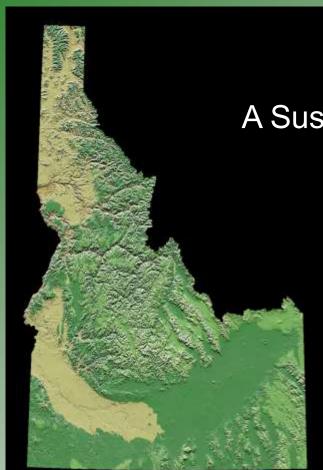
Looking Forward Ten Years to a Sustainable Idaho







Looking Forward Ten Years to a Sustainable Idaho

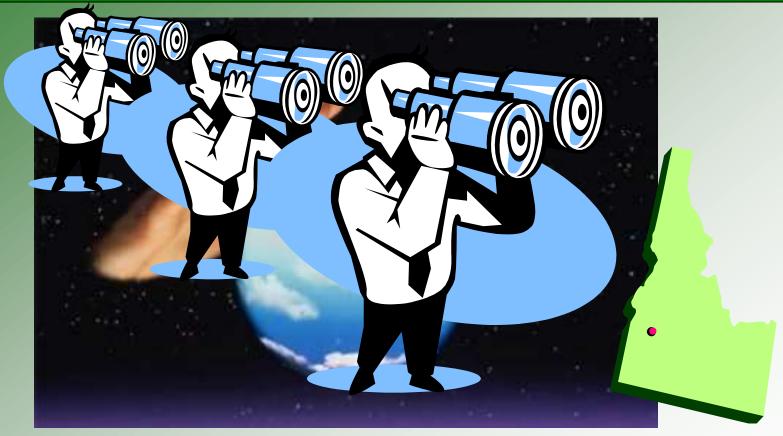


A Sustainable Idaho....

What exactly does that mean?

What exactly would that look like?

Looking Forward Ten Years to a Sustainable Idaho



A vision of a sustainable Idaho in the year 2020!

Looking Forward Ten Years to a Sustainable Idaho

First, we'd only use the technology and know-how that we have today



Looking Forward Ten Years to a Sustainable Idaho



Looking Forward Ten Years to a Sustainable Idaho

That the money...

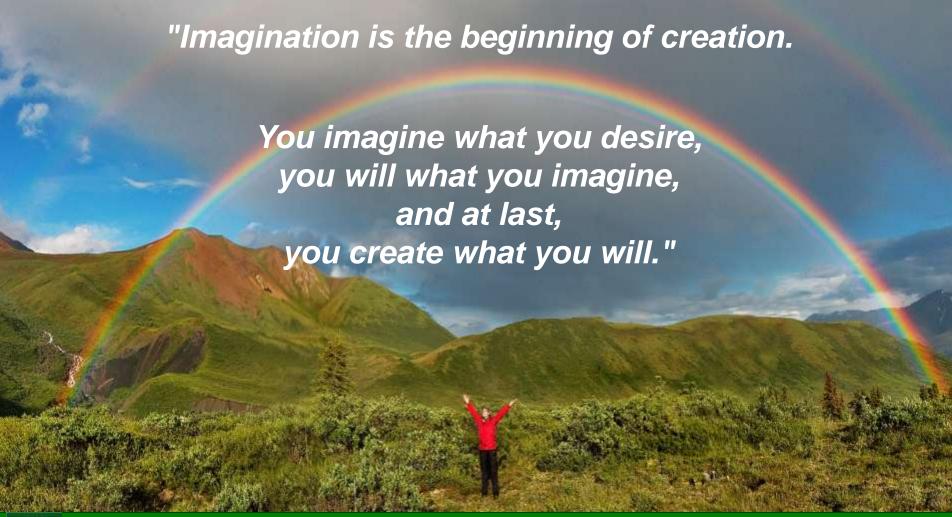


And the political will



WERE BOTH AVAILABLE!

Looking Forward Ten Years to a Sustainable Idaho





GreenWorks Idaho is proud to present... A 2020 Vision Looking Forward Ten Years to a Sustainable Idaho

Looking Forward Ten Years to a Sustainable Idaho

















Looking Forward Ten Years to a Sustainable Idaho



Food Systems

Presented by...

Janie Burns with the

Treasure Valley Food Coalition



What's for dinner in 2020?

Janie Burns
Treasure Valley Food Coalition
Idaho Green Expo May 2010



What do we want from food?

- Health
- Affordability
- •Sustainable
- To connect to our culture and where we live













- Jobs
- Economic security
- •Clean air, clean water
- Reliability
- •Social justice
- Humane treatment of livestock

This is our food system in 2010...

Two sides of the malnutrition coin: too much of the wrong food for some and not enough food of any kind for others.



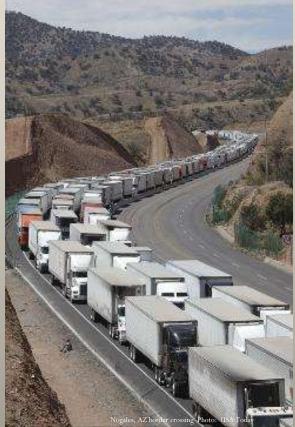




It's a long, fossil-fueled trip for our food.









This poster indicates roughly how much energy each form of transportation uses and how much carbon dioxide it produces. As any car driver knows, these figures depend a great deal on how the vehicle is driven, the vehicle's condition and technology, and the weather. These are some of our best guesses of industry-wide averages based upon the existing literature.

Courtesy: Hawthorn Valley Farm

This is how we eat.













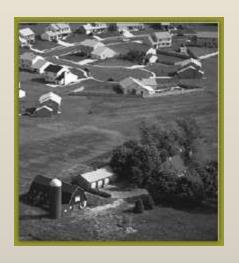




This is how we use our land and water



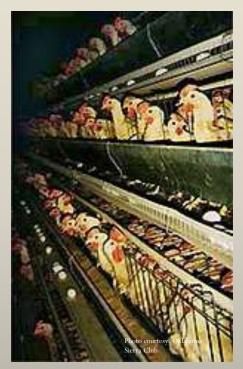




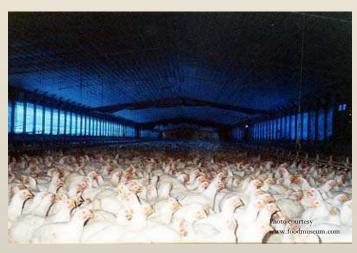


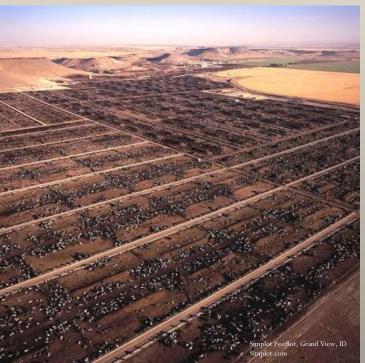


This is how we raise our meat













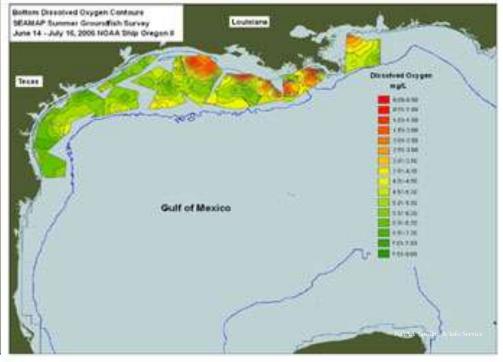
This is how we grow our food.











Industrial processes play a significant role in our food.







Most of the money we spend on food leaves the state.

To 20% by 2020 Can we increase the amount of Idaho-grown food we eat?

From 5% in 2010

Increasing the amount of local food we eat to 20% in 2020 might mean...

More of our fruits and vegetables will come from yards,









from local, diversified farms,









from community gardens,



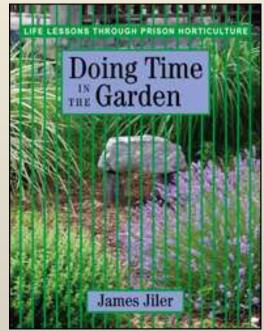






from jails and prisons,











from public spaces,





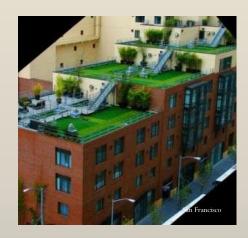
from along our streets,

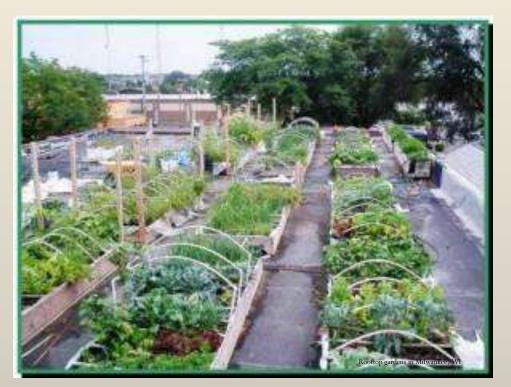






from rooftops,









from our schools,















perhaps from some unusual places.







Greenhouses will produce year round.











Abandoned warehouses and big box stores will be retrofitted to grow food and fish.



Step 1: Anaerobic digester jumpstarts food waste composting.



Step 2: Waste heat from digester is captured and warms fish tank water.



Step 3: Plant racks are built over the tanks.



Step 4: Plants are kept warm over the fish tanks, and fertilized with the nutrient-rich fish water.

We'll have bees in many places.









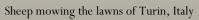




Livestock will graze new places



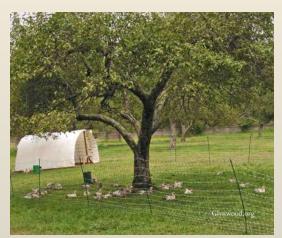
















We'll eat local food all year long, even in the winter.

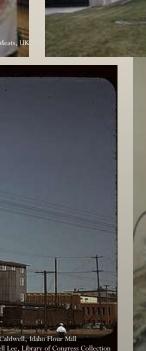


- •Greens from greenhouses
- Meats
- •Stored potatoes, squash, onions
- Protected in the garden cabbage, leeks, & carrots
- Apples, pears from controlled atmosphere storage
- •Frozen, canned and dried fruit
- Frozen and canned vegetables
- Bottled fruit and vegetable juices



...Our meat will come from neighborhood shops; our flour from community mills









Our food will be delivered using little fossil fuel.





















We'll shop differently









We'll eat differently





Kids will be more involved with food











We'll recycle our food waste and use our water wisely













- 4 day work week, allowing time and money for raising family food
- Municipal bonds to support community-scale processing centers
- Double food stamp value on locally-grown food at farmers markets
- Local stock exchange will allow local money to be invested in local food businesses
- Food-backed alternative currencies
- Profit and growth will secondary to human and environmental health and the benefit to the community

We'll think about food in our communities differently

- Department of Food at the city, county, and state level
- Subsidies for commodities replaced by incentives for growing local food
- •All food will have County Of Origin Label
- •Menus contain nutrition and source of food
- Vacant city and state property eligible for food production
- •Farmland perpetually protected from development
- Water will be used for food production first
- •Free health care for farmers

Incentives for what we want.

Tax credits for:

- Recycling food waste
- Groceries and restaurants selling local food
- Farmers growing for local markets
- Farmers growing nutrient dense food
- Community Food Enterprises

Taxes on things we don't want:

- **Synthetic Pesticides**
- GMO seeds
- Synthetic Fertilizer
- Animal growth hormones
- Soda pop
- •Fry oil
- •Food that could be grown here but comes from other states or countries

20% by 2020 What does that mean?

It could mean:

20 % of people eating 100% of their diet from locally grown foods

100% of the population eating 20% local

20% of the shelf space in grocery stores devoted to local

20% of all restaurant and fast food menu items are local

20% of school lunches are local

20% more farmers and gardeners

20% of our farmland devoted to local production

20% of our food dollars spent on local food

Photo credit: Guy Hand

Better health, more food security, more jobs, a healthier economy

20% by 2020 Small steps that we can all do

- ✓ Budget just \$10 per week to buy local food, increase when you can
- ✓ Choose local instead





A 2020 Vision

Looking Forward Ten Years to a Sustainable Idaho



Water Resources

Presented by...
Liz Paul with Idaho Rivers United



IDAHO'S RIVERS



OUR HERITAGE



OUR WATER



OUR RESPONSIBILITY



2020 WATER FOR LIFE

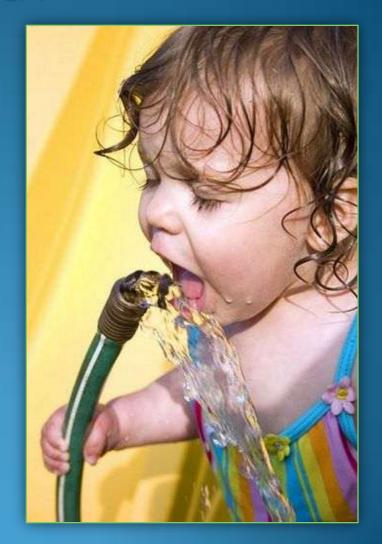


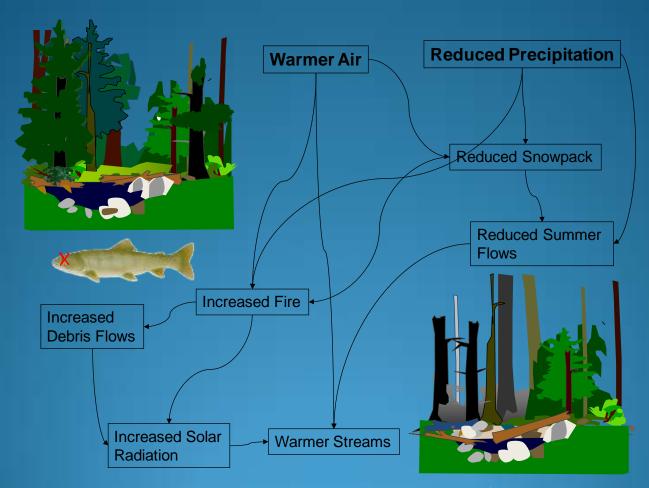
- V Water Security
 - V Water Purity
 - Water Efficiency

2020 WATER SECURITY



Safe and reliable sources of water are available for agriculture, homes, industry and the ecosystem.





Rivers Are Ground Zero for Climate Change



Increased fire and debris flows



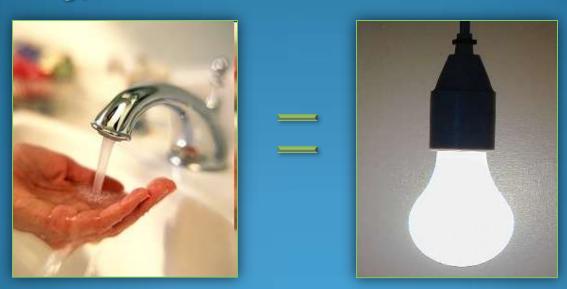




Climate Change = water insecurity

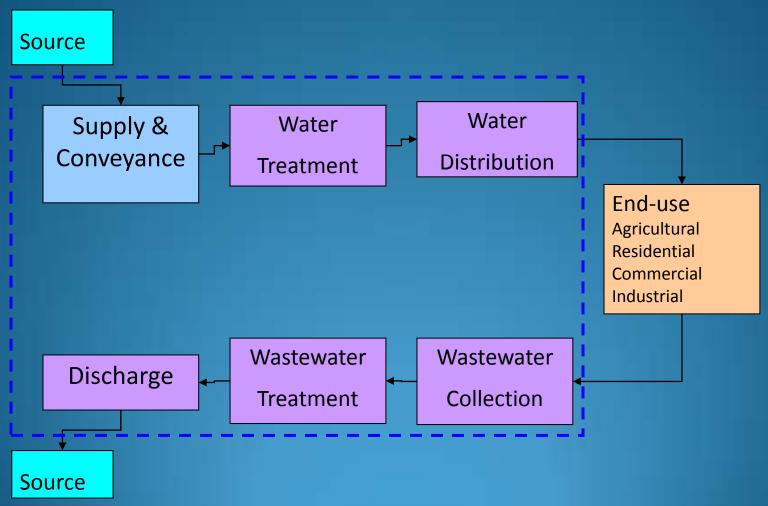
Reduce greenhouse gas emissions to curb climate change

Understand the Carbon Footprint of Water: Energy is embedded in water. Water is embedded in energy.



In five minutes, a hot water faucet uses as much energy as a 60-watt bulb uses in 14 hours.

ENERGY IN WATER



Source: California Energy Commission, 2005 Integrated Energy Policy Report

Take Action



Educate

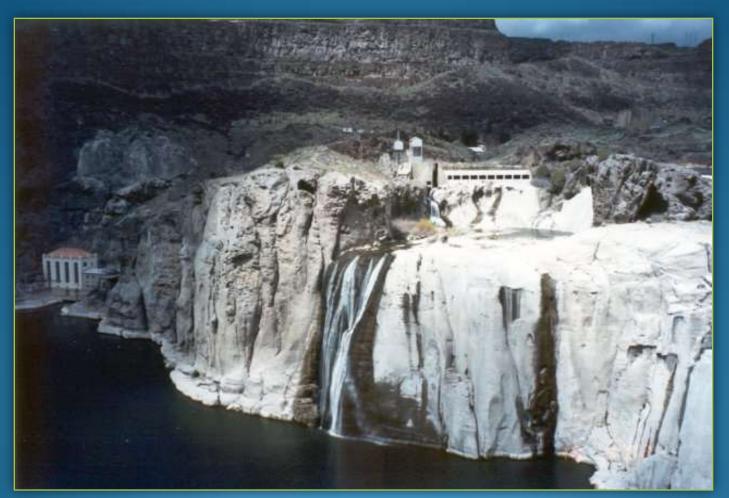




Lobby



Measure Use

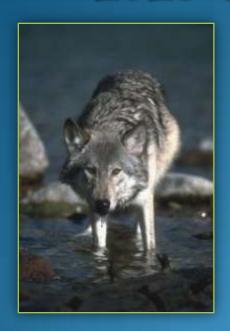


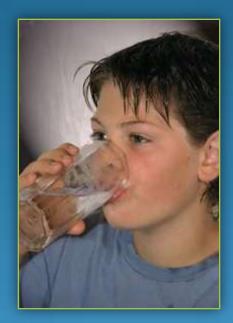
The Snake River at Shoshone Falls

2020 WATER SECURITY



2020 WATER PURITY













Water Quality Monitoring







Protect and restore wetlands

State-of-the-art wastewater treatment

Capture stormwater on site

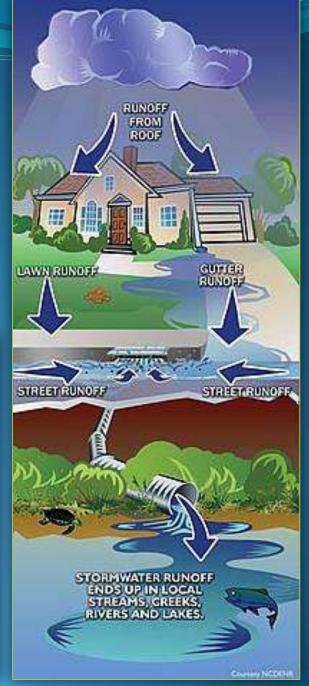
Best Management Practices keep our water clean



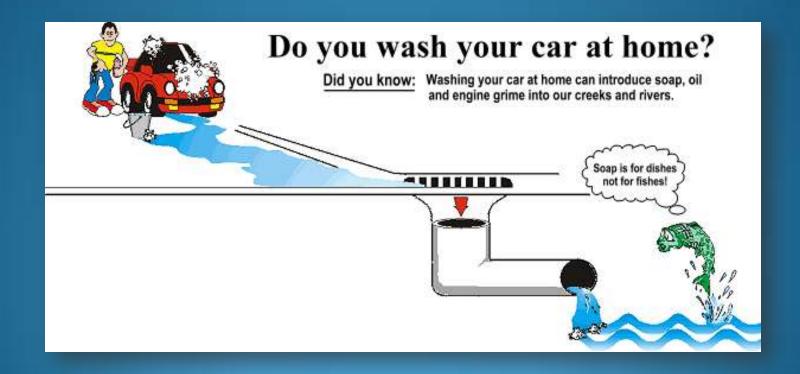
Education and action







Clean Water Starts At Home



2020 WATER PURITY



Keep our rivers clean

2020 WATER EFFICIENCY

Agriculture accounts for 97% of Idaho's total water use



Flood Irrigation - Least Efficient



Photo courtesy of USDA Natural Resources Conservation Service Sprinkler Irrigation - More Efficient



Reduce Demand

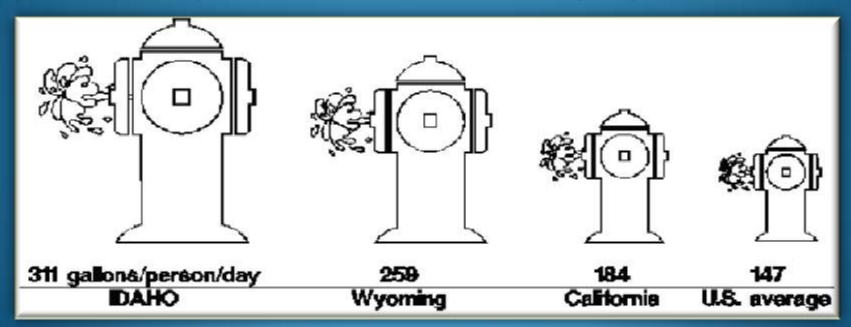
Drip irrigation – most efficient



Drip irrigation combined with real-time soil moisture monitoring, computer-controlled irrigation systems, and improved weather forecasting allows Idaho farmers to reduce water use and adapt to unpredictable water supplies.

Reduce Demand

Domestic and commercial water use comprises about 1% of Idaho's water use, but Idahoans now use nearly 311 gallons per person per day — more than the residents of any other state.

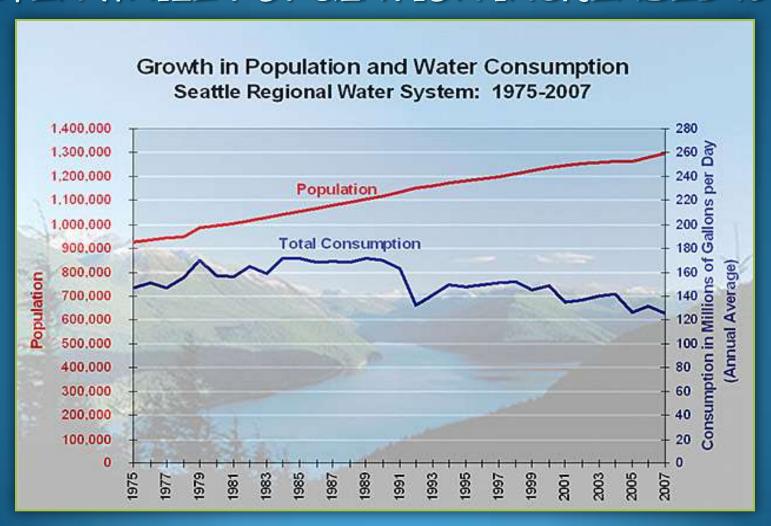


Reduce Demand



Saving water saves energy too!

WATER USE DECLINED 26% SINCE 1990 EYEN WHILE POPULATION INCREASED 16%



Grey Water Recycling



Reduce Demand by Recycling



Dust suppression



Fire fighting



Car Washes



Golf courses and parks

Be Waterwise



Be Waterwise



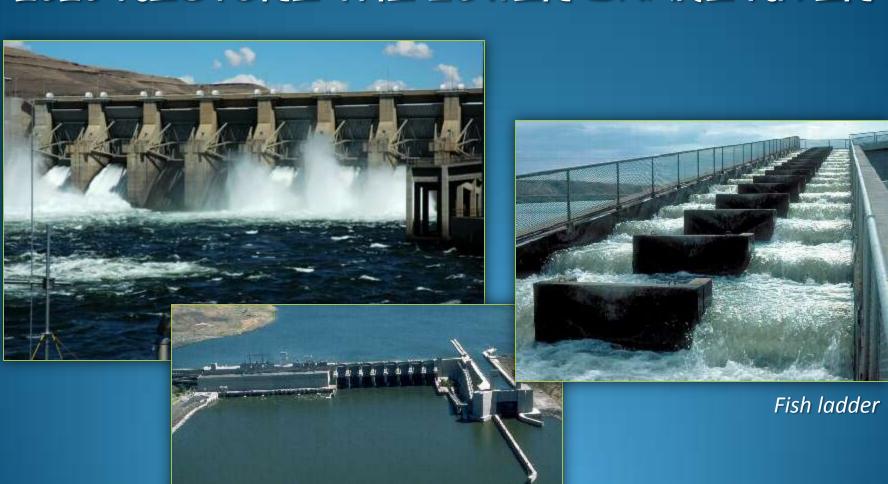
Be Waterwise



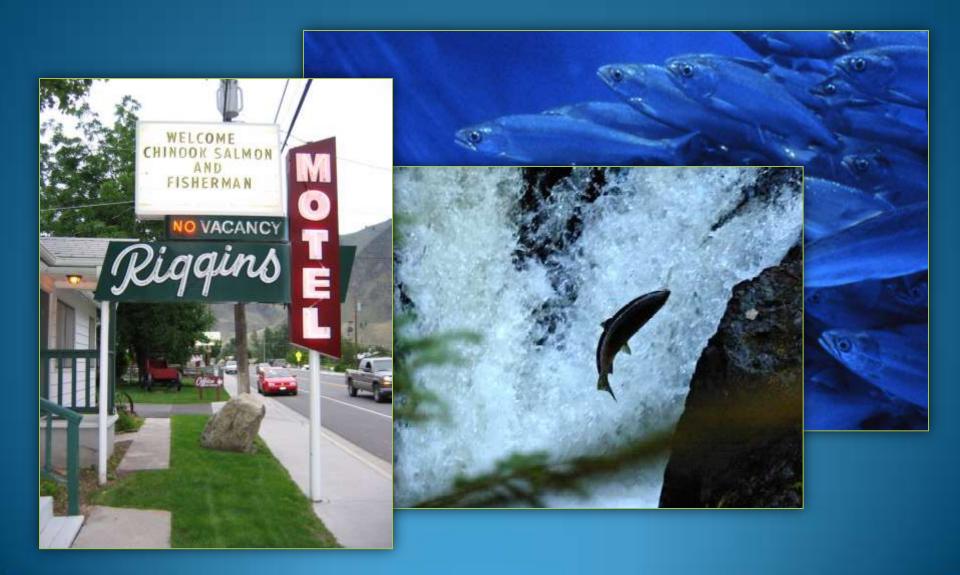
2020 WATER EFFICIENCY



2020 RESTORE THE LOWER SNAKE RIVER



2020 RESTORE THE LOWER SNAKE RIVER





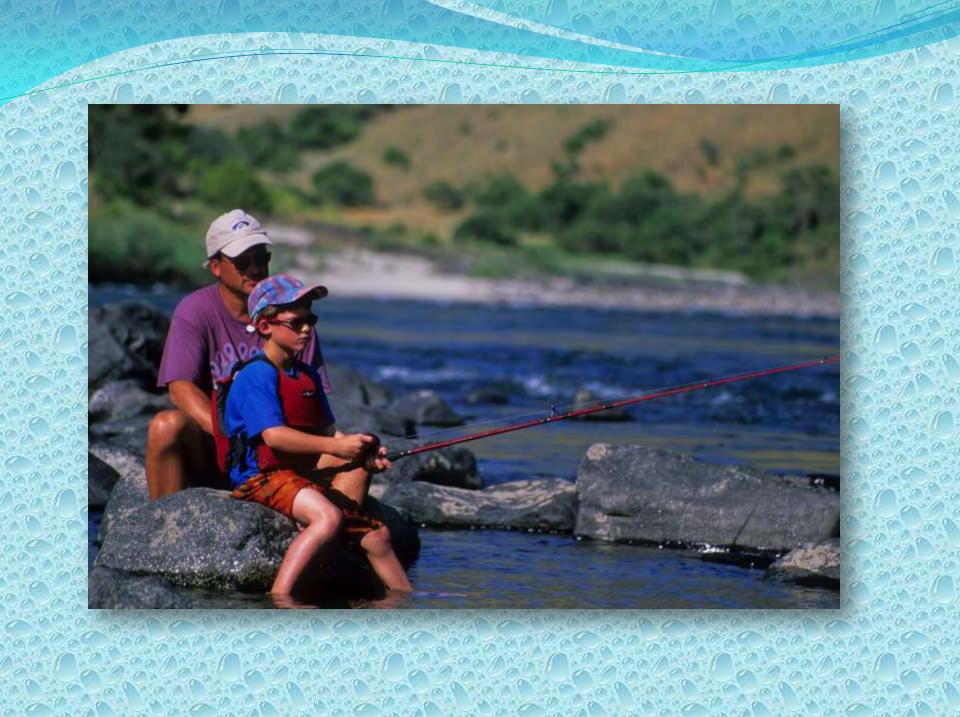
2020 - WATER FOR LIFE We're all in it together!













A 2020 Vision

Looking Forward Ten Years to a Sustainable Idaho



Energy Use & Production

Presented by...

Kelsey Nunez

with the Idaho Energy Collaborative

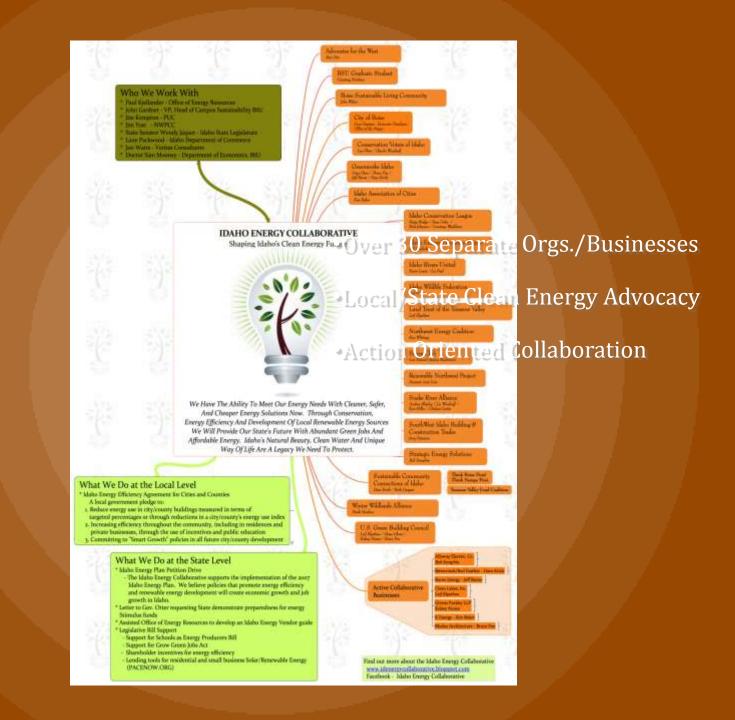


Energy 2020

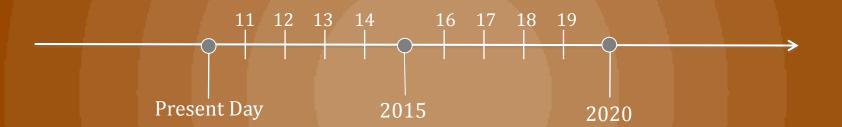
Presented by **Kelsey Nunez**And the **Idaho Energy Collaborative**

Idaho Green Expo Vision 2020 May 8-9th, 2010



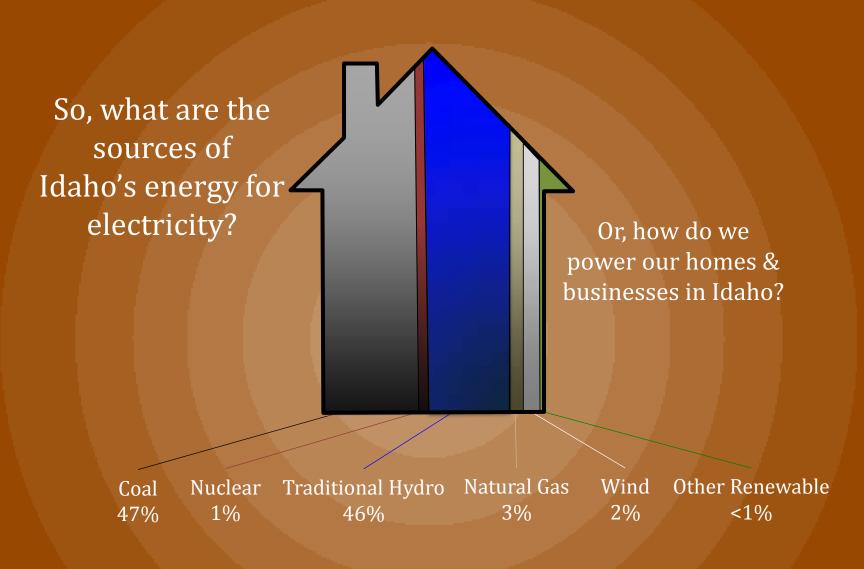


Presentation Timeline

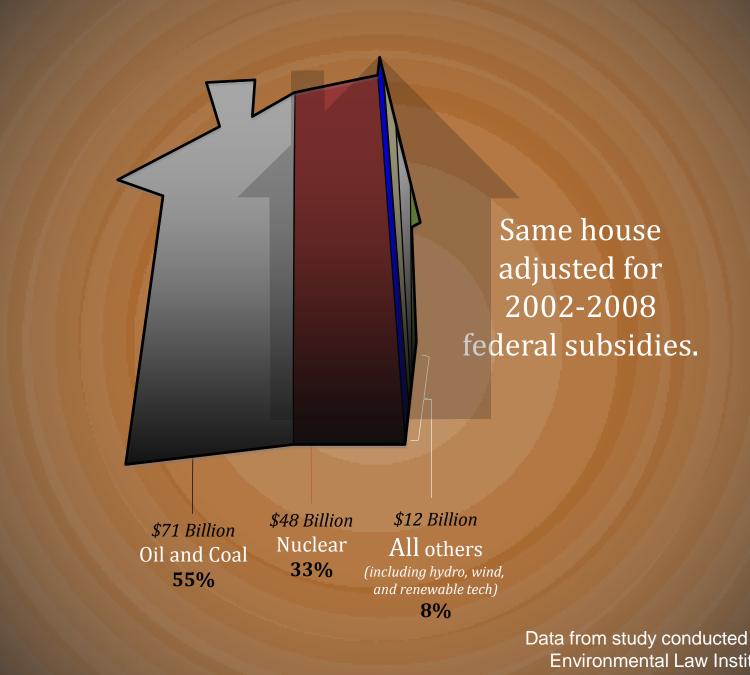


Presentation Timeline





How do federal subsidies add up for our country's energy mix?



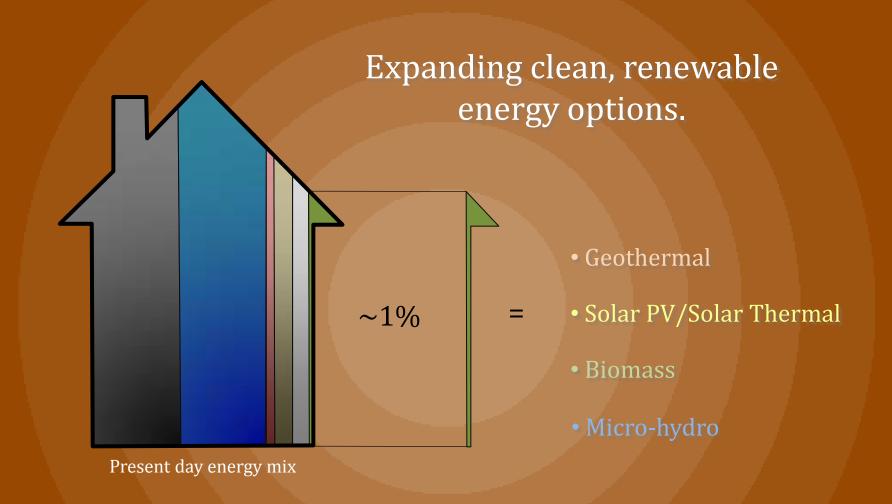
Data from study conducted by the **Environmental Law Institute**

In 2010, almost half of Idaho's energy... ...came from coal









Presentation Timeline



Presentation Timeline



So, what happened in the 10 years Between 2010 and 2020?

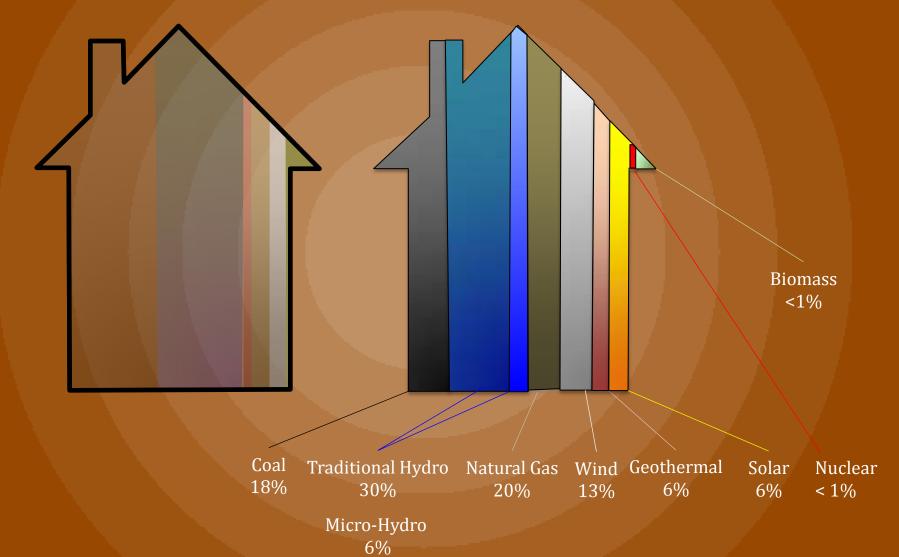
Idaho decided to lead the nation



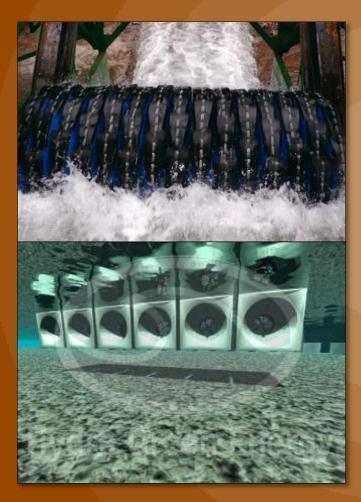


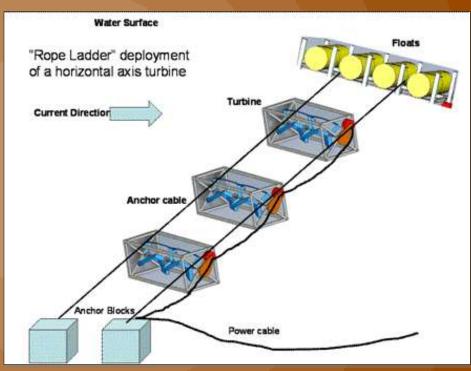
60% Clean Renewable Energy by 2020 100% Clean Renewable Energy by 2030 How?



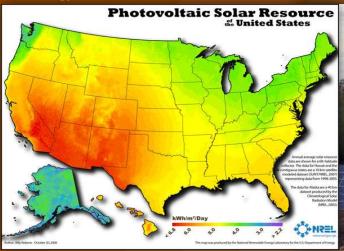


Micro-Hydro – Blue Energy





Energy Mix in 2020





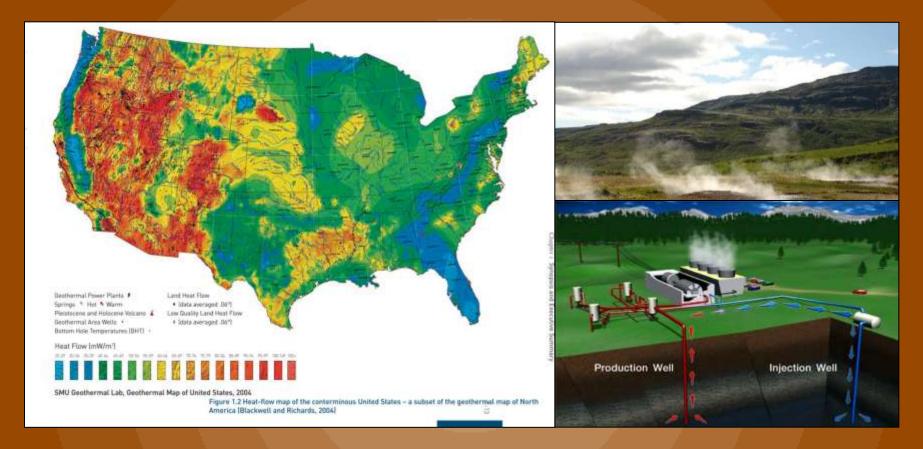
300 Days of Sunshine a year has made Southern Idaho a Solar Leader

- 30,000 Solar Rooftops, two 100MW Solar Thermal Facilities, neighborhood size generators
 - 20,000 Idaho Citizens work in Solar Energy Related Fields





Idaho utilizes wind power as the 13th windiest state in the U.S.A.



Idaho is prime for geothermal innovation
We became a hot bed of geothermal leadership,
driving geothermal research for the nation.

Energy Efficiency & Conservation

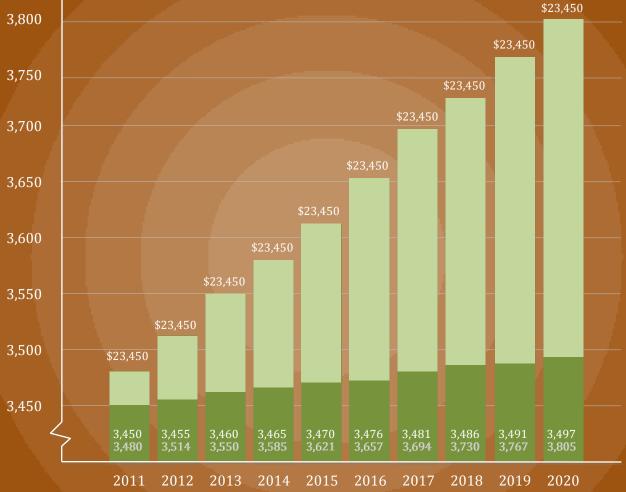
Steven Chu, U.S. Secretary of Energy, 2009:

"If I were emperor of the world, I would put the pedal to the floor on energy efficiency and conservation for the next decade."



Growth rate 1%, in megawatt hours demanded

Total Savings, 2010-2020, through capturing efficiency: \$1,250,000



Demand Forecast

Capturing Efficiency/2020

Big Ideas that changed our culture



Monitoring habits at the switch

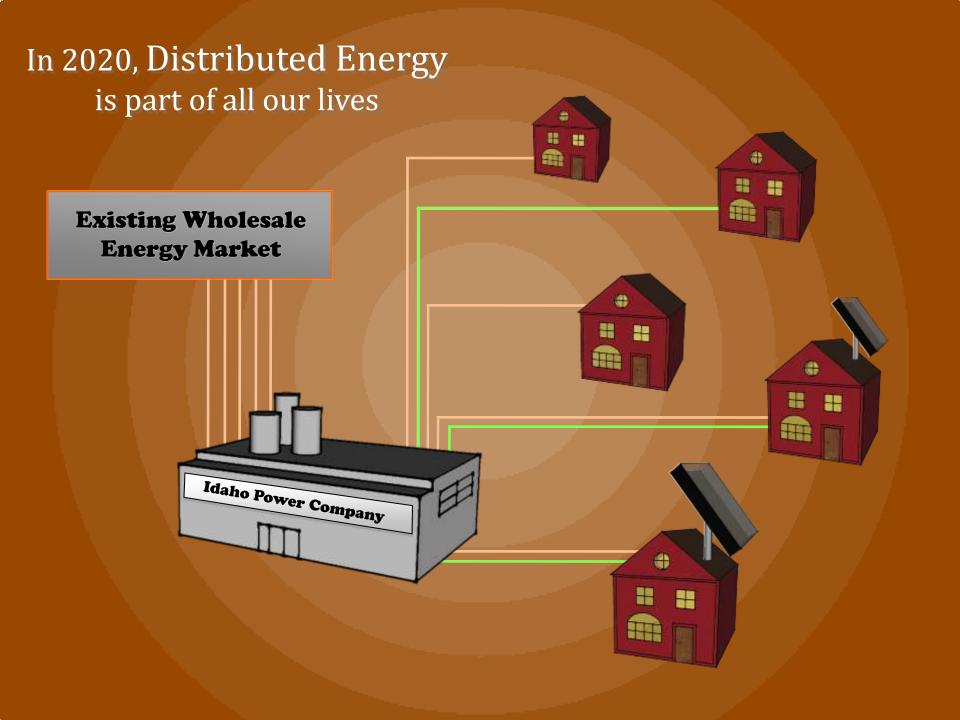
Transparency from Smart Technology

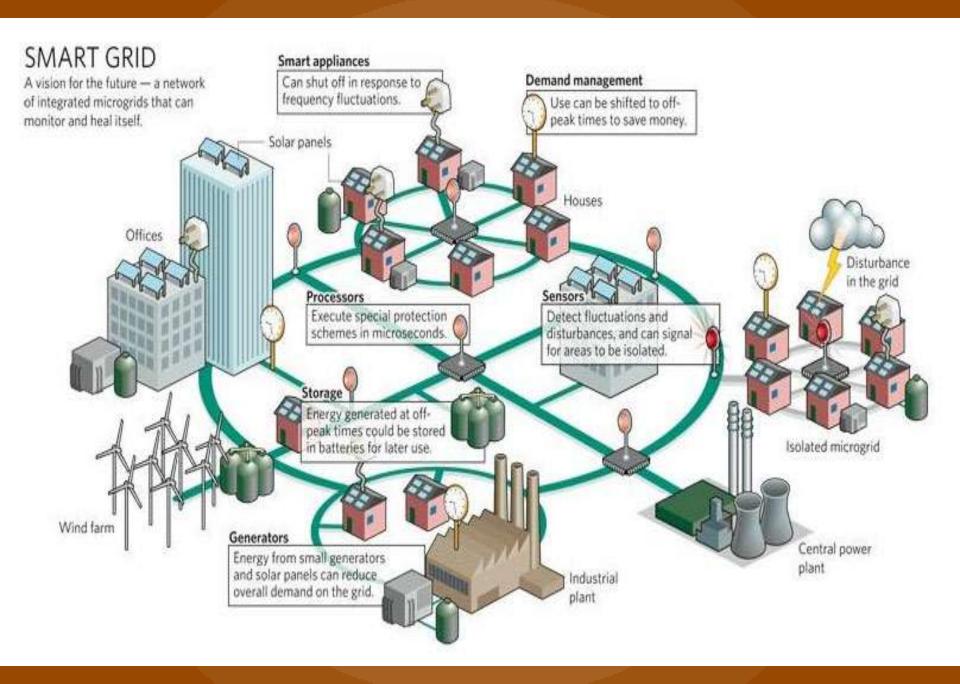


The Energy Dashboard goes in the kitchen—the brain of household energy waste.

Energy Conservation in 2020







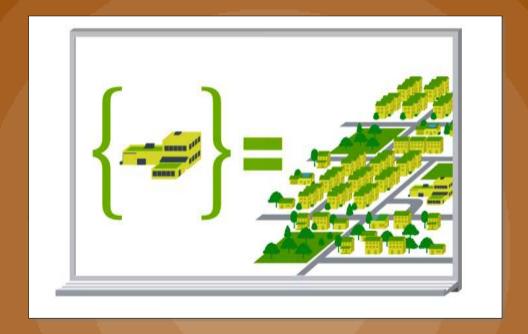


In 2020, Idaho schools are smart about energy education



- 1200 Schools across the State
- 400,000 Students + 35,000 faculty-support

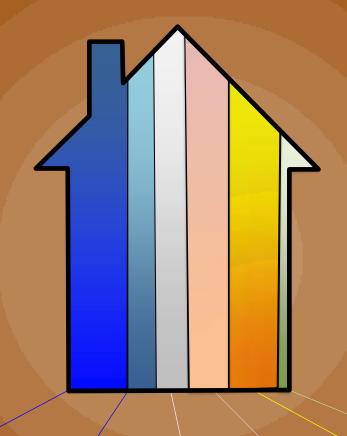
Green Schools = Green Communities



Energy education is continuous and begins early

- Conserve and produce energy, limit waste, and eliminate toxicity
- Research and innovation drives progress and creates a talented work force for the clean energy economy
- Children inspire and lead their communities

Energy Mix in 2030?



Traditional Hydro Micro Hydro 25%

15%

Wind 15% Geothermal 20%

Solar 20%

Biomass 5%

Policy changes happen when we give courage to our elected representatives.

Cultural changes happen when leaders inspire imagination.



A 2020 Vision

Looking Forward Ten Years to a Sustainable Idaho



Green Consumers

Presented by...
Catherine Chertudi with
the City of Boise; Public Works

Green Consumer

Embracing the Art of Reduce, Reuse and Recycle

Historic Issues

Landfill disposal was cheap and easy



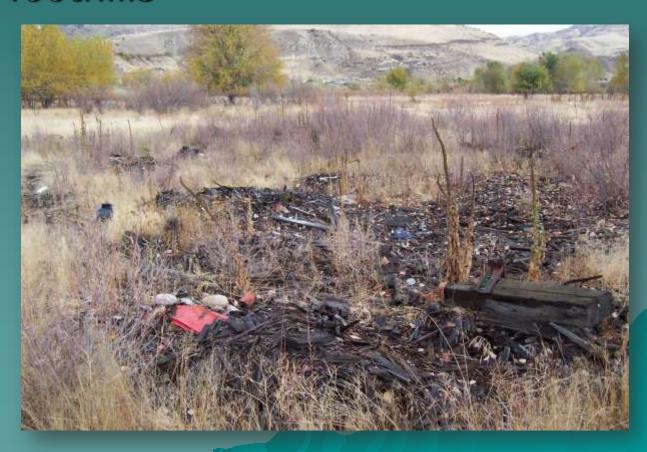
Historic Issues

Unlimited trash disposal



Historic Issues

Illegal disposal – desert and foothills



1998

- 54,000 households in Boise
- 6.215 pounds Trash per household per day
- 186.45 pounds/HH/Month
- 17.2 pounds/HH/Month Recycling

8.4% Curbside Diversion Rate



2010

- 69,000 households
- 5.04 pounds trash per household per day
- ◆ 151.23 pounds/HH/MO
- 29.45 pounds Recycling/HH/MO

19.5% Curbside Diversion Rate



Garbage used to generate electricity and biofuels



- ◆ RE-THINK
- ◆ Reduce
- Reuse
- Recycle



 Consumers make good choices when they purchase products





Good Choice

Poor Choice!

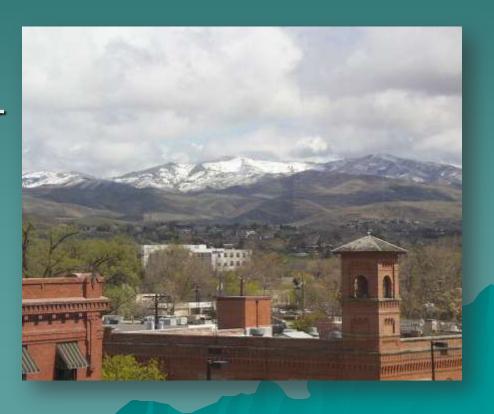
- Educated citizens
 - Sustainable practices are well understood



Local industries use recycled materials



- Businesses & industries practice
- Reduce, Reuse and Recycle
- Recognize water and energy conservation are part of the picture too!



- A great quality of life depends on a great environment
 - Clean air
 - Clean water
 - Energy efficient
 - Reduce wastes



Challenge

Re-think what you buy Reduce wastes by >75% Recycle or Donate remainder Dispose of <5% Conserve water and energy Reduce water use by >50% Reduce energy use by >50%

 Create a community of committed people caring for future generations.



A 2020 Vision

Looking Forward Ten Years to a Sustainable Idaho



Transportation & Clean Air

Presented by...

Rachel Winer with Idaho Smart Growth





Transportation and Air Quality

- The United States is the largest emitter worldwide of the greenhouses gases.
- Transportation = 1/3 of CO2 emissions in the United States (and its going up)

Three-Legged Stool

- Vehicle Fuel Efficiency
- Carbon Content of Fuel
- Amount of driving = Vehicle
 Miles Traveled or VMT

Vehicle Fuel Efficiency and Fuels

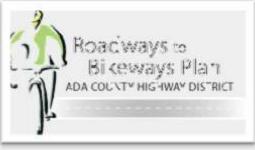


Reducing How Much We Drive



Regional plans













What is smart growth?

Land Uses

Separated,

No center,

Lower

average

densities,

Drive for

Every Trip

Roads Not

connected =

← Sprawl

→ Smart Growth

Mixed land Uses, Higher Average Densities, Strong Centers or nodes, Interconnected Streets = Reduced car trips and VMT









Traffic Circles



- Most common traffic calming device.
- •Reduce auto accidents by up to 90%
- •When replacing stop signs, increase emergency vehicle response time by 30%

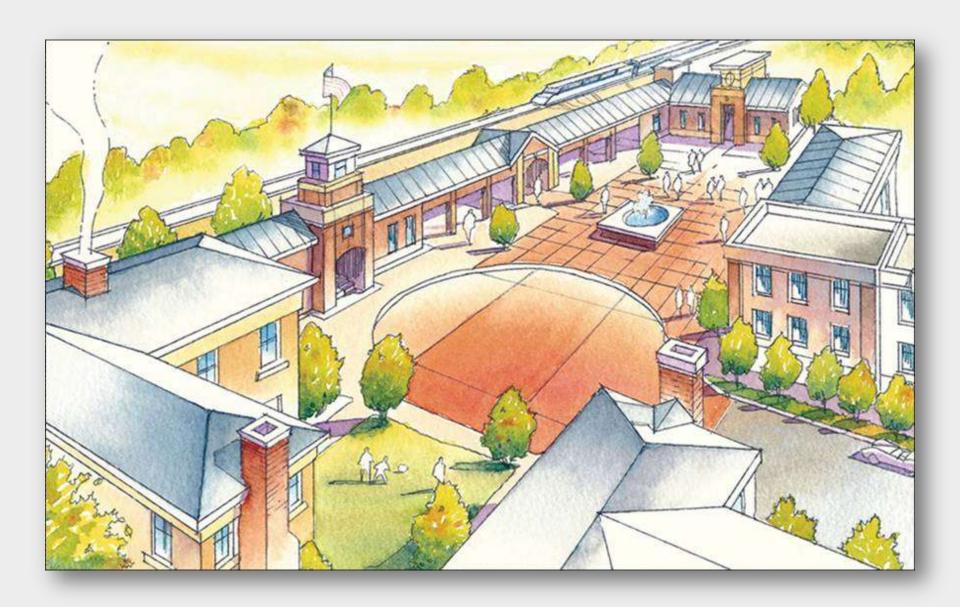


Street painting in middle of intersection, Boise, summer of 2000.

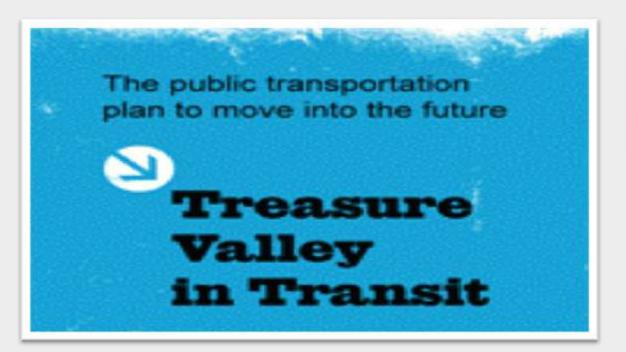
THE TEN-SECOND TAKE Only New Yorkers know what they seed, but every city is going to be poking for innovations like these in the future - whether they want a or not New York's just setting a - TOM POTTER, more of Workers GREEN-G-METER . . . monopolized by the fume-spewing, driving minority. "For so many REINVENTING THE APPLE years, the streets have just been for cars, like NASCAR speedways." says Paul Steely White, TA's executive director. "We're trying to re-Recently, a New Yorker (let's call him Tim) was forced off a sideclaim the city for the people." How? Well, thanks in part to TA's walk by a double-wide stroller, a large dog, and an elderly pedesdogged pursuit of transportation reform, the city recently took a trian all traveling abreast. So he shimmled between parked cars. major step forward by retaining the services of the godfather of nearly collided with a bike messenger going the wrong way up a anti-automobile urbanism: Copenhagen-based urban designer one-way street, and walked through the exhaust-choked margin of the avenue while fantasizing about a future in which New York Jan Gehl, whose Gehl Architects has helped draft plans for Stock-City's clogged streets are reconfigured in favor of pedestrians and holm, Melbourne, and, most famously, London. Gehi is now in the midst of an American invation, having signed on to consult not only cyclists. A pipe dream? Nope, and you can thank advocecy/watchdog group Transportation Alternatives. New York is a walker's city. for New York but for Seattle and possibly. San Francisco. The first

but its streets, which represent 65 percent of its public space, are

step, he says, is getting people to think anew about urban life."We















Eugene, OR







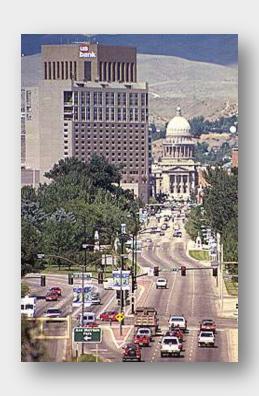


Improvements in funding





What happens if we don't?



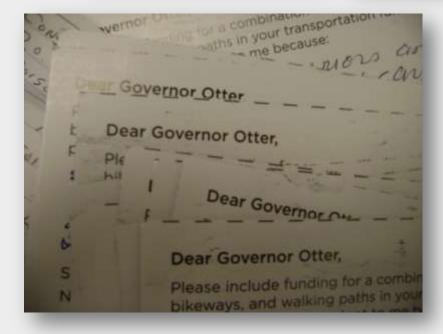


What you can do











www.idahosmartgrowth.org www.treasurevalleyinmotion.org

Vision

In the next 10 years, Idahoans will see advances in vehicle technology and fuel technology as well as improvements in alternative transportation and increased land use and transportation planning. We'll see more kids walking to school and more communities creating walkable, safe, and healthy neighborhoods.



Thank you!

For more information:

Idaho Smart Growth

(208)333-8066

www.idahosmartgrowth.org

A 2020 Vision

Looking Forward Ten Years to a Sustainable Idaho



Green Homes & Gardens

Presented by...
Lisa Scales with Sustainable Futures



VISION 2020 Home

Home - what we want

- Shelter
- Comfort
- Security
- Community
- Beauty

And what else?

More...



Space?





...and more



MORE!







Maintenance



Hassle?

And when the space fills up...



...more







Commute

...more?



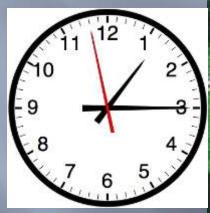








More...









More...

LEGS?



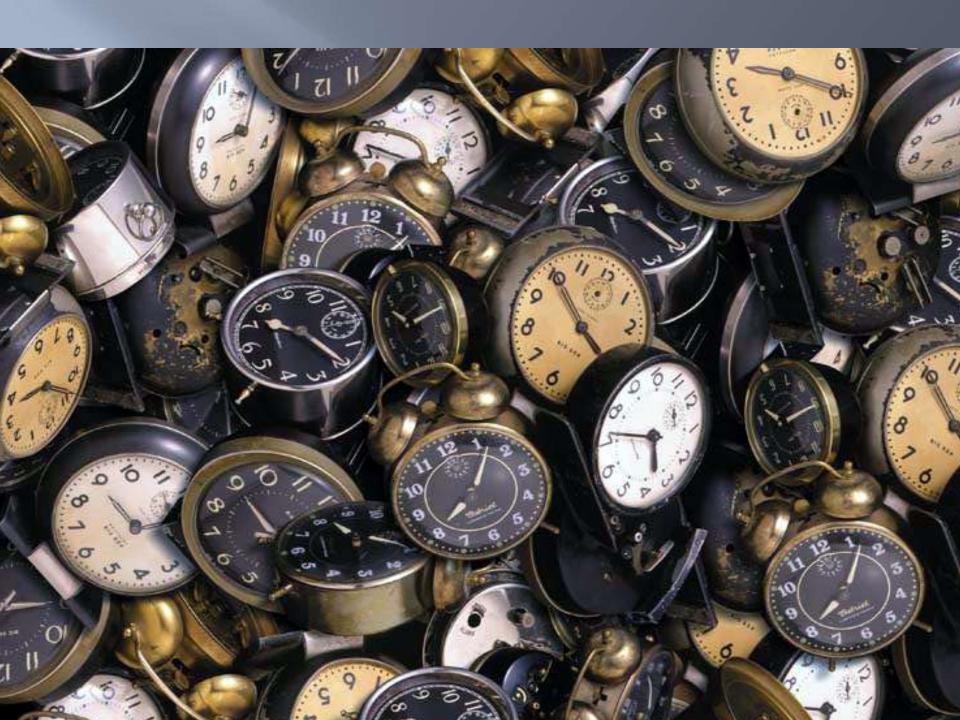
And what does all this cost us?

MORE!



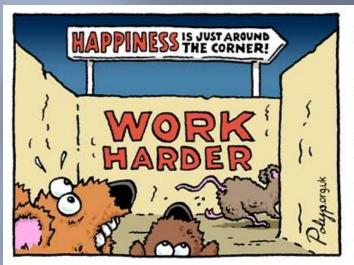








More?







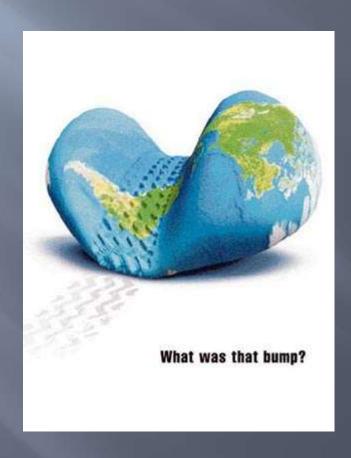


www.polyp.org.uk animated version- www.foei.org/livemore

...and what do we leave behind?



ENOUGH?



What will we leave for them?



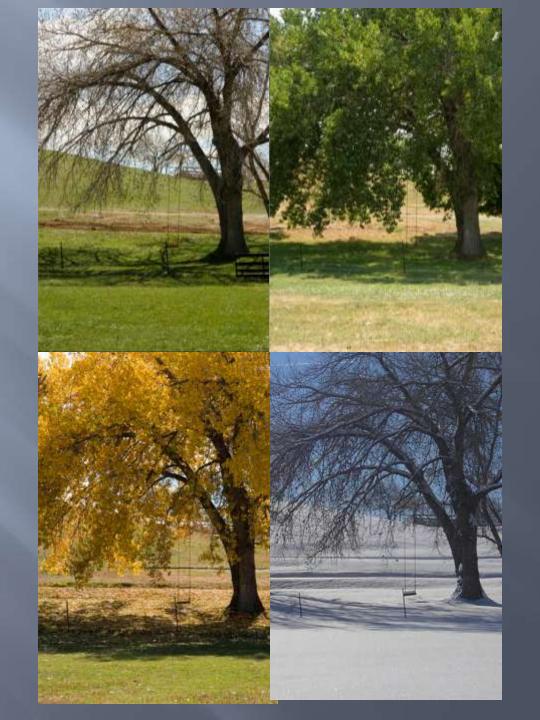




ENDUGH?

MAYBE THE ANSWER IS TO HAVE

Just enough



Adapted to place and time...

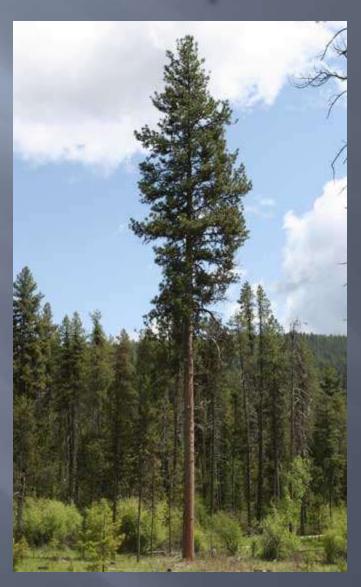






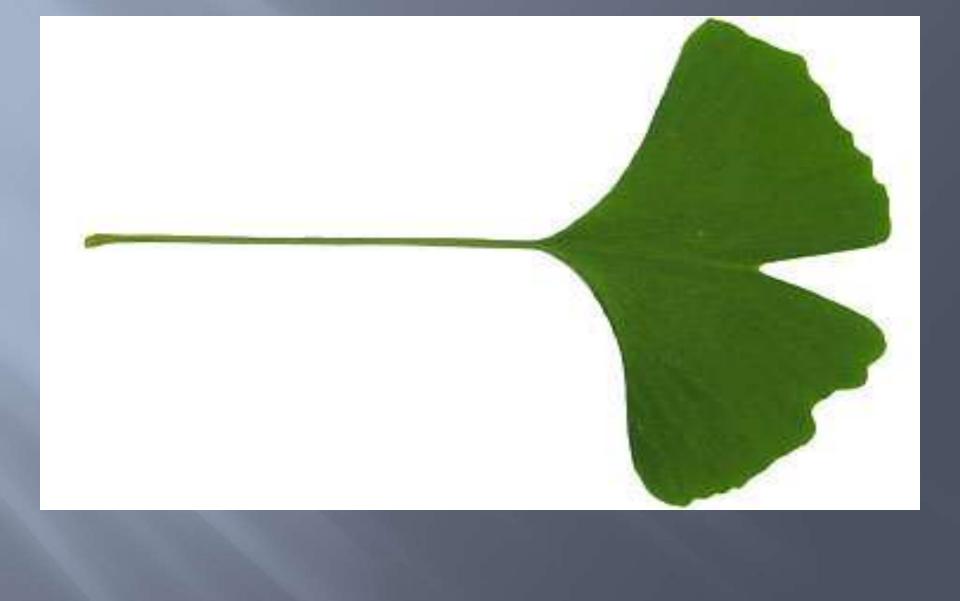


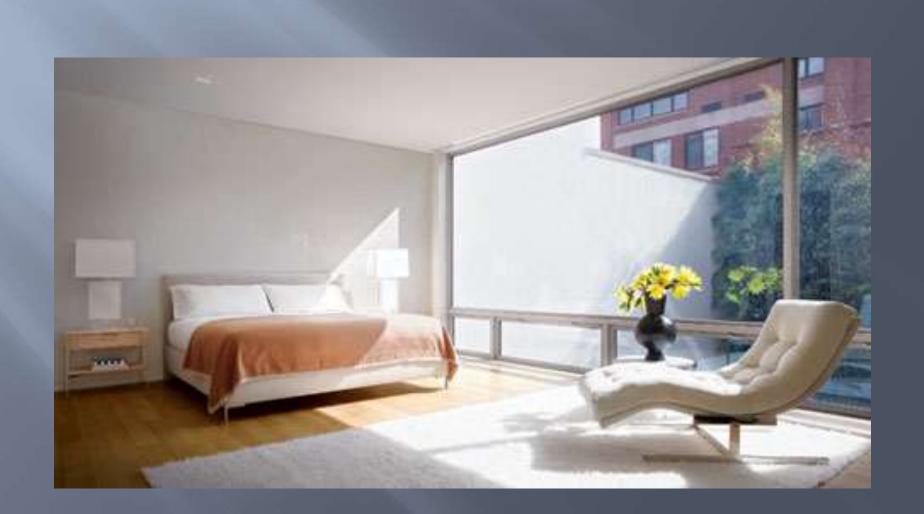
...yet independent



Light















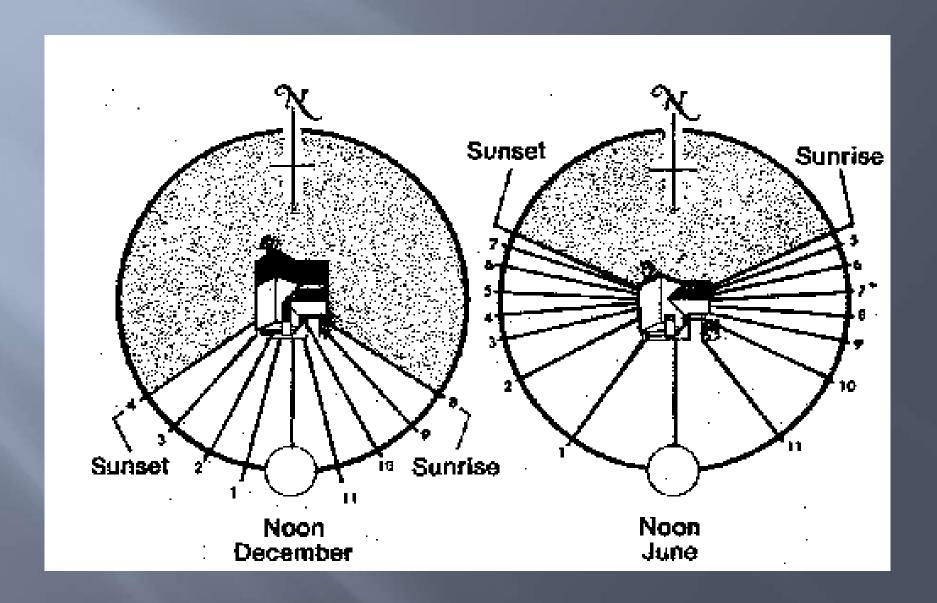


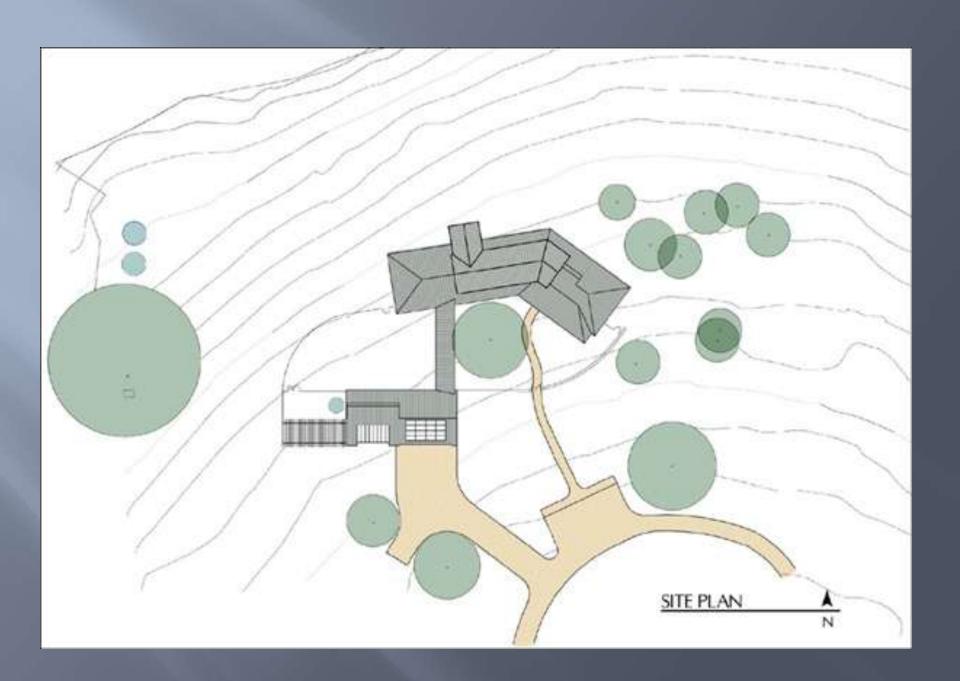


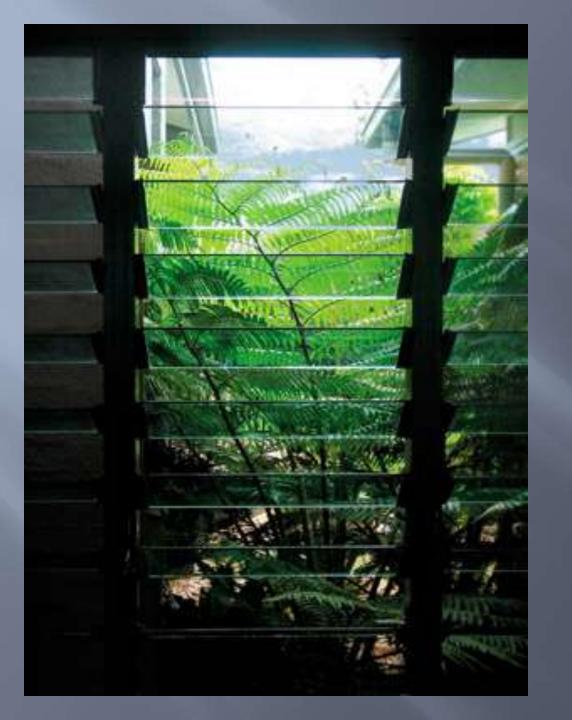












HORIZON ALIGNMENTS TO THE SEASONAL CYCLES

INTERIM SOLAR CALENDAR CÉSAR CHÁVEZ PARK BERKELEY, CALIFORNIA

WINTER EQUINOX SOUTH " SOLSTICE SUNSET" "SUNSET" DAYBREAK

DAYBREAK

IST DAY - SUMMER TROPIC OF CANCER

15T DAY WINTER

DAYBREAK WINTER EQUINOX

SUMMER SOLSTICE SUNSET

NORTH





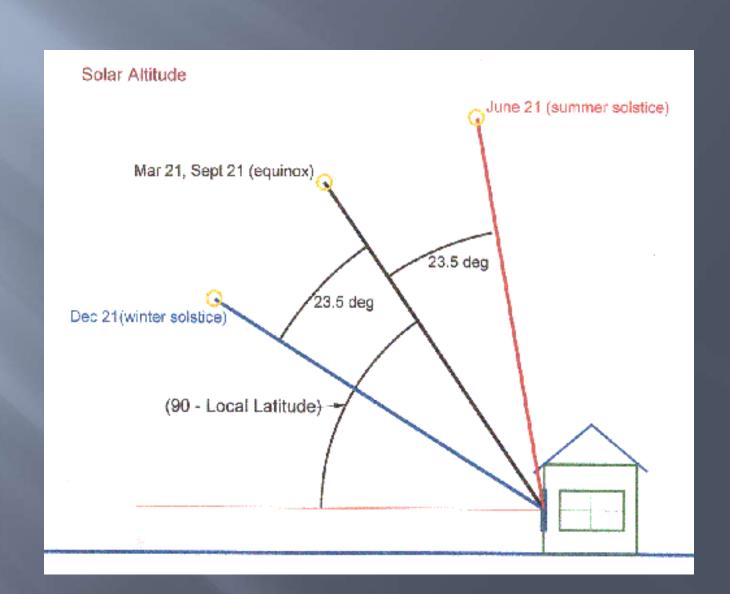
Energy









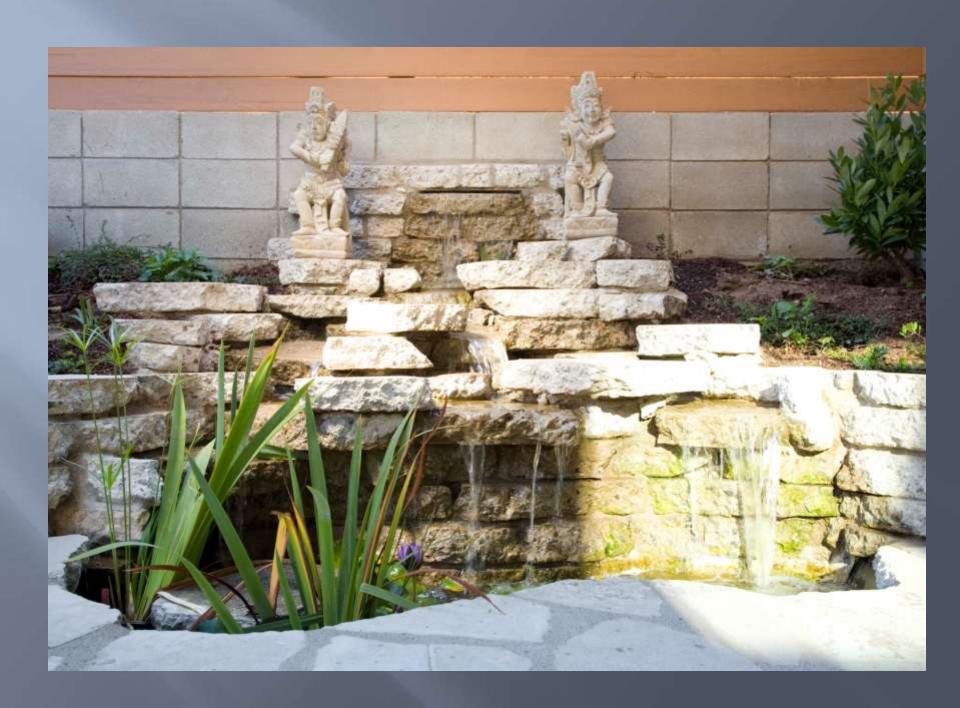




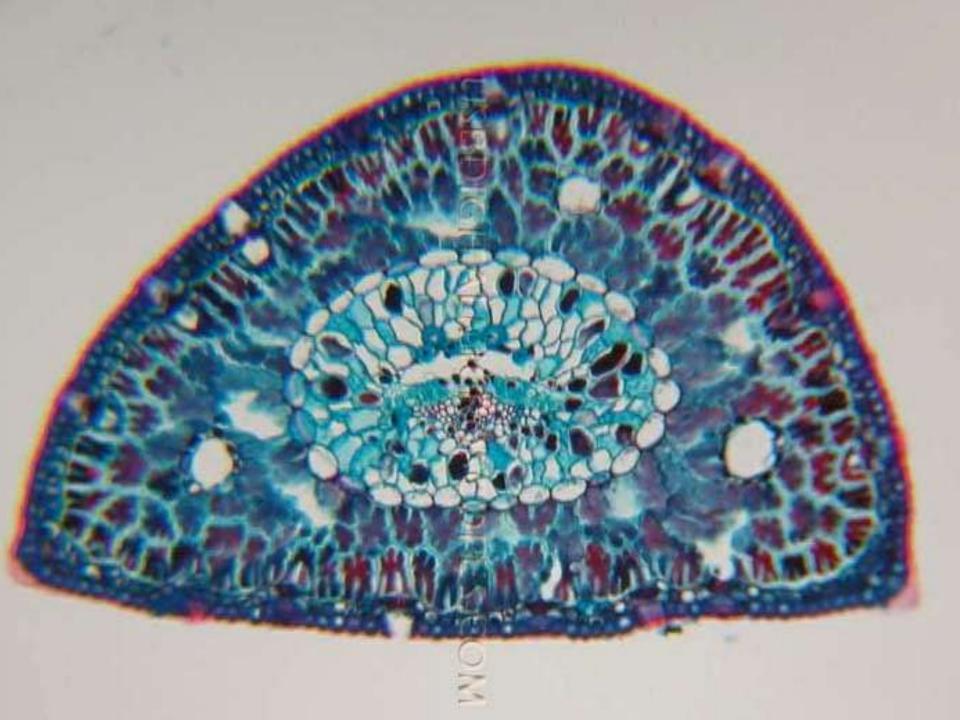


Water







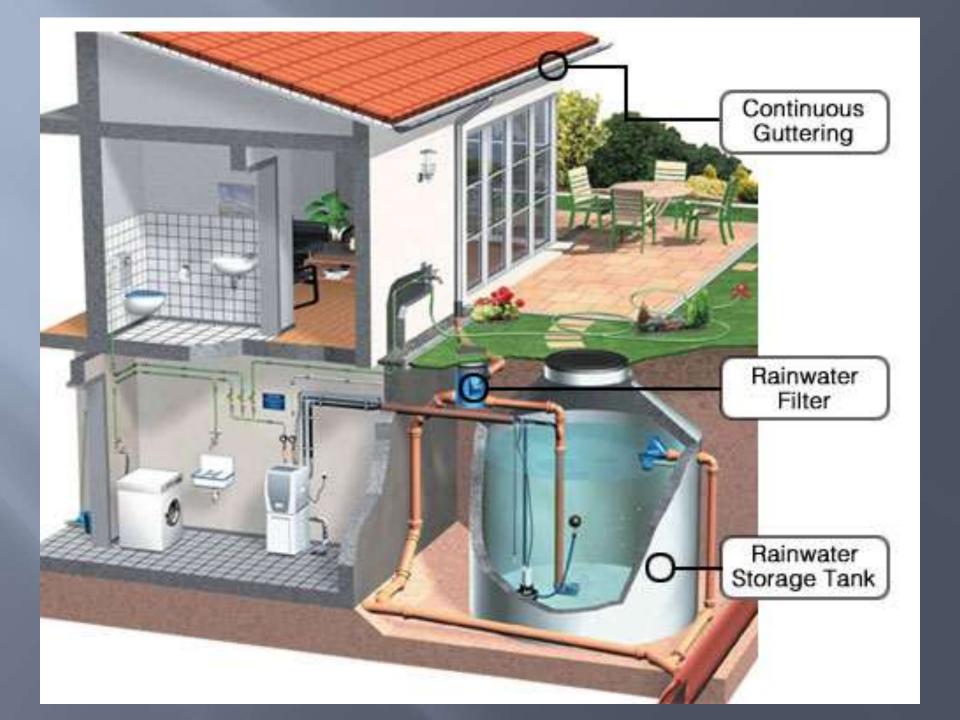


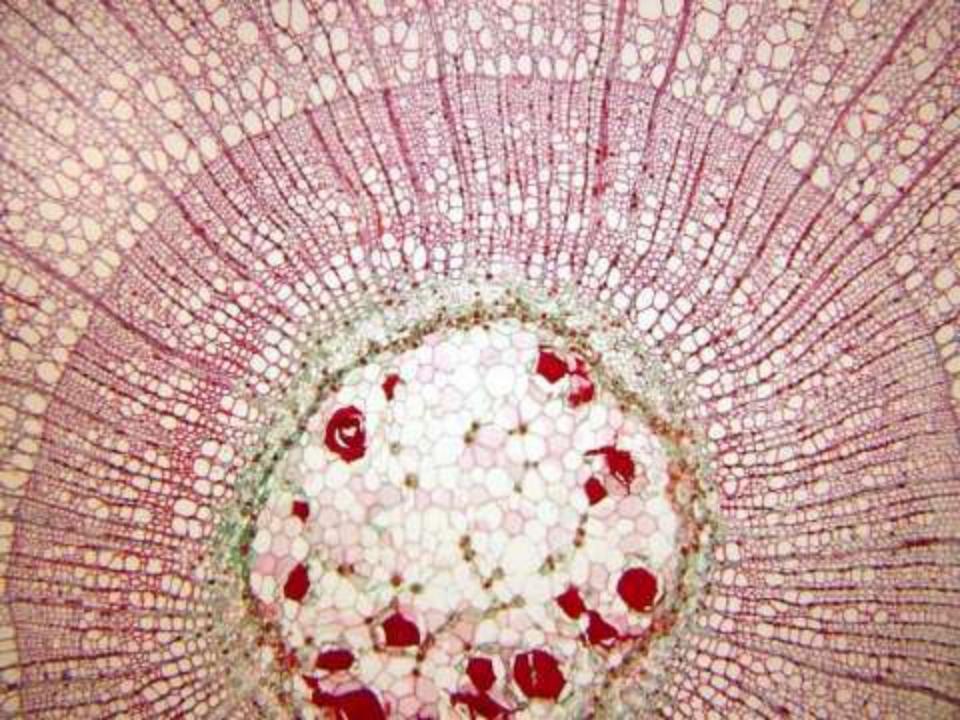










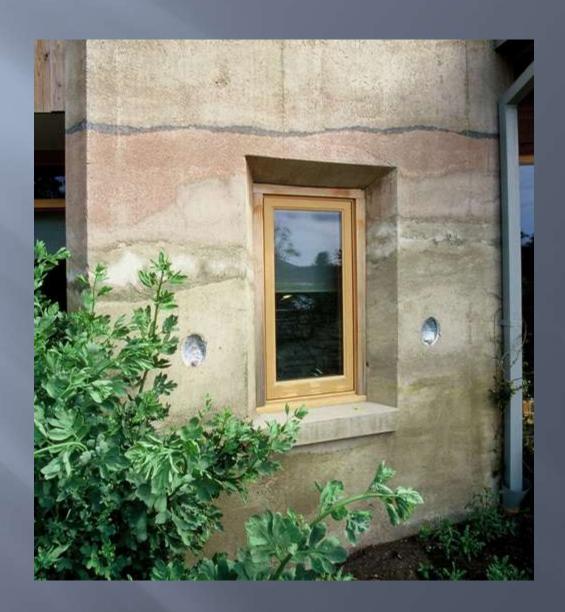


Protection











Fruit









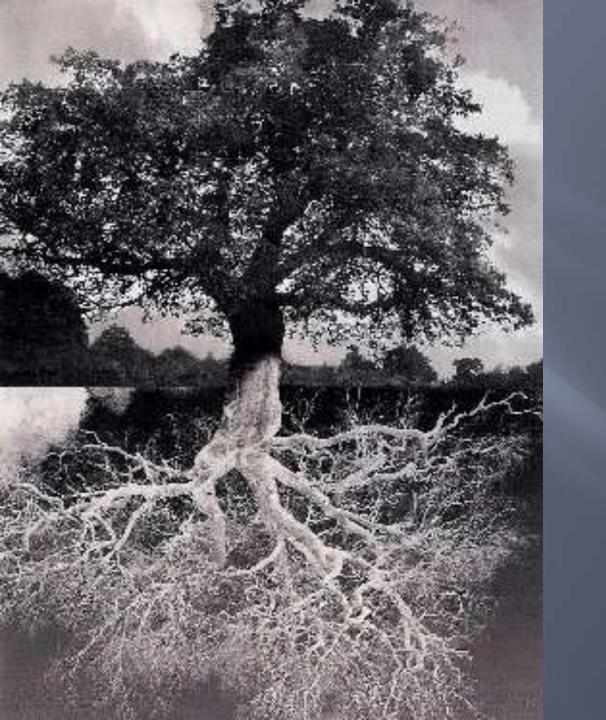








Roots







Balance







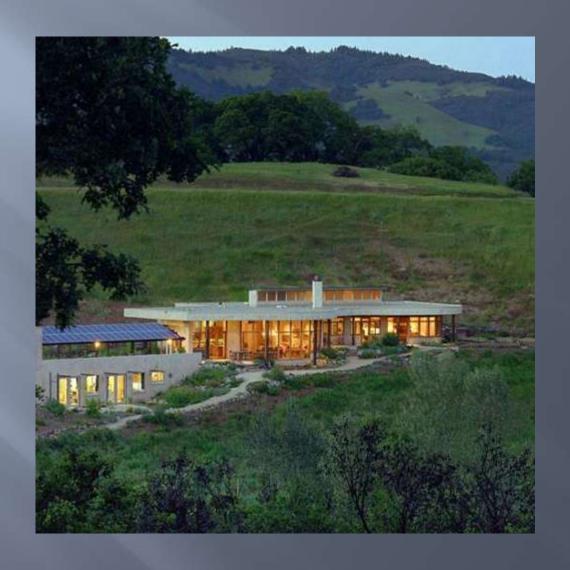






SENSE

... of self-sufficiency



SENSE

... of security



SENSE ... of beauty



SENSE ...of place



SENSE

... of abundance



SENSE...of wonder



SENSE ...of hope





A 2020 Vision

Looking Forward Ten Years to a Sustainable Idaho









We now have a little bit of time for some questions...









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Looking Forward Ten Years to a Sustainable Idaho

We hope you found this look into our future inspiring and that you will join will us a teality.







A 2020 Vision

Looking Forward Ten Years to a Sustainable Idaho

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