

## Report on the Environmental Education Mission of *Grand Canyon Adventure: River at Risk*

Audiences and our exhibitors have noted *Grand Canyon Adventure's* ability to communicate, in an inspiring and entertaining way, the environmental issues surrounding the Grand Canyon, the Colorado River and our freshwater resources. Our lengthy process of shaping the film with advice from educators, experts and museum theatre directors makes this result possible. The Foundation also created outreach materials and programs that accompany the film, more fully described on page 5.

### Did You Know?

*Grand Canyon Adventure* has proven popular with **school audiences**, and for good reason. Environmental concepts are taught by 96% of teachers, according to an April 2008 survey conducted by **National Science Teachers Association**. Representing elementary grades through high school, teachers responding to the survey said they devote between 20 to 50 hours each year to the subject. The top environmental issues they focus on in the classroom are recycling, water quality, energy conservation and alternative energy uses, habitat loss, and climate change. Water quality is taught by 75% of teachers, water management by 50% of teachers. Almost 60% of the 669 teachers who responded to the survey reported they incorporate **more environmental issues and concepts in their classroom today compared to four years ago**.



The following quotes speak to the film's environmental and educational message and are from advisors, teachers, kids and theatres.

### From the Film's Lead Science Advisor:

*"Grand Canyon Adventure* has a message that many people need to hear and understand ... it's a message that hopefully works toward bringing water managers, policy makers and the public to agreement on how we can better address water shortages in the Colorado River Basin and beyond."

– Robert Ward, Emeritus Director, Colorado Water Resources Research Institute

### From the Film's Teacher Advisory Team:

Three teachers who received the 2006 U.S. Presidential Award for Excellence in Mathematics and Science Teaching, and who have developed water curricula, helped us with the film. The middle school teachers were sent rough cuts of the film during the editing process. They also reviewed and suggested content for the Teacher Guide. After her "fine cut" review of the film, **Rhonda Spidell from New Mexico** said: "Great opening sequence. I love the water droplets and the students will too! Overall, I think **the appeal for 4-8<sup>th</sup> graders is very high**. The adventure scenes and 3-D graphics will deliver the water conservation message to middle school students." **Debra Las from Minnesota** said: "It was interesting seeing the changes made between the first and second cuts of the movie. This [last] cut presents a clearer theme of water management and conservation. It is a **strong educational presentation** now. Thank you!"

### From Teachers:

"We took **250 kids ages 5-14 to the film**... They loved the opening scene with all of the water droplets and bubbles... We've been teaching all year about **national parks and the importance of protecting our resources**... it's great for them to see something so beautiful yet so endangered still, to learn that it's important to conserve, to respect, to really cherish what they have."



-- Chris Ross, Alexandria Country Day School, 7<sup>th</sup> and 8<sup>th</sup> Grade Science Teacher

At an **Educator's Preview Screening in Saskatchewan**, 41 teachers representing grades 1 to 12 gave *Grand Canyon Adventure* the "thumbs up," with 34 rating the film "excellent" or "very good." **The film appealed to the majority of teachers** because of its inclusion of key learning units including water, conservation, resources, social studies and general science, topics that satisfy multiple grade level studies. **More than 90% of the teachers said the film met their needs as an educator and they would recommend it to other teachers.**

"I want to purchase this **awesome** film for my classroom. I enjoyed the way the movie **presented science concepts in an awe inspiring and yet understandable way for the young learner**. -- Sally Hunt, 5<sup>th</sup> Grade Science Teacher from Texas

"I just wanted to thank you so much for your film *Grand Canyon Adventure 3D*. Every student in my class loved the movie. **It was a topic of discussion in our class for over a week** after we saw the movie at the **Whitaker Center** in Harrisburg. Not one of my students had seen either an IMAX or a 3D movie before so this was a memorable experience for them. **Thanks also for your terrific interactive website**. We had never thought about conserving water before... **We all felt proud to save water and help our friends and family save it too!**" -- Mr. Fields, George Washington Elementary

## From Students:

Students who attended **Harrisburg's Whitaker Center for Science and the Arts** each wrote to tell us how the movie inspired them: **"I will take shorter showers** to save water....your movie makes me want to **study more about the Grand Canyon....I will tell my family not to let the water run when you don't use it"**...and the ultimate sacrifice was expressed by this grade school student: **"I will tell my parents we don't need to build the swimming pool in the backyard** because we can go to a public pool."

Dubuque Senior High School's Exploration Discovery club exposes students to outdoor activities and environmentally-based projects that benefit their community. After a visit to **Putnam Museum in Davenport, Iowa** to see *Grand Canyon Adventure 3D*, high school freshman Katie Christensen said: "After that movie, I plan to whitewater raft down the river some time in my life."

After viewing *Grand Canyon Adventure 3D*, approximately **150 students from Chattanooga schools learned more about water resources in a fun tug-of-war on their local waterway**. Three rafts were labeled water resources and three were labeled water demands. Dr. Anna George, the Aquarium's chief research scientist, led a discussion about watersheds, freshwater biodiversity and the importance of conserving water. While the students were shouting out ways to conserve water, the water resources team was able to balance the needs of the water demands team. Dr. Michael Ghiglieri, author and Colorado River rafting expert, answered the students' questions about the Grand Canyon and the dwindling Colorado River. Normal Park teachers said they hope **the field trip will excite their students for an upcoming river unit**.



At the **Washington DC Environmental Film Festival in March**, 11-year old Bobby Nixon was enthusiastic about the film: "I thought [the film] was amazing, it had really good sound, really good quality picture, definitely the best IMAX I've ever seen. I loved the water; I really liked the bubbles in the beginning. I thought it was really cool when they jumped off the cliff... **I'm definitely going to take much shorter showers now**."

**Grade school students from Anaheim** in Southern California wrote letters to us expressing what they learned from the film.

-- "This movie really effected me and I felt sad because of how much water we were losing. So **I told my brothers about the movie I watched**. My big brother took shorter showers now and so did I. My younger brother turned off the sink when he brushed his teeth."

-- "I'll use less water by turning it off when I don't need it, like brushing my teeth and washing my face. I'll also take shorter showers. I've also thought we had plenty of water. **Now that I know we have barely any water it changes everything!**"

## From Theaters:

“We are working on finding more time slots so we can **add more *Grand Canyon Adventure* shows to the schedule.** It’s an awesome film, it has a **great educational message**, the 3D affects are phenomenal, the music is great, and Robert Redford’s narration is outstanding. **School groups are booking the film like crazy.**” -- Tim Hazelhurst, Theatre Director  
Marbles Kids Museum & IMAX Theatre,  
Raleigh, North Carolina



“I thought it was a wonderful film... It’s going to be a huge success in conveying the message of water conservation around the world...**kids are going to love it.** I hope the [audience] takes away the message that they can do something... and that we should start to conserve.”

-- Toby Mensforth, Vice-President of Theater and Concessions  
Smithsonian Institution, Washington, DC

“The freshwater conservation message in *Grand Canyon Adventure* is very important for our institution since we are the largest freshwater aquarium in the world. We did some **pre- and post-testing of some of our education groups** during the first week of our run. It was obvious from the testing that those **kids got the message about the importance of water conservation and what they can do to conserve water.** The fact that our audiences are also entertained by a great story, fantastic music, awesome views of the Grand Canyon and fun 3D effects just makes it that much better.”

-- Gordon Stalans, Tennessee Aquarium, Chattanooga

“Last night we had the largest-attended educator screening so far. It was wonderful, the energy was high, the response was good and the film initiated many questions afterward. **Based on the response of the educators, I think this is going to be one of the best films that we have had so far...Everyone wants to know about the environmental issues surrounding the Grand Canyon** and this gives us the perfect opportunity to tie-in the film with a major PR event in our region—especially with educators.”

-- Wendy Russell, Sales Mgr, Esquire IMAX Theatre, Sacramento, California

"MacGillivray Freeman has turned out yet another great film with a very powerful message--entertaining as well as **educational for people of all ages.**"

-- John L. Lewis, Director of Theaters  
The Bob Bullock Texas State History Museum, Austin, Texas

“We will begin showing *Grand Canyon Adventure* as a ‘school film’ in the 2008/2009 school year. It should be quite popular since it **fits so well with the fourth-grade through sixth-grade state science standards.**”

-- Debbie DeRoma, Education Manager, Fleet Science Center, San Diego



## Outreach Materials and Programs Provided by MFF Educational Foundation

### --Underserved Student Program in Select Cities (in development)

Working with Museum Film Network theatres showing the film in 2008, the Foundation will host underserved students in conjunction with theatre programming of *Grand Canyon Adventure: River at Risk*. The Foundation invited students from Title I schools to its local theatre, the Edwards Irvine Spectrum IMAX<sup>®</sup> Theatre in April. The program typically covers tickets and transportation costs for students and their chaperones.

### --Partnership with Ryan's Well Foundation of Canada

The freshwater crisis can be found everywhere and the MFF Educational Foundation wants people to know that our problems can be solved and that anyone of any age can help. With MacGillivray Freeman Films, the Foundation will contribute to building much-needed wells at elementary schools in northern Uganda where years of conflict have devastated water supplies. ([www.ryanswell.ca/projects/projectindex.asp](http://www.ryanswell.ca/projects/projectindex.asp)) We were inspired to help after learning the story of Ryan Hreljac, who appears briefly at the end of our film. Ryan learned from his first grade teacher that people around the world were suffering from lack of safe drinking water and he has worked tirelessly for ten years to do something about it. Ryan and his family have raised millions of dollars and built more than 350 wells in 14 countries. His foundation also created a "Youth in Action" guide for teachers and students. Written by kids for kids, it helps every child better understand the world's water problems and how they can help. A pdf download of "Youth in Action" is available at [www.ryanswell.ca/youth/youth1.html](http://www.ryanswell.ca/youth/youth1.html).

### --Teacher Guide

Created by Wyland Foundation and reviewed by middle school teachers experienced in developing water curricula, a pdf of the Guide and its alignment with U.S. National Education Standards are available at [www.mffeducation.org](http://www.mffeducation.org) or the film's website [www.grandcanyonadventurefilm.com](http://www.grandcanyonadventurefilm.com). Fifty hard copies of the Guide are provided to exhibitors at no charge.

### --Interactive Website Programs

Created by Hamline University's Center for Global Environmental Education, two interactive programs, "Water Wisdom" and "Journey of a Raindrop" are available on the film's website in the Education section. "Water Wisdom" shows the viewer how much water is used daily and provides ideas for using water wisely around the home. "Journey of a Raindrop" follows a raindrop from a house roof to a river, engaging users in cleaning up the sources of non-point-source pollution around their homes.

### --Conservation Standee and Take Home Sheet for Theatre Lobbies

The Foundation contributed to the production costs of the lobby displays available to theatres at no charge. Fifty conservation standees were created which include tearpad flyers for theatre guests to take home. The displays and take-home sheets are loaded with ideas for how to conserve and protect water resources.

### --Conservation Postcard Pack

Using images from the film, the postcards contain facts from the film and helpful water conservation messages for daily life. Exhibitors receive 250 postcard packs and the artwork on CD at no charge.