	41
	Name		Telephone #
Operator in Direct Responsible Charge (DRC)			
Person that collected samples if different than DRC			
Date of Investigation:			

INVESTIGATION DETAILS

Groundwater Source Inspect each groundwater source for physical defects and report:	Well/Spring Name	Well/Spring Name	Well/Spring Name	Well/Spring Name	N/A	If Yes, describe issue
1. Cracks or holes in well seal or casing	Y <input type="checkbox"/> N <input type="checkbox"/>	<input type="checkbox"/>				
2. Wellhead lacks a watertight seal	Y <input type="checkbox"/> N <input type="checkbox"/>	<input type="checkbox"/>				
3. Screen for well vent missing or damaged	Y <input type="checkbox"/> N <input type="checkbox"/>	<input type="checkbox"/>				
4. Wellhead subjected to flooding or standing water near well	Y <input type="checkbox"/> N <input type="checkbox"/>	<input type="checkbox"/>				
5. Leaking sewer lines or septic tanks near well/spring	Y <input type="checkbox"/> N <input type="checkbox"/>					
6. Feces, fecal source observed near well/spring	Y <input type="checkbox"/> N <input type="checkbox"/>					
7. Unsanitary conditions at the well/spring	Y <input type="checkbox"/> N <input type="checkbox"/>					
8. Contamination during pump repair/replacement or other wellhead/spring repair	Y <input type="checkbox"/> N <input type="checkbox"/>	<input type="checkbox"/>				
9. Use of an unapproved or untested source	Y <input type="checkbox"/> N <input type="checkbox"/>					
10. Indication of surface water entering springbox	Y <input type="checkbox"/> N <input type="checkbox"/>	<input type="checkbox"/>				
11. Cracks or holes in springbox	Y <input type="checkbox"/> N <input type="checkbox"/>	<input type="checkbox"/>				

Treatment and Disinfection Inspect each treatment plant for physical defects and report:	Plant Name	Plant Name	Plant Name	Plant Name	N/A	If Yes, describe issue
1. Inability to maintain residual throughout the distribution system	Y <input type="checkbox"/> N <input type="checkbox"/>	<input type="checkbox"/>				
2. Failure of disinfection equipment	Y <input type="checkbox"/> N <input type="checkbox"/>	<input type="checkbox"/>				
3. Failure to monitor and replace chlorine supply	Y <input type="checkbox"/> N <input type="checkbox"/>	<input type="checkbox"/>				
4. Improper chlorine residual measurements (method or frequency)	Y <input type="checkbox"/> N <input type="checkbox"/>	<input type="checkbox"/>				
5. Failure to meet required minimum chlorine residual at the entry point (GW only)	Y <input type="checkbox"/> N <input type="checkbox"/>	<input type="checkbox"/>				

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Treatment and Disinfection Inspect each treatment plant for physical defects and report:	Plant Name	Plant Name	Plant Name	Plant Name	N/A	If Yes, describe issue
6. Failure to meet CTs at all times (SW only)	Y <input type="checkbox"/> N <input type="checkbox"/>	<input type="checkbox"/>				
7. Failure to meet turbidity standards (SW only)	Y <input type="checkbox"/> N <input type="checkbox"/>	<input type="checkbox"/>				
8. Failure to meet filtration requirements (SW only)	Y <input type="checkbox"/> N <input type="checkbox"/>	<input type="checkbox"/>				

Storage Tanks Inspect each storage tank for physical defects and report:	Tank Name	Tank Name	Tank Name	Tank Name	N/A	If Yes, describe issue
1. Holes in tank that could allow entry of insects or small animal	Y <input type="checkbox"/> N <input type="checkbox"/>	<input type="checkbox"/>				
2. Roof access hatch or other openings inadequately sealed	Y <input type="checkbox"/> N <input type="checkbox"/>	<input type="checkbox"/>				
3. Vent screens missing or damaged	Y <input type="checkbox"/> N <input type="checkbox"/>	<input type="checkbox"/>				
4. Screen or flap valve on overflow pipe outlet missing or damaged	Y <input type="checkbox"/> N <input type="checkbox"/>	<input type="checkbox"/>				
5. Presence of contamination in tank (example: dead animals, insects)	Y <input type="checkbox"/> N <input type="checkbox"/>	<input type="checkbox"/>				
6. Recent maintenance or work done on the tank	Y <input type="checkbox"/> N <input type="checkbox"/>	<input type="checkbox"/>				
7. Improperly cleaned or maintained storage tank	Y <input type="checkbox"/> N <input type="checkbox"/>	<input type="checkbox"/>				
8. Leaks in tank that could be harboring growth	Y <input type="checkbox"/> N <input type="checkbox"/>	<input type="checkbox"/>				
9. Inadequate tank controls resulting in poor turnover	Y <input type="checkbox"/> N <input type="checkbox"/>	<input type="checkbox"/>				
10. Bladder pressure tank waterlogged	Y <input type="checkbox"/> N <input type="checkbox"/>	<input type="checkbox"/>				

Distribution System Inspect the distribution system for physical defects and report:	Yes/No	N/A	If Yes, describe issue
1. Failure to maintain adequate pressure or low pressure event (example: pump failure leading to low pressure)	Y <input type="checkbox"/> N <input type="checkbox"/>		
2. Recent main break or repair of broken water lines	Y <input type="checkbox"/> N <input type="checkbox"/>		
3. New water lines or service connections added to the system	Y <input type="checkbox"/> N <input type="checkbox"/>		
4. Improper construction of new, replaced, or renovated lines or service connections	Y <input type="checkbox"/> N <input type="checkbox"/>		
5. Known leaks in the distribution system	Y <input type="checkbox"/> N <input type="checkbox"/>		
6. Supervisory control and data acquisition (SCADA) and control issues	Y <input type="checkbox"/> N <input type="checkbox"/>	<input type="checkbox"/>	

Cross Connection and Backflow Inspect the system for cross connections and report:	Yes/No	N/A	If Yes, describe issue
1. Unauthorized connections to water mains	Y <input type="checkbox"/> N <input type="checkbox"/>		
2. Known recent unprotected backflow incident	Y <input type="checkbox"/> N <input type="checkbox"/>		
3. Unprotected cross connection(s) discovered (ex. unprotected connection	Y <input type="checkbox"/> N <input type="checkbox"/>		

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Cross Connection and Backflow	Yes/No	N/A	If Yes, describe issue
Inspect the system for cross connections and report: with a private well)			
4. Failure of installed backflow prevention devices (example: continuous discharge from the relief port on a device)	Y <input type="checkbox"/> N <input type="checkbox"/>	<input type="checkbox"/>	
5. Any water system components submerged in an underground vault	Y <input type="checkbox"/> N <input type="checkbox"/>	<input type="checkbox"/>	
6. Failure to test all backflow prevention devices within the last year	Y <input type="checkbox"/> N <input type="checkbox"/>	<input type="checkbox"/>	

Sampling Protocol	Yes/No	N/A	If Yes, describe issue
Report any defects in sampling protocol:			
1. Tap flushed for less than 3 minutes	Y <input type="checkbox"/> N <input type="checkbox"/>		
2. Aerator, screen, hose, or other attachment present during sampling	Y <input type="checkbox"/> N <input type="checkbox"/>	<input type="checkbox"/>	
3. Leaky or swivel faucet used	Y <input type="checkbox"/> N <input type="checkbox"/>		
4. Samples not kept cool during storage/transportation	Y <input type="checkbox"/> N <input type="checkbox"/>		
5. Inside of bottle/lid touched or lid set down	Y <input type="checkbox"/> N <input type="checkbox"/>		
6. Heavy rainfall or wind at time of sampling	Y <input type="checkbox"/> N <input type="checkbox"/>		
7. Sampled at site not on coliform sampling plan or previously unused site	Y <input type="checkbox"/> N <input type="checkbox"/>		
8. Other sampling problems	Y <input type="checkbox"/> N <input type="checkbox"/>		

General Operations	Yes/No	N/A	If Yes, describe issue
Report any defects in general operation of the system:			
1. Power outages that affected water system facilities during the 30 days prior to the TC+ or EC + findings	Y <input type="checkbox"/> N <input type="checkbox"/>		
2. Water line flushing or fire fighting event	Y <input type="checkbox"/> N <input type="checkbox"/>		
3. Inadequate disinfection during and after repairs or new construction (example: pipe repair, well repair, new tank)	Y <input type="checkbox"/> N <input type="checkbox"/>	<input type="checkbox"/>	
4. Any other issues/problems/sources of contamination that may have caused the positive coliform result (e.g. vandalism; unauthorized access...)	Y <input type="checkbox"/> N <input type="checkbox"/>		

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SUMMARY: Based on the results of the investigation and any other available information, what is believed to be the cause(s) of the *E. coli* positive or multiple total coliform positive sample(s) from the public water system?

CORRECTIVE ACTIONS: What actions has the water system taken to correct the above mentioned issue(s)? *If additional time is needed to correct a deficiency, indicate the date that it will be corrected.*

COMPLETED BY (NAME): _____

REG. AGENCY: _____

DATE: _____

Additional comments: