

# Science Review Panel for the Old Faithful Hydrothermal System Agenda

Sponsored by a grant from the Yellowstone Park Foundation

## General Format of the Meeting

Anyone (general public, park staff, press, etc.) may attend any portion of the meeting.

Only panelists and park managers may ask questions of the presenters

Meet for 3 days at Old Faithful June 3, 4, 5, 2013.

Two days of presentations by scientists and park managers

One day for the panel to discuss issues and begin writing report

The meeting will be video taped

Talks are scheduled to include 10 minutes for questions from panel.

A facilitator will run the meeting, notes will be taken by the facilitator's assistant.

## Objectives:

1. To advise park managers on what is known about the hydrothermal system at Old Faithful, what may be known with additional research, and what will remain unknown in the next twenty years.
2. To advise Yellowstone National Park on the state of understanding of the sensitivity of the hydrothermal system at Old Faithful to anthropogenic influences.

## June 3, 2013

### *YNP Management Overview*

8 00- 8:30 Welcome, YNP's expectations from the Science Review Panel, statement of the opportunities and problems associated with visitor use of the Old Faithful area – YNP Superintendent Wenk, Deputy Superintendent Iobst.

8:30 – 9:00 Objectives and key questions for the Science Panel, regulations pertaining to resource protection – Dave Hallac, Division Chief, Yellowstone Center for Resources.

9:00 - 9:20 History of the Old Faithful Area – Lee Whittlesey, YNP Park Historian.

9:20 – 9:50 Cultural issues –Tobin Roop, Branch Chief of Cultural Resources, Yellowstone Center for Resources.

9:50 – 10:10 Break

10:10 – 11:30 Infrastructure and Maintenance challenges in the OF area – Nancy Ward, YNP Division Chief Maintenance, George Helfrich, YNP Division Chief Concessions, Ann Rodman, Branch Chief, Yellowstone Center for Resources.

- 11:30 – 11:45 Law Enforcement issues – Tim Reid, YNP Division Chief Resource and Visitor Protection.
- 11:45 – 12:00 Interpretation issues – Linda Young, YNP Division Chief Resource Education and Youth Programs.
- 12:00 – 12:15 Questions from Panel for Presenters.
- 12:15 – 1:15 Lunch (for panelists and presenters at conference room).

***Current Scientific Understanding of the Old Faithful Area (focus on Geology, hydrology and geochemistry at a basin-scale)***

- 1:15 – 2:15 Lessons learned from geothermal development in New Zealand – Rick Allis, Utah State Geologist, Utah State Geological Survey.
- 2:15 – 2:45 Geologic overview of the Old Faithful area – Jake Lowenstern, USGS Volcano Hazards Program, with input from Patrick Muffler, USGS retired.
- 2:45 to 3:00 Break
- 3:00 to 3:45 Age dating and isotopic studies of hydrothermal water in YNP, also discuss shallow and surficial water flow in YNP – Payton Gardner, Sandia National Laboratories.
- 3:45– 4:45 Thermal waters discharged by the hot springs and geysers of the Old Faithful Area – Bob Fournier, USGS retired.
- 4:45 – 5:00 Questions from Panel for Presenters.
- 5:00 – 5:15 Questions from Public for Presenters.

**June 4, 2013**

***Continue Discussion of Current Scientific Understanding of the Old Faithful Area (discussion of basin-scale modeling, then focus on near-surface, local observations)***

- 8:00 – 9:00 Numerical modeling of hydrothermal systems – Ingebritsen, USGS, Research Hydrologist.
- 9:00 – 10:00 Airborne thermal infrared studies of the OF area: visualization of anthropogenic changes to the OF hydrothermal system – Cheryl Jaworowski, Geologist, YNP.
- 10:00 – 10:15 Break
- 10:15 – 11:15 Near surface observations of groundwater movement and heat transfer in the Old Faithful area – Henry Heasler, Geologist, YNP.
- 11:15 – 11:45 Questions from Panel for Presenters
- 11:45 – 12:00 Questions from Public for Presenters.

12:00 – 1:00 Lunch (for panelists and presenters at conference room)

***Walking Tour***

1:00 – 5:00 Walking tour of the OF Area (discussion of geology, hydrothermal, and management issues)

**June 5, 2013**

***Panel discussion: 1) What is known about the Old Faithful hydrothermal system?; 2) What is not known that should be known to help inform management decisions?; and 3) What would be the most efficient method to fill in those knowledge gaps? Begin writing final report.***

8:00 – 10:00 Discussion 1, What is known about the Old Faithful hydrothermal system? (Panel discussion with Presenters)

10:00 – 10:30 Break

10:30 – Noon Discussion 2, What is not known that should be known to help inform management decisions? What would be the most efficient method to fill in those knowledge gaps?

Noon – 1:30 Lunch (for panelists and presenters at conference room)

1:30 – 3:00 Science Advisory Panel discussion, begin organizing and writing final report. Everyone starts writing sections

3:00 – 4:00 Summary statement from Science advisory Panel about what has been learned during the Scientific Review, discuss what will be contained in the final report.