

# PEAK

December 2012

The Colorado River

## Lifeblood of the West



FROM THE EDITOR

Do you feel strong? By holding this magazine, you are effectively holding at least 77 gallons of water.\* That equates to about 642 pounds. This accounts for the amount of water it takes to process these pages alone. It does not take into consideration the ink on the pages and the printer that printed them, the lights that were turned on while writing this piece, and the computer that was used to edit the pictures. Humans need water to survive. Some may argue we need energy to survive as well. One thing that is certain, modern society is dependent on both.

Just like anywhere else, Coloradans embody an array of opinions and life habits. However, one belief seems to be shared by most who live in the arid west. Water is a valuable and finite resource. This summer, Colorado—like much of the rest of the country—saw some of the driest and hottest conditions on record. Since 80 percent of the state's population lives on one side of the Continental Divide while 80 percent of its water comes from the other, everyone in Colorado is affected by the dry conditions.

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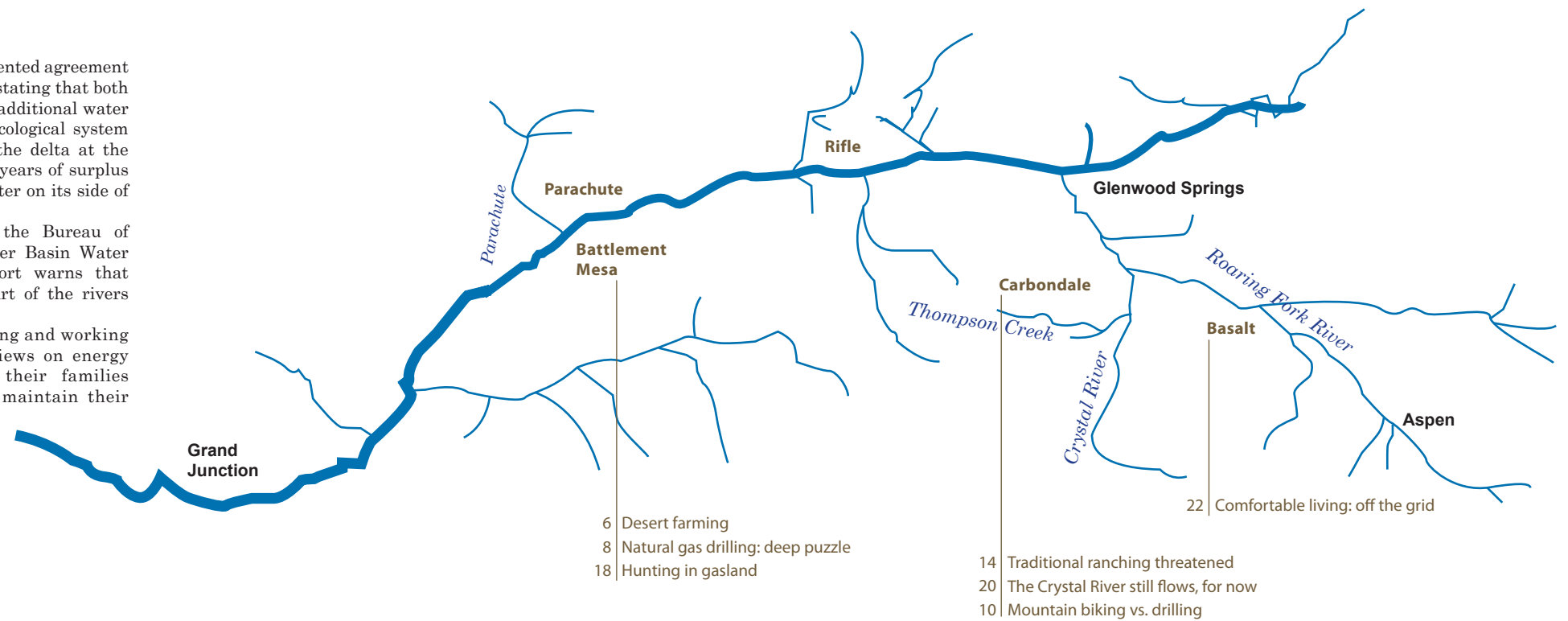
This November there was an unprecedented agreement between the United States and Mexico stating that both countries will supply 5,000 acre-feet of additional water each year to help restore the river's ecological system and in order to help the river reach the delta at the Sea of Cortez once again. Also, during years of surplus Mexico will now be allowed to store water on its side of the border.

Further in the news this month, the Bureau of Reclamation released a "Colorado River Basin Water Supply & Demand Study." The report warns that increased protection is an integral part of the rivers watershed production.

In the stories that follow, people living and working in western Colorado discuss their views on energy and water, and the conundrums their families and future generations will face to maintain their precious homelands.

*Heather Rousseau*  
Heather Rousseau

CONTENT



Students look over Lake Powell from the Glen Canyon Dam during an educational trip about water and energy on the Upper Colorado River with Eco-Flight. (Cover) Jordan Lahti, left and Jeff Montebone prepare to herd cattle from their summer grazing area on the Thompson Divide, an area of proposed gas drilling.

# A RIVER RUNS DRY

Water and energy use along the Upper Colorado River

*The Dolores River Basin is seen south of Grand Junction. The river is a major tributary of the Colorado River. Energy and resource development as well as irrigated agriculture have played rolls in threatening the river's flow.*

STORY AND PHOTOGRAPHS BY HEATHER ROUSSEAU

The Colorado River is the lifeblood of the West, providing power, food, irrigation and recreation for 30 million people.

Farmers like Bill O'Leary fully understand being dependent on the river.

"Water is the most precious resource we have. You can't survive without it and we certainly cannot waste it as the population grows in the western states," he said.

Not long ago, O'Leary enjoyed boating trips to Baja California where the Colorado River once flowed into the Sea of Cortez. Drought, population growth and energy demands on the river have rendered it dry two miles shy of the Gulf of California. Not a drop of water from the Colorado River has reached the sea since 1998, leaving no water from the river for Mexico.

Formerly a biology teacher from Michigan, O'Leary has been farming for 40 years. He sells potatoes and lettuce from his farm in Garfield County at the farmers' markets in Carbondale, Glenwood Springs and Parachute.

"This is the lowest I have ever seen the river," he said.

O'Leary plans to start flood irrigation; he explains that the standard system of irrigating with sprinklers is inefficient and wastes water.

"With sprinklers systems, the water just evaporates into the air," he said. "I'm going to run the water through a pipe, put holes in it, so the water runs to the produce."

Flood irrigation helps to conserve water, but the technique can only be done near geography with a pitch to the land so that the water can flow by use of gravity.

Joan Mayer, an education specialist with Glen Canyon National Recreation Area speaks with a group of students looking at water and energy conservation along the Upper Colorado River.

"You have the Colorado River coursing through your veins," she said, explaining that twenty five percent of the crops grown in the United States use water from the Colorado River.

The use of water for energy extraction and irrigation are two of the largest straws that draw on the Colorado River. The river's headwaters begin in the mountains of the Centennial State all along its 1,800-mile-long watershed, which carves out the landscapes of Wyoming, Utah, Arizona, Nevada, New Mexico, and California.

More than 50 percent of the river is used for energy production between the extraction and refining processes for coal, oil, nuclear and natural gas. Four percent of energy



Lorie Syme of Montrose looks outside at a gas pipeline valve in Battlement Mesa during a tour by Western Colorado Congress. Syme went on the tour because she wanted to learn more about the natural gas boom that has taken place in Colorado and across the country in recent years.



Produce farmer, Bill O'Leary, of Parachute, is very concerned about drought and water scarcity. He is trying new methods to continue his farming, but the drought forced him to sell some of his horses because he could not afford to feed them.

production equates to actual consumption, but this is no small mark, according to Ken Neubecker, executive director of the Western Rivers Institute.

“Water takes a lot of energy, a huge amount of energy—most people don’t realize it. We tend to take water for granted. [Energy takes] more water than we use for agriculture and more water than we use for our cities or for ourselves,” Neubecker said.

Water is used for steam to run turbines and for cooling the system down, especially for nuclear power generation. It is used to dampen dirt roads that lead to extraction sites to keep dust down, and to aid with pressure for some natural gas extraction processes.

Brad Kesler, a local independent water truck driver, fills his truck at Last Chance Irrigation Ditch along the Colorado River off of Interstate 70 between Rifle and Battlement Mesa. He will use 4,000 gallons of water in one day to keep the dust down on stretches of roads that lead to energy extraction areas.

He has lived in Rifle for 20 years and loves the area.

“You want desert, you got desert; you want mountains, you go to the mountains,” he said.

Peering out the window of a school bus, Lori Syme, 60, of Montrose, watches as it rolls past several natural gas wells in Battlement Mesa. “There’s another over here. Wow, look at that rig,” she said to others on the tour.

Syme was on a bus full of concerned citizens looking at gas drilling in Battlement Mesa and Parachute Creek. Two small western Colorado communities, smack in the middle of an area that has a deep history of energy extraction.

The tour was in Garfield County and led by Western Colorado Congress (WCC), an organization of citizens who work on social, environmental, and sustainability issues.

Garfield County is one of the highest natural gas producing counties in Colorado and has been featured in numerous documentary films. One, the award-winning *Gasland*, examines the repercussions and dangers of a newer horizontal drilling technique, called hydraulic fracturing. The process uses millions of gallons of water in the gas extraction process and is causing much of the concern over polluted water tables.

Thousands of wells are being fracked in Colorado alone, and fracking uses 5 million gallons of water per well.

“This is enough water for two average families a year,” Neubecker explains.

Currently, gas drilling on the Front Range, such as Weld County, have the highest gas production sites. The tight sands geology in Garfield County are more expensive to drill from. However, the water required for hydraulic fracturing in Garfield

County can be less intense because the natural geology allows gas companies to rely more heavily on recycled water.

Still, locals in the area have strong opinions for and against the natural gas drilling. Organizations such as WCC are working for stricter regulations on oil and gas companies.

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“This is the lowest I have ever seen the river.”

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There are no laws in Colorado dictating how far away a drill site should be from a river and setback regulations from occupied structures is 150 feet. WCC is fighting for 1,000-foot setbacks from homes and 1,500 feet from schools.

In addition to traditional mineral extraction, the Colorado River basin is the most harnessed for hydropower in the world, and 7 to 8 percent of the entire flow of the Upper Colorado River evaporates. Reservoirs created by hydropower such as the Glen Canyon and Hoover Dams contribute greatly to this.

#### A Wider Horizon

The land is desert; it requires irrigation to sustain its manmade purposes. A great way to see the contrast of shale rock and dry brown desert landscape is from the air, seeing



A directional natural gas well is drilled on private land in Parachute. Gas drilling supports the economy. Local activists are fighting for stricter drilling regulations.



*(Above) Shawn Taylor, of Snowmass Village, rides his bike on Red Hill overlooking the town of Carbondale. Mount Sopris, off in the distance, and the surrounding landscape is also a playground for the outdoor minded residents. Carbondale veils the the Thompson Divide, where local ranchers are offering to buy oil and gas leases to prevent drilling on the public land. In addition, the Hidden Gems Campaign has proposed "wilderness area," on potential drilling sites. This has upset some bikers and climbers because pieces of their playground would no longer be available to them. Wilderness areas are foot traffic only. (Right) Deer graze on irrigated ranching land underneath the power lines in Parachute, which is also an area for hunting. If it were not for irrigation from the Colorado River, the desert scape would not enable grazing for local wildlife in the area.*

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“Water and energy are inextricably linked. Each is dependent on the other. You have to have energy to produce water and you need water to produce energy.”

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the contrast of the vibrant green world below created by irrigation. Eco-Flight took students up in a plane to see for themselves while encouraging the students to think about these conundrums. This year during their annual ‘Flight Across America,’ they flew over the natural gas fields of Garfield County, coal-fired power plants in New Mexico, and the Glen Canyon Dam.

Calvin Davenport, 28, is studying environmental science and grew up in Grand Junction. He describes himself as an outdoor recreationalist who loves to hunt, kayak, bike and ski.

“I think everybody needs to be mindful of their consumption,” he said after the flight. “Just imagine everyone trying to live the way you want to live. We need to live within our means.”

In order to do that he plans to change some of his habits, such as washing his truck less often and being more aware of his water use.

Darrell Harrington, an area water truck driver, explains how he sees the situation.

“Without water the gardens don’t grow and without water the U.S. don’t grow,” he added, “We need gas just like we need water, to get around. Water helps you walk around and gas helps you drive around. We all want to live in a natural world but it is basically impossible.”

If our consumption leaves others with none, such as Mexico, can we truly say there is not a problem? Is it okay to stand by and continue to use the water how we want? And if

not, people like Laurel Hagen, executive director of Canyon Lands Watershed Council, asks the hard question:

“How do we get [the water] to one population over another?” She is speaking to the group of Eco-Flight students.

“Right now, because urban populations are growing pretty fast, they are the ones who actually have the increasing demand for water,” she told them.

Basin diversions do not just include places like Denver and its suburbs but also big cities like Los Angeles and Las Vegas that hold a lot of water rights. Though cities like Las Vegas are getting better at lowering their per-capita water demand, water use is still growing, because their populations are growing.

“We can conserve all we want but eventually we are going to hit a wall if our population keeps going up,” Hagen said.

#### **Drilling vs. Ranching**

In reference to the drought in the Midwest this past year, Neubecker noted, “It did not affect just farmers, it also affected the energy supply. It caused rolling brownouts and blackouts in major cities. They were running out of water. They had to make a choice.”

Rancher Roy Savage understands this all too well.

“I saw the drought coming so I sold all my cows,” said Savage, whose family has a 60-year history of raising cattle in Parachute, another western Colorado community. “You can’t



## A UNIQUE WATER SOURCE

**30 Million People**

are dependent on the Colorado River for power, food, irrigation and recreation.

**85%**

of the consumption area is desert compared to a 15 percent watershed production area.

**0 Drops of Water**

from the river have made it to its estuary at the Gulf of Mexico since 1998.

**25%**

of the food grown in the U.S. is grown with the Colorado River's water.

**55%**

of the water we use from the river is for energy extraction and refining processes for coal, oil, nuclear and natural gas.

*(Left) Michelle swims with her daughter Regan at the Battlement Mesa Community Center as concerned citizens discuss natural gas drilling in the area during the Western Colorado Congress annual meeting. The community center was fully paid for by the oil and gas company EXXON. Garfield county has been one of the largest producers of natural gas in Colorado.*



*While sorting cows, Molly Fales, 26, rests her hand on her Hamley Saddle from the 1950s that was once her grandmother's.*



*Frank Houpt helps herd cattle down from the Thompson Creek after summer grazing. This is the same area of where there are lease for gas drilling.*



*Bill Fales, with Cold Mountain Ranch looks out over his cattle. He loves ranching and is doing everything he can to protect Thompson Divide from gas drilling.*

make ends meet with cows, and oil and gas is the only thing that provides enough revenue so you can keep the ranchers.”

Savage, a rancher turned energy entrepreneur, also rents his land to other local ranchers for their cattle to graze on.

Savage speaks about the water and energy nexus in a thoughtful and concerned manner, yet he is also very matter-of-fact.

“Water and energy are inextricably linked,” Savage explained. “Each is dependent on the other; you have to have energy to produce water and you need water to produce energy. The question is, what are the resources you are using and what are the resources you need?”

In another world, just 40 miles east of the desert scape and historically driven gas economy of Garfield County where Savage lives, is Cold Mountain Ranch. Located just under 8,000 feet and surrounded by ski towns of the Roaring Fork Valley, one can admire the river’s source, snow packed mountain peaks. The bases of the 14,000-foot high mountaintops hug the valley’s arid landscape below. Here William Fales has managed to keep his 300 head of cattle, which graze on a wide-open valley of alfalfa and irrigated grass—but not without a fight. Drought and the possibility of natural gas development in the nearby high country has Fales concerned about his water source.

“We rely on Thompson Creek water which is right above here,” he said.

“If that water is polluted, I do not want to be spreading it on our fields, and without irrigation our farm would produce five percent of what it is producing today.”

Fales helped start the Thompson Divide Coalition to try to protect the Crystal River Valley from the impacts of gas drilling.

“It is just a spectacular yet somewhat fragile area that we are trying our damndest to maintain and protect the values it provides to this valley today,” he said.

Fales is hoping he can get the gas companies to hold off on leases they have had on 220,000 acres of land since 2003.

“The current price of gas in the west makes it totally uneconomical to develop these leases, but they are worried if they don’t do anything the leases will expire and they won’t have anything,” he explained.

The Thompson Divide, one of the largest areas containing mid-elevation habitat, is a swath of land surrounded by heavy gas development to the north and west. Zane Kessler, executive director of the Thompson Divide Coalition, describes the area as “a mecca for cross-county skiers and other recreational interests.”

What would become of the fragmented landscape and water quality and quantity is a big concern for the locals.

“The volume of water they need for fracking is mind-boggling,” Fales said.

“There is a limited supply and it is over allocated today and over adjudicated today so I do not think there is any extra water, which means they would have to haul it all in from someplace else,” he added.

The water use is not the only concern. “In order to develop the minerals within Thompson Divide on an industrial level, it is going to require some serious road building, two-track roads for semi trucks,” Kessler explained.

Runoff from the roads will affect the Crystal River watershed and its world-class trout waters.

This is why the coalition is attempting to buy up the leases from energy developers.

“The short-term economic benefits of oil and gas production cannot compete with the long-term sustainability of unique local communities that have built a successful agricultural and recreational economy. All the uses combined are more valuable in the long run.” Kessler said.

#### Protecting a Way of Life

Fales and his wife, Marj Perry, pride themselves on raising local grass-fed beef. The ranch has been in Perry’s family since 1924. Bill and Marj and their two daughters love ranching and being on the land.

“Look around, what’s not to love about it?” Fales asked. “I mean out here, working in a spectacular environment. I get a lot of pride in taking care of this land. I also take a lot of pride and get a lot of satisfaction out of growing good, healthy food.”

Fales voice is soft and thoughtful. “Springtime, when we are calving, just watching those baby calves get up and get going is just all really rewarding and fun.”

The family wants to have healthy cattle and is concerned that if large-scale gas development goes into the heart of the summer high country, where the cattle graze, it will affect the cattle’s health.

The Thompson Creek Divide area, which is also partially in Garfield County, is rich in biodiversity and natural

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“It is just a spectacular yet somewhat fragile area that we are trying our damndest to maintain and protect the values it provides to this valley today.”

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*(From left) Ty Jocober, Rio Jocober, Wilder Jocober, and Jordan Lahti prepare to sort cows after bringing them down from the summer feed land of the Thompson Divide.*





Michael Lewis, left and Thomas Ball, both from Maine, gut an elk they shot on Roy Savage's land, who watches while holding his 4-year-old daughter Abigail. Savage grew up ranching, but sold his cattle because of the drought and has been able to keep his land by allowing gas and oil companies to drill on it.

Michael Lewis, left, Roy Savage, center and Thomas Ball enjoy coffee and conversation after coming in from hunting. Lewis and Ball do not see the natural gas drilling that takes place on Savage's land as a threat to the sport they love. The elk they shot was in a herd grazing near a drill pad.

resources. It has three major forks that drain from their Elk Mountain headwaters into the Roaring Fork River watershed, including Divide Creek and the Crystal River.

The area is a backyard playground to the town of Carbondale, where the beloved Mount Sopris and its surrounding spruce and aspen forest accommodate hikers, bikers, skiers, hunters and fishermen.

It is a lifestyle that is outdoor-centric and the locals feel very connected with their surrounding landscape.

"I just love the river; it feels incredible," Allison Austin, a local resident said, while looking up through rising steam at a thick blanket of stars and relaxing in natural hot springs along the Crystal River just outside of Carbondale.

In the springs your body can feel like it is boiling even on the chilliest evening and you can reach over and feel the snowmelted river flow past your fingertips. Ranchers use the Crystal River for irrigation; it also provides the town's

water supply.

The Crystal is one of the only free-flowing rivers in the United States, it has no dams, but its pristineness is threatened. American Rivers included it on their list this year of America's Most Endangered Rivers due to a proposed hydropower dam and water diversions.

#### Dealing with Drought

As the west knows all too well, water quality and current quantity are not the only threats to the Colorado River. This year's drought was very severe, Fales said, perhaps the driest anyone in the area has seen in their lifetime.

"We had virtually no snow pack last winter, which was unprecedented, and then March, April, May and June were the driest I think on record. We had no moisture," he said.

Cold Mountain Ranch had enough feed this year because Bill and Marj managed their land well and had some leftover

feed on reserve, but if the drought is as bad for another year, they will be forced to sell some of their cattle.

"The water is an incredible valuable commodity to us. We just wouldn't grow any feed without it," Fales said.

"This ground is totally dry, the area is too dry to grow much feed with out water."

Still, some ranchers, like Savage, felt they had no choice but to sell their cattle and replace them with natural gas drilling in order to keep their land.

When asked what he thinks the difference is between the Colorado River Valley and the Roaring Fork Valley, home of the Aspen ski resort, he said, "Probably 80 percent of the people who live here work there. They are different universes—rural residential homes here and an overvalued home industry there based on ski areas."

(It should be noted that the ski industry is also heavily reliant on natural precipitation—in the form of snow—and

local water sources for snow making.)

Savage hopes to buy back some of his cattle one day, but for now, the gas wells on his property are keeping him from losing his land. He is concerned about pollution incidents that have occurred nearby, presumably from gas drilling, especially since he pumps well water out of the Colorado River aquifer for domestic use.

Despite this, he believes that "as far as pollution is concerned, the oil and gas industry is probably less of a threat than the general public," due to people dumping chemicals and overusing fertilizer. Savage is also not too concerned about long-term water shortages.

"You'll stop irrigating the golf courses before people die of thirst," he said. "I think as water gets more expensive as we get more and more people, we are going to have to get much more efficient in our use of water."

Holding his four-year-old daughter, Abigail's, hand, Savage



*Hidden along the Crystal River, people soak in the Penny Hot Springs. The Crystal River is one of the last free flowing rivers in Colorado; however this year it is on American Rivers endangered list due to a proposed dam and water diversions upon which local ranchers depend.*

walks up to his home overlooking the expansive land of cows, an irrigated drinking pond for cows, and gas wells.

“I think it is important for her (Abigail) to grow up on her own family’s ranch because it will give her a place to roam,” he mused.

Savage even takes Abigail to see his friends who are avid hunters, as they gut a deer they shot that had been grazing near the gas pads on his land.

“Being a part of a piece of land, big or small, I think, gives a person a wider horizon, lots of details to work out, keeps one in touch with the neighbors, and makes travel more interesting. It gives one perspective,” Savage said.

He then talks about when he was growing up in the 50s and 60s. “...the real problem here was that there were not enough people; there were no jobs,” Savage said.

What happens when your kids grow up, what are they going to do? They can’t all be cattle ranchers.”

**Where are we Headed**

When talking to the Eco-Flight students, Laurel Hagen suggested that the answer to water preservation is a combination of endeavors; from improving technology, to renewable energy such as solar panels, decreasing consumption, and limiting population growth.

“Obviously we need some power; there is no question [whether or not] we are all going to suddenly live like cavemen,” she said.

Neubecker seems to agree, saying we have to look at totally different ideas and solutions. He evokes a quote from Albert Einstein:

“We can’t solve problems by using the same kind of thinking we used when we created them.” ■



(Above) Lily Janssen, behind left, watches as her mom and sister, Ginger and Laela Janssen, pick tomatoes from their green house. (Right) Their home is on Basalt Mountain, which overlooks the Elk Mountain Range. Ginger and her husband Robb built their home on a very site-specific location that lends to renewable and minimal energy use.



# Off the GRID

Renewable energy, minimal impacts and a comfortable life

STORY AND PHOTOGRAPHS BY HEATHER ROUSSEAU

**T**he Janssens' first home was a Volkswagen bus, the second a teepee, then a cabin that was basically four walls, no running water or power, just wood heat. The cabin was a huge upgrade at the time.

"We were just thankful for walls," said Robb Janssen, who now lives in a 2,800-square-foot house, completely off the grid. The Janssens' home is made mostly of reused and recycled materials and boasts a two-car garage. "It's too big," Robb joked, even though he, his wife Ginger and their two middle school-aged daughters, Lily and Laela, live in a valley with its share of luxury homes ranging from 5,000 to 10,000-plus square feet.

The house was a labor of love for Robb and Ginger who took six years to build their dream home with their own sweat equity, along with a considerable amount of help from friends. It started with a drawing a plan on a piece of paper



Robb and his daughter Lily gut pumpkins grown in their garden to make pumpkin pie from scratch. The teepee Robb and his wife Ginger once lived in can be seen outside on the hill.



Laela Janssen swings from a sheet on the family's indoor climbing wall. Her mom, Ginger, was once a competitive climber.

while living in their tiny cabin on their plot of land atop Basalt Mountain, overlooking the Roaring Fork Valley at the snow capped peaks of the Elk Mountain range beyond. "We live in a very site-specific place," Robb said.

The Janssens have springs above their property that feed into a creek; the creek then powers the entire house. "I turn on a power tool and I think wow, the little nozzle hitting a little wheel in the shed over there makes it so I can use power," he said. "I think it's just fascinating and I wish other people could enjoy that."

Janssen acknowledges that hydroelectric power is not the only answer for renewable energy. It can have drawbacks when expanded from operations like the Janssens to big dams with reservoirs, such as the Glen Canyon Dam, which becomes a complicated issue in and of itself.

Rob and Ginger had always enjoyed traveling and playing outdoors. Ginger used to be a competitive climber, which explains the commercial size-climbing wall they have in an upstairs room. The two use their ingenuity and connection with nature to branch out to the local Basalt, Carbondale and Aspen communities with their organic gardening

business, Basalt Mountain Gardens. Though the business has been very successful, they still have time to sustain their own greenhouse, which is almost as big as their home.

Ginger reaches over her head to pick cherry tomatoes from thick dark green leaves as she hands them to her daughter, Lily, who places them in a basket. They are surrounded by an abundance of fresh vegetables and tropical fruits, which eventually make their way into the family's kitchen.

They wash the veggies in the deep washtub-sized sink Robb salvaged from the nearby Aspen dump. Even the tile floors and counter tops were put together as a mosaic of leftover pieces from the building of other homes used in the valley. Ginger starts to plan dinner as she and Robb help Laela carve out pumpkins to bake a pumpkin pie for a school potluck the following day.

"We have a very good friend who worked at a counter top place," Robb explains. "We live in an affluent valley and a lot of times there are leftover chunks."

With pie in the oven and Ginger starting to prepare a spaghetti-squash dinner, Robb encourages Lily as she practices her trumpet. He considers bringing out his guitar

to join her. Then decides against it. Lily looks at time-lapse photography she has been shooting on her computer.

"Our game is to not burn propane, and if we were to use all the lights in the house we would be using more energy than we are making and at some point the generator would turn on so we try and make sure lights are turned off," Robb explains, "But we try and not say, 'oh only one light per person.' We want it to be bright enough to play and read books and have the kids practice their instruments and try and live a semi-normal life instead of always having a parent telling them to stop using energy."

He understands that there is a family balance involved. "In a way it's a sense of freedom but in another way we are kind of tied to maintaining the system if it freezes and all that kind of stuff. I do it because I like to do it. I like to show that it can be done."

Dinner is ready. Ginger dishes out steamy spaghetti-

squash with fresh herbs and tomatoes and melted cheese. Lily eats all the cheese off the top of her meal, and then steals some from Ginger's plate.

"I'm just going to have cheese for dinner," she says, and gets up to melt more cheese on the stove to drip over her untouched squash.

Maybe someday the Janssens will make their own cheese. They already have chickens, ducks, turkey and goats.

"It's interesting to coexist with other critters," Robb said. "Chickens make eggs and they also make meat, the ducks make eggs and a lot of noise...the goats, I don't know what they are doing.

Ginger wants them to make milk at some point. Most people here slaughter them in the fall, but when you have kids, they all become pets."

The Janssens' home still truly is a low-impact, low-

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"We like to use the word 'sustainable' and that kind of stuff but the only way we can be sustainable is if the valley is still here."

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*(Above) Laela practices her trumpet while her father Robb encourages her. (Below) Lily uses her computer just after the sun set behind the mountains in their front yard. Robb says he wants to try and conserve energy use, but wants it to be bright enough to "...try and live a semi normal life."*



*Ginger Janssen collects eggs from their chickens and ducks. The Janssen family also have goats Ginger hopes to get milk from someday.*

consumption home. Even the design and location was well planned with sustainable living in mind.

The south-facing windows and calculated overhang control the amount of sunlight let in during summer versus winter months, and the mountain pitch is just steep enough so that wind blowing down it forms a natural refrigerator.

"We like to use the word sustainable and that kind of stuff but the only way we can

be sustainable is if the valley is still here. We can't be isolationists," Robb said. "This place would fall apart if I couldn't go to Grand Junction Pipe or to Valley Lumber to purchase parts that wear, like a light bulb that wears or a pipe that breaks."

He added, "I don't know what the girls think, but I wonder if they are going to get up and move to New York City when they are done with this whole thing. But they seem to like it." ■

