

EMERGENCY RESPONSE PLAN - ACTION LIST - Updated April 12, 2016

Drinking water system Emergency Response Plan

Name of Water System: Zeballos Water

Physical Address: 628 Keno Crescent

Mailing Address: PO Box 127, Zeballos, BC V0P 2A0

Facility Phone Number: 250-761-4229

EMERGENCY RESPONSE OPERATOR: TBA

In case of emergency: (recommend 2 or more people responsible for each task)

If you SUSPECT the water system has become contaminated:

- 1) Institute Boil Water Advisory, or if necessary shut off water supply
- 2) Contact Environmental Health Officer
- 3) Contact other appropriate persons on contact list

MIKE/MEREDITH will notify affected water users by phone or hand deliver notices

MIKE/COUNCILLOR will post warning signs

MIKE/EILEEN will notify appropriate Health Officers

MIKE will coordinate repairs

Alternate source of drinking water from Pump House 1 - Bulk Water Hauler/Bottled Water

Start Up Procedure: (recommend 2 or more people responsible for each task)

* Consult with EHO for best practices before taking action

MIKE Send water samples to appropriate lab for testing

MIKE Identify and correct source of contamination

MIKE Entire system should be flushed and disinfected

Resume water supply on if approved by Environmental Health Officer

EMERGENCY RESPONSE PLAN IS LOCATED AT THE VILLAGE OFFICE/PUBLIC WORKS OFFICE AND EPC

Type of Emergency:	Pump Failure - Wells
Actions:	<ol style="list-style-type: none">1) Switch to other pump2) Contact electrician to check3) Contact equipment supplier if pump is not operational4) Will have to pull pump and install backup pumps (need well company to pull pipe and remove pump)
Follow-up	Review incident, determine changes/improvements to reduce future risk
Contacts:	Drinking Water Officer (EHO) and any other necessary contacts, CAO.

Type of Emergency:	Suspect Microbial Contamination
Actions:	<ol style="list-style-type: none"> 1) Contact DWO 2) Inform users to boil water for 1 full minute prior to consuming and post a BOIL WATER ADVISORY Notification 3) Arrange an alternate source if necessary (ie bottled water/bulk hauler) 4) Arrange repairs/improvements of system if emergency warrants 5) Purge and disinfect lines as directed, after corrections have been made 6) Submit water sample for bacteriological testing
Follow-up:	Review incident, determine changes/improvements for procedures to reduce future risk
Contacts:	EHO and any other necessary contacts, CAO, after hours

Type of Emergency:	Suspect Chemical Contamination and or Contamination due to vandalism
Actions:	<ol style="list-style-type: none"> 1) Shut down pump and reservoir if emergency warrants 2) Contact EHO & PEP 3) Notify users not to use water and post "Water Not Suitable for Drinking" 4) Arrange alternate source if necessary (ie bottled water/bulk hauler)
Follow-up:	Review incident, determine changes/improvements for procedures to reduce future risk
Contacts:	EHO, PEP and any other necessary contact (RCMP for Vandalism), CAO

Type of Emergency:	Broken Water Main
Actions:	<ol style="list-style-type: none"> 1) Isolate break in water-main, reduce pressure (maintain enough pressure to prevent backflow - call for repairs ie backhoe/excavator) 2) Notify all users of interruption of service, advise if boil water advisory 3) Advise local Public Health Office
Follow-up:	Purge and disinfect water system, take and send water samples to Lab.
Contacts:	EHO and any other necessary contacts, CAO, after hours

Type of Emergency:	Flood Conditions
Actions:	<ol style="list-style-type: none"> 1) Notify all users regarding the potential for water contamination, loss of pump, power, etc. Advise to store drinking water in advance, and boil any suspect water for two minutes or disinfect with chlorine. 2) Arrange alternate source if possible (ie bottled water, bulk hauler, storage tank (check levels)) 3) Purge and disinfect lines and well as directed 4) Submit water samples for bacteriological testing
Follow-up:	Review incident
Contacts:	EHO and any other necessary contacts, CAO, after hours

Type of Emergency:	No Water
Actions:	<ol style="list-style-type: none"> 1) Check reservoir; notify all users of problem 2) Phone Environmental Health 3) Officer/PEP/MOE, arrange alternate source (ie bulk hauler/bottled water) 4) Arrange and improve repairs. 5) Purge and disinfect lines as directed AFTER corrections have been made 6) Resume water supply only if approved by the Environmental Health Officer
Follow-up:	
Contacts:	EHO, Island Health, CAO

Type of Emergency:	Earthquake
Actions:	<ol style="list-style-type: none"> 1) Leave community if required AFTER the all clear. 2) Check water reservoir for damage 3) Check for damages to the system. 4) Isolate broken sections of the water system or isolate water reservoir from system <p>If there are fires and IF you are SURE the system is functional and there is power.</p>
Follow-up:	
Contacts:	Local Health Unit, EMBC, SRD Emergency Program if phone service is available

Type of Emergency:	Power Failure
Actions:	<ol style="list-style-type: none"> 1) PW Foreman completes morning rounds 2) Check all lift stations (3) 3) Pump Lift Station #2 4) Pump Ehattesaht Lift Station 5) Pump Lift Station #2 (again) 6) Pump Lift Station #1 7) Check all lift stations again in afternoon and evening; pump down in same order as above when necessary 8) See PW Manual at Village Office for more information (incl. generator start up)
Follow-up:	
Contacts:	BC Hydro, CAO, PW Foreman

Type of Emergency:	Fire – Firefighting with system water
Actions:	<ol style="list-style-type: none"> 1) Fire dept. to notify PW Foreman 2) PW Foreman to check water levels of reservoir during the fire 3) If power is out, PW Foreman to turn on both pumps (using SCADA radio if necessary)
Follow-up:	
Contacts:	PW Foreman, Fire chief

Note:

Other general procedures, including generator start-up and power source change-over, can be found in **the Public Works Manual** at the Village Office. (Print copy and electronic copy available.)

PHONE TREE:	Make sure that customers are called and message left telling them DO NOT DRINK THE WATER OR BOIL IT. Make sure that people who don't have phones or are not in when the call is made also get the message. A message explaining what is required to do MUST be done. NO exceptions.
SIGNS:	Make sure that signs are posted at the Foreshore Washroom, small craft harbour (every boat), ice plant, municipal wharf, campground, RV Park and washrooms.
Follow-up:	
Contact:	See phone contact listing

Additional Phone Numbers:

K & K Electric	Ken kkelec@cablerocket.com	250-949-8133/250-949-1618/250-949-9230
JM's Plumbing & Welding		250-949-9208
H2O 2GO, Courtenay		250-337-5049
Public Health Engineer	Murray Sexton	250-755-6293 Fax 250-755-3372
Medical Health Officer	Dr. Charmaine Enns	250-331-8592 Fax 250-331-8513
Island Health Emergency		1-800-204-6166
Ministry of Environment		1-800-663-3456
Provincial Emergency Preparedness (PEP)		1-800-663-3456
Drillwell Enterprises Ltd		1-800-746-7444
Fyfe's Well Drilling Ltd		1-800-780-3933

LOCATION OF EMERGENCY RESPONSE PLAN

- Map attached – including locations of pump house, school, clinic, high risk facilities, and emergency contacts/tools/equipment.**
- A. Water System Users contact information is available at the Village Office, in print and electronic formats.**
 - B. Attached: "WATER NOT SUITABLE FOR DRINKING" sign, and a "BOIL WATER ADVISORY" sign**
 - C. Review on an annual basis to ensure contact info is up to date. Forward changes to local Environmental Health Officer.**

WATER QUANTITY UNIT CONVERSIONS:

1 Imperial Gallon is 1.2 US Gallons

To convert US Gallons to Imperial Gallons, divide number by 1.2

1 Cubic Meter (m^3) is 220.1 Imperial Gallons

To convert m^3 to Imperial Gallons, multiply by 220.1

MIG means one million Imperial Gallons

To convert MIG to Imperial Gallons, multiply number by 1,000,000

If total volume of water used for waterworks is shown in gals/day or daily:

Convert to gallons per year by multiplying number by 365

If maximum daily demand is shown in gallons/min., or gpm:

Convert to gallons/day by multiplying number by 1,440

One cubic decameter ($dec m^3$) is 220,172 Imperial Gallons

To convert $dec m^3$ to Imperial Gallons, multiply number by 220,172

1 acre foot is 271,472 Imperial Gallons

To convert acre feet to Imperial Gallons, multiply number by 271,472

To convert Imperial Gallons to acre feet, divide number by 271,472

1 acre foot is 325,850 US Gallons

To convert US Gallons to acre feet, divide by 325,850

1 $foot^3$ is 6.23 Imperial Gallons

To convert $foot^3$ to Imperial Gallons, multiply number by 6.23

1 imperial gallon is 0.00454609 to cm^3

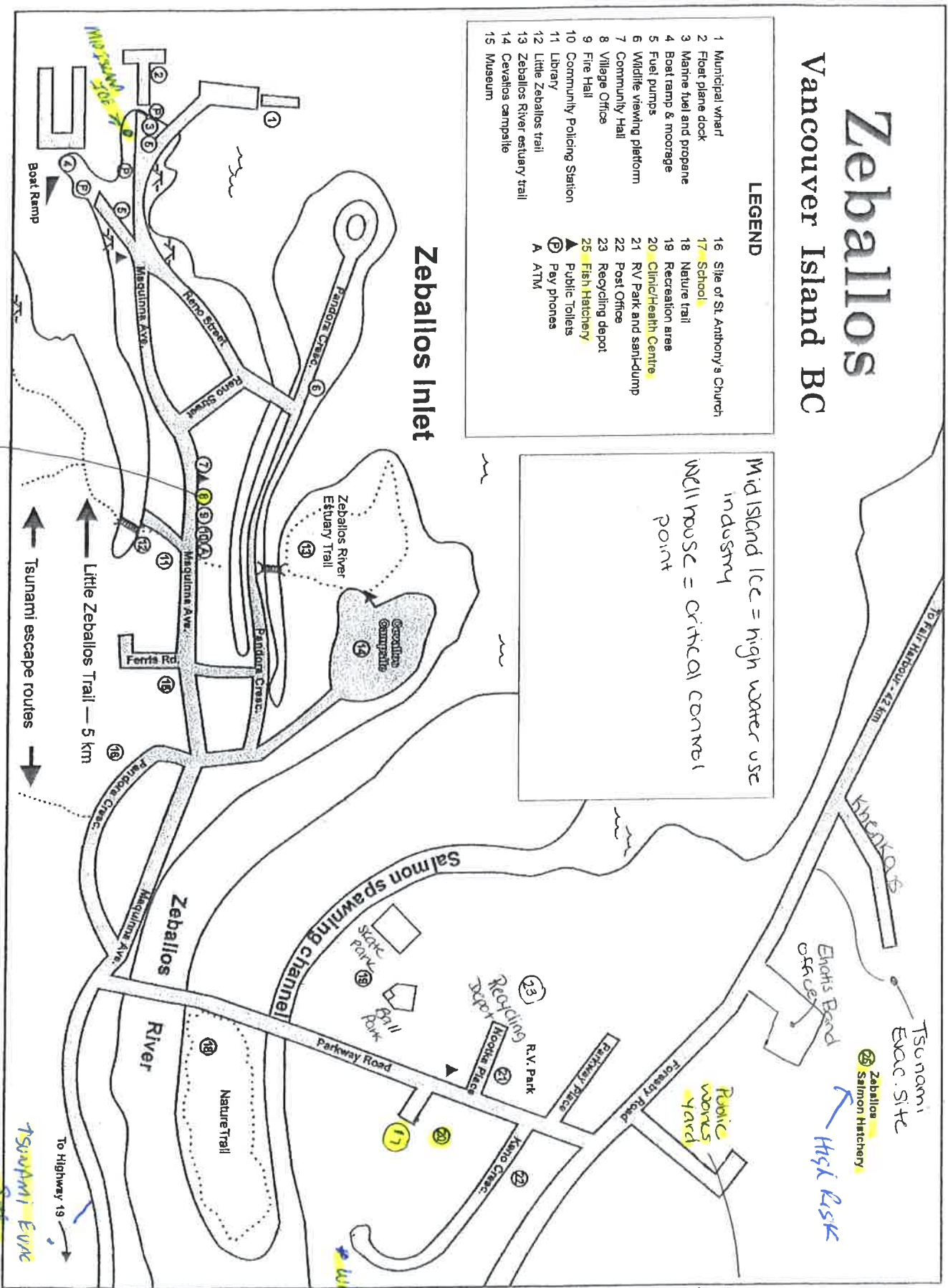
Zeballos

Vancouver Island BC

LEGEND

- 1 Municipal wharf
- 2 Float plane dock
- 3 Marine fuel and propane
- 4 Boat ramp & moorage
- 5 Fuel pumps
- 6 Wildlife viewing platform
- 7 Community Hall
- 8 Village Office
- 9 Fire Hall
- 10 Community Policing Station
- 11 Library
- 12 Little Zeballos trail
- 13 Zeballos River estuary trail
- 14 Cevallos campsite
- 15 Museum
- 16 Site of St. Anthony's Church
- 17 School
- 18 Nature trail
- 19 Recreation area
- 20 Clinic/Health Centre
- 21 RV Park and san-dump
- 22 Post Office
- 23 Recycling depot
- 25 Fish Hatchery
- ▲ Public Toilets
- Ⓟ Pay phones
- A ATM

Zeballos Inlet



Emergency contact list
PWS Manual
SCADA

Emergency contact list, tools, equipment

Well house

Tsunami Evac Site

Emergency Response Planning Phone Tree – Updated April 2016

