

Basin Complex Fire and Indians Fire Burned Area Emergency Response (BAER)

Update --- August 23, 2008 0700

The BAER Process and Early Findings

- The Basin Complex Fire and Indians Fire together burned approximately 240,000 acres of federal, state and private lands. Of that, nearly 198,000 acres or 83 percent are National Forest lands on the Monterey District of Los Padres National Forest. Of the National Forest land burned, 93 percent is within the congressionally designated Ventana Wilderness. Approximately 42,000 acres, or 17 percent of the burn, is administered by other federal and state agencies or is privately owned land.
- The Indians Fire started on June 8, and was contained on July 10, at a cost of \$42.5 million. The Basin Complex Fire started on June 21, merged with the Indians Fire, and was contained on July 27 at a cost of \$77.2 million.
- Portions of the Basin Complex Fire burned to the edge of Highway 1 along the Big Sur Coast. The north perimeter of the Basin Fire burned into the upper Carmel Valley. The Indians Fire burned into Fort Hunter Liggett military land and to the edge of the Salinas Valley. The two fires together span an area about 40 air miles north to south and 15 air miles east to west.
- On August 11, a 39-person Forest Service BAER Team convened to assess the National Forest portion of the Basin Complex Fire and Indians Fire. BAER stands for “Burned Area Emergency Response.” BAER is a Forest Service emergency program whose purpose is to identify potential threats to life, property and infrastructure along with potential threats to water quality and recreational resources, wildlife, vegetation, fisheries and cultural resources. The Basin-Indians BAER Team includes specialists in the following disciplines: hydrology, soil science, geology, wildlife and fisheries biology, botany, forestry, rangeland science, archaeology, engineering and economics, and is supported by satellite mapping technology.
- The BAER Team determines the severity of the burn, and effects on the watershed; identifies areas vulnerable to further damage based upon terrain, geology and other factors; and identifies the values at risk within and downstream from the burned area. The BAER Team also makes recommendations to minimize further potential damage due to debris flows or flooding during the rainy season.
- The Basin Complex Fire and Indians Fire burned in several different drainage basins within the Santa Lucia Mountain Range. The major drainages include the following: Arroyo Seco, Carmel, San Antonio, Big Sur and small coastal-facing drainages along State Highway 1.
- Drainage basins act like a funnel, collecting water within the area covered by the basin and channeling it into a waterway. Burned drainage basins are subject to flooding, erosion, mud and debris flows, landslides and other earth movement because the protective cover of vegetation is missing that normally intercepts rainfall and holds the soil in place.

- The Basin Complex Fire and Indians Fire burned within the same general footprint as the 178,000-acre Marble-Cone Fire of 1977, and the 86,000-acre Kirk Complex Fire of 1999. The BAER Team used vegetation recovery information from these two earlier fires, to gauge the time it would take for natural re-vegetation to occur within the Basin Complex and Indians Fire areas. Based upon these fire vegetation recoveries, the Team expects nearly full re-generation in about three years.
- Until vegetation becomes reestablished in the burned area, more water, and possibly debris, will flow downhill into drainages. Depending on the intensity and amount of rainfall, the drainages may not be able to handle the water and debris, and flooding may occur. Homes, businesses and other downstream sites will be at increased risk until the burned land is re-vegetated.
- Based upon downstream results from the Kirk and Marble-Cone Fires, and the BAER Team's assessment, the values at higher risk downstream from the Basin Complex and Indians Fires included the following:
 - upper Tassajara drainage including some private land within the Ventana Wilderness;
 - upper Carmel watershed and Los Padres Dam which supplies water to the City of Carmel;
 - Big Sur drainage including homes and businesses within flood-prone areas and Pfeiffer Big Sur State Park;
 - Arroyo Seco including homes;
 - smaller drainages along the ocean-facing front of the Santa Lucia Mountain Range including State Highway 1 and ocean-side State Parks.
- The BAER Team used satellite reflective imagery maps to do on-the-ground assessments and found that 38 percent of the two fires burned at low severity, 38 percent at moderate severity and 24 percent at high severity. The low severity areas will result in little increase in flood potential. Depending on the type of vegetation, the moderate and high intensity burned areas will take one to three years to recover enough to substantially reduce the risk of flooding.
- The BAER Team has met with representatives of the State Emergency Assessment Team (SEAT), Monterey County, CalTrans and other local, state and federal agencies to exchange technical information, discuss preliminary findings, and further identify values at risk downstream from the burned areas. Scientists and specialists from the BAER Team and SEAT continued to meet and share information and do joint on-the-ground site visits and over-flights throughout the BAER analysis.
- Starting on August 13, BAER Team specialists went into the burned area with SEAT members, who focused most of their work on the State and private lands. Other BAER Team specialists first met with Caltrans to survey potential risks to Highway 1. These site visits helped ensure that all values at risk are identified and helped the respective agencies determine the most effective treatments to reduce these risks. BAER Team members also met with local landowners and gathered information about historical post-fire response from previous fires.
- BAER Team specialists did assessments throughout the burned area to identify homes, businesses, parks, bridges, trails, and other values that may be at risk. Recommended treatments on National Forest lands to reduce downstream values at risk, were made by the BAER Team. The SEAT Team and USDA Natural Resources Conservation Service (NRCS) will make treatment recommendations for the State and private lands.

- Fort Hunter Liggett military land affected by the fires is being assessed by the Department of Defense.
- BAER Team members found new green growth throughout much of the burned area. Depending on the timing and amount of rainfall this winter, there could be substantial recovery of vegetation, which would reduce the risk of flooding to downstream values at risk.
- Proposed treatment recommendations were evaluated by the entire BAER Team to ensure thorough interdisciplinary consideration. The Team used established criteria along with possible water runoff scenarios, to judge the probabilities of various treatments being effective in reducing downstream values at risk.
- On August 23, the BAER team made emergency treatment recommendations to the Los Padres Forest Supervisor who will review and approve and then make recommendations to the Pacific Southwest Regional Forester. After treatment approval and funding is obligated, contracts will be put out for bid and awarded for treatments on LPNF lands soon thereafter.

Federal Agency Legal Authority and Responsibility

- The BAER Team identifies emergency treatments for National Forest System lands that help minimize downstream damage. By federal law, BAER treatments can only be done on National Forest System lands. The Forest Service has no legal authority to pay for emergency treatments on non-federal lands. Local and state agencies and the NRCS conduct separate assessments of private and non-federal public lands affected by fires.
- The NRCS has legal authority to help pay for emergency treatments on non-federal and private lands. The NRCS will use the BAER findings as a basis for preparing an Emergency Watershed Protection Report, which will enable agencies to apply for funds to protect values on private lands. Individual private landowners may also be eligible for NRCS program funds to mitigate damages to their private agricultural lands.

What is BAER?

- Burned Area Emergency Response (BAER) is an emergency risk management reaction to post-wildfire conditions that pose risks to human life and property or could further destabilize or degrade the burned lands. Even though wildfires are natural events, the presence of people and man-made structures in and adjacent to the burned area often requires continued emergency risk management actions. High severity wildfires pose a continuing flooding, debris flow and mudflow risk to people living within and downstream from a burned watershed, as well as a potential loss of desirable watershed values.
- Potential values and threats assessed include life, property and public safety. Threats include the following: 1) people and property; 2) trails, roads and highways; 3) recreation sites; and 4) water systems.
- Potential threats to natural resources include the following: 1) water quality; 2) soil productivity; 3) cultural resources; 4) plant, fish and wildlife species of special concern; 5) off-highway-vehicle incursion into burned areas; and 6) introduction of noxious weeds.