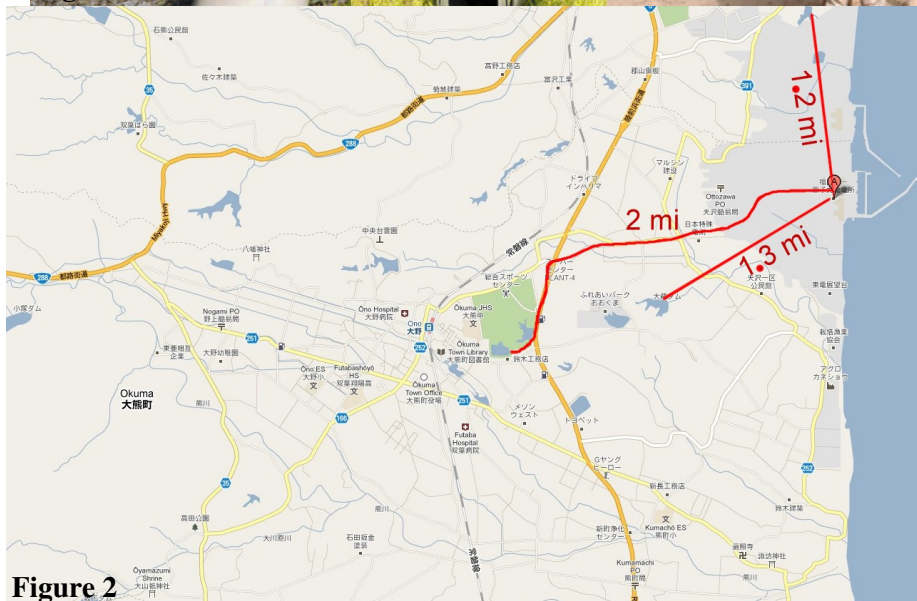


## US Military Okinawa hose reel system offer for freshwater fuel rod mitigation

- According to experts, salt from seawater pumped via fire hoses into reactor cores and spent fuel rod pools is depositing on fuel rods and nonoperational cooling systems, diminishing cooling, and that freshwater flushing and usage is critical.
- According to experts, delays (possibly weeks or months) expected due to observed cooling system damage and hazardous work environment.
- Surprisingly both US Marines and Army have Hose Reel Systems (HRS) at Okinawa bases, and should offer HRS to Japanese authorities (may prove invaluable).
- Each HRS has at least 5 miles of 6 inch diameter high capacity lay flat hose (Figure 1), which, along with accompanying mobile pumps, are presently at Okinawa bases.
- Multiple lakes within ~1.2 to 3 miles and beyond from nuclear plant (Figure 2) from which freshwater could be continually pumped using HRS (pump located lake side).
- Pumping is variable, reliable, high flow (~600 GPM), and high pressure (potentially aiding in high pressure water injection into reactor cores).
- HRS water delivery system can be tied into existing fire hose systems that are being used on site to both inject water into cores as well as water spent fuel pools.
- For contingency of extended time in which nuclear plant unapproachable due to excessive hazard levels, freshwater pumping (and likely borate injection) from safe distance miles away could continue, preventing continued situation deterioration.
- HRS maker LaBarge Inc., as well as former GE chief of safety research Richard Lahey, agree with use of HRS high flow freshwater delivery from lakes.



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