

Foothills: Arrow in renewable energy target



The Foothills Solar and Substation Project spreads over 19 acres of Meadowbrook Ridge in west Loveland, seen here against the backdrop of Meadowbrook Natural Area, Namaqua Hill, Mariana Butte Golf Course, Bodecker Lake and the Front Range. *Photo courtesy Namaste Solar*

Solar project leads Loveland toward green power goal

Think of any pursuit – whether in sports, business, education, politics or any other arena – that requires hitting a target.

Think how nice it might be to know that the target has already been hit, a bullseye, well ahead of a deadline for that achievement.

The City of Loveland Water and Power Department and its customers are in that enviable position now.

Loveland's near-term growth projections mean the City will join others in Colorado that watch a running clock.

By 2020, any city-operated electric utility with more than 40,000 electric customers must match a state standard requiring that 10 percent of the energy they consume be derived from renewable energy sources.

The City in December flipped the "on" switch at the Foothills Solar Project, a vast array of solar energy collection panels in west Loveland. The minute that energy flowed to the city's power grid, the City not only hit that target, it exceeded it.

Loveland's current population growth rate – about 2.5 percent annually – means its electric utility likely will hit the 40,000-customer threshold within three years. With the 19-acre Foothills solar field online, the City's renewable energy share rose to 12.8 percent.

Born of the Flood

While that in itself is a good story, the one telling how it came to be is even better.

The September 2013 Flood of the Big Thompson River caused \$30 million in damage to City property. Especially hard-hit was Idylwilde Dam, in the canyon 10 miles west of Loveland, and its hydroelectric

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Renewables (from page 1)

generators just downstream at the City's Viestenz-Smith Mountain Park.

Just a few days into the flood's frantic aftermath, Loveland Water and Power managers convened a phone conference call with officials from federal agencies including FEMA, the U.S. Army Corps of Engineers and the U.S. Forest Service, and Colorado's Department of Transportation.

Their topic: The nearly destroyed dam, and the equally damaged highway, U.S. 34, that ran by it. The proposal: Use the many thousands of cubic yards of Idylwilde's concrete to rebuild parts of the highway that had been dumped by floodwaters into the Big Thompson River.

That decision paved the way for the near-miraculous reopening of the road in mid-November. It also led the City and FEMA to strike a deal so creative, so out-of-the-bureaucratic box, that it enjoys status of being the nation's first of its kind.

Green power exchange

FEMA determined the loss of the dam and its generators was worth slightly more than \$9 million. The City-federal team then hatched the idea to replace the renewable energy generated by the dam with another renewable energy source.

Foothills, and its 10,332 solar panels arranged in 149 rows with a mechanized tracking system to maximize exposure, provided the ultimate answer.

"What we lost at Idylwilde we regained with Foothills, and in a



Acting Water and Power Director Gretchen Stanford, left, and **Senior Electrical Engineer** Briana Reed-Harmel, co-directors of the Foothills Solar Project, stand in an array of photovoltaic panels at the 19-acre west Loveland site that will generate 3.5 megawatts of electrical power.

very creative way," said Gretchen Stanford, Acting Director of Loveland Water and Power. "This project does more than just generate electricity. It lifts a huge burden of having to pay some steep capital costs to meet the state standard, and that's great for our customers."

The project's location, directly adjacent to Mehafeey Park, also makes it a perfect venue for solar energy education programs, Stanford said.

In building Foothills, the City and contractor Namaste Solar of Boulder raced through the 2016 calendar toward a critical date, Dec. 31, marking the deadline for solar projects to qualify for a state incentive that was key to hitting the renewable threshold. **(See below.)**

The Foothills solar field cost \$5.1 million, leaving another \$4 million that FEMA authorized to pay

for an adjacent power substation, adding capacity to the City's grid and replacing an older substation that also had been flood-threatened.

Exceeding projections

From the moment the Foothills solar generators activated, they exceeded capacity. On the winter solstice, Dec. 21, with the sun at its lowest angle on the year's shortest day, it produced 2.5 megawatts of power, more than project engineers from the City and Namaste project engineers thought possible.

On a good day, generators below the old dam at Idylwilde produced about 900 kilowatts of electricity, far less than the Foothills solar collectors will generate as they track the midsummer sun.

"The City's decision to upgrade to solar more than triples the power output of the former Idylwilde Dam," Namaste Solar CEO Dave Vorlage said.

How Loveland's 12.8 percent renewable recipe works

Solar power generated at the Foothills site represents a small fraction of Loveland's mix of renewable energy sources, with most coming through the City's co-ownership of the Platte River Power Authority.

Platte River's owner cities – Loveland, Fort Collins, Longmont and Estes Park – each get a share of the power provider's portfolio of renewable energy from hydroelectric, wind and solar sources. Loveland's renewable slice from Platte River's amounts to **10.1 percent** of total energy use.

Foothills' output adds to that, but not just through the power it produces. State law setting Colorado's Renewable Energy Standard fosters solar power development by giving solar projects activated before Dec. 31, 2016, a renewable credit equal to three times the energy produced.

Thus, for each megawatt generated at Foothills, Loveland receives 3 megawatts of credit toward the standard, contributing **2.7 percent**.

Online Sources

Visit these websites for more information on renewable energy in Loveland and Northern Colorado.

- CityofLoveland.org/FoothillsSolar
All about the Foothills Solar Project, including a real-time display of its power output.

- CityofLoveland.org/Renewables
Learn about the City's renewable resource mix, and ways to boost your use of green energy sources.

- PRPA.org
The electric power provider for Loveland and three other owner cities. Renewable information: click "What we do," then "Carbon-free Resources"

The City's development review team: More than names and numbers

City of Loveland employees typically appear in staff directories on the City website as names paired with phone numbers.

The staff at the new Development Center have decided collectively they want more.

The "DC," as it is known broadly, opened in April as the City's single-stop resource center for all building and real estate development needs, from the simplest building permit for a kitchen remodel to complete plans for a million-square-foot retail plaza.

The DC's customers are members of the construction and real estate development community – contractors, engineers, architects and brokers – usually affiliated with companies that have websites that provide lots of personal information about them.

Members of the DC's Development Review Team don't necessarily want everyone to know what breed they bring on "Take Your Dog to Work" day, or what song is most often tagged "repeat" on their iPods. But they do want to connect with their customers on a more personal level.

"The work we do is so relationship-based," said Kerri Burchett, principal planner on the Development Review Team. "It's easier to kick off that relationship if our customers know something about us before we meet. That's why we're doing this."

The DC's website now opens up to faces, each with a clickable bio-box that offers some information beyond phone number and title.

To meet the 14 members of the Development Review Team, and find enough information to break some ice, visit

www.CityofLoveland.org/DC.

Kerri Burchett, AICP

Before joining the City in 2000, Kerri worked as a planner in Riley County, Kan. and Weld County, Colo. She took a brief sabbatical from the City in 2004 to work as a planning consultant in Traverse City, Mich. but was quickly drawn back to sunny Colorado where she resumed her work with the City.

Kerri enjoys working with customers, helping shape the built environment and partnering with developers to create great projects for the community.

Kerri earned her bachelor's degree in urban geography and a master's degree in regional and community planning from Kansas State University. She is a member of the American Institute of Certified Planners.

Melissa Morin, PE

Melissa earned bachelor's and master's degrees in civil engineering from the University of Colorado and began her professional career



working for an engineering firm that focused on land development. She later joined Loveland Water and Power and worked there for almost a decade before joining the DC.

Melissa's favorite part of working for the City is being able to put her skills to use in a variety of different development projects, each with their own unique set of challenges. Seeing the transformation of projects from design to construction is very rewarding for her.

Scott Pearson, PE, CFM

Scott was hired as an engineering intern in 2012 but was quickly promoted to the position of planning technician and soon after that became an engineering technician for the Public Works department.

Through his work with the development review team, Scott reviews all subdivision plats and easements, assigns addresses for property, and provides engineering support for public works capital improvement projects.

Scott has an associate's degree in civil engineering technology from Pueblo Community College and is currently working on his bachelor's degree in civil engineering at Colorado State University.

Scott's passion for engineering stems from his love of figuring things out.



Loveland Museum celebrates St. Patrick's Day with Fiddle in the Gallery

Celebrate Saint Patrick's Day at the Loveland Museum with a high-energy cocktail party that will have you seeing green.

Enjoy live music, delicious libations, fun (adult-friendly) St. Paddy's Day-inspired activities, crafts and more!

Tickets are \$35 each and include:

- Live musical performances from internationally touring fiddle player Adam Agee
- Admission and a self-guided tour

of the Main Gallery exhibition: *All the Places You Go: Journeys, Dreams and Imagination*

- Unlimited hors d'oeuvres and host beverages (alcoholic and non-alcoholic options)
- Fun, adult-friendly activities and crafts inspired by Irish arts and traditions
- Free souvenir prints from the event photo booth
- Souvenir Fiddle in the Gallery party favors.

Proceeds from the event benefit the Loveland Museum and will help fund future exhibitions, programs and events.

Tickets can be purchased online at lovelandmuseumgallery.org/fiddleinthegallery.



Volunteers needed

Loveland Open Lands is expanding the Outdoor and Environmental Education program and needs more volunteer instructors. Free training begins March 20 and programs start in April.

Volunteers must have availability during school hours. No experience necessary, background check required.

Call 962-2643, email michele.vanhare@cityofloveland.org, or www.cityofloveland.org/OLvolunteer.



Chilson Recreation Center

SPRING BREAK PASSES

ON SALE
FEB 20TH

**Passes are good for
UNLIMITED use of the
Chilson Recreation Center
during Spring Break:
March 11 - 19**

COST:

Youth = \$12 Adult = \$17

Call (970) 962-2FUN for more info!

Chilson
Recreation Center

700 E 4th Street / Loveland, CO
970-962-2FUN / CityofLoveland.org

Children's Day

Celebrated in Loveland since 2002

**Friday, March 10
11:00am-2:00pm**

Families can enjoy fun activities at the Annual City of Loveland Children's Day around the Civic Center Lagoon and inside the Library & the Chilson Center!

Activities Include:

- "Touch a Truck" - Police Cars, Fire Engines & More
- Safe Kids Bike Helmet Fitting & Bike Rodeo
- Story Time & Puppet Show
- Arts & Crafts
- Performances by Area Groups
- Chilson Rec Ctr - FREE Child Admission (w/paid adult)
- Vendor & Sponsor Booths
- Win Prizes by Collecting Stamps
- Plus MUCH more!



For more info, visit:

CityofLoveland.org/ChildrensDay



St Patrick's Day LUNCHEON

at the **Chilson Senior Center**

Have fun celebrating St Patrick's Day with delicious corned beef & cabbage, shamrock cake & lively Irish entertainment! Bring a canned food donation for the House of Neighborly Service.

**Reservations must be made by
Thursday, 3/16 at 1:30pm by calling
(970) 472-9630. Seating is limited.**

Fee: \$2.50 suggested donation

**Friday, March 17
11:45am-12:45pm**

Chilson
Recreation Center

700 E 4th Street • Loveland, CO
(970) 962-2FUN • CityofLoveland.org

WORK OUTSIDE!

Seasonal Employment at the City of Loveland

GOLF

- Maintenance
- Starters
- Pro-Shop Workers
- Play & Tee Managers
- Cart & Range Workers

PARKS

**Part Time
Park, Facility
& Cemetery
Maintenance
Workers**



Varied Hours Available!

Applications & Openings are Online:
www.CityofLoveland.org/jobs

City Update is a monthly publication of the City of Loveland. Residents receive City Update according to their utility billing cycle. Timeliness of the information may be affected by recipients' billing schedule. City Update is also available around the first of every month on the City's website at www.cityofloveland.org. Your comments are welcome. Please call 962-2302, or email Tom.Hacker@CityofLoveland.org. The City of Loveland is committed to providing equal opportunity for citizens and does not discriminate on the basis of disability, race, color, national origin, religion, sexual orientation or gender. The City will make reasonable accommodations for citizens in accordance with the Americans with Disabilities Act. For more information, please contact the City's ADA Coordinator at 962-3319.

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STORMWATER ENGINEERING-KEEPING STORMWATER CLEAN AND

The City's Stormwater Engineering Division encourages the entire community to keep Loveland's waterways clean and free of pollutants and we work to help protect the community from flood events.



COLORADO WATER IS IMPORTANT TO ALL OF US SO LIVE LIKE YOU LOVE IT

Colorado water is very popular. That's because a lot of people depend on it. The snow that falls in the Colorado Rockies not only provides water to 5.46 million Coloradans, but also to people living in 18 other states. Colorado is the only state other than Hawaii where water flows out of its borders, but doesn't flow in.

ONLY RAIN TO THE DRAIN

The daily activities of all of us have the potential to affect water quality if we don't make good choices. Storm drains are connected directly to our water bodies so anything that ends up on the driveway, alley, roof or sidewalk eventually will be carried by rain water and/or snow/ice melt to a water body such as Lake Loveland or the Big Thompson River.

1. PICK UP PET POOP

Pet waste can flow into storm drains and spread bacteria.

2. FIX THE OIL LEAK

Car leaks can spread oil into the water supply.

One pint of oil can make a slick larger than a football field.

3. DIRECT YOUR DOWNSPOUTS

Ensure downspouts are pointed toward the lawn or plants, not the sidewalk.

4. SWEEP

Sweep up dirt and debris. Dirt on sidewalks and streets washes into the storm drain and pollutes our water.

5. COMPOST

Compost and amend soil. Healthy soil acts as a water filter.

6. USE FERTILIZERS AND PESTICIDES SPARINGLY

FOLLOW INSTRUCTIONS - Read labels on lawn chemicals carefully.

Always apply products sparingly. Consider hiring a professional applicator.

GO NATURAL - Consider compost or natural lawn chemical alternatives.

Composting creates natural, slow-release fertilizer and soil-enhancing material.

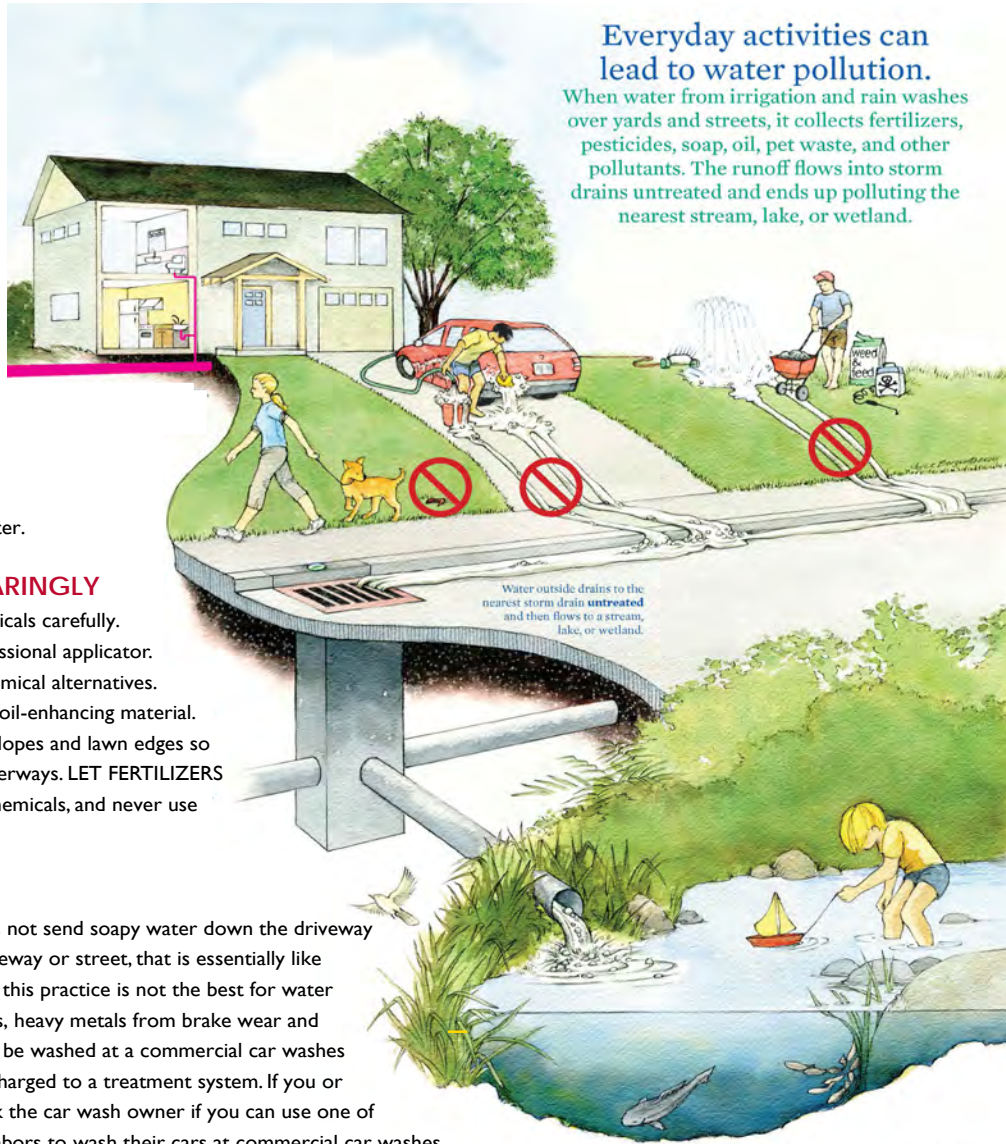
BE AWARE WHERE YOU FERTILIZE - Use caution on slopes and lawn edges so

fertilizer will not wash into near-by storm drains or waterways. **LET FERTILIZERS**

DRY PROPERLY - Allow proper drying time for liquid chemicals, and never use lawn chemicals before a heavy rainfall is expected.

7. USE A COMMERCIAL CAR WASH

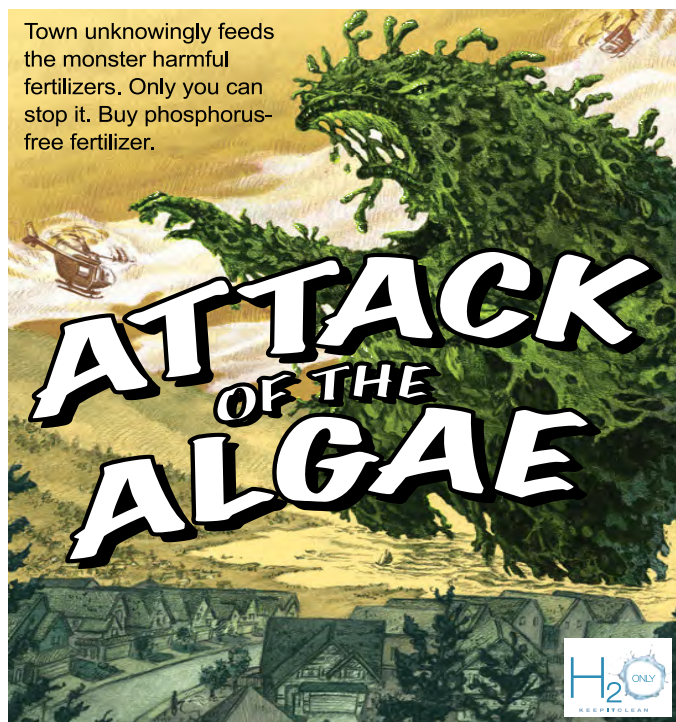
A commercial car wash is more water efficient and does not send soapy water down the driveway and into the storm drain. When a car is washed in a driveway or street, that is essentially like washing the car in a local water body. Though not illegal, this practice is not the best for water quality as car wash water can contain fluids from engines, heavy metals from brake wear and phosphorous from the soap and dirt. Ideally, cars should be washed at a commercial car washes where the water is sometimes reused and is always discharged to a treatment system. If you or someone you know is planning a car wash fundraiser, ask the car wash owner if you can use one of their wash bays. Encourage your friends, family and neighbors to wash their cars at commercial car washes.



FOR MORE INFORMATION, CONTACT LOVELAND'S STORMWATER DIVISION AT 970-962-2772 OR VISIT OUR WEBSITE AT WWW.CITYOFLOVELAND.ORG/STORMWATER OR FIND US ON FACEBOOK

Town unknowingly feeds the monster harmful fertilizers. Only you can stop it. Buy phosphorus-free fertilizer.

ATTACK OF THE ALGAE



WHAT'S THE PROBLEM WITH NUTRIENTS?

The nutrients from the fertilizer, pesticides and soap can cause excess algae to grow. Just like in your garden, nutrients in water bodies make plants grow. Over-application of fertilizers and pesticides can result in runoff that carries toxic levels of chemicals or excessive nutrients into our waterways. Too much algae harms water quality and makes boating, fishing and swimming unpleasant. As algae decay, they use up oxygen in the water that fish and other wildlife need. This pollution impacts aquatic life, wildlife and people who recreate and fish. The results are often unpleasant odors, taste and poor aesthetics which can cause health problems in humans and livestock.

DON'T FEED STORM DRAINS

Prevent materials/pollutants, such as oil, pesticides, fertilizer, paints, soaps, solvents, oil, trash, sand, grass clippings, leaves, paint, etc. from reaching the City's storm drain. Stormwater runoff from rain and snow/ice melt picks up materials on the ground before entering the storm sewer and discharges them untreated directly into our water bodies.

Section 13.20.130 of the Loveland Municipal Code states that: "It is unlawful and constitutes a nuisance for any person to discharge or cause to be discharged or spilled, or to maintain a condition upon any property that may result in the discharge of, any substance other than naturally occurring stormwater runoff into the City's storm drain system (any of which shall constitute an Illicit Discharge)."

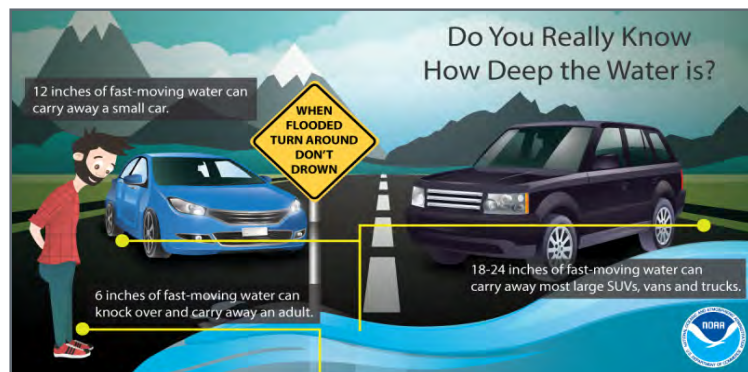


Flood Preparedness

KNOW THE RISKS

Just because there was a 100 year flood in September 2013 doesn't mean it can't (or won't) flood again in the near future.

- Flash floods happen fast - even if it's not raining at your location, rain may be falling upstream in the canyon or foothills.
- Flooding can block roads, trap people in their homes or businesses, sweep away vehicles and collapse bridges.
- Power outages and loss of phone and Internet services are possible.
- Flooding may cause landslides and falling rock on roadways and open spaces, especially in the Big Thompson Canyon as we saw in September 2013.



What is the difference between a Flood Warning, Flood Watch, and a Flood Advisory issued by the National Weather Service?

Flood Warning:

Take Action! A Flood Warning is issued when the hazardous weather event is imminent or already happening.

Flash Flood Warning:

Take Action! A Flash Flood Warning is issued when a flash flood is imminent or occurring. If you are in a flood prone area move immediately to high ground.

Flood Watch:

Be Prepared: A Flood Watch is issued when conditions are favorable for a specific hazardous weather event to occur.

Flood Advisory:

Be Aware: A Flood Advisory is issued when a specific weather event that is forecast to occur has the potential to become a problem.

