# Old Faithful Visitor Education Center



## Opening August 25

Yellowstone National Park contains more geysers and hot springs than in the rest of the world combined, and Old Faithful Geyser is that rare natural phenomenon that has come to symbolize national parks and the national park idea. Yet millions of visitors to Yellowstone have witnessed an eruption of the world's most famous geyser without understanding what causes the extraordinary event they have just seen.

That will change this summer.

The new Old Faithful Visitor Education Center will feature dynamic exhibits on the park's hydrothermal features (geysers, hot springs, mudpots, and steam vents or fumaroles), life in these extreme environments, the volcano beneath Yellowstone, and ongoing scientific research in one of the greatest living laboratories on Earth.

Children of all ages will enjoy the Young Scientist exhibit room, which includes a full-size geyser model, hands-on exhibits, and a gathering space for classes and other organized groups. A state-of-the-art theater and many other special features will help visitors experience Yellowstone with a new understanding of its wonders.



## Building a "Green" Visitor Center



The boardwalk around Old Faithful Geyser was one of the first sustainable construction projects in the park. Its plastic lumber is made from approximately three million recycled milk jugs. Unilever donated the lumber.

The Old Faithful Visitor Education Center is being built to save energy, water, and other resources. The construction materials and methods have been chosen, in part, to achieve LEED certification. LEED (Leadership in Energy and Environmental Design) is a national set of standards for environmentally sound buildings. The new visitor center will be one of the first visitor centers in the National Park System to achieve Gold LEED certification.

One of the LEED categories (see below) measures how a building affects its natural surroundings. Here in Yellowstone, the visitor center has been built to minimize its impact on the world-famous geyser basin system. For example, the building's foundation is shallow, which prevents damage to the underground hydrothermal system. The underside of the first floor is heavily insulated so the building's temperature will not affect the ground temperature and vice versa. Geothermal heat, used as alternative energy in other regions, is not being used here because tapping the thermal systems could damage the geysers and other hydrothermal features. Native landscaping and other materials will help rain and melting snow percolate into the ground and replenish the geyser basin system.

This visitor center is an example of how Yellowstone National Park is "greening." The park also is partnering with the Yellowstone Park Foundation on the "Yellowstone Environmental Stewardship (YES!) Initiative." Through YES! projects, the park plans to meet a number of "greening" goals by 2016, the 100th anniversary of the National Park Service. Goals include reducing greenhouse gas emissions by 30%, electricity and water consumption by 15%, and fossil fuel consumption by 18%; and diverting 100% of solid waste from landfills.



Concrete from the old visitor center was crushed and reused as fill material for the new building.

### Categories evaluated for LEED certification

### **Old Faithful Visitor Education Center**

<b>Building Location</b>
& Construction

Preferred parking is provided for visitors using alternative energy vehicles, carpools, and vans. Trees removed during construction were used in other projects or were chipped for mulch. Almost 100% of the construction waste has been recycled.



The building uses frames made of recycled steel obtained locally, which reduced transportation costs and fuel emissions

## **Conserving Water**

Native landscaping relies on rain and snow, not irrigation, for moisture.

Restrooms use low-flow toilets and faucets with infrared sensors.

### Conserving Energy & Keeping Air Clean

Using & Conserving

Sustainable Materials

The building uses approximately ½ less energy than other buildings of similar size and use.

Hot water is provided on demand, which conserves energy.

Lobby air moves in a natural convection on hot days: high windows will open automatically to allow hot air to leave the building; low vents will open to allow cooler outdoor air to flow in.



The building has been wrapped in energy-saving and weatherproof Tyvek CommercialWrap®, courtesy of a generous donation from DuPont Building Innovations

Most of the construction waste was recycled or reused. Steel, wood, gypsum board, cardboard, paper, plastic, and aluminum were sorted on site and recycled.

Many building materials contain high percentages of recycled material.

Many building materials came from sources within 500 miles of Yellowstone, saving fuel.

Flooring, wall coverings, and exhibit cases are made from raw materials such as cork, flax, and wheat that regrow rapidly and therefore are more sustainable than other resources.

### Indoor Air Quality

Outdoor air circulates through the building 30% more efficiently than in buildings of similar size and use.

Building materials and finishes such as adhesives, sealants, paints, coatings, carpet, and composite wood products emit few chemicals that affect human health.

High-efficiency air filters remove contaminants before air is circulated in the building.

Temperature and lighting in each interior space can be adjusted individually to suit the occupant.

## Other Features Toward **LEED Certification**

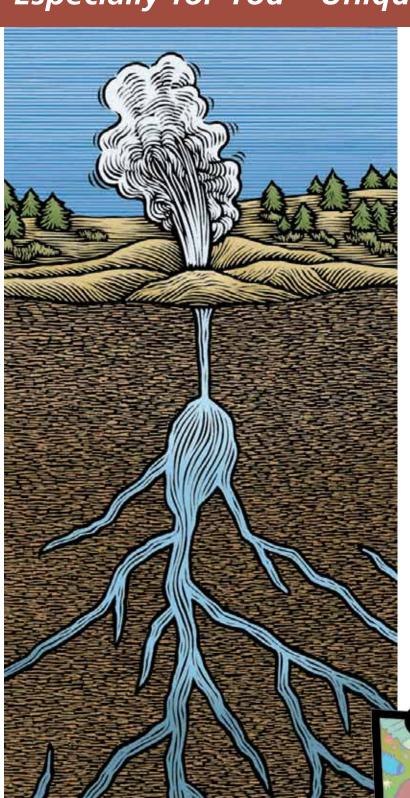
Visitors can learn about the environmentally friendly features of this building—and about the many other greening and sustainability projects underway in Yellowstone—through exhibits in the lobby, bathrooms, and outside; interpretive programs by park rangers; articles in the park newspaper (including this supplement) and the park website.



State-of-the-art lighting and climate control systems will reduce energy consumption and provide optimal indoor air quality.

For more information about this building and LEED certification: www.nps.gov/yell, www.ypf.org, www.usgbc.org

## Especially for You—Unique Exhibits & Fascinating Facts



In this new facility, lobby exhibits will help orient you to the Old Faithful area and, more broadly, to the rest of the park. Rangers are available to provide information and assistance, and a geyser prediction board will help you plan your visit to the area.

Step inside the exhibit hall to discover the hidden realm of Yellowstone's underground phenomena, including its volcano, and the amazing variety and sheer numbers of hydrothermal features found throughout the park. You can:

- \* Explore how a geyser erupts and why eruptions can vary.
- \* See what happens within the natural plumbing of a geyser as it begins to erupt.
- \* Learn how tiny life forms live in scalding water and boiling mud.
- \* Take a close look at a room-size display of a hot spring—can you pick out all the living things in this hot water area?
- \* Compare hydrothermal features in the park: How are they similar? Why are they different?
- \* Embark on a scientific expedition to answer intriguing questions about four areas of the park.
- \* Visit the virtual visitor center kiosk in the exhibit hall to discover how you can continue your Yellowstone exploration after returning home.







Why are baking soda, orange juice, and milk in an exhibit about Yellowstone?



Hey, Kids! Look deep inside this new visitor center for a shimmering portal. Walk through it—and enter the world of the Young Scientist. . . .

- \* examine elk jaws and figure out why elk may have shorter lives in the geyser basins
- \* peer into hot springs and study organisms you usually can't see
- \* study eruptions of Old Faithful and figure out how to predict the next one
- \* get right next to the inside guts of a geyser and watch superhot water surge up and up and ERUPT!



What can a pot of soup tell us about geysers?

# Appreciation

The Old Faithful Visitor Education Center was built with the help of businesses and citizens throughout the United States and the world. The park's official fundraising partner, the Yellowstone Park Foundation, led the successful \$15 million capital campaign to help make this center of learning possible. These generous donations are matched by \$11 million in federal funding for the project.

The Foundation is particularly grateful to the leadership contributions of the partners that committed to the project early on and helped galvanize the support necessary to bring the project to fruition. Yellowstone would like to thank Shalin Liu for her vision and extraordinary generosity to this campaign. Her dedication and deep love for Yellowstone's wildlife and wonders helped inspire support from both individuals and institutions.

Longtime partner Unilever was the first corporation to make a million-dollar contribution to the visitor center, thereby jumpstarting significant corporate support. ConocoPhillips, an original funder of the Foundation, followed suit with a multimillion-dollar commitment. The Coca-Cola Foundation provided legacy-level support to the educational exhibits and Young Scientist classroom.

In addition to making a million-dollar gift to the project, Toyota USA provided critical advice on the LEED elements of the visitor education center based on the company's experience designing its sustainable headquarters in southern California. The Toyota gift helped Yellowstone set its sights on Gold LEED certification rather than Silver.

Finally, the Yellowstone Park Foundation is indebted to the many individual Friends of Yellowstone who contributed to this extraordinary facility. Together with corporate and foundation partners, they helped make this gift to the world possible.

# Thank you to these corporations

to these corporations for their support of the Old Faithful Visitor Education Center























The National Science Foundation provided funding through Grant #0307709 to develop the exhibits of the Old Faithful Visitor Education Center.



The nonprofit Yellowstone Park Foundation has been Yellowstone National Park's official fundraising partner organization since 1996. The Foundation works in cooperation with the park to fund projects and programs that protect, preserve, and enhance the natural and cultural resources and the visitor experience of Yellowstone. The Foundation receives no annual government funding; it relies instead upon generous contributions from private citizens, foundations, and corporations to help ensure that Yellowstone's great gifts to the world will never diminish.

Learn more at www.ypf.org

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