CFFDRS in Alaska Summit

How is CFFDRS being used in Alaska Now

Jurisdictional Agency – NPS
Planning

Western Arctic Parkland: Fire Management Plan. Step-Up Staffing
Planning

Step-Up Staffing analysis comparison:
Western Arctic National Parklands
Planning

Step-Up Staffing analysis comparison: Denali NP&P
Planning

Step-Up Staffing analysis comparison:
Denali NP&P
# Planning

Western Arctic Parkland: Fire Management Plan. Step-Up Staffing

## Complexity Level

<table>
<thead>
<tr>
<th>Fire Indices</th>
<th>0-3 fires</th>
<th>3-6 fires</th>
<th>6+ fires</th>
</tr>
</thead>
<tbody>
<tr>
<td>FFMC=&lt;70</td>
<td>LOW COMPLEXITY LEVEL</td>
<td>LOW COMPLEXITY LEVEL</td>
<td>MODERATE COMPLEXITY LEVEL</td>
</tr>
<tr>
<td>FFMC=71-88</td>
<td>LOW COMPLEXITY LEVEL</td>
<td>MODERATE COMPLEXITY LEVEL</td>
<td>HIGH COMPLEXITY LEVEL</td>
</tr>
<tr>
<td>FFMC=88+</td>
<td>MODERATE COMPLEXITY LEVEL</td>
<td>HIGH COMPLEXITY LEVEL</td>
<td>HIGH COMPLEXITY LEVEL</td>
</tr>
</tbody>
</table>

## Preparedness Level

### Values at Risk

<table>
<thead>
<tr>
<th>Complexity</th>
<th>Low</th>
<th>Moderate</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>Low Preparedness Level</td>
<td>Low Preparedness Level</td>
<td>Moderate Preparedness Level</td>
</tr>
<tr>
<td>Moderate</td>
<td>Low Preparedness Level</td>
<td>Moderate Preparedness Level</td>
<td>High Preparedness Level</td>
</tr>
<tr>
<td>High</td>
<td>Moderate Preparedness Level</td>
<td>High Preparedness Level</td>
<td>High Preparedness Level</td>
</tr>
</tbody>
</table>
Severity Request

**U.S. Drought Monitor**

*June 18, 2013*

http://droughtmonitor.unl.edu

**Severity**

In the U.S. Drought Monitor, severity is categorized into five levels:

- **Exceptional**: The most severe drought, with widespread crop damage, significant water supply issues, and impacts on human health and safety.
- **Drought Emergencies**: Moderate conditions that may affect crops and water supplies.
- **Moderate Drought**: Minor to moderate conditions affecting crops, pastures, and water supplies.
- **Abnormal Conditions**: Mild to moderate conditions that may affect only certain regions.
- **Normal Conditions**: No drought conditions.

**Explanation**

The severity indicator shows a normal temperature for the northern 13 of the 14 states for June, with the 15th of the states at normal temperature as well. The current conditions in the northern 13 states indicate a normal temperature that is not significantly influenced by recent drought events. However, the severe drought conditions in the southern 11 states reflect the ongoing impacts of extended drought in these areas.

**Severity Request**

The severity request for the precipitation amounts throughout June and July 2013 in the U.S. Drought Monitor indicates that significant improvements in precipitation are needed to mitigate the severe drought conditions in the southern 11 states. Continued monitoring and early intervention are crucial to prevent further drought impacts.

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**Supplemental Information**

*June 12, 2013*

**Memo**

To: Dave Warner, Fire Management Officer, ACR
From: Don Stiller, Superintendent, Denali National Park and Preserve
Subject: June 2013 Fire Severity Request: Denali National Park and Preserve Alaska Western Parks Group

Denali National Park and Preserve is requesting severity funding in order to augment fire prevention efforts as described in the attached severity request.

This request has been formulated after consultation with our cooperating partners: Tanana Valley, Alaska Fire Service BLM & Forest Service Fire Protection Branch, Department of Natural Resources, State of Alaska. These agencies, along with others, are responsible for the fire prevention efforts as described in the severity request.

Severity:

**Fire Danger Models:** The Cooperative Fire Danger Rating System is utilized in Alaska. The indexes below are an indication of the potential of fire occurrence:

- **Index of Fire Potential (IFP)**: A measure of the potential for fire occurrence within a given area.
- **Index of Fire Growth Potential (IFGP)**: An indicator of the potential for fire growth once it occurs.
- **Index of Fire Behavior (IFB)**: A measure of the potential for fire behavior to become dangerous.

**Severity Request:**

The severity request is for the prevention activities throughout Denali from June 1 to July 31, 2013, with a focus on the following areas:

1. **Severity Funding:** Requested for prevention activities throughout Denali from June 1 to July 31, 2013, with a focus on the following areas:
   - **IFP (Index of Fire Potential)**: Activities to reduce the potential for fire occurrence.
   - **IFGP (Index of Fire Growth Potential)**: Measures to control the potential for fire growth.
   - **IFB (Index of Fire Behavior)**: Initiatives to manage fire behavior to prevent dangerous conditions.

**Conclusion:**

The severity request is crucial to ensure the safety of visitors and the preservation of landscape and wildlife. Continued attention to fire prevention and early intervention efforts are essential for mitigating the risks associated with severe drought conditions.

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**References:**

1. [U.S. Drought Monitor](http://droughtmonitor.unl.edu)
2. [Index of Fire Potential (IFP)](http://example.com/ifp)
3. [Index of Fire Growth Potential (IFGP)](http://example.com/ifgp)
4. [Index of Fire Behavior (IFB)](http://example.com/ifb)

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**Note:**

This severity request is intended to support the prevention activities throughout Denali from June 1 to July 31, 2013, for ELTs. Proactive measures are necessary to reduce the risk of fire occurrence and ensure visitor safety. Continued monitoring and early intervention efforts are crucial for mitigating the impacts of severe drought conditions.
Monitoring

Denali NP&P – State of the Park Report (Example 1)

Denali National Park and Preserve
High Fire Potential (DMC>=80, 1994-2012, Lake Minchumina RAWS)

- NPS Acres
- High Fire Potential
- 5-year Moving Avg.
Monitoring

Denali NP&P – State of the Park Report (Example 1)

Denali National Park and Preserve
High Fire Potential (DMC>=80, 1994-2012, Lake Minchumina RAWS)

- High Fire Potential
- 5-year Moving Avg.
## Monitoring

### Denali NP&P – State of the Park Report (Example 1)

<table>
<thead>
<tr>
<th>Natural Resources</th>
<th>Priority Resource or Value --</th>
<th>Wildlife Habitat and Ecosystem Function: Terrestrial</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Indicators of Condition</strong></td>
<td><strong>Specific Measure</strong></td>
<td><strong>Condition Status/Trend</strong></td>
</tr>
<tr>
<td>Fire Regime</td>
<td>High Fire Potential - number of days the duff moisture code*** (DMC) is above 80 (very dry) (the range of natural variability is defined as that during 1994-2010)</td>
<td></td>
</tr>
</tbody>
</table>

***The Duff Moisture Code is a fire danger index approximating the availability of subsurface fuels and the ease of their flammability.
Monitoring

Denali NP&P – State of the Park Report (Example 2)

Denali National Park and Preserve
Fire Potential Seasonality (DMC >20, 1994-2012, Lake Minchumina RAWS)

- Fire Potential Seasonality
- 5-year Moving Avg.

Days

Days

Years: 1994-2012
Wildfire

Jurisdictional Agency Decision Support - CFFDRS

• FFMC
  – Surface fire support potential
  – Strongest relationship with new fire starts
    • Coupled with wind (ISI), proximity to values at risk or higher protection level FMUs
  – 90 trigger

• DMC
  – Natural ignition persistence
  – Potential for locating new starts from lightning
  – Maximum 5 point daily recovery (80 degrees, 30 RH)
  – 60 trigger
Wildfire

Jurisdictional Agency Decision Support - CFFDRS

• DC
  – Duration, persistence to significant rain events
    • Proximity to values at risk or higher protection level FMUs considering potential fire duration.
    • Growth Potential - Likelihood of wildfire exposed to future extreme weather event.
  – Resource commitment exposure/time/cost
  – 400 trigger