HEALTH ALERT

Date: November 25, 2026

To: Humboldt County health care providers, urgent care and emergency departments, and clinical laboratories

From: Humboldt County DHHS Public Health, Communicable Disease Program

Summary

King tides are predicted for November 24–26 and December 23–25, 2026, and January 21–22, 2027; December 22, January 20 and January 23 may also bring very high tides (California Coastal Commission, 2026). Levels can run well above predictions during storms, and in January 2026 record tides flooded parts of King Salmon, Fields Landing and Eureka. Floodwater carries sewage and animal waste, and the California Department of Public Health identifies waterborne enteric illness as a major indirect health effect of flooding.

- Expect more acute gastroenteritis, and consider wound infection, hepatitis A and leptospirosis in patients exposed to floodwater.
- Report suspected outbreaks immediately: **707-268-2182** (after hours **707-445-7251**).

How flooding increases the risk of enteric illness

- **Sewage and septic overflow** can carry bacteria, viruses and protozoa into homes, yards and playgrounds.
- **Drinking water.** Wells and surface sources are vulnerable. Private well owners receive no boil-water notice and should test a flooded well before use.
- **Soil.** Enteric bacteria can persist 2–3 months after the water recedes.
- **Food.** Power loss, contaminated food and crowded shelters raise the risk of outbreaks.
- **Wounds** are a direct route of infection; brackish and saltwater carry *Vibrio*

Key pathogens are norovirus, *Campylobacter*, *Salmonella*, *Shigella*, Shiga toxin-producing *E. coli* (STEC), *Cryptosporidium*, *Giardia*, hepatitis A virus, *Leptospira* and *Vibrio*. Consider legionellosis in patients with pneumonia after exposure to flood-affected water systems.

Recommendations for clinicians

Ask about exposure

Floodwater contact or cleanup work; private well water or a boil-water notice; food exposed to floodwater or left unrefrigerated; wounds exposed to floodwater or bay water; ill household members or a shelter stay.

Test

- Test stool for bloody diarrhea, fever, illness lasting more than 7 days, dehydration needing IV fluids or immunocompromise; in food handlers, health care workers and childcare attendees and staff; and in anyone linked to a possible outbreak. Public Health Clearance Testing may be necessary for those in Sensitive Occupations such as food service workers/food handlers, childcare or health care providers.
- Request reflex culture after a positive bacterial PCR panel so isolates are available for susceptibility testing and investigation.
- For bloody diarrhea, test for Shiga toxin and culture for *E. coli* O157.

Treat

- Rehydration is the priority in acute gastroenteritis.
- **Do not give antibiotics or antimotility agents for bloody diarrhea until STEC is excluded.**
- Clean flood-exposed wounds and review tetanus status. If *Vibrio* wound infection is suspected, start antibiotics immediately and obtain a surgical evaluation.

Report

Report cases within the timeframes in the table. Report immediately by phone any suspected outbreak, including two or more suspected foodborne cases from separate households, and any unusual disease.

Phone: 707-268-2182 **Confidential fax:** 707-445-7346 **After hours:** 707-445-7251

Advice for patients

- Avoid floodwater. If contact is unavoidable, wear boots, gloves and eye protection and cover wounds; wash with soap and water afterward and get prompt care for wounds.
- Wash contaminated clothing in hot water. Disinfect items that touched floodwater; replace sand, mulch and wood chips where children play.
- Follow boil-water notices; do not drink from a flooded well until it is disinfected and tested. Discard food that touched floodwater or lost refrigeration.
- Stay home from work, school and childcare while ill with vomiting or diarrhea, and do not prepare food for others.

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Flood-associated enteric and waterborne illnesses: clinical reference

Reporting timeframes are from Title 17, California Code of Regulations, §2500 (California Department of Public Health, 2025). Clinical content is drawn from CDC (2024, 2026) and University of California Health (2025). Base treatment on local susceptibility data and the individual patient.

Illness (agent)	Incubation and typical presentation	Diagnosis	Management	Report to Public Health
More likely after local flooding				
Norovirus (family *Caliciviridae*)	12–48 hours. Abrupt vomiting, watery non-bloody diarrhea, cramps, low-grade fever. Usually resolves in 1–3 days. Spreads readily in households, shelters and congregate settings.	Usually clinical. RT-PCR on whole stool is preferred when testing is needed (e.g., suspected outbreak); vomitus may be acceptable.	Supportive care; oral or IV rehydration. Antibiotics are not useful. In adults, antiemetic and antimotility agents can be adjuncts to rehydration; they are not recommended for routine use in children.	Single cases are not reportable. **Outbreaks: immediately by phone.**
Campylobacteriosis (*Campylobacter* spp., most often *C. jejuni*)	2–5 days. Diarrhea (often bloody), abdominal pain, fever, nausea. Most patients recover within 1 week.	Stool culture or culture-independent test (multiplex PCR). Collect stool before starting antibiotics.	Most patients recover without antibiotics. Consider azithromycin for severe illness or patients at higher risk (age 65+, pregnant, immunocompromised). Fluoroquinolone resistance is common.	Within 1 working day
Salmonellosis, non-typhoidal (*Salmonella enterica*)	6 hours–6 days. Diarrhea, fever, abdominal cramps; usually lasts 4–7 days.	Stool culture or multiplex PCR with reflex culture.	Supportive care. Reserve antibiotics for severe illness or patients at risk of invasive disease (infants, older adults, immunocompromised).	Within 1 working day
Shigellosis (*Shigella* spp.)	1–2 days. Diarrhea (sometimes bloody), fever, abdominal pain, tenesmus. Very low infectious dose; spreads person to person, including among household and sexual contacts.	Stool PCR with reflex culture and antimicrobial susceptibility testing.	Mild illness is often self-limited. When treatment is indicated, base it on susceptibility results: azithromycin or a fluoroquinolone (ciprofloxacin is slightly preferred over levofloxacin for its narrower spectrum). Extensively drug-resistant strains are circulating. For severe disease (e.g., bacteremia, hospitalization) or immunocompromised patients, empiric carbapenem therapy is recommended while susceptibility results are pending.	Within 1 working day

Illness (agent)	Incubation and typical presentation	Diagnosis	Management	Report to Public Health
Shiga toxin-producing *E. coli* (STEC, including O157)	3–4 days (range 1–10). Abdominal cramps, diarrhea (often bloody), vomiting; fever is usually low or absent. Most recover within a week. Hemolytic uremic syndrome (HUS) can follow, especially in young children and older adults.	Culture stool for *E. coli* O157 and, at the same time, test for Shiga toxins or the genes that encode them (detects non-O157 STEC). Send presumptive O157 isolates and Shiga toxin-positive specimens to the public health laboratory.	**Avoid antibiotics.** Avoid antimotility agents. Early IV fluids may lower the risk of renal failure in children. Because of the risk of HUS, hospitalization for aggressive fluid management is recommended for confirmed or suspected cases.	Within 1 working day (STEC and HUS)
Cryptosporidiosis (*Cryptosporidium parvum*, *C. hominis*)	2–10 days. Watery diarrhea, often lasting 72 hours or longer, with cramping, vomiting or anorexia. Can be prolonged and severe in immunocompromised patients. Oocysts tolerate chlorine.	Stool PCR, antigen test or DFA; request *Cryptosporidium* specifically. Fresh stool is preferred; preserved stool may be acceptable depending on the test.	Supportive care; rehydration. Nitazoxanide for immunocompetent patients aged 1 year and older.	Within 1 working day
Giardiasis (*Giardia duodenalis*)	1–3 weeks. Loose, foul-smelling or greasy stools; bloating, gas, cramps, fatigue, weight loss. Symptoms can last 2–6 weeks.	Stool antigen test, DFA microscopy or PCR. Shedding is intermittent: up to three stool specimens collected on separate days improve sensitivity.	Tinidazole, metronidazole or nitazoxanide. Tinidazole is preferred over metronidazole for its less frequent dosing and higher efficacy.	Within 7 days
Hepatitis A (hepatitis A virus)	15–50 days (average 28). Fever, fatigue, nausea, abdominal pain, dark urine, jaundice. Young children are often asymptomatic.	IgM anti-HAV in serum, or HAV RNA in serum or stool.	Supportive care. Prevention: hepatitis A vaccination. Post-exposure prophylaxis (vaccine or immune globulin) for unvaccinated contacts within 14 days of exposure.	Within 1 working day
Leptospirosis (*Leptospira* spp.)	5–14 days (range 2–30). Fever, headache, myalgia, conjunctival suffusion, nausea, vomiting. Severe disease: jaundice, renal failure, respiratory failure, meningitis. Exposure: water, mud or soil contaminated with urine from infected animals.	PCR on blood or urine (CSF if neurologic signs); serology with acute and convalescent sera. The best test depends on duration of symptoms.	Start antibiotics as soon as leptospirosis is strongly suspected; do not wait for results. Mild: doxycycline 100 mg PO twice daily for 7 days (drug of choice if not contraindicated). Alternatives: azithromycin 500 mg PO daily for 3 days; ampicillin 500–750 mg PO every 6 hours for 7 days; amoxicillin 500 mg PO every 6 hours for 7 days. Severe: penicillin 1.5 million units IV every 6 hours, or ceftriaxone 1 g IV every 24 hours.	Within 7 days

Illness (agent)	Incubation and typical presentation	Diagnosis	Management	Report to Public Health
Vibriosis, non-cholera (*Vibrio parahaemolyticus*, *V. vulnificus*, others)	Gastroenteritis: onset about 1 day after exposure; watery diarrhea, cramps, nausea, vomiting, fever, chills; usually resolves in about 3 days. Wound infection: after a wound contacts salt or brackish water. Can progress rapidly to necrotizing infection with hemorrhagic bullae and sepsis, especially with liver disease, diabetes or immunocompromise.	Stool culture (tell the laboratory *Vibrio* is suspected); confirm positive PCR panels by culture. Wound infection: culture the wound or bullae. Draw blood cultures if febrile, bullae are present or sepsis is suspected. Send *V. vulnificus* isolates to the public health laboratory.	Gastroenteritis: fluids; antibiotics are not needed for mild illness. For severe or prolonged illness: doxycycline, azithromycin or a fluoroquinolone (ciprofloxacin slightly preferred over levofloxacin). Wound infection: **treat immediately; do not wait for confirmation.** Ceftazidime 1–2 g IV every 8 hours plus doxycycline 100 mg PO/IV twice daily for 7–14 days. Early surgical evaluation for debridement.	Within 1 working day
Uncommon in California; consider with recent international travel or contact with a traveler				
Enterotoxigenic *E. coli* (ETEC)	1–3 days. Watery diarrhea, abdominal cramping, nausea, sometimes vomiting, low-grade fever, decreased appetite. Usually lasts 3–4 days.	Often a clinical diagnosis. Not detected by routine stool culture; some multiplex PCR panels detect ETEC.	Rehydration. Most illness is self-limited.	Single cases are not reportable. **Outbreaks: immediately by phone.**
Cholera (toxigenic *Vibrio cholerae* O1 or O139)	A few hours–5 days. Profuse watery diarrhea, vomiting, rapid dehydration, hypotension.	Stool culture and PCR. Tell the laboratory cholera is suspected.	Prompt, aggressive rehydration (oral or IV) is the mainstay of treatment. Doxycycline is the first-line antibiotic for adults, children and pregnant patients.	**Immediately by phone**
Typhoid fever (*Salmonella enterica* serotype Typhi)	6–30 days. Sustained fever, abdominal pain, headache, diarrhea or constipation, rose spots.	Blood culture; PCR. Request susceptibility testing.	Empiric therapy: azithromycin for uncomplicated illness; a carbapenem for complicated illness. Adjust to susceptibility results and travel history.	Within 1 working day