OANRP Natural Disaster Preparedness Plan

1. Chain of command & Telephone contact plan
   1.1. Identify program leads and telephone tree
   1.2. Establish rendezvous points if needed
   1.3. Update and Distribute Emergency Contact List
2. All Pacmere radios collected for DPW
3. Work schedule changes
   3.1. Shelter at home orders (PCSU, RCUH, State of Hawaii, DPW)
   3.2. Overtime approval for preparation work by PCSU
4. Helicopter time for inspecting and repairing fences and snail jails
5. Rental trucks for temporary storage of plants
6. Charge batteries: All radios, cell phones, backup batteries for charging cell phones, cameras, etc
7. Fill gas in trucks and all available gas cans (Ethanol free for generator)
8. Fill all water jugs/catchments on site in case water is shut off (for watering plants)
9. Prepare chainsaws if treefall anticipated.
10. Prepare Post-event Damage Assessment paperwork

Electricity
1. Power loss at SBW
   1.1. Prepare and test all generators
   1.2. Execute Seed Lab Generator Operations Plan
2. Power loss at SBW nursery-
   2.1. Irrigation operation switched onto battery timers as needed

Flooding
1. SBW Baseyard
   1.1. Sandbag- 1539 (north door), Seed Lab equipment room, flammable storage (~20 bags)
   1.2. Prepare Office Buildings
      1.2.1.Electrical Equipment:
         1.2.1.1. Disconnect from power supply
         1.2.1.2. Move off floors
      1.2.2.Move all equipment and supplies off floors
      1.2.3.Take out trash
   1.3. Prepare outside storage areas
      1.3.1.Electrical Equipment:
         1.3.1.1. Disconnect from power supply
         1.3.1.2. Move off floors
      1.3.2.Move all equipment and supplies off floors
      1.3.2.1. This includes small engines
2. SBE Baseyard
   2.1. Move equipment off floors
   2.2. Sandbag doors to offices (~12 bags)
3. Field Sites
   3.1. Clear culverts and baffles (Lihue, Kaluaua, Kaluakauila)
   3.2. Inspect and repair gulch crossings (Pualii, Ekahanui, Kaluaua/Waieli, Lihue, Manuwai, Kapuna, Pahole, Kahanahaiki, Kaluakauila, Lower Makua, Makaha, Waianae Kai Mauka&Makai, Upper and Lower Opaeula/Helemano, Koloa, Poamoho)
      3.2.1.Gear needed: shovels, picks, hand saws, o’o
High Winds
1. SBW Baseyard
   1.1. Secure loose debris (water jugs, lumber, personal gear, trash and recycling cans)
   1.2. Prepare outside storage areas
      1.2.1. Mouse shed
         1.2.1.1. Secure door shut with 2x4 and screws
      1.2.2. Work Cage
         1.2.2.1. Move all equipment away from open sides as much as possible
         1.2.2.2. Stack gear around tables, secure with line as necessary
         1.2.2.3. Disconnect power equipment
      1.2.3. Pesticide Cage
      1.2.4. Flammable Cage
      1.2.5. Nursery Potting Room
      1.2.6. Catchment pump house
      1.2.7. Conex Storage
   1.3. Secure plants indoors (hand truck, trays, tubs, plastic painter cover). Need ~24 staff hours. If stronger shelter is needed, consider storage containers and SBW&SBS bunkers.
      1.3.1. Secure mist bench plastic
      1.3.2. Rental trucks to hold plants?
      1.3.3. Watering indoors
2. SBE Baseyard
   2.1. Secure loose debris
   2.2. Prepare outside storage areas
   2.3. Secure plants indoors (hand truck, trays, tubs). Need ~8 staff hours.
3. Nike Baseyard
   3.1. Secure loose debris
   3.2. Secure plants indoors (hand truck, trays, tubs). Need ~24 staff hours.
      3.2.1. Watering indoors
   3.3. Prepare to clear the Pahole access road (chainsaw, o`o, rake)
4. Field Sites
   4.1. Fenceline inspection, repair and ungulate removal
      4.1.1. Draft a priority list
      4.1.2. Equipment needed: hog wire, panels, fickle fence, smooth wire, posts, post-pounder, chainsaw, handsaws, pliers, clips, picks, shovels, auger, GPS
      4.1.3. Prepare to clear ungulates from fences (hunter contacts, snares, traps/bait)
   4.2. Snail Jail inspection and repair
      4.2.1. Set rat traps ahead of time?
      4.2.2. Materials prepared for repairing the walls
      4.2.3. Prepare to remove rats again (traps, bait, tunnels, cameras)

Tsunami.
1. Kaena Point monitoring
2. Assist with repairs to NAR exclosure and access road as needed.
Fire

1. Alert and assemble OANRP Fire Response Team
   1.1. Lead- Joby Rohrer or Dan Sailer
   1.2. Helicopter/Logistics- TBD
   1.3. Assistants- Kapua Kawelo, Matthew Burt, Matt Keir, Mike Walker, Kaleo Wong, Kahale Pali, Jane Beachy
   1.4. Lookouts- closest staff and partners
   1.5. Cooperator Notification
      1.5.1. DPW Natural Resource Manager: Kapua Kawelo
      1.5.2. DPW Acting NR Manager/Biologist: Kapua Kawelo
      1.5.3. PCSU: Cliff Smith
      1.5.4. Range Control
      1.5.5. USAG Wildland Fire: Jake (acting)
      1.5.6. DOFAW: Ryan Peralta
      1.5.7. NARS/NEPM: Marigold Zoll
      1.5.8. Other: Yumi Miyata, Amy Tsuneyoshi, KMWP Coordinator, Cory Campora, Bob Cherry, HARC, Monsanto Co., Anu/Gary Gill (Palehua area), Hawaii Reserves Inc., Kamehameha Schools, Dole Inc.

2. Mapping
   2.1. Prepare resource maps of the area for response teams with:
      2.1.1. Rare Resources
      2.1.2. Roads, trails, LZs, DZs
      2.1.3. Fencelines
      2.1.4. Water catchments
      2.1.5. Hazards (power lines, UXO, livestock, ditches, etc.)
   2.2. Provide daily GPS polygons to update progress
   2.3. Public affairs maps

3. Reporting
   3.1. DPW: Kapua Kawelo to be updated daily or more frequently as needed
   3.2. PCSU: Cliff Smith to be updated hourly, or as needed
   3.3. Fire Report
      3.3.1. Location, timeline, total acreage
      3.3.2. OANRP response and involvement
      3.3.3. Resources Threatened and/or damaged (species, #plants damaged/#plants left, ex situ?)
      3.3.4. Helicopter and staff time
      3.3.5. Lessons learned

4. Helicopter Response
   4.1. On-post:
      4.1.1. Permission & Requests for OANRP contract helicopter support
      4.1.1.1. Wildland Fire request
      4.1.2. Re-fueling at Wheeler
      4.1.3. Billing & Payment
   4.2. Off-post:
      4.2.1. Landowner permission for vehicle access, temporary LZs, encampments for fire watch duty etc.
      4.2.2. I.D hazards, inform and mitigate (wires, livestock, ditches, structures, debris etc.)