

Mongrel Media

Presents

LAST CALL AT THE OASIS



**A Film by Jessica Yu
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Distribution



1028 Queen Street West
Toronto, Ontario, Canada, M6J 1H6
Tel: 416-516-9775 Fax: 416-516-0651
E-mail: info@mongrelmedia.com
www.mongrelmedia.com

Publicity

Bonne Smith
Star PR
Tel: 416-488-4436
Fax: 416-488-8438
E-mail: starpr@sympatico.ca

High res stills may be downloaded from <http://www.mongrelmedia.com/press.html>

LAST CALL AT THE OASIS

Water. It's the Earth's most valuable resource. Our cities are powered by it, agriculture and other industries depend on it, and all living things need it to survive. But instead of treating it with care, we've allowed it to become polluted with toxic chemicals and agricultural and industrial waste. And it's very possible that in the near future, there won't be enough to sustain life on the planet.

Participant Media, the company that has illuminated such issues as climate change, the industrialization of food and the state of public education in the U.S. with its ground-breaking documentaries *An Inconvenient Truth*, *Food, Inc.* and *Waiting for "Superman"*, turns its attention to the global water crisis in LAST CALL AT THE OASIS. With Academy Award®-winning director Jessica Yu (*Breathing Lessons: The Life and Work of Mark O'Brien*) and Academy Award® nominated producer Elise Pearlstein (*Food, Inc.*), LAST CALL AT THE OASIS sheds light on the vital role water plays in our lives, exposes the defects in the current system, shows communities already struggling with its ill-effects and introduces us to individuals who are championing revolutionary solutions. It also presents a convincing argument for why the global water crisis will be the central issue facing our world this century.

Given the importance of water to our existence, you would think this would be a matter of great urgency. In public opinion polls, Americans consistently rate clean water as our most important environmental issue. But our behavior doesn't reflect this. We continue to act as if the supply is endless, when in fact, it is rapidly dwindling. One thing is clear: The longer we remain in denial, the less chance we have of finding ways to combat this problem.

The filmmakers explore the issue from the standpoint of both quantity and quality, with insight from the Pacific Institute's Peter Gleick, University of California, Irvine earth science professor Jay Famiglietti, University of Arizona law professor Robert Glennon, author of *Unquenchable*, Scripps Institute researcher Tim Barnett and writer Alex Prud'homme, whose manuscript for the book *The Ripple Effect* served as an early resource. We see how because of overuse, population burdens and climate change, our water supplies are no longer being replenished. It is also revealed how the issue of water cannot be approached without understanding its connection to everything else, from the food we eat to the clothes we wear to the electricity we depend on.

LAST CALL AT THE OASIS examines the imminent threat to the water supply in Nevada and California, illustrating the environmental, social and political factors that have resulted in a fast-approaching crisis. Whether it's overuse of the Colorado River and the rapid rate of development in Las Vegas causing Lake Mead to dry up or Central California's farmers losing access to Bay Delta water for irrigation because of endangered fish populations, each area's water use has regional and national implications. To provide a glimpse of what could very well

be in store for both regions, the filmmakers visit Australia, while in the midst of a decade-long drought, where farmers are forced to sell their livestock because there isn't enough water to raise cattle.

The film also examines serious water quality issues. We follow famed environmental advocate Erin Brockovich as she visits Midland, Texas, where the bright green water found in a community's domestic wells has dangerously high levels of hexavalent chromium, the same dangerous toxin she helped to uncover in Hinkley, California in the mid-90s. We also meet Tyrone Hayes, a scientist at UC Berkeley, who has discovered that the herbicide Atrazine, the most common contaminant of drinking water and groundwater, can at low levels cause some male frogs to produce enough estrogen to actually turn them into females. Another activist, Lynn Henning, a family farmer and water sentinel for the Michigan Sierra Club, is battling Big Ag over the pollution from CAFOs (Concentrated Animal Feeding Operations) in her area. Antibiotics, growth hormones, chemicals, toxic waste, and bacteria from the massive amounts of livestock manure are seeping into the water table.

And one reason all these public health affronts are able to occur is because our regulatory system is broken and broke. Through the Toxic Substances Control Act, the Environmental Protection Agency has issued regulations to control only five existing chemicals out of the more than 80,000 registered, while approving 1,000-2,000 new chemicals each year. And regulations tend to protect industry, such as the so-called "Halliburton loophole", pushed through by then-Vice President Dick Cheney in 2005, in which companies that use a controversial practice of natural gas extraction called hydraulic fracturing or "fracking" are exempted from having to disclose the chemicals they employ.

The filmmakers devote a portion of the film to the prevailing misconceptions on the part of the American public about the inferiority of municipal or "tap" water, which have helped to create the country's \$11.2 billion a year bottled water industry--despite the fact that 45% of the bottled water sold in the US originates as tap water. People who buy bottled water thinking it's safer will be surprised to discover that what they drink is not regulated by the EPA, which regulates municipal water, but instead by the much less stringent Food and Drug Administration.

In considering potential solutions, the film explores the seemingly obvious, but cost-prohibitive and greenhouse gas-emitting practice of desalination, as well as the less expensive, more environmentally sound "toilet to tap" approach which recycles waste-water into drinking water and has worked extremely well in other countries, such as Singapore. However, in order to gain public acceptance in the U.S., this technology must overcome the "yuck" factor. Psychologist Paul Rozin and actor Jack Black help facilitate an examination of how Madison Avenue and Hollywood might be enlisted to conquer our resistance.

Despite predictions that this century's wars will be fought over water access, LAST CALL AT THE OASIS ends on a hopeful note with a visit with Friends of the Earth Middle East, the only regional organization that brings together Israelis, Palestinians and Jordanians committed to working cooperatively to tackle the challenges of providing clean water for all three nations that depend on the Jordan River. It underscores the message that the global water crisis affects all of us and that it's going to take all of us, working together, to fix it.

About The Production

The idea for LAST CALL AT THE OASIS started with Participant Media, the company founded by Jeff Skoll with the purpose of using movies and other forms of media to both entertain and illuminate important issues in order to inspire social change. Explains Diane Weyermann, Participant's Executive Vice President of Documentary Films and one of the film's Executive Producers, "Water is one of the five global threats that Jeff Skoll has identified as the most urgent. For some time, we have wanted to do a documentary on this topic. We were just waiting until we found the right story."

Weyermann recalled attending a meeting with writer Alex Prud'homme and independent producers Carol Baum and David Helpern, as well as Participant Media President Ricky Strauss and Participant's Executive Vice President of Production Jonathan King. Prud'homme had co-authored *My Year in France* with his great aunt, Julia Child, which served as inspiration for half of Nora Ephron's screenplay for the film *Julie & Julia*. Weyermann says, "When Alex Prud'homme came in with a partial manuscript for the book that was published as *The Ripple Effect – The Fate of Fresh Water in the 21st Century*, we optioned it as a starting point for LAST CALL AT THE OASIS." Baum and Helpern were attached as Executive Producers.

Weyermann then proceeded to pull together her "A-team" for the project. She began with Academy Award®-winning director Jessica Yu, someone she had known for many years, having first met when Weyermann was at the Sundance Institute, prior to joining Participant. She then contacted Academy Award® nominated Producer Elise Pearlstein, with whom Participant had just collaborated on the highly-successful *Food, Inc.* Pearlstein and Yu had recently worked together on *Protagonist*, a documentary that explored the relationship between human life and Euripidean dramatic structure by weaving together the stories of four men: a German terrorist, a bank robber, an "ex-gay" evangelist, and a martial arts student. Says Weyermann, "Jessica is an amazing director-- so creative and cinematic and Elise is an extraordinary producer."

Yu and Pearlstein enlisted editor Kim Roberts, who had also cut *Food, Inc.* and was one of the editors on *Waiting for "Superman"*, and Director of Photography Jon Else, whom Yu had long admired and met on a Sundance Jury. Yu had worked with Composer Jeff Beal on her previous films *Protagonist*, *Ping Pong*

Playa and In The Realms of The Unreal. “The LAST CALL production team is really a top-notch group,” says Weyermann.

The first six to eight months were spent doing pure research. Since the film wouldn’t be coming out for at least two years, Yu and Pearlstein were challenged to make sure everything it covered would still be timely while telling a clear story. Prud’homme’s draft manuscript provided primarily general ideas, particularly regarding the lack of urgency around the topic of water in the United States.

The filmmakers decided to focus on domestic water issues since Americans have the largest water footprint, yet feel immune and disconnected from what is a growing global crisis. As Yu points out, “How we deal or do not deal with this water crisis in the United States affects the rest of the world. Everything about water is interconnected.”

After reading about his work, Pearlstein knew that water expert Peter Gleick of the Pacific Institute would be an important voice in the film. When she contacted Gleick to discuss his participation, he responded by saying “What water story are you telling?” Having devoted his career to the study of water, Gleick knew full well the complexity of the issue.

“Water is an incredibly complicated issue,” said Weyermann. “It didn’t surprise me because we saw this with *Food, Inc.* as well. To understand the core issue, you have to deal with the story strands. That is what is brilliant about Jessica’s work. She can connect the dots without over-simplifying the issue.”

The idea from the beginning of the project was to build through several personal accounts and characters with each providing a piece of the bigger picture. The underlying structure moves from issues of shortage to quality to psychology and solutions. “We knew the film had to be a structured mosaic,” said Yu.

As she started to piece together the mosaic, Yu was interested in the concept of groundwater as our “savings bank” in times of need, an idea covered by Robert Glennon in his book *Unquenchable*. The unsustainable use of groundwater is an issue he has focused on extensively for years. “Robert Glennon is impassioned about the need for awareness,” said Yu. “Coming from a legal background, he has an appreciation for the obstacles to systemic change.”

Pearlstein had read about the work of Dr. James S. “Jay” Famiglietti at the University of California, Irvine’s Center for Hydrologic Modeling and his work with the G.R.A.C.E twin satellite program (Gravity Recovery and Climate Experiment). Focusing on climate and ground water changes from space, the satellites clearly indicated alarming rates of groundwater depletion in California’s Central Valley. Famiglietti strongly believed that his findings would be enough to convince people that immediate action was needed. Instead, they created a storm of controversy among the state’s water managers and farmers, who produce 25 percent of the food consumed in the U.S.

The filmmakers were drawn to the story of water in Las Vegas because it speaks to the contrast between fantasy and reality. The generous use of water on the Strip belies the fact that Vegas' growing population is maxing out the available water resources. The Southern Nevada Water Authority's Pat Mulroy continues to fight for the water her city needs to maintain it as the huge economic driver of the State of Nevada.

"Pat Mulroy is such a straight-shooter," said Pearlstein. "Las Vegas is an easy target because it seems like a city built on excess, but Pat is quick to remind us that Vegas is just a canary in the coalmine."

"For the farmers, it's tough," adds Pearlstein. "Because agriculture uses so much water, when water is scarce, the farmers feel it first -- in Nevada, California, Australia. Everywhere. They are trying hard to be responsible stewards of their water resources. But the fight is often city vs. farmer. Cities trump farmers because more people means more votes, but the farmers' point is: where are you going to get your food?"

The filmmakers had read about Australia's Campaspe Irrigation district, where farmers John and Sandra Horkings had decided to give up on agriculture after a decade-long drought. For four years, they received no water, yet still had to pay for their water rights. The farmers felt they had no choice but to sell their rights back to the government. "Even though they were right in the middle of the heart-wrenching decision to shut down their farm, they treated us warmly and agreed to let us film the day they sold off their livestock," said Pearlstein.

"We were surprised to learn that many of these Australian farmers living through year after year of drought were very resistant to attributing it to climate change," said Pearlstein. "The men in particular didn't want to accept that climate change could be real because it's such a profound threat. If this is the new normal, it's an end to their way of life. Interestingly, the women seemed more accepting. Their feeling was, well, just in case climate change is real, we better be prepared."

In focusing on water quality, the filmmakers wanted the film to accurately reflect the frustrations that exist because of a broken infrastructure. "The EPA doesn't have the funding or legislative tools it needs to do its job," says Yu. "The public is largely unaware of the threats to its water supply – and things aren't likely to change unless they become aware."

"It's important that these threats aren't dismissed as treehuggers' hand-wringing," says Yu. "Not only are we not protected in the way we like to believe, but the system doesn't allow us to hold polluters accountable."

From the beginning, Yu and Pearlstein were eager to include water activist Erin Brockovich in the film since she has become a symbol for environmental whistleblowers. They were especially impressed that, after being catapulted to

fame after being portrayed by Julia Roberts in the Oscar®-winning 2000 film, she wasn't just sitting back and enjoying her "15 minutes."

"Erin Brockovich is still fighting so many battles. People don't have faith in their environmental agencies anymore. It's very telling that she's receiving thousands of emails a month – people are contacting her, not the EPA," says Yu. "Erin has been on the front lines for over 20 years now. She's compassionate, relentless and totally kick-ass."

"Erin would stay until the lights go out," Pearlstein says. "She has started compiling a map that plots the locations and contamination issues of the people who contact her. The map has become very important to Erin – it paints a picture of what's going on and shows that these are not isolated events. People like Erin carry such a burden. She knows she can't help everyone, but she can help get the information out."

The filmmakers approached Schlumberger, the primary energy company under investigation for the hexavalent chromium water contamination in Midland, Texas, but they declined their request for an interview.

Associate Producer Sandra Keats became aware of water activist Lynn Henning when she heard that Henning was a North American winner of the 2010 Goldman Environmental Prize. The filmmakers immediately connected to this Michigan family farmer's 'David and Goliath' story about her water quality monitoring programs that measure pollution levels from CAFOs, while she documents their impact on local watersheds. Said Yu. "Lynn not only fights water pollution, she also drives a tractor, bakes pies, and feeds anyone who comes into the house."

Their research on water quality issues also led them to scientist Tyrone Hayes, who has been looking at the connection between herbicide run-off and problems in amphibian development. Hayes has had a long-running dispute with the chemical company that originally hired him to study Atrazine.

"Tyrone's is a contentious story, but it illustrates the increased burden on the scientific community to stand up for its research," said Yu. "If you believe your findings have uncovered a threat to public health, are you going to try to help get the word out, even if it means putting your reputation on the line?"

"We especially wanted to talk to the company that produces Atrazine – we were very disappointed that they wouldn't participate," says Pearlstein. "Atrazine is effectively banned in Europe, but not in the US, so we would have liked to have heard their story."

The filmmakers felt strongly that in examining possible solutions to the water crisis, they needed to investigate the various psychological reasons for our resistance to change, even when we know it's for our own good. Early in their

research stage, Pearlstein had read about Paul Rozin, a psychologist who studies disgust, and she was immediately intrigued. Rozin had been enlisted by the Singapore government and the Orange County water district to help with a tough problem: how to get the general public to accept recycled sewage water in their drinking water supply.

“This was a pure case of human psychology butting up against scientific reason,” Pearlstein said. “This water has been proven to be safe, but people instinctively find it gross. We knew that the psychology of change would be a theme running through the film, and recycled water seemed the perfect way to explore it, with Paul Rozin as the ideal guide.”

They came up with the ingenious idea to work with a group of ad experts and create an ad campaign as part of their experiment. But the campaign depended on finding the right spokesman for their recycled sewage water in a bottle.

“When it comes to recycled water, people find it icky even though it’s clean,” said Yu. “So we wanted to experiment with having a celebrity ‘endorse’ recycled water in the same way that celebrities have endorsed bottled water, to see if it would help sway public opinion.”

“Jack Black was cool enough to appreciate the humor of the situation, but also to realize that our water future depends on us getting past our hang-ups to embrace real solutions,” said Pearlstein.

One of the issues that really hit home for Pearlstein as the project progressed was the discussion of public vs. private water. “In the US we have this amazing system of public utilities, but we’ve let it erode,” said Pearlstein. “Municipal water systems exist to provide safe water for everyone. We need to invest in our water systems – in the infrastructure. Even if you think you can opt out -- just buy bottled water or put an expensive purification system in your home -- the truth is that safe water is a public good we cannot do without.”

Although the film primarily focuses on water issues in the United States, there was one special story of cooperation in another part of the world that needed to be told. At a conference on grey water use, Pearlstein met the Israeli and Jordanian representatives of Friends of the Earth Middle East. Having heard so many predictions that wars of the future will be fought over water, the filmmakers found their story of cooperation inspiring, especially in one of the most water stressed and politically volatile places in the world.

“We wanted to highlight the story of the Friends of the Earth Middle East because it presents a hopeful alternative to the idea that conflict over water is inevitable,” said Pearlstein.

With the finished film having stunning graphics as one of the ways the story is illustrated, the filmmakers never lost sight of the fact that they needed to

humanize the numbers and root the facts and figures in real life people and situations as the film was being put together.

Because the film would have so much information, Yu was determined to find ways to make this entertaining. “I love playing with graphics as a way to make visual connections. You can inject humor, irony, or a bracing sense of reality through good graphics,” says Yu.

For the filmmakers, it was impossible to cover this issue without being personally affected by what they had witnessed along the way. “Growing up in California, I thought I was fairly aware of water conservation,” confesses Yu. “My parents always kept a bucket in the shower to catch the extra water for the yard. I have a bucket in my shower again, along with fake grass in the front yard and the 1.2-gallon toilet. Working on this film was an eye-opening experience. There are those moments you wish you didn’t know – but of course, it’s better to know. Otherwise nothing changes.”

“The big picture can feel daunting, but you realize that you can make changes at home immediately.” Pearlstein says. “At my house, we trust our tap water, there’s more ‘if it’s yellow, let it mellow’ and we took out our front lawn. We take shorter showers. My kids have become sensitized – they freak out if someone leaves the water running while brushing their teeth. It really is about consciousness, not taking water for granted, especially when so many people around the world still struggle for the daily water.”

Adds Pearlstein, “You see water everywhere without appreciating it. We have to treat it as the precious resource that it is.”

The filmmakers and Participant Media want audiences to leave the film not only better informed about the crisis, but also with a sense of hope and the determination to affect change.

“We didn’t want to under-represent the challenges presented by water, but we didn’t want to make an environmental horror film either,” says Yu. “It’s about standing back and seeing all sides. Water is a complex, essential and largely hidden resource – it was our goal to try to give viewers a sense of the big picture. Not an easy task, but we felt it was the only way to understand what we’re facing.”

“LAST CALL AT THE OASIS is about awareness – there is so much people can do. Big scale policy at the infrastructure level down to small, individual consumption – like the water required to power a light bulb,” adds Yu. “There’s a lot of contention and emotion around water issues, but the point is everyone needs water, and everyone has some responsibility for its stewardship.”

“You have to protect water whether you live upstream or downstream. It is not someone else’s problem. We all can do something -- no one is exempt,” says Pearlstein.

Weyermann adds, “We are so used to turning on the tap and expecting it to flow as if there is an endless supply of water – we never give it a second thought. I want people to be more aware and conscious of the state of water and to also look at their personal consumption and what we do as a nation. We can’t go back, but there are things that we can do to slow the process.”

LAST CALL AT THE OASIS

Facts About Water

Water

- Less than 1% of the water on earth is fresh water to drink.

Water Usage

- Agriculture is a major user of ground and surface water in the United States, accounting for 80 percent of the Nation's consumptive water use and over 90 percent in many Western States. (USDA Economic Research Service, Irrigation and Water Use)
- In most households, the single largest user of water is the toilet, using 27% of household water – more than a faucet, shower or washing machine.
- We use 6 billion gallons of water per day flushing toilets.

Hidden Water Costs

- 4 pounds of steak = 18,000 gallons of water
- Hot tub = 500 gallons of water
- T-Shirt = 700 gallons of water
- \$1.00 of dog food = 200 gallons of water
- Bath Tub = 35 gallons of water
- Glass of Wine = 38 gallons of water
- One light bulb = 1.4 gallons of water, per hour

Population

- The Global Population is expected to hit 10 billion by 2050. (New York Times, "Coming to A Planet Near You: 3 Billion More Mouths to Feed" 5/4/2011)
- America has the largest water footprint in the world.
- The elevation of Lake Mead has been dropping around 10 feet every year. As of filming, it was about 40 percent full at 1086 feet.

- Las Vegas county, with a population of two million people, will lose its upper intake at a water elevation of 1050 when Hoover Dam stops generating electricity. At the 40% full level, that is only four years away.

Climate Change

- According to the National Resources Defense Council, 1,100 counties across the US -- one-third of all counties in the lower 48 -- will face water shortages by 2050 because of climate change (400 will be severe).
- G.R.A.C.E has shown groundwater losses in Australia that are equivalent to almost 10 Lake Meads.

Regulations

- There are two historic regulations of water in the United States:
 - Safe Drinking Water Act (SDWA), which was passed by Congress in 1974 and regulates the drinking water for Americans (ground and surface waters). Administered by the EPA, the law allows the agency to establish standards for public water systems. However, 40 million citizens use well water, not municipal water, which isn't regulated by the SDWA.
 - Clean Water Act (CWA), passed originally in 1972 by Congress, which regulates pollutants and protects surface waters (rivers, lakes, etc.). Permits must be obtained from the EPA to discharge pollutants into these waters. According to a 2009 article in The New York Times, the Clean Water Act has been violated half a million times in the past five years.

California's Central Valley

- The California Central Valley grows one quarter of all food in the U.S. on over 7 million agricultural acres.

- The Bay Delta, created from snowmelt from the Sierra Mountains which feeds into the San Joaquin and Sacramento Rivers, provides water to 22 million Californians.

The Herbicide Atrazine

- The herbicide atrazine is found in 94% of all drinking water tested by the USDA.
- It is effectively banned by the European Union, although Syngenta, the parent company that produces atrazine, is headquartered in Switzerland.
- Various studies have suggested that atrazine in drinking water is associated with birth defects, low birth weights and reproductive problems among humans, as well as possible links between atrazine and breast cancer. (New York Times, October 7, 2009)
- The drinking water standard for atrazine is 3 parts per billion. That's 30 times higher than Tyrone Hayes found to be biologically harmful in amphibians.

Fracking

- Due to what is often referred to as the "Halliburton Loophole" in the SDWA (included in the 2005 Energy Bill), companies are not required to publicly share the chemicals used in the process of hydraulic fracturing (aka fracking).
- The House Energy and Commerce Committee investigation of fracking "found that 14 of the nation's most active hydraulic fracturing companies used 866 million gallons of hydraulic fracturing products – not including water." More than 650 of these products contained chemicals that are known or possible human carcinogens, regulated under the Safe Drinking Water Act, or are listed as hazardous air pollutants.

CAFO's

- CAFO stands for Concentrated Animal Feeding Operation – usually describes a large industrial farm that has 700 or more cows.

- A CAFO with 6,000 cows produces the same amount of manure as 140,000 people.
- 1 Cow = 150 pounds of manure everyday
- 1 Cow = 23 Humans
- CAFO's generate 500 million tons of manure annually, the same amount as many American cities – yet, CAFOs are not required to treat the waste in the same way as municipalities.
- Diseases and parasites transmitted by animal manure water:
Anthrax, Toxoplasmosis, brucellosis, Ascariasis, Escherichia Coli (E Coli), Coliform Mastitis, Salmonella, Leptospirosis, Listeriosis, Coccidioidomycosis, Giardia, Saphylococcus, Streptococcus, Tetanus, Balantidiasis, Ringworm, Sarcocystiasis, Histoplasma, New Casle Virus, Q Fever, Psittacosis, Foot and Mouth, Hog Cholera.

Bottled Water

- Peter Gleick found that there had been more than 100 cases of bottled water recalls that included things such as coliform bacteria, sanitizer, mold, glass particles, and cricket parts.
- 45% of the water sold in the US originates as tap water (Peter Gleick)
- The US is the largest consumer of bottled water.
- American consumption of tap water has dropped by more than 35 gallons per person.
- Water System Maintenance, Annual Shortfall: \$11 billion
- Estimated Total Spent on Bottled Water in 2008: \$11.2 Billion

Desalination

- There are more than 14,000 desalination plants around the world.
(International Desalination Association Report)

Recycled Water

- 30% of Singapore's water will come from NEWater recycled water produced through the process of reverse osmosis and ultraviolet technologies.
- Recycled water for potable use is occurring nationwide (WateReuse.org) including:
 - Scottsdale Water Campus, AZ
 - City of Mesa, AZ
 - Tucson, AZ
 - Orange County Water District, CA
 - West Basin Municipal Water District, CA
 - Inland Empire Utilities Agency, CA
 - Water Replenishment District of Southern California, CA
 - Victor Valley Wastewater Reclamation Authority, CA
 - Sanitation Districts of Los Angeles County, CA
 - City of West Palm Beach, FL
 - Clayton County Water Authority, GA
 - El Paso Water Utilities, TX
 - North Texas Municipal Water District, TX
 - Upper Occoquan Service Authority, VA

The Jordan River

- Is at 2% of its historical flow due to overuse by everyone in the region (dams, reservoirs and pipelines).

Featured in Last Call at the Oasis:

Dr. Peter Gleick

Co-Founder and President of the Pacific Institute

“The biggest mistake in thinking about water has always been thinking about it as disconnected from everything else.”

“There’s been a lot of talk about peak oil. When the production of oil reaches a peak and then inevitably starts to decline. Like peak oil, there is peak water. We’re reaching the limits of what we can use.”

“California in many ways is the epitome of the global water problem.”

“Australia’s much like California in many ways. It has a very large agricultural community that uses most of the water that humans in Australia use. The one thing that Australia’s had that California has not had is nearly a decade of incredibly severe drought.”

“There’s no doubt that humanity is capable of screwing things up. There’s also no doubt in my mind that we’re capable of fixing things when what we’re screwing up is really important to us. The more we know, the more likely we are to do the right things. And in the end, you do what you can and you trust in the ability of people to learn.”

“Bottled water is regulated not by the US EPA, which regulates our tap water, but as a food product by the Food and Drug Administration. The testing is done by the bottled water companies themselves.”

Dr. Peter H. Gleick is an internationally recognized water expert whose work addresses the critical connections between water and health, the human right to water, the hydrologic impacts of climate change, sustainable water use, privatization and globalization, and ways of reducing conflicts over water resources. Dr. Gleick received a B.S. from Yale University in Engineering and Applied Science, and an M.S. and Ph.D. from the Energy and Resources Group of the University of California, Berkeley. He is the recipient of numerous awards for his work, among them the prestigious MacArthur “genius” Fellowship in 2003 for exemplary contributions to water resources. He was elected to the U.S. National Academy of Sciences in 2006, named “a visionary on the environment” by the BBC, and identified as “one of 15 people the next President should listen to” by *Wired* magazine. Gleick serves on the boards of numerous organizations and journals and is the author of over 100 peer-reviewed scientific papers and book chapters, and eight books, including the acclaimed series *The World’s Water: The Biennial Report on Freshwater Resources* and *Bottled and Sold: The Story Behind Our Obsession with Bottled Water*.

Erin Brockovich

Environmental Activist and Legal Consultant

“We’ve seen what happens in other parts of the world and we just always think that never can be me. It already is you.”

“Every single state has emailed me with some sort of problem. These people are reporting to me. They’re not reporting to an agency. 25,000 inquiries in a month.”

“The EPA’s broke. They got nothing. Nothing. NOTHING. They have 1200 Superfund sites now they can’t do anything with. I am telling you, Superman is not coming.”

“People still believe that that arm of government is going to come save us and the look on their face even kind of startled me.”

“We might find ourselves in a pivotal moment here where we can do the right thing. I always feel hopeful that things work out where...everything converges at once. Maybe that moment’s happening now.”

Erin Brockovich was born Elizabeth Erin Pattee in Lawrence, Kansas, to Frank Pattee, an industrial engineer and Betty Jo O’Neal-Pattee, a journalist. Erin began her career as a legal clerk turned environmental activist who, despite the lack of a formal law school education, or any legal education, was instrumental in constructing a case against the Pacific Gas and Electric Company (PG&E) of California in 1993.

Since the release of the film that shares her story and name, she has hosted *Challenge America with Erin Brockovich* on ABC and *Final Justice* on Zone Reality. She is the president of Brockovich Research & Consulting, a consulting firm. She is currently working as a consultant for the Los Angeles based law offices of Girardi & Keese on the west coast, the New York based law firm Weitz & Luxenberg on the east coast and Shine Lawyers in Australia.

Brockovich received an honorary Doctorate of Humane Letters, and was Commencement Speaker at Loyola Marymount University in Los Angeles on May 5, 2007. She also received an honorary Bachelor's degree from Jones International University and an honorary JD from Lewis & Clark Law School in Oregon.

Working with Thousand Oaks, California-based lawyer Edward L. Masry, Brockovich went on to participate in other anti-pollution lawsuits. One accuses Whitman Corporation of chromium contamination in Willits, California. Another lawsuit, which lists 1,200 plaintiffs, alleges contamination near PG&E's Kettleman Hills Compressor Station in Kings County, California, along the same pipeline as the Hinkley site. The Kettleman suit settled for \$335 million in 2006. After

experiencing problems with mold contamination in her own home in the Conejo Valley, Brockovich became a prominent activist and educator in this area as well.

Brockovich's book entitled *Take It From Me: Life's a Struggle But You Can Win* was published in October 2001 and was on *The New York Times* Business Bestseller's List.

James S. Famiglietti

University of California, Irvine

"The view from the ground is muddied by the politics. The view from space is clear and undeniable. If we go back to 1998, the aquifer has lost about one and a half times the volume of Lake Mead. That's a huge amount of water."

"I think California is in trouble. The combination of climate change, growth, and groundwater depletion spells a train wreck."

"The whole nature of the water cycle is changing driven by change in climate. In our new study we found that the water cycle is intensifying. That truly means a much more stormy future in many parts of the world. And in other regions, we'll have more extreme droughts."

"We need to start planning for the future and it's a future in which we're not going to have a huge snowpack in the Sierras or the Rocky Mountains...it's not going to be there."

"We have to couple the water picture that we see now with population growth. When there's more people and there's no more water coming from the Sierras, and the Colorado River Basin, what exactly are we going to do?"

"How we respond today will define who we are tomorrow."

Professor James S. Famiglietti holds a joint faculty appointment in Earth System Science and in Civil and Environmental Engineering at the University of California, Irvine, where he is the Founding Director of the UC Center for Hydrologic Modeling. His research group uses satellite remote sensing to track water availability and groundwater depletion on land, and has been working for many years towards improving hydrological prediction in regional and global weather and climate models. Before joining the faculty at UCI in 2001, Dr. Famiglietti was an Assistant and Associate Professor in the Department of Geological Sciences at the University of Texas at Austin, and was the Founding Associate Director of the UT Environmental Science Institute. He is the past Chair of the Board of the Consortium of Universities for the Advancement of Hydrologic Science, Inc. (CUAHSI), and past Editor-in-Chief of *Geophysical Research Letters*. Famiglietti is currently leading the Community Hydrologic Modeling Project (CHyMP) effort in the United States to accelerate the development of hydrological models for use in addressing international priorities

related to water, food, economic, climate, and global security. In 2012 he will serve as the Birdsall-Dreiss Distinguished Lecturer of the Geological Society of America, when he will lecture internationally on global water cycle change and freshwater availability.

Robert Glennon,

Author, *Unquenchable*, Professor of Law and Public Policy, University of Arizona

"I know it's a surprise to some people that there is a crisis, but the reality is in the United States, we Americans are spoiled. We have the biggest water footprint in the world."

"The amazing thing about Vegas is that it refuses to let the lack of water constrain its growth."

"All around the United States, the water table in the aquifers is going down. And it took, in many places, thousands of years for this water to accumulate in the aquifers and yet we're going through it in mere decades."

"There are hidden costs of water in almost every product we use."

"People think that the problem is merely drought and that once the drought is over, we can go back to business as usual. It's the hydro-illogical cycle."

"We humans have an infinite capacity to deny reality, to think that there's some oasis out there, somewhere that we can go to get more water."

Robert Glennon is the Morris K. Udall Professor of Law and Public Policy in the Rogers College of Law at the University of Arizona. A recipient of two National Science Foundation grants, he serves as Water Policy Advisor to Pima County, Arizona; as a member of American Rivers' Science and Technical Advisory Committee; and as a commentator and analyst for various television and radio programs. He is also a Huffington Post blogger.

Glennon is the author of the highly acclaimed *Water Follies: Groundwater Pumping and the Fate of America's Fresh Waters* (Island Press, 2002). His latest book, *Unquenchable: America's Water Crisis and What To Do About It*, was published in April 2009. Since then, he has been a guest on *The Daily Show with Jon Stewart*, *The Diane Rehm Show*, C-SPAN2's Book TV, and numerous National Public Radio shows. He's also published pieces in the *Washington Post*, the *Arizona Republic*, and the *Arizona Daily Star*. Since 2009, his speaking schedule has taken him to more than 25 states and to Switzerland, Canada, Singapore, Australia, and Saudi Arabia.

In 2010, the Society of Environmental Journalists bestowed on *Unquenchable* a Rachel Carson Book Award for Reporting on the Environment and *Trout*

magazine gave it an Honorable Mention in its list of *Must-Have Books* ever published on the environment.

Glennon received a J.D. from Boston College Law School and an M.A. and Ph.D. in American History from Brandeis University. He is a member of the bars of Arizona and Massachusetts.

Pat Mulroy

Southern Nevada Water Authority

“People love water. Especially when it’s 118 degrees outside in the summer. We sell virtual reality. People come to Las Vegas to escape their reality and part of that is the cooling sensation of fountains. It looks like prolific waste. What they don’t understand is that the entire Las Vegas strip uses three percent of this community’s water supply and is the single largest contributor to this state’s economic product.”

“There’s a community here of two million people. They cannot survive on 10% of their water supply. Las Vegas disappears.”

Pat Mulroy oversees the operations of the Las Vegas Valley Water District, which serves more than 340,000 accounts, and the Southern Nevada Water Authority, which is responsible for acquiring, treating and delivering water to local agencies that collectively serve 2 million residents and 40 million annual visitors. Mulroy joined the Water District more than 20 years ago and began serving as its general manager in 1989. She was a principal architect of the Southern Nevada Water Authority, which has served as a model for other Western water agencies since its creation in 1991.

As general manager of one of the country’s most progressive water agencies, Mulroy is exceptionally active in regional and national water issues. She currently serves on the Board of Directors of the Association of Metropolitan Water Agencies, and the National Water Resources Association, and on the Board of Trustees of the Water Research Foundation. Additionally, she was the original chairperson of the Western Urban Water Coalition and served on the Colorado River Water Users Association’s Board of Directors.

A resident of Southern Nevada for more than three decades, Mulroy is equally active in the community. She currently chairs the University of Nevada, Las Vegas College of Sciences Advisory Board, and she has served on the Nevada Public Radio Board of Directors. Mulroy also is actively involved with the Diocese of Las Vegas and Bishop Gorman High School. Her honors include the National Jewish Medical and Research Center’s Humanitarian Award, the University and Community College System of Nevada Board of Regents’ Distinguished Nevadan Award, and the Public Education Foundation’s Education Hero Award. Mulroy served as special assistant to the Clark County manager and as Clark County Justice Court administrator before joining the Water District.

Tyrone Hayes, PhD

Professor of Integrative Biology, University of California at Berkeley

“In Europe they utilize something called the precautionary principle, which says that if there is any data to suggest that something’s harmful, the manufacturer has to prove that it’s safe or it’s off the market. So you’re guilty until proven innocent. In the US, it’s the opposite. You’re innocent until proven guilty. So, the company’s charged with proving that their compound’s bad, otherwise it stays on the market.”

“The US Geological Survey says they can detect it [Atrazine] in the rainwater in Minnesota from when they’re applying it in Kansas.”

“It was Albert Einstein, actually, who said those who have the privilege to know had the duty to act.”

UC Berkeley Professor Tyrone Hayes was born and raised in Columbia, South Carolina where he developed his love for biology and frogs. Hayes has since transformed that childhood passion into studying the impact of endocrine-disrupting herbicides and other contaminants on amphibian populations, the environment, and public health. He’s specifically interested in environmental justice issues associated with targeted exposure of racial and ethnic minorities to endocrine disruptors. Hayes’ studies have been published in *Nature*, *Proceedings of the National Academy of Sciences*, and *Environmental Science & Technology*, among many others. He received his Bachelor’s degree from Harvard University in 1989 and his PhD from the Department of Integrative Biology at the University of California, Berkeley in 1993. He’s been teaching at UC Berkeley since 1994. In 2005 Hayes was the recipient of the Jennifer Altman Foundation Award for Integrity in Science, the Rachel Carson Memorial Award, and the National Geographic Emerging Explorer Award.

Alex Prud’homme

Author, *The Ripple Effect*

“Pollution in America is increasing rather than decreasing. In the five years between 2004 and 2009, the Clean Water Act was violated a half a million times.”

“It [desalination] leaves behind it a concentrated brine. It’s not quite like spent nuclear fuel, but it’s close.”

Alex Prud’homme has been a professional writer for twenty years. He has written about a wide range of subjects for *The New York Times*, *The New Yorker*, *Vanity Fair*, *Talk*, and *Time*. His books include: *Forewarned*, with Michael Cherkasky, about terrorism and security; *The Cell Game*, about the ImClone scandal and biotech; and *My Life in France*, with Julia Child, a best-selling

memoir about how Julia learned to cook in Paris (on which half of "Julie & Julia," the Nora Ephron movie starring Meryl Streep, was based).

In June 2011, Scribner published Prud'homme's latest book, *The Ripple Effect: the Fate of Freshwater in the Twenty-First Century*, which inspired Participant Media's documentary film, "Last Call at the Oasis."

The Ripple Effect is about how fresh water will become the defining resource of our time -- "the next oil." Traveling from a vast new water tunnel beneath New York City to the failed levees of New Orleans, polluted wells in Wisconsin, the arid desert of Las Vegas, flood-prone Sacramento Delta, to a "resource war" in Alaska, the book explores water challenges -- from disputes over pollutants, bottled water, energy, privatization, and sustainability -- and solutions -- such as new treatment and conservation technologies, and the growing public dialogue over the value of water. Prud'homme recently discussed the book on "The Daily Show" with Jon Stewart, and with Don Imus on "Imus in the Morning," and has written about flood, drought, water pollution, and levees for *The New York Times*. Prud'homme lives with his wife and two children in Brooklyn, New York.

Tim Barnett

Scripps Researcher

"You don't have to be a scientist to understand that if you take more water out of the bathtub than you put in to the bathtub, the bathtub will eventually go empty."

"The amount of water being taken out of the Colorado system is maxed out right now, and yet there's going to be less. If we don't do anything, Las Vegas is a dead city. Period."

Tim Barnett is a research marine geophysicist in the Climate Research Division of Scripps Institution of Oceanography, University of California, San Diego. His research focuses on the physics of climate change and long-range climate forecasting.

A native of California, Barnett attended Pomona College in Claremont, CA and received a BA in physics and mathematics. He received his PhD in oceanography from Scripps in 1966.

He worked as manager of the Ocean Physics Department at Westinghouse Electric Corporation in San Diego until 1971 when he returned to Scripps as the academic administrator for the North Pacific Experiment (NORPAX). NORPAX studied the interactions of the North Pacific Ocean and the overlying atmosphere on climatic time scales. In 1975 he joined the Scripps Climate Research Division.

Barnett investigates global atmospheric and oceanic conditions and uses computer models to understand global climate fluctuations such as climate

prediction (including El Nino forecasting), the effects of land processes on climate change, and the recognition of greenhouse gas signals (such as sea-level rise). He also specializes in the detection of anthropogenic signals associated with global warming.

He also has worked as an oceanographic consultant for Marine Advisers, Inc. in La Jolla, CA, and as an oceanographer for the U.S. Naval Oceanographic Office in Washington, DC. He has testified before the U.S. Congress and served as an advisor to congress and other governmental agencies on U.S. ocean and climate activities. He has served on numerous National Academy of Sciences panes including the Climate Research Committee and the U.S. Advisory Panel for the Tropical Ocean/Global Atmosphere program. He is a member of several national and international scientific advisory committees

Lynn Henning

Family Farmer and Water Sentinel

“Within a 10 mile radius here, we have over 60 lagoons that hold over 400 million gallons of waste.”

“You have your antibiotics that they give to the animals, growth hormones, chemicals, and now you’ve got a toxic waste that they’re spreading untreated on the land.”

Lynn Henning has emerged as a leading voice calling on state and federal authorities to hold livestock factory farms accountable to water and air quality laws. With her husband, she farms 300-acres of corn and soybeans in Lenawee County within 10 miles of 12 CAFO facilities. Henning helped create the community organization Environmentally Concerned Citizens of South Central Michigan (ECCSCM) and joined forces with the Sierra Club’s Michigan Chapter first as a volunteer Water Sentinel in 2001, and then a staff member in 2005. With their support, Henning has led efforts to develop water quality monitoring programs to measure pollution levels from CAFOs and document their impact on local watersheds. Her data and aerial documentation have been used by the Michigan Department of Environmental Quality to better evaluate CAFO permits and levy hundreds of citations for environmental violations. She was recognized for her efforts as the North American winner of the 2010 Goldman Environmental Prize.

Gidon Bromberg, Monqeth Mehyar, Nader Al-Khateeb

Friends of the Earth Middle East (FoEME)

“Friends of the Earth Middle East is the only regional organization, very sadly, that exists. There is no other organization that brings together Israelis, Palestinians, Jordanians, as one organization in any field.”

--Gidon Bromberg, Israel – Friends of The Earth Middle East

“Here, there has been pollution released from hundreds of thousands of residents. Palestinian, Jordanian, and Israeli that live along its banks. I wouldn’t go into this water knowing what we know. It’s really unbelievable what we’ve done to a river holy to half of humanity.”

--Gidon Bromberg, Israel – Friends of The Earth Middle East

“It’s not that ...if there is a conflict, there must be a war over water, but you will see it the other way around. People meeting secretly to really solve their differences.”

--Munqeth Mehyar, Jordan

“You cannot stop a bird from flying across a certain border. You cannot stop the water to flow across borders.”

--Nader Al-Khateeb, Palestine

Led by Gidon Bromberg, Nader Al-Khateeb, and Munqeth Mehyar, Friends of the Earth Middle East (FoEME) is a one-of-a-kind organization that brings together Jordanian, Palestinian, and Israeli environmentalists. Their primary objective is to promote cooperative efforts to protect their shared environment, as well as advance sustainable regional development and help create the necessary conditions for lasting peace in the region. FoEME has embarked on a multitude of campaigns focused on regional water issues including restoration and preservation of the Jordan River and Dead Sea. Their "Good Water Neighbors" (GWN) project, which aims to raise awareness of the shared water problems of Palestinians, Jordanians, and Israelis, has created a platform for common problem solving and peace building among communities even in the midst of conflict. FoEME is a recipient of the 2009 SKOLL Award for Social Entrepreneurship and the 2008 *TIME* magazine's Heroes of the Environment.

Paul Rozin, PhD

Professor of Psychology, University of Pennsylvania

“Disgust is never really rational. The problem is a mental problem and the same thing can be applied to recycled water. The simplest way to get water is to take the water you’ve just used and make it into usable water again. That’s recycled water. It’s safe. It’s efficient. It’s ecologically sound. It makes total sense. But it’s offensive.”

“We got involved, we talked to the people who run the recycled water facilities. The problem wasn’t making the water pure. It is pure. The problem was convincing people to drink it.”

“The principal of contagion says once in contact, always in contact.”

University of Pennsylvania professor Paul Rozin specializes in the psychological study of disgust. While his focus is primarily on the psychological, cultural, and biological determinants of human food choice, his unique expertise in disgust has

been employed by the Singapore PUB and Orange County Water Department to help understand cultural responses to recycled water and help shape both agency's public awareness campaigns. Rozin earned a bachelor's degree from the University of Chicago in 1956 and a doctoral degree in biology and psychology from Harvard University in 1961. In 1963, he joined the psychology department at the University of Pennsylvania where he's been teaching for almost 50 years. In 1997 he was named the Edmund J. and Louise W. Kahn Professor. He also serves as co-director of the school's Solomon Asch Center for the Study of Ethnopolitical Conflict.

LAST CALL AT THE OASIS

About The Filmmakers

Jessica Yu

Director

Jessica Yu is a director of both documentaries and scripted films. She won an Oscar for Best Documentary Short for *Breathing Lessons*, a film about Mark O'Brien, the poet who was confined to an iron lung. Her feature comedy debut, *Ping Pong Playa* premiered at the Toronto Film Festival and was released by IFC Films. Her documentaries include the theatrical features *Protagonist*, *In The Realms of The Unreal*, HBO's *The Living Museum*, and the hybrid short *The Kinda Sutra*, all of which premiered at Sundance.

As the first director selected for the John Wells Director Diversity Program, she has directed episodes of the NBC dramas *The West Wing*, and *ER*, as well as various other shows including ABC's *Grey's Anatomy*. She also directs commercials for nonfiction spots in Santa Monica. Yu has been the artist-in-residence at the Isabella Stewart Gardner Museum in Boston. She has been a board member of the International Documentary Association, and more recently, an artist trustee of the Sundance Institute.

Yu has also written articles and fiction for the Los Angeles Times Magazine, Buzz, Worth, and the Pacific News Service. She received the Murrow Award for Journalism from the Skeptics Society, the DREAM Media Award from the Western Law Center for Disability Rights and ACV's Asian American Media Award. She has lectured at various universities and conferences. She is a MacDowell Colony Fellow and a Yaddo Fellow. Yu graduated from Yale University, Phi Beta Kappa, Summa Cum Laude, with a B.A. in English.

Currently Yu is in production on a film about the Gorongosa Restoration Project in Mozambique.

Elise Pearlstein

Producer

Elise Pearlstein was nominated for an Academy Award® in 2010 for Participant Media and River Road Entertainment's *Food, Inc.*, directed by Robert Kenner. *Food, Inc.* premiered at the 2008 Toronto International Festival and screened at the 2009 Berlin Festival before enjoying a successful theatrical release, distributed by Magnolia Pictures. *Food, Inc.* was also nominated for two Emmys for its television run as part of PBS' *P.O.V.* series.

Prior to producing *Food, Inc.*, Pearlstein produced Jessica Yu's documentary *Protagonist*, which premiered at the 2007 Sundance Film Festival and was released theatrically by IFC Films and Red Envelope. Pearlstein and Yu also worked together on *The Living Museum* documentary for HBO, and they are

currently partnered on a film about the Gorongosa National Park Restoration Project in Mozambique.

Other credits include the 2006 *Million Dollar Recipe*, a feature-length documentary that Pearlstein directed and produced which uses the lens of the Pillsbury Bake-Off contest to comment on changing roles of women and home cooks. From 2000 to 2005, Pearlstein produced and wrote prime-time documentaries for NBC's Tom Brokaw and the late ABC news anchor Peter Jennings. And in 1999, Pearlstein co-produced and co-wrote *Smoke and Mirrors: A History of Denial*, a feature documentary about the tobacco industry's sordid history that was short listed for the 2000 Academy Awards.

Pearlstein is also producing a theatrical documentary that explores a new wave of efforts to achieve peace in the Middle East through state building and cooperation, rather than conflict and violence.

Jeff Skoll

Executive Producer

Jeff Skoll is a philanthropist and social entrepreneur. As founder and chairman of the Skoll Foundation, Participant Media and the Skoll Global Threats Fund, he is bringing life to his vision of a sustainable world of peace and prosperity.

Mr. Skoll founded the Skoll Foundation in 1999. It quickly became the world's largest foundation for social entrepreneurship, driving large-scale change by investing in, connecting, and celebrating social entrepreneurs and other innovators dedicated to solving the world's most pressing problems. Its flagship program, the Skoll Awards for Social Entrepreneurship, currently supports 85 leading social entrepreneurs whose extraordinary work serves the neediest populations in over 100 countries.

The Skoll Foundation also co-produces the annual Skoll World Forum on Social Entrepreneurship with the Skoll Centre for Social Entrepreneurship at the Saïd Business School at the University of Oxford. The Skoll World Forum unites acclaimed social entrepreneurs with essential partners from the social, finance, private and public sectors.

In 2009, Skoll founded the Skoll Global Threats Fund. Its initial focus is on five global issues that, if unchecked, could bring the world to its knees: climate change, water scarcity, pandemics, nuclear proliferation and Middle East conflict.

Jeff founded Participant Media in 2004 with the belief that a story well told has the power to inspire and compel social change. Participant's films are accompanied by social action and advocacy campaigns to engage people on the issues addressed in the films. Jeff has served as Executive Producer on over 25 films to date, which have collectively received a total of 4 Academy Awards® and 18 nominations. Participant's films include, among others, *Good Night, and Good*

Luck, North Country, Syriana, An Inconvenient Truth, The Kite Runner, Charlie Wilson's War, The Visitor, The Informant!, The Soloist, The Cove, Countdown to Zero, Waiting for "Superman" and Food, Inc.. In 2008, Participant launched TakePart.com, an on-line Social Action Network™ that enables people to learn, inspire, connect and get involved in major issues which shape our lives.

Jeff received a Bachelor's degree in Electrical Engineering from the University of Toronto and an MBA from the Stanford Graduate School of Business. He has been awarded an honorary Doctor of Laws degree from the University of Toronto and an honorary Doctor of Public Service from Santa Clara University. Jeff's other recent honors include Barron's 25 Best Givers (2010, 2009), Huffington Post's "Ultimate Game Changer in Entertainment" among the world's top 100 game changers (2010), Environmental Media Awards Corporate Responsibility Award (2010), the Producers Guild of America's Visionary Award (2009), Global Green USA's Entertainment Industry Environmental Leadership Award (2009), Business Week's 50 Most Generous Philanthropists (2003-2007), Time Magazine's 100 Most Influential People (2006), and Wired Magazine's Rave Award (2006).

Diane Weyermann
Executive Producer

As Executive Vice President, Documentary Films, Diane Weyermann is responsible for Participant Media's documentary films.

Participant's latest documentaries include Davis Guggenheim's *Waiting for "Superman"* and Lucy Walker's *Countdown to Zero*. Other projects include *Casino Jack* and the *United States of Money*, the Oscar®-nominated *Food, Inc.*, the Emmy-nominated *Pressure Cooker*, *Climate of Change*, *Standard Operating Procedure*, *Chicago 10*, *Angels in the Dust*, *Jimmy Carter Man From Plains*, *Darfur Now* and the Oscar®-winning *An Inconvenient Truth*.

Prior to joining Participant in October 2005, Weyermann was the Director of the Sundance Institute's Documentary Film Program. During her tenure at Sundance, she was responsible for the Sundance Documentary Fund, a program supporting documentary films dealing with contemporary human rights, social justice, civil liberties, and freedom of expression from around the world. She launched two annual documentary film labs, focusing on the creative process--one dealing with editing and storytelling, and the other with music. Diane was also part of the Sundance Film Festival programming team, where she was instrumental in creating a platform for international documentary work and responsible for programming the documentary content of the Filmmaker Lodge activities.

Weyermann's work in the documentary and international fields extends many years prior to Sundance. She was the Director of the Open Society Institute New York's Arts and Culture Program for seven years. In addition to her work with contemporary art centers and culture programs in the Soros Foundation network,

which spans over 30 countries, she launched the Soros Documentary Fund (which later became the Sundance Documentary Fund) in 1996. Since the inception of the Fund, she has been involved with the production of over 300 documentary films from around the world.

Carol Baum

Executive Producer

Carol Baum develops and produces motion picture and television projects. Her latest film, *Five Dollars a Day*, directed by Nigel Cole (*Made in Dagenham*), premiered at the Toronto International Film Festival in September and was released in the fall of 2010. This past summer, Carol signed a first-look deal with Fox Television Studios to produce hour-long series. Her next picture will be *Challenger*, the true story of the Space Shuttle disaster. Nathaniel Kahn, who was twice nominated for an Oscar® for his documentaries, will direct.

In June of 2007, Carol's project *You Kill Me*, directed by John Dahl, was released by IFC. In 2005, Baum produced *Sexual Life* directed by Ken Kwapis (*The Office*). In 2003, she produced *Carolina*, which was directed by Marleen Gorris (*Antonia's Line*) and written by Katherine Fugate (*Valentine's Day*). *The Good Girl* was released in August 2002 by Fox Searchlight to outstanding reviews and four Independent Spirit Award nominations. Paramount Classics released *My First Mister* in November 2001. Written by Jill Franklyn, the movie opened the 2001 Sundance Film Festival. Christine Lahti, who won an Oscar® for her short film, *Lieberman In Love*, directed.

She executive produced *Snow Falling On Cedars* from the best-selling book by David Guterson. Scott Hicks (*Shine*) directed, and Robert Richardson, the film's cinematographer, was nominated for an Academy Award® for his work.

Baum entered the world of television with *Tourist Trap*, written by Andy Breckman (*Monk*), which aired on the Wonderful World of Disney on ABC in the spring of 1999.

She teaches Script Development and Producing to graduate students at the American Film Institute Conservatory. Before that, she taught at Peter Stark Producing Program at U.S.C.'s School of Cinema.

Baum was the President of Sandollar Productions for 10 years, where she produced such hits as *Father Of The Bride* and its sequel, in addition to the Academy Award® winning HBO documentary *Common Threads: Stories From The Quilt*, and the quadruple Ace Award-winning HBO Showcase presentation *Tidy Endings*, starring Harvey Fierstein.

Prior to joining Sandollar, Baum was executive producer of David Cronenberg's *Dead Ringers*. She was also a studio Vice-President at Twentieth Century Fox

and Lorimar. Additionally, she developed Taylor Hackford's *An Officer And A Gentleman* and David Cronenberg's *The Dead Zone*.

David Helpern

Executive Producer

David Helpern was born in Boston, Massachusetts and began his career writing about film and politics for the two weekly newspapers in Boston.

In 1974 he directed and co-produced the feature length documentary about film director Nicholas Ray, *I'm A Stranger Here Myself*. In 1976 Helpern was nominated for an Academy Award® when he produced and directed the feature length documentary about the Hollywood blacklist, *Hollywood On Trial*. While continuing to write about film and politics, Helpern co-authored the story for the film *Between The Lines*. Helpern then produced and directed the film, *Something Short of Paradise*.

Moving to Los Angeles in 1982, Helpern produced or executive produced the films; *Dead Heat*, *Something Special* and *Hidden II: The Spawning*. He also was a creative consultant on the long running half-hour syndicated TV series, *Kids Inc.*

In 1992 Helpern was hired to head Film and Television development for a new family entertainment division of Sony, Sony Wonder. He left Sony in 1995 to return to producing; and served as executive producer on *Leave It To Beaver* for Universal in 1998.

In 1999 Helpern became interim CEO of New York based footwear and fashion company, Joan and David. He successfully executed a sale of the company to publicly traded Maxwell Shoes in November of 2000 and returned to full time producing.

Most recently, Helpern executive produced, *Trophy Wife*, for Lifetime Television and *Wild Girl*, for the Hallmark Channel. He is currently developing a number of projects for film and television including, *Walter Reed*, for HBO, written by Ron Nyswaner (Philadelphia) and to be directed by Jim Sheridan, *Sinbad... The Lost Voyage*, for Columbia as well as a number of television pilots.

Jon Else

Director of Photography

Jon Else produced and directed the documentaries *Sing Faster*, *The Day After Trinity: J. Robert Oppenheimer and the Atomic Bomb*, *Yosemite: The Fate of Heaven*, *A Job at Ford's* part of the PBS series *The Great Depression*, *Cadillac Desert: Water and the Transformation of Nature*, and *Open Outcry*. He was series producer and cinematographer for *Eyes on the Prize: America's Civil Rights Years*. Else served as cinematographer on documentaries for PBS, BBC,

ABC, MTV and HBO, including the BBC/PBS *History of Rock and Roll*, the Paramount/MTV feature documentary *Tupac: Resurrection* and *Afghanistan: Hell of a Nation*, *Inside Guantanamo*, and hundreds of commercials and music videos. His feature documentary, *Wonders Are Many: The Making of Doctor Atomic* premiered at the 2007 Sundance Film Festival. Most recently he served as Executive Producer on Jon Shenk's feature documentary *The Island President*.

Else was a MacArthur Fellow and has won four National Emmys, several Alfred I. DuPont and Peabody awards, the Prix Italia, the Sundance Special Jury Prize and Sundance Filmmaker's Trophy, as well as several Academy Award® nominations. Else received his bachelor's degree in English from the University of California at Berkeley and his master's degree in communication from Stanford University.

Kim Roberts

Editor

Kim Roberts is an Emmy winning editor of feature documentaries. Her recent work includes *Waiting for "Superman"*, *Food, Inc.* (nominated for a 2010 Oscar®) and *Autism the Musical* (HBO). Kim won an Emmy for *Autism the Musical*, her third nomination. She has received two Eddie Award nominations from the American Cinema Editors, and a WGA nomination.

Her other films include: Oscar® Nominees and Sundance Grand Jury Prize Winners *Daughter from Danang* and *Long Night's Journey into Day*; *Two Days in October* (Peabody and Emmy winner '06); *Made in L.A.* (Emmy winner '09); *The Fall of Fujimori* (Sundance '05); *Lost Boys of Sudan* (Independent Spirit Award '04); *Daddy & Papa* (Sundance), *A Hard Straight* (Grand Prize, SXSW) and *Splinters* (2011). She also co-wrote and directed the fiction film *Wilderness Survival for Girls* (ContentFilm/Image Entertainment). Kim received her Masters Degree in Documentary Film Production from Stanford University, where she won a Student Academy Award. She is a member of the American Cinema Editors and the Academy of Television Arts and Sciences.

Jeff Beal

Composer

Jeff Beal is one of the most prolific and respected composers working in film and television today. He's won three prime-time Emmy awards, and has been nominated 10 times. His big break in film came when Ed Harris called on Jeff to score his directorial debut *Pollock*. Beal's unique blend of Americana, minimalism, and chamber orchestra caught the ear of many in Hollywood. This led to his relationship with HBO, where he has provided scores for two of their most adventurous series, *Rome* (2005) and *Carnivàle* (2003), resulting in 4 Emmy nominations. Jeff's first primetime Emmy award came in 2001 for his season one theme song to *Monk*.

Frequently called on to score assignments that require a unique and diverse musical approach, Beal won an Emmy for *Battleground* - a one hour no-dialog installment of *Nightmares and Dreamscapes, from the Short Stories of Steve King* (2006) directed by Brian Henson, and starring William Hurt. *Battleground* was a present-day homage to the iconic no-dialog *Twilight Zone* episode, *The Invaders* (originally scored by Jerry Goldsmith). Beal's sweeping and emotive orchestral score for the Ridley Scott CIA mini-series *The Company* (2007) also resulted in a prime time Emmy.

Other notable scores include *Wilde-Salome* (2011), *Appaloosa* (2008), *Little Red Wagon* (2012), *No Good Deed* (2002), *Georgia O'Keeffe* (2009), eight Jesse Stone films and the Golden Globe winning series *Ugly Betty* and *Monk*.

LAST CALL AT THE OASIS is Beal's fourth collaboration with Academy Award® winner Jessica Yu, having previously written scores for *In the Realms of the Unreal*, *Protagonist* and *Ping Pong Playa*.

Beal is currently scoring the new HBO series, *Luck* for director Michael Mann, which stars Nick Nolte and Dustin Hoffman.

LAST CALL AT THE OASIS
Film Team

DIRECTOR OF PHOTOGRAPHY
Jon Else

MUSIC BY
Jeff Beal

MUSIC SUPERVISOR
Margaret Yen

INSPIRED BY THE BOOK THE RIPPLE EFFECT
By Alex Prud'homme

EDITOR
Kim Roberts, ACE

ASSOCIATE PRODUCER
Sandra Keats

EXECUTIVE PRODUCERS
Jeff Skoll
Diane Weyermann

EXECUTIVE PRODUCERS
Carol Baum
David Helpern

PRODUCER
Jessica Yu

PRODUCED BY
Elise Pearlstein

DIRECTED BY
Jessica Yu

LAST CALL AT THE OASIS
Contributors

PETER GLEICK
Pacific Institute

ERIN BROCKOVICH
Legal Consultant

JAY FAMIGLIETTI
UC Center for Hydrologic Modeling

ROBERT GLENNON
Author, *Unquenchable*
Professor of Law and Public Policy, University of Arizona

PAT MULROY
Southern Nevada Water Authority

TYRONE HAYES
Biologist, UC Berkeley

ALEX PRUD'HOMME
Author, *The Ripple Effect*

TIM BARNETT
Scripps Researcher

IVAN LISTER
Rural Outreach Worker, Australia

JOHN AND SANDRA HORKINGS
Dairy Farmers, Australia

JIM PYNN
Newtown Creek Plant Superintendent

SISSY SATHRE
Midland, TX Resident

LYNN HENNING
Farmer and Activist, 2010 Goldman Prize Winner for N. America

KHOO TENG CHYE
CEO, Public Utilities Board, Singapore

PAUL ROZIN
Professor of Psychology, University of Pennsylvania

Friends of the Earth Middle East
GIDON BROMBERG, Israel
NADER AL-KHATEEB, Palestine
MUNQETH MEHYAR, Jordan

AARON WOLF
Director, Water Conflict Management and Transformation
Oregon State University