

Living on

# SHAKY GROUND

HOW TO SURVIVE EARTHQUAKES AND TSUNAMIS IN NORTHERN CALIFORNIA

## The “Miracle of Kamaishi”

### TSUNAMI EDUCATION IN SCHOOLS PAYS OFF

When the 2011 tsunami struck Kamaishi, Japan, an Elementary and Junior High School were located just outside of the mapped tsunami hazard zone.

The Junior High students were part of a special hazards education program and had been taught to:

- **EVALUATE THE SITUATION**

The standard procedure was to evacuate to the third floor of the school if a strong earthquake was felt or a tsunami warning was issued. The students did not stay in their school, but immediately evacuated to the red dot (1) as seen on the map below.

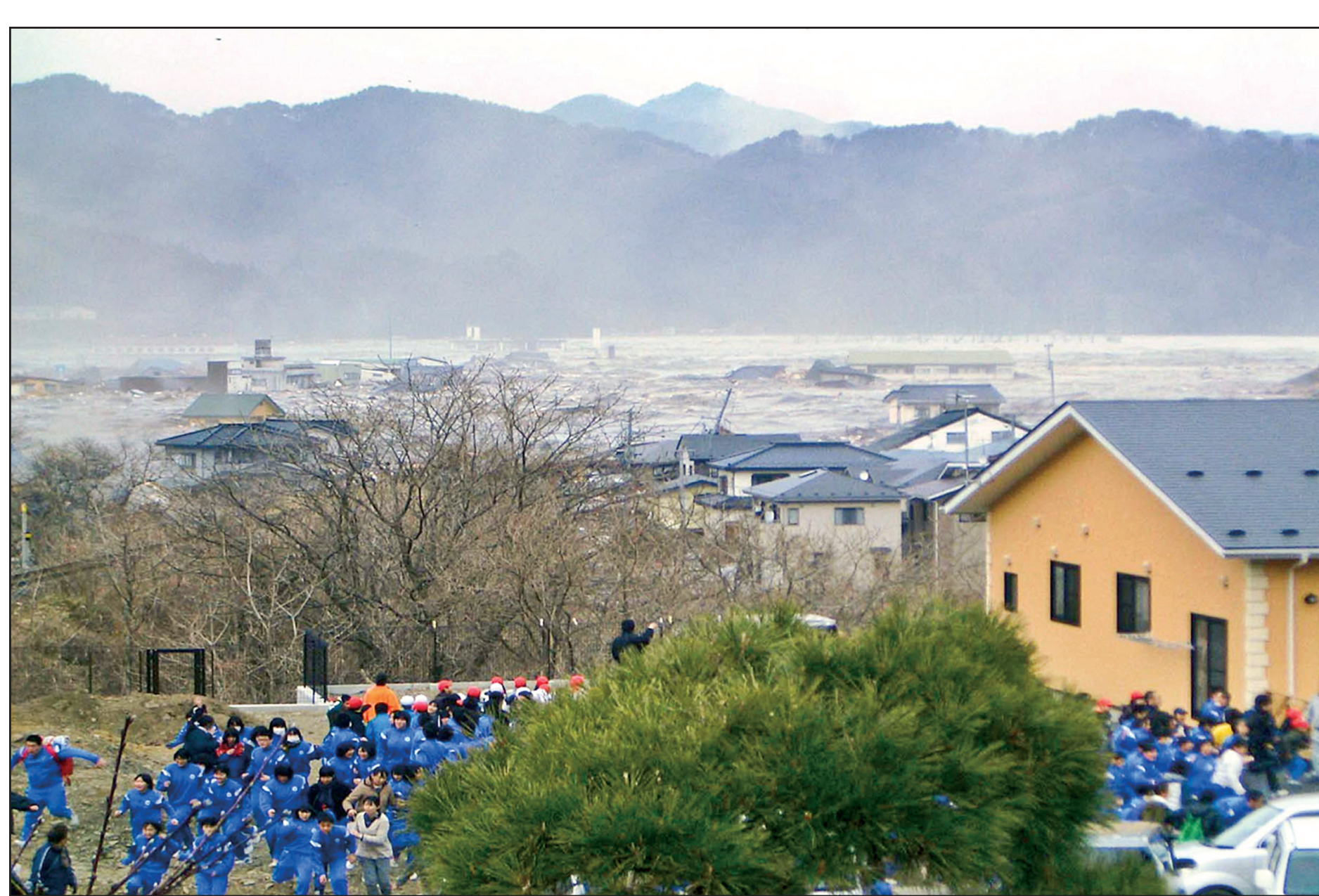
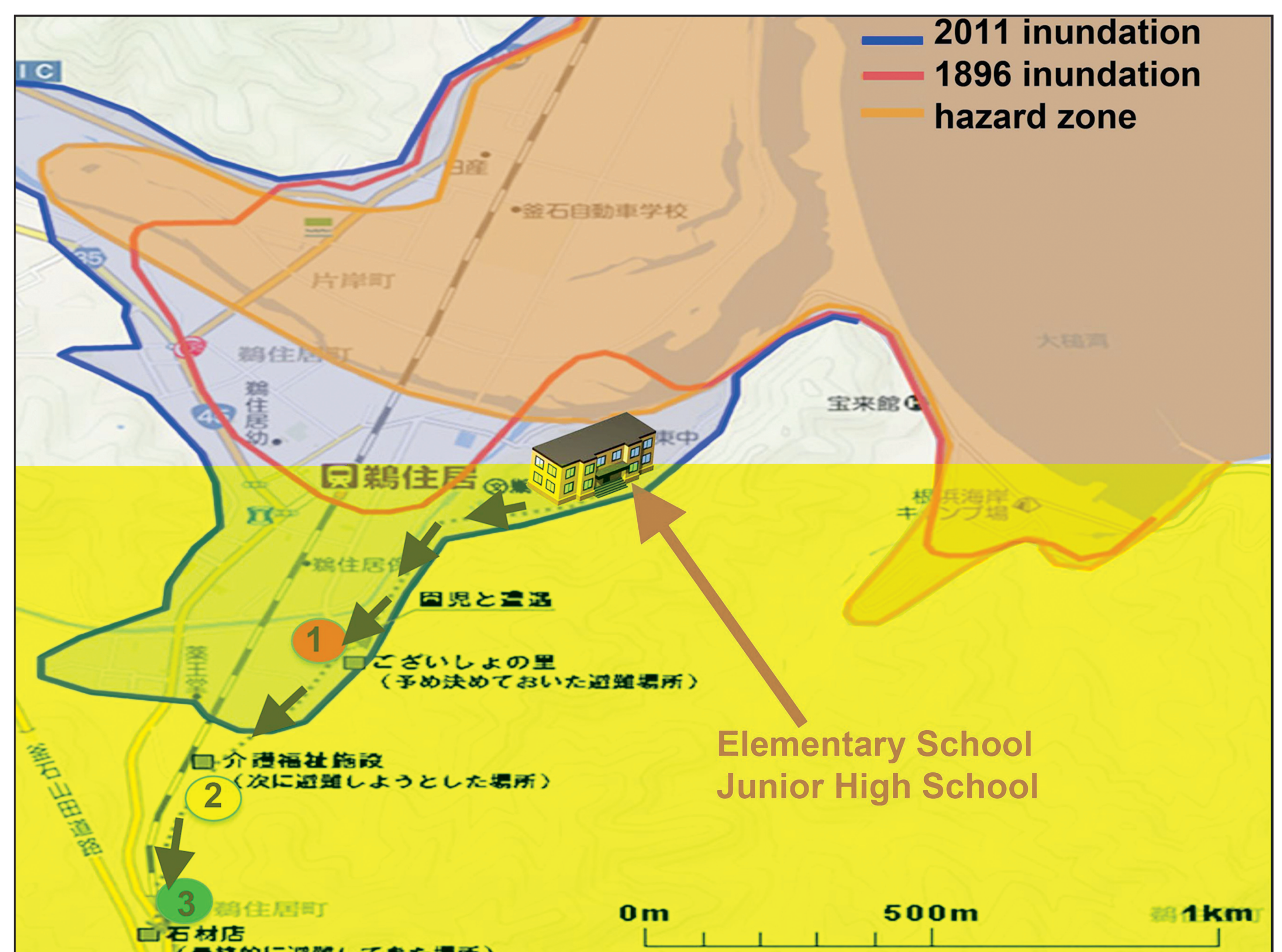
- **DO AS MUCH AS YOU CAN TO MAKE YOURSELF SAFE**

Students could hear and see the tsunami coming and decided their first stop was not safe. They went to the yellow dot (2). They continued to assess their situation and decided the second place wasn't safe either and moved further inland to the green dot (3).

- **TAKE THE LEAD IN EVACUATION**

The older students helped the younger ones get to a safe area and no one died even though both schools were completely destroyed.

The 2011 tsunami (shaded blue) flooded much further inland than the official tsunami hazard zone (shaded orange).



Students run to high ground while the tsunami attacks Kamaishi.



Debris from the tsunami, including a car, litters the third floor of the Kamaishi Junior High School.



Students and staff at Okawa Elementary School weren't so lucky. The school had no tsunami plan and did not practice evacuation drills. Even though high ground was very close, 74 students and ten teachers died.

