

This presentation premiered at WaterSmart Innovations

watersmartinnovations.com

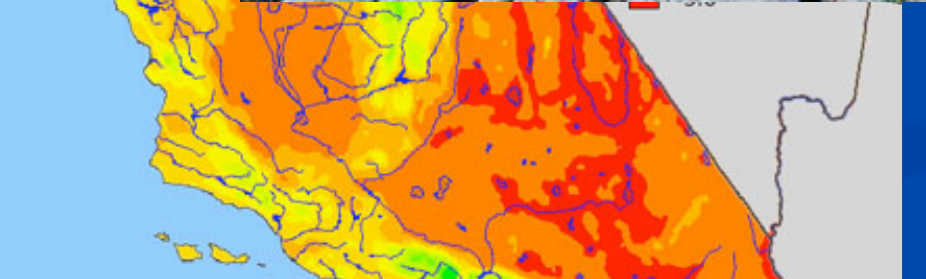
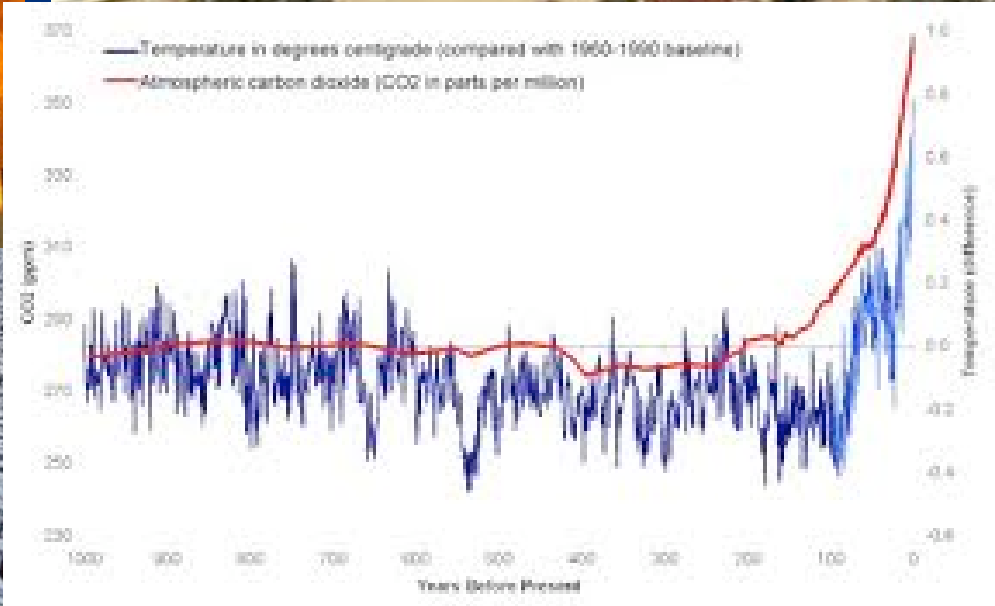


Timeless H₂O Ownership

vs.

Our 3 Paradoxes of Water

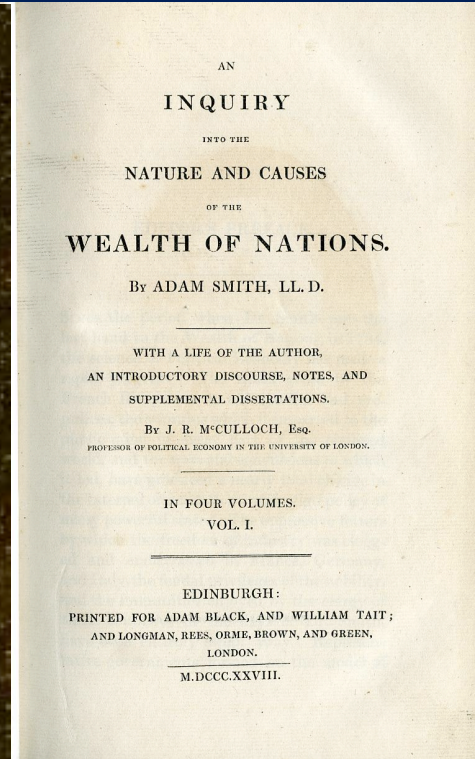
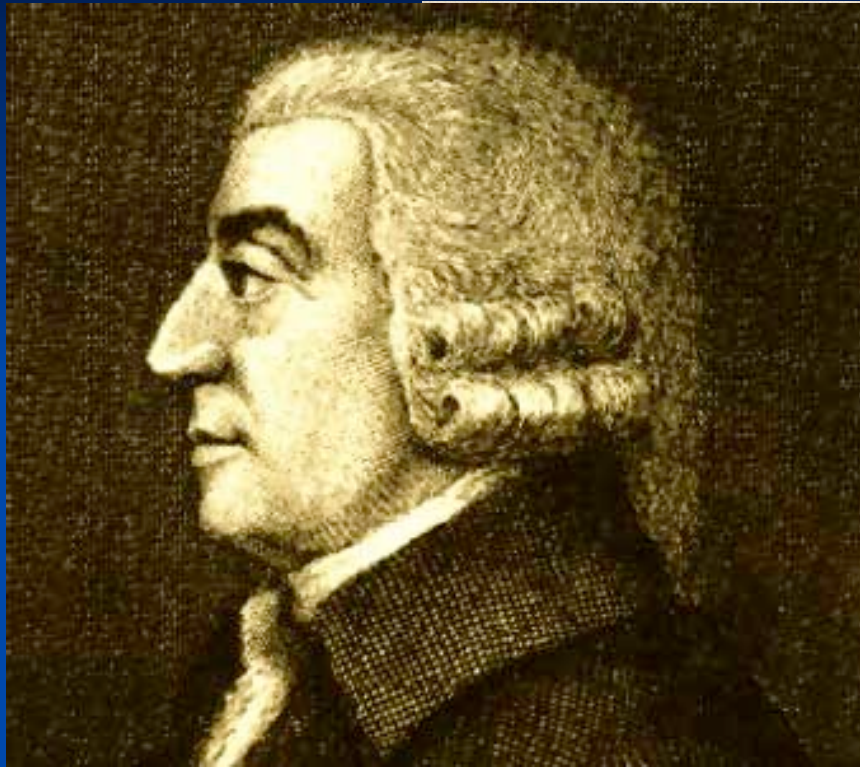
**[What All Resilient Civilizations Can Teach Us about
Conservation, Water Use, & Climate Adaptation]**





"There are two spiritual dangers in not owning a farm. One is the danger of supposing that breakfast comes from the grocery, and the other that heat comes from the furnace."

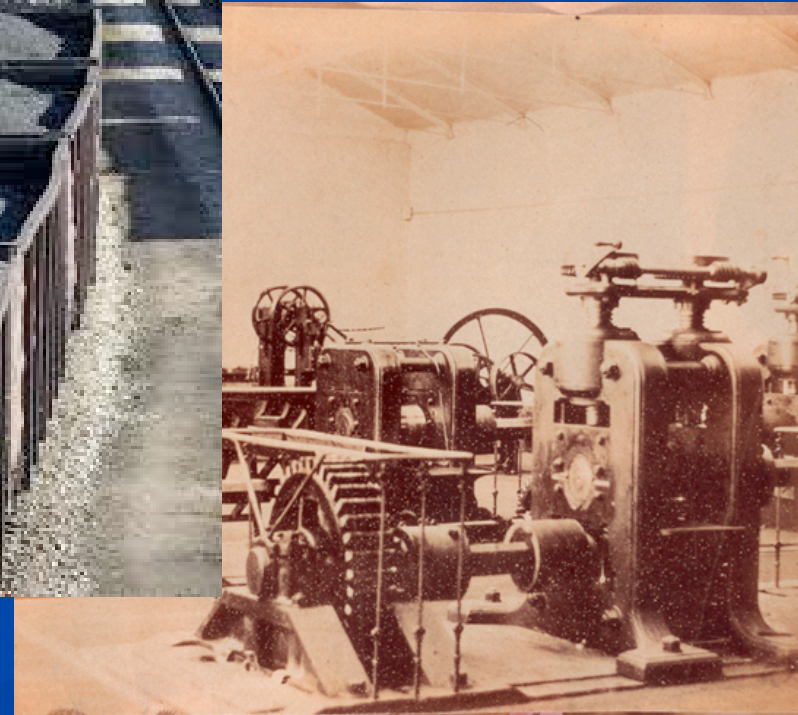
1. The Paradox of Value





“The things which have the greatest value in use have little or no value in exchange. Nothing is more useful than water: but it will purchase scarce anything.”

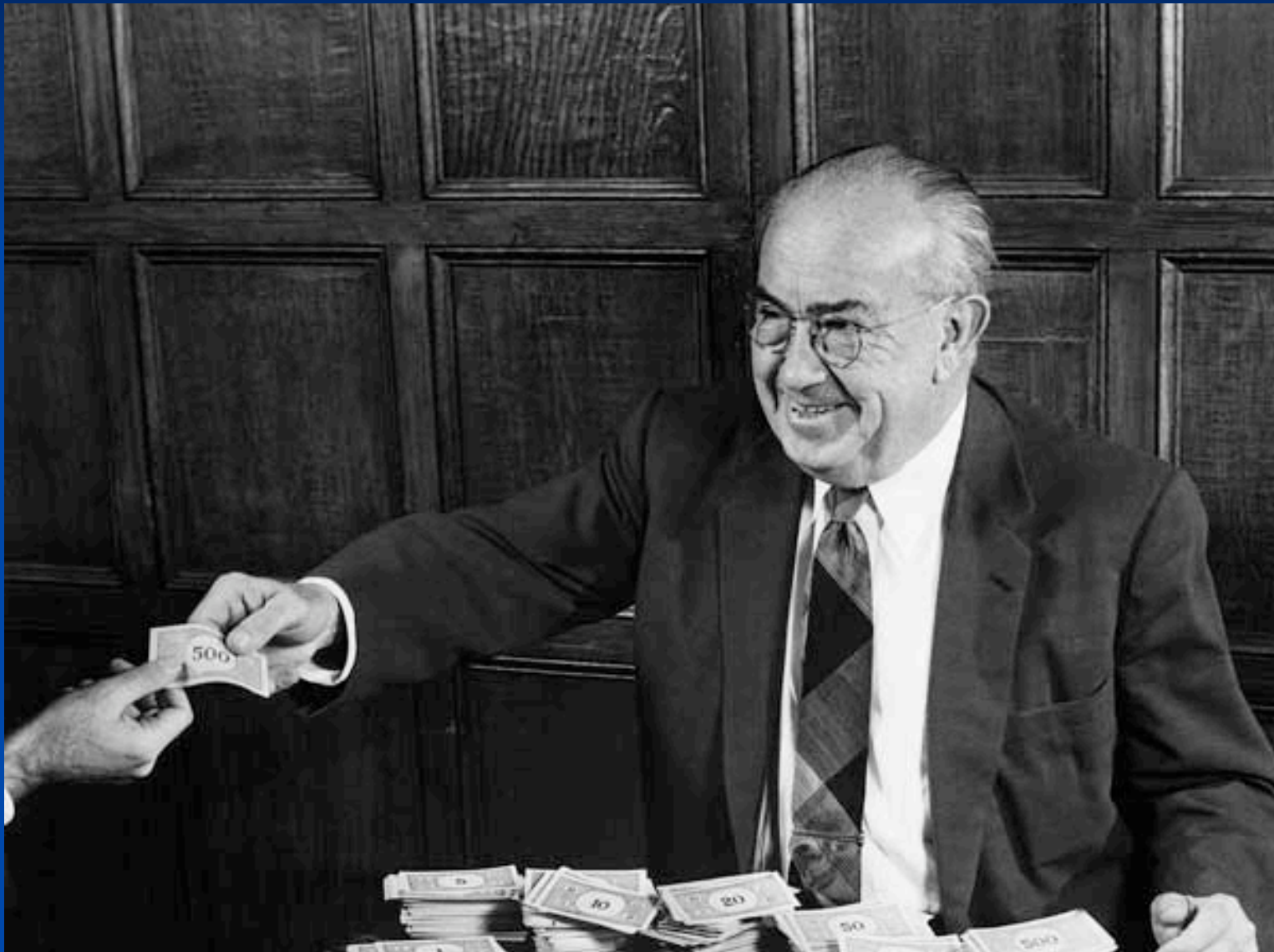
2. The Paradox of Efficiency





“It is wholly a confusion of ideas to suppose that the economical use of fuel is equivalent to a diminished consumption. *The very contrary is the truth.*”

3. The Paradox of Monopoly





ST. JAMES PLACE

| | |
|---------------|---------|
| Rent* | \$14.00 |
| With 1 House | 70.00 |
| With 2 Houses | 200.00 |
| With 3 Houses | 550.00 |
| With 4 Houses | 750.00 |
| With Hotel | 950.00 |

Mortgage Value 90.00

Houses cost \$100.00 each
Hotels, \$100.00 plus 4 houses

* If all properties of one color are owned, rent is doubled (on unimproved property only.)

TITLE DEED BOARDWALK

RENT \$50.

| | |
|---------------|---------|
| With 1 House | \$ 200. |
| With 2 Houses | 600. |
| With 3 Houses | 1400. |
| With 4 Houses | 1700. |

With HOTEL \$2000.

Mortgage Value \$200.

Houses cost \$200. each
Hotels, \$200. plus 4 houses

If a player owns All the lots of any Color Group, the rent is Doubled on Unimproved lots in that group.

© 1935 PARKER BROTHERS



WATER WORKS

If one "Utility" is owned
rent is 4 times amount shown
on dice.

If both "Utilities" are owned
rent is 10 times amount shown
on dice.

Mortgage Value \$75.

©1935 Hazco, Inc.



ELECTRIC COMPANY

If one "Utility" is owned
rent is 4 times amount shown
on dice.

If both "Utilities" are owned
rent is 10 times amount shown
on dice.

Mortgage Value \$75.

©1935 Hazco, Inc.

No Choice



No Competition



No Incentives to Conserve



Perversely Punish Conservation

**YOU CAN BE A
WATER SAVING HERO!**



Ration and Restrict the Efficient



Water & Energy: Artificially Cheap

Town of Needham Water & Sewer Bill



RETURN WITH PAYMENT

| SERVICE ADDRESS | | | |
|-----------------|-------|-----------|------------------|
| ACCOUNT NUMBER | CYCLE | BILL DATE | DUE DATE |
| 14295-15322 | 50-10 | 3/17/09 | 4/16/09 |
| | | | 173.40 |
| | | | 0 |
| | | | Balance Forward |
| | | | Total Amount Due |
| | | | 173.40 |

KING BRIAN
 8 PROSPECT ST
 NEEDHAM MA 02492

000014295000015322000000173409

1477

| SERVICE ADDRESS | | | |
|-----------------|-------|-----------|----------|
| ACCOUNT NUMBER | CYCLE | BILL DATE | DUE DATE |
| 14295-15322 | 50-10 | 3/17/09 | 4/16/09 |

Rate Class : RESIDENTIAL
 Last payment amount/date: 185.55 1/08/09

| Service | Period | Days | Meter | Number | HCF | Units | Current | Previous | Usage |
|-------------|-------------------|---------|-------|----------|-------|-------|------------------|----------|--------|
| WA | 12/01/08 | 2/26/09 | 87 | 85459154 | 1.000 | CUFT | 6100 | 4700 | 14 |
| Consumption | | | | | | | | | |
| WA | STEP 1 | | | | | | 600 | | 15.00 |
| WA | STEP 2 | | | | | | 800 | | 30.00 |
| TOTAL WATER | | | | | | | | | |
| Usage | | | | | | | | | |
| SW | STEP 1 | | | | | | 600 | | 46.20 |
| SW | STEP 2 | | | | | | 800 | | 67.20 |
| TOTAL SEWER | | | | | | | | | |
| Usage | | | | | | | | | |
| SF | BASIC SERVICE FEE | | | | | | | | |
| | | | | | | | 15.00 | | 15.00 |
| | | | | | | | 0 | | 173.40 |
| | | | | | | | Balance Forward | | .00 |
| | | | | | | | Total Amount Due | | 173.40 |

Average cost per day 1.97



[Home](#)
[Monthly Events](#)
[Frequently Asked Questions](#)
[Additional Bill Information](#)

Account Number: **Intention**

| Due Date | Amount Due |
|-------------|------------|
| Feb 3, 2009 | \$ 227.15 |

Late
 550 Laurel
 Cincinnati, OH 45246

PO Box 9081076
 Louisville KY 40290-1076

| Name/Service Address | Duke Energy | For Inquiries Call | Account Number |
|--|-------------|--------------------|----------------|
| Late 550 Laurel Cincinnati OH 45246 | | 513-421-9500 | Intenti |

| Mail Payments To | Account Information |
|--|--|
| PO Box 9081076 Louisville KY 40290-1076 | Payments after Jan 12 not included Last payment received Dec 29 Bill prepared on Jan 12, 2009 Next meter reading Feb 26, 2009 |

| Meter | Number | Reading Date | From | To | Days | Meter Reading | Usage |
|----------|--------|--------------|--------|--------|------|---------------|-------|
| Gas | Inten | 1 | Dec 08 | Jan 09 | 33 | 5077 | 6230 |
| Electric | Inten | 2 | Dec 04 | Jan 06 | 33 | 62107 | 60430 |

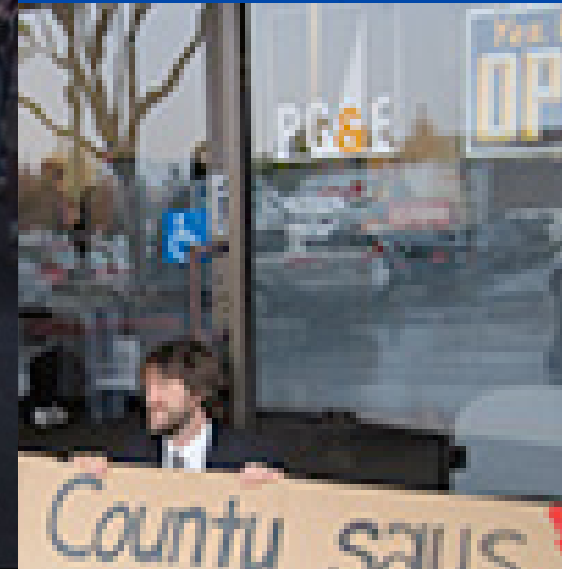
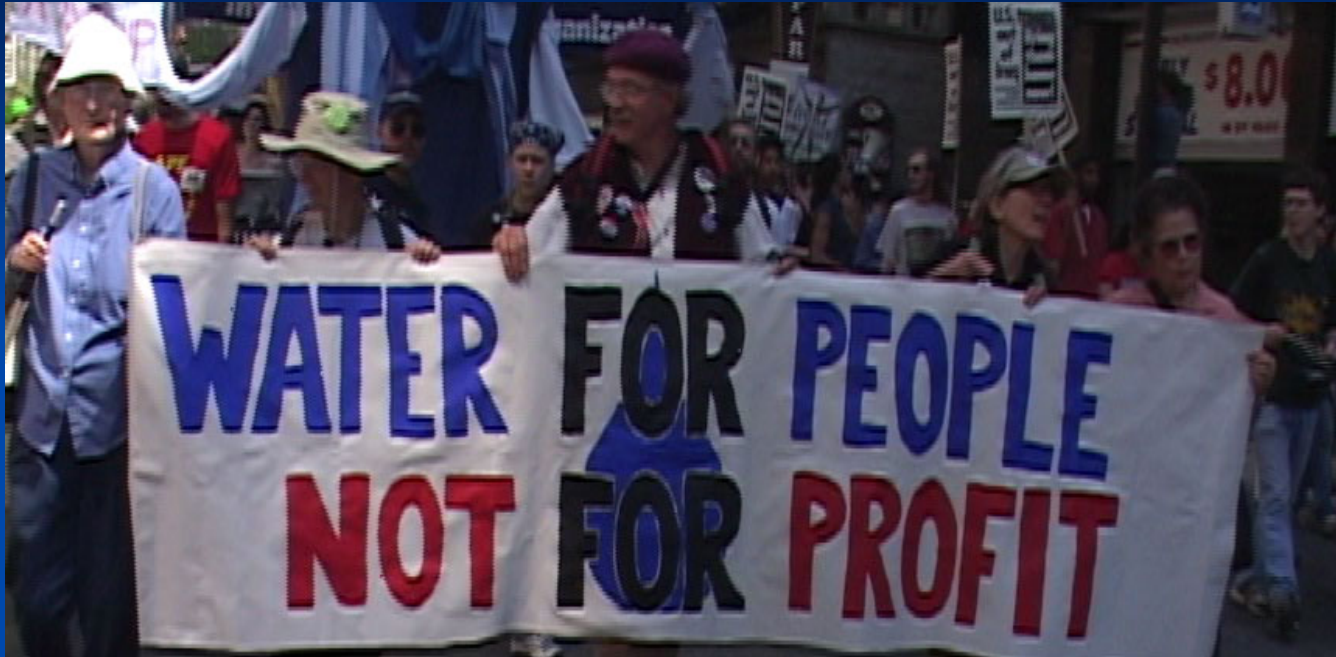
| Gas - Residential | |
|------------------------------------|------------------|
| Usage - 161 CCF | |
| Duke Energy - Rate RS | \$ 283.32 |
| Current Gas Charges | \$ 283.32 |
| Gas Cost Recovery \$0.97360000/CCF | |

| Current Billing | |
|----------------------------|------------------|
| Amount Due - Previous Bill | \$ 3.06 |
| Payments Received | 3.06 |
| Balance Forward | 0.00 |
| Current Gas Charges | 283.32 |
| Current Electric Charges | 33.03 |
| Current Amount Due | \$ 227.15 |

| Electric - Residential | |
|---------------------------------|-----------------|
| Usage - 221 kWh | |
| Duke Energy - Rate RS | \$ 29.96 |
| Usage - 32 kWh | |
| Duke Energy - Rate RS | 3.00 |
| Current Electric Charges | \$ 33.03 |

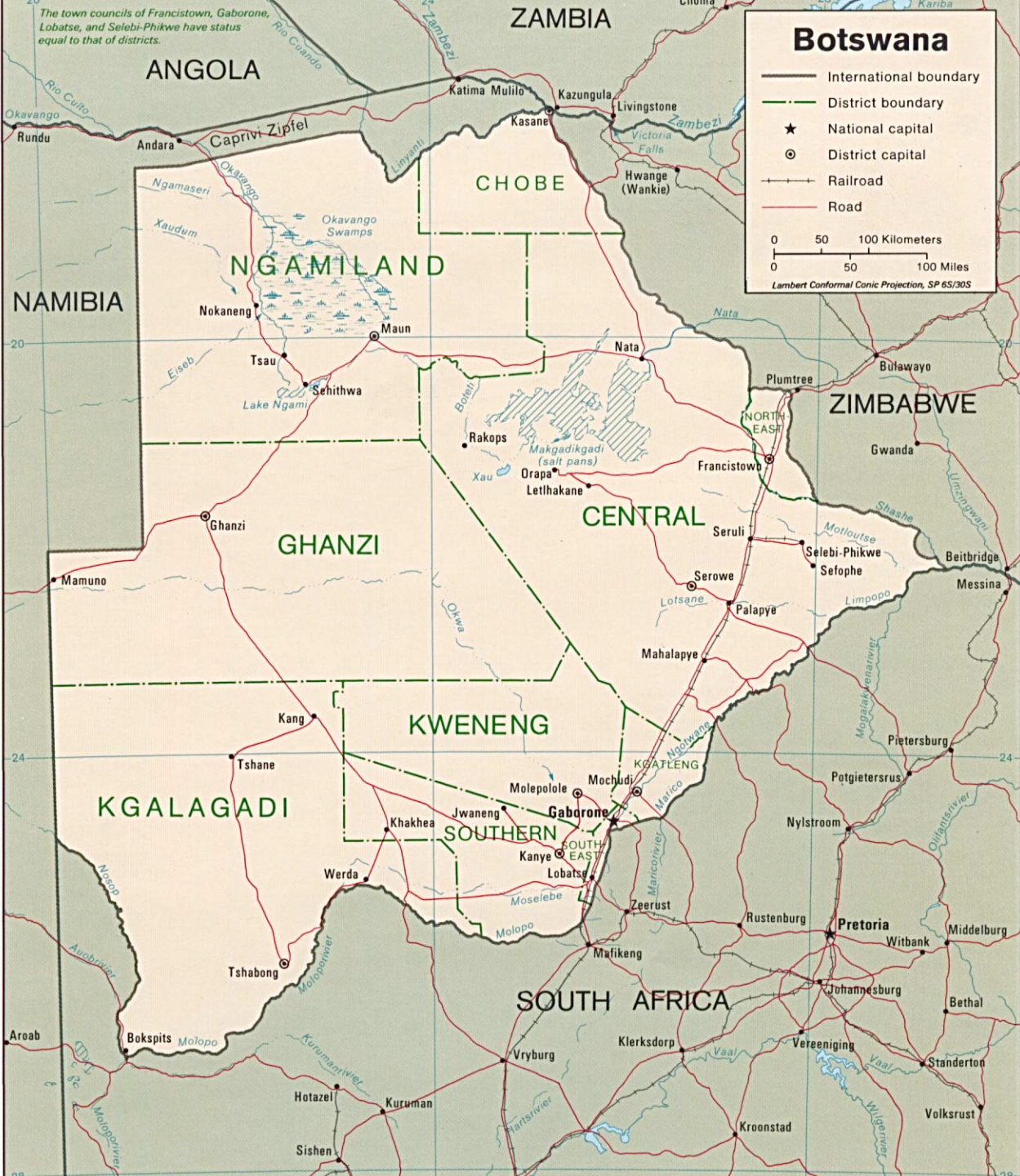
This month's Gas Cost Recovery (GCR) charge for customers purchasing their natural gas from Duke Energy is \$0.9736 per CCF, which includes a base GCR of \$0.9202 and Ohio excise tax of \$0.0434.

Political Suicide & 'Us vs. Them' Conflict









The town councils of Francistown, Gaborone, Lobatse, and Selebi-Phikwe have status equal to that of districts.

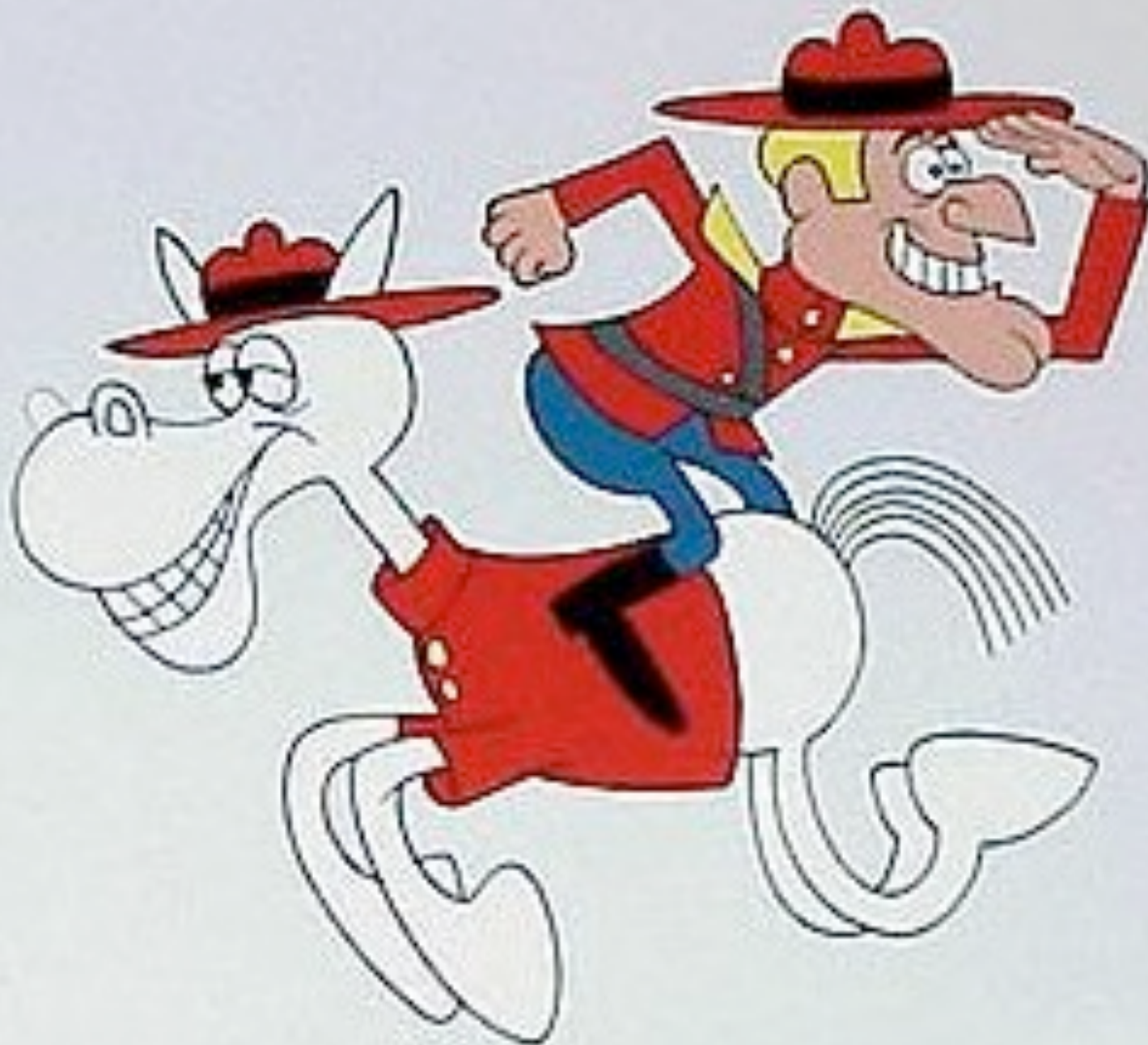
Botswana

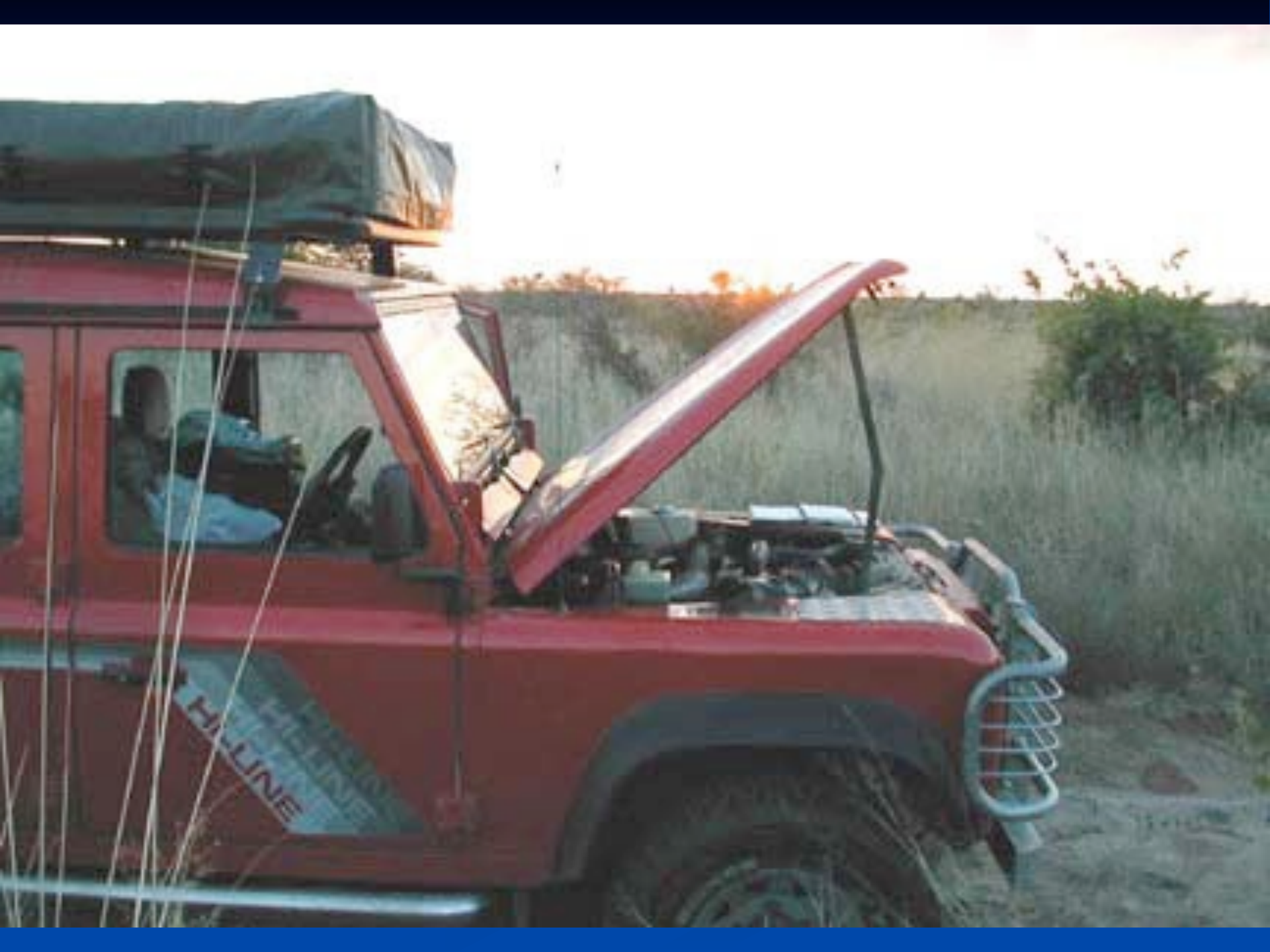
- International boundary
- District boundary
- National capital
- District capital
- Railroad
- Road

0 50 100 Kilometers

0 50 100 Miles

Lambert Conformal Conic Projection, SP 6S/30S







Where Nature Abhors Monopoly & Society Self-Organizes around Water



Where You Earn & Own Fair Shares of Water



Where *!Xaro* system drives voluntary exchanges



Arabian aflaj/falaj system of traditional irrigation

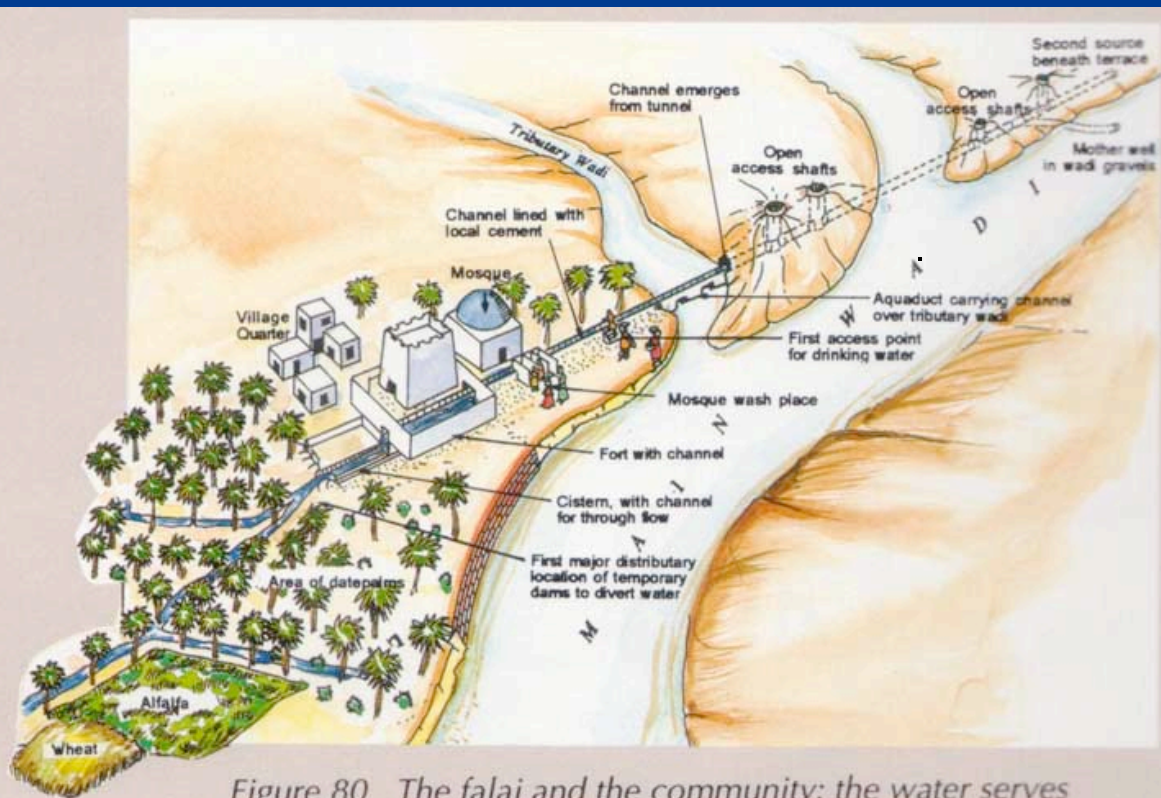
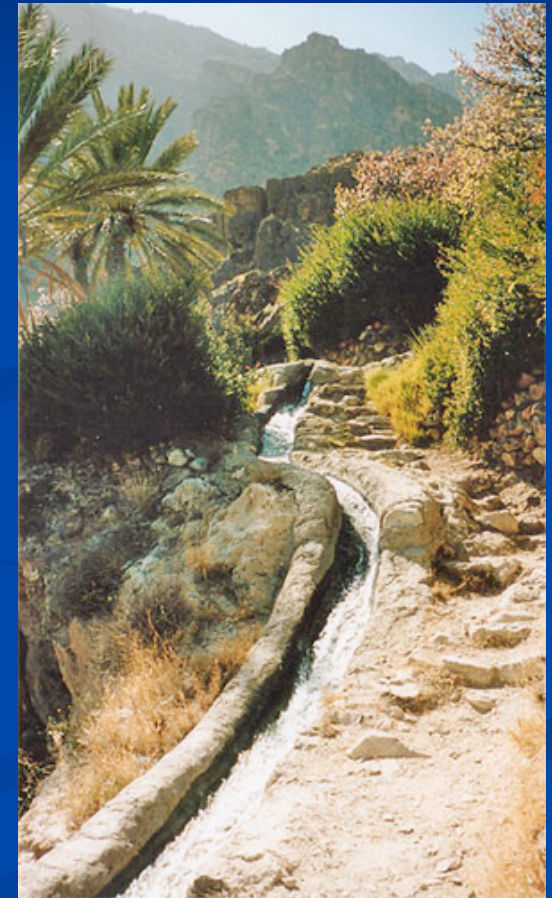
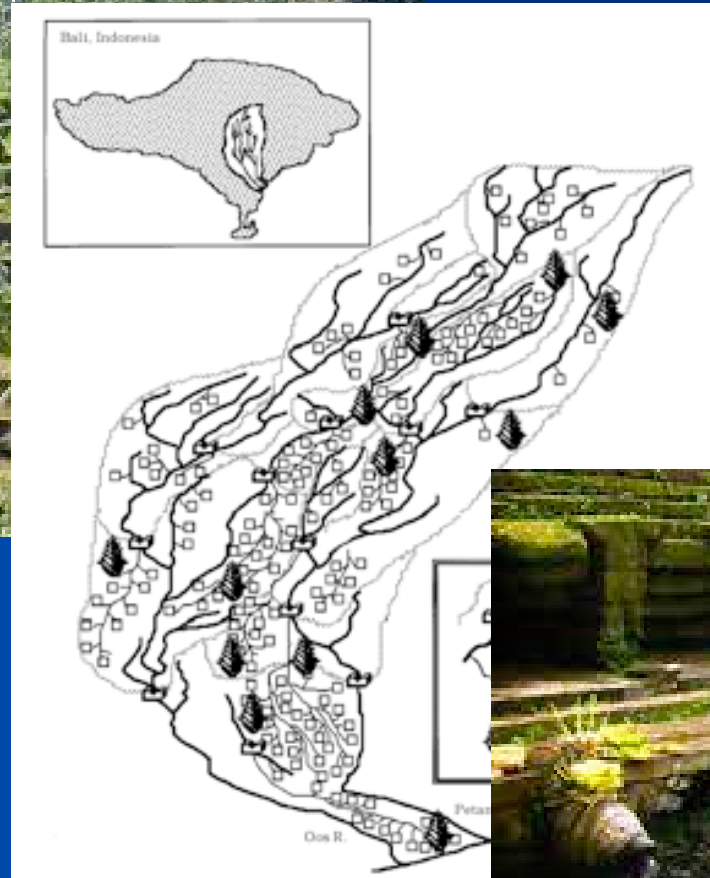


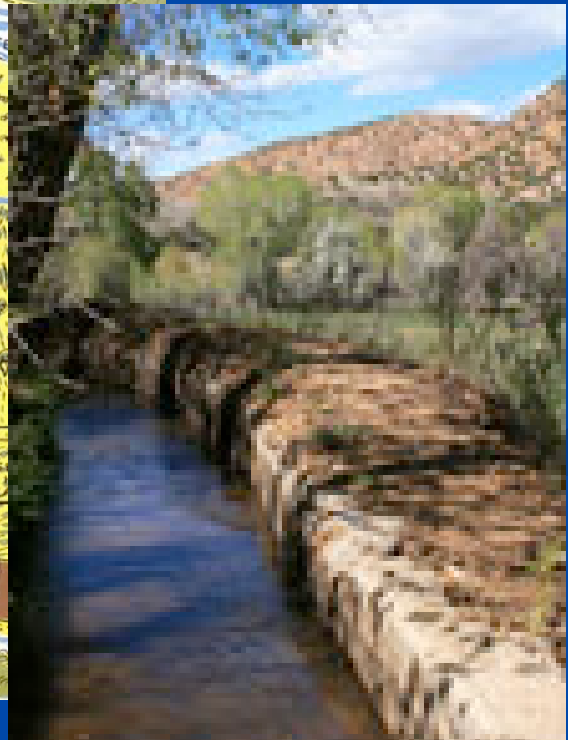
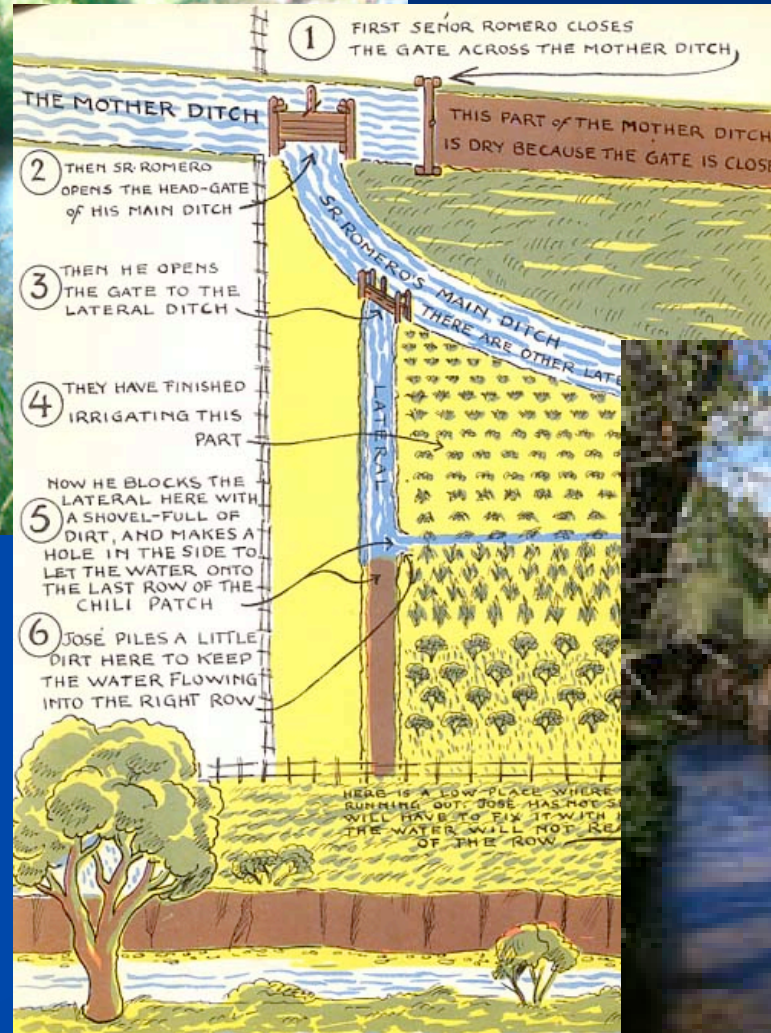
Figure 80 The falaj and the community: the water serves different purposes as it flows through the village.



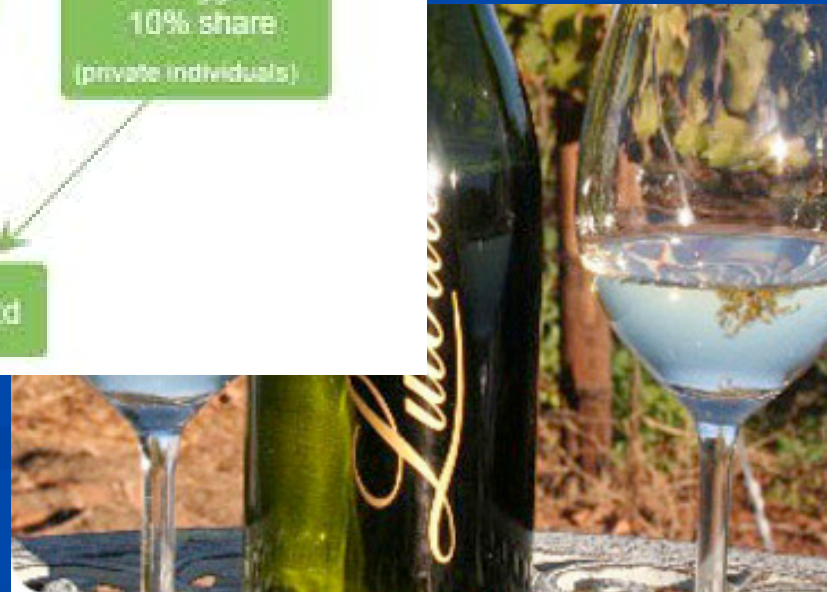
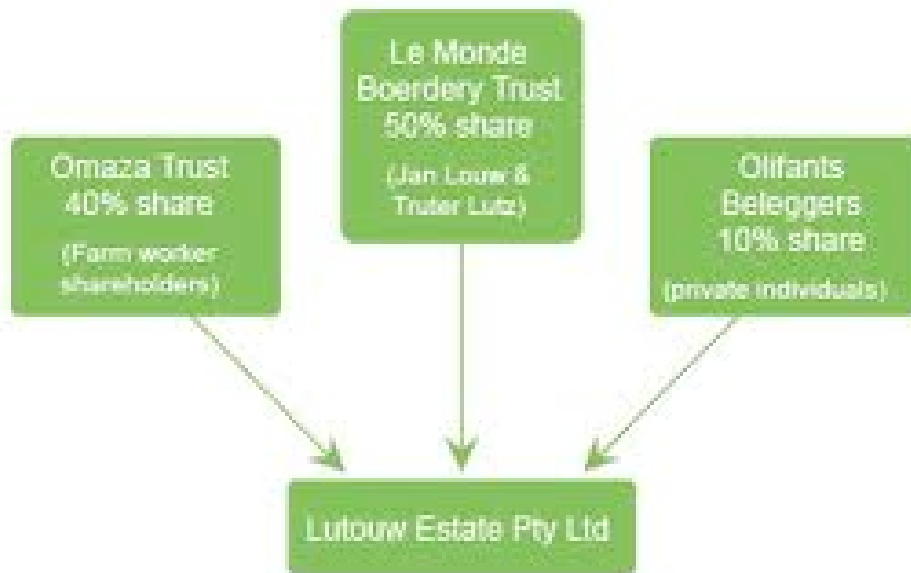
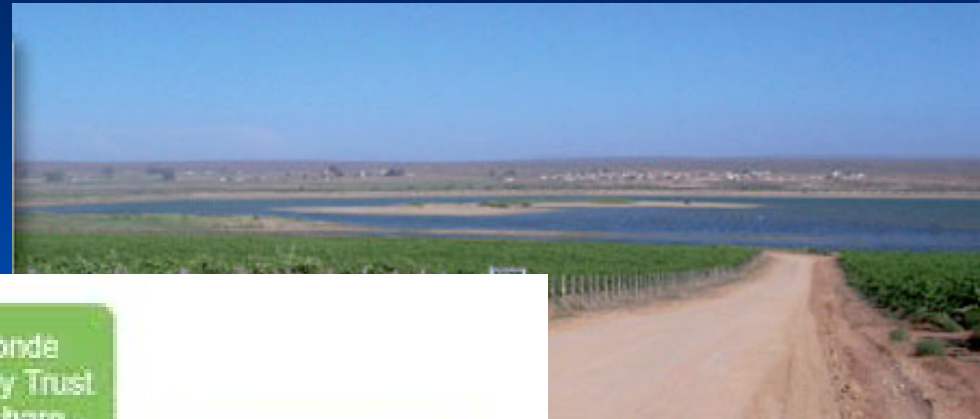
Balinese Water Temples

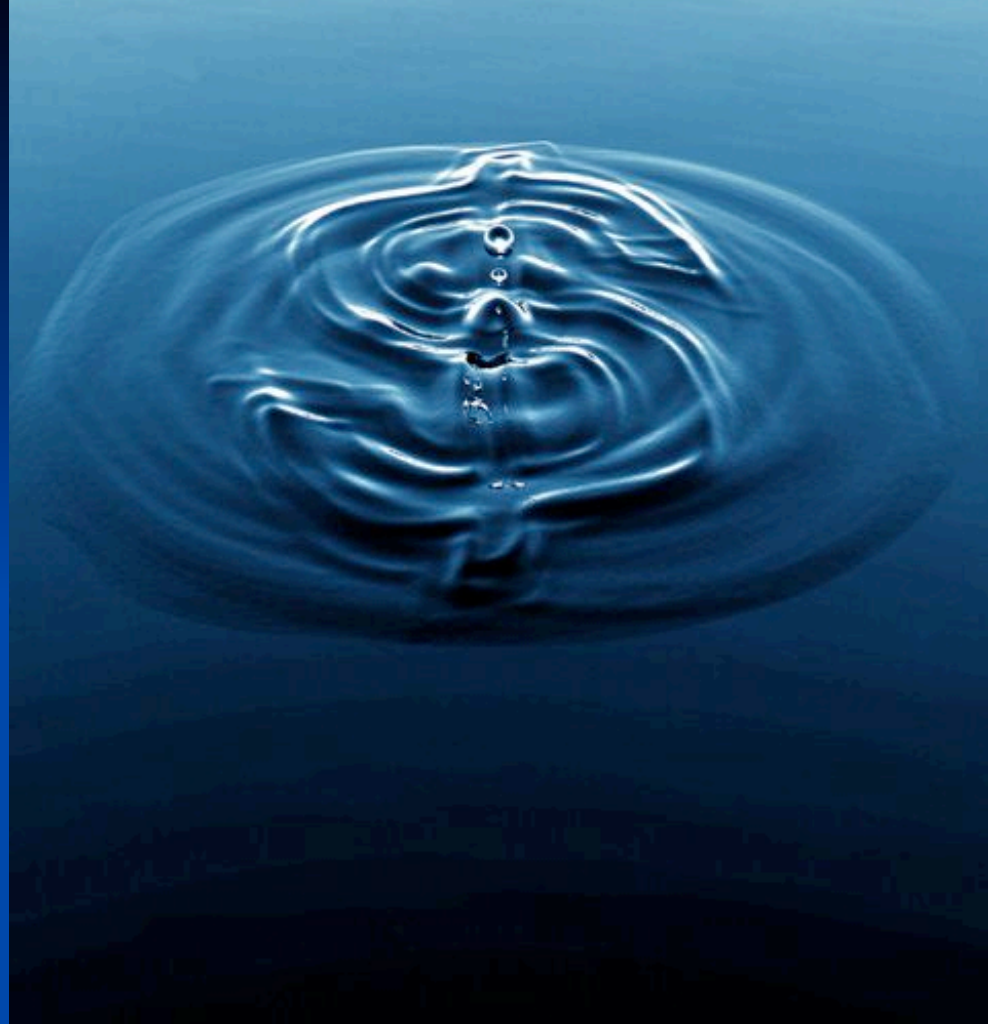
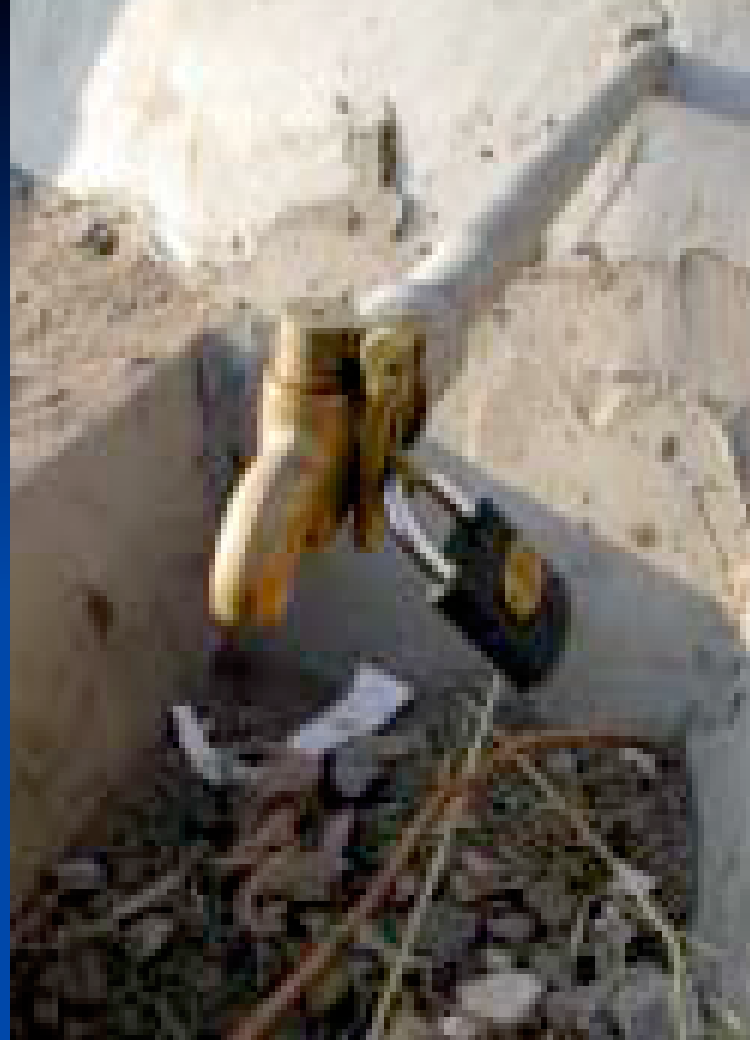


Traditional Hispanic Acequias



South African irrigation farm;





**H2Oownership: Clear Equity Shares of
Local Watershed with Responsibility
to Own, Use, Invest in & Exchange**

30,000 yr old Kalahari innovations
+
Modern Silicon Valley technology
=
Virtual H2Oownership & Exchange



SmartMarkets

eBay/E*Trade within Water Utilities



AquaJust
unlock your liquid assets

Online platform to own & trade efficiency credits or 'EcoShares:

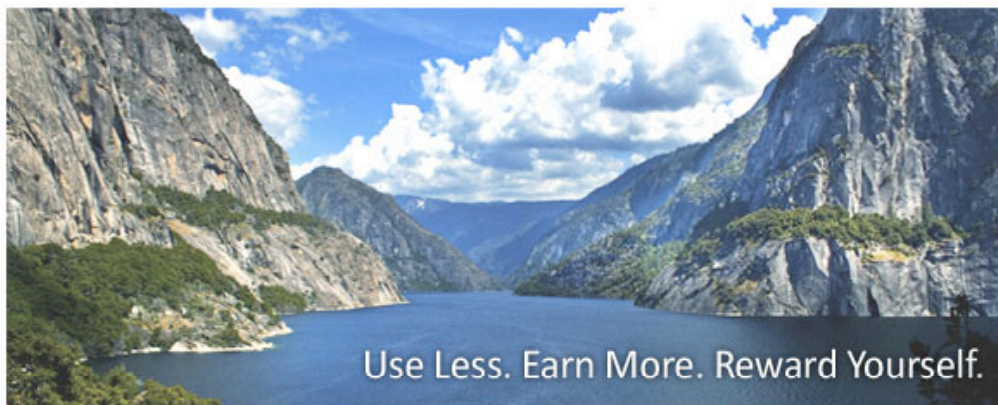
Turns all ratepayers into equal shareholders

Ends 'us vs. utility vs. nature' political conflicts

Reverses 'Tragedy of commons' into resilience cycle:

- As water grows scarce, EcoShares increase in price.
- Higher price encourages users to conserve
- To make saved shares worth more, democratic pressure on utility to raise rates.
- Users give water to have increasingly higher value.

Easy to Customize, Adapt, Scale & Replicate

[ABOUT AQUAJUST](#)[CONTACT US](#)[LOGIN](#)

Use Less. Earn More. Reward Yourself.

Start learning about EcoShares and earning your fair share of rewards

How can I own water - and what are EcoShares™?

Two ways: you can physically store and convey the wet stuff, or virtually earn and accumulate units of a measurable amount, much like frequent flier miles or credit card loyalty points. The virtual amount of water you own - say, 150 gallons per meter, per day - appears in your municipal water statements as a credit, or EcoShare™.

How can I "Save & Trade" EcoShares™?

Of course, you may "spend" EcoShares (by flushing your toilet, washing your car, watering your lawn) or "save" them (by reducing, reusing and recycling water in your home or office). With equal and fair EcoShares, you and your neighbors have the same incentive to conserve; you accumulate virtual water credits with real monetary value. The more water you save, the more credit you earn to donate, trade or sell for cash.

Participating Partners

City of Sonoma
Colorado River Utility
Sacramento River Utility
Rio Grande River Utility

Would you like AquaJust in
Your Community? [Click here](#)
to tell us your city and ZIP code.

Climate Proof Your Utility

Help make it even more efficient.
Capture runoff. Get more pop per drop.
Build resilience.

As a former 'water renter' who now owns equal shares in a precious liquid asset, help your utility help you. Collaborate to eliminate waste in the system, starting from your home and office and moving up to the source.


[LEARN MORE](#) ►

Conservation Insights

Yes, please send me updates!

Please send me updates on new ways to use less, earn more, and reward myself through AquaJust.

Motivates you to track & alter daily use...




ABOUT AQUAJUST CONTACT US LOGOUT

Home My AquaJust Trades Community

See Your Use and Conservation Below!

Daily EcoShare Gallons Allocated




150 Gallons

Current Use

Change **+4%**

Gallons Remaining **107** (71%)

Gallons In Use **43** (29%)



EcoShares Saved

This Month **23.47**

Year To Date **149.13**

Account Summary

Your EcoShares will roll over into your AquaJust Vault, unless you would prefer to:

[Collect EcoRewards](#) [Buy & Sell EcoShares](#) [Donate EcoShares](#)

Your EcoShares' current cash value is:

\$1,250.00

Compare My Use

Monthly | [Daily](#)

New Messages

09/15/2009 - Nancy Pelosi [Commercial Prices Offered to Residents](#)


09/16/2009 - Jerry Brown [Tankless Water Heater](#)

09/16/2009 - Diane Feinstein [Want to sell your EcoShares at a Premium?](#)

[ALL MESSAGES](#) ▶

AquaJust On The Go

Arnold, are you an iPhone User?



| Date | Type | Member | EcoShares | Price |
|------------|------|---------|-----------|---------|
| 09/15/2009 | SELL | Arnold | 10 | \$25.12 |
| 09/15/2009 | BUY | Carroll | 8 | \$15.87 |
| 09/16/2009 | BUY | Carroll | 2 | \$15.10 |

| Date | Type | Member | EcoShares | Price |
|------------|------|--------|-----------|---------|
| 11/02/2009 | SELL | Latham | 8 | \$26.12 |
| 10/12/2009 | BUY | Ward | 12 | \$48.07 |
| 09/11/2009 | SELL | Ortiz | 2 | \$74.12 |

...because you now earn credits with \$ value

Your EcoShares will roll over into your AquaJust Vault, unless you would prefer to:

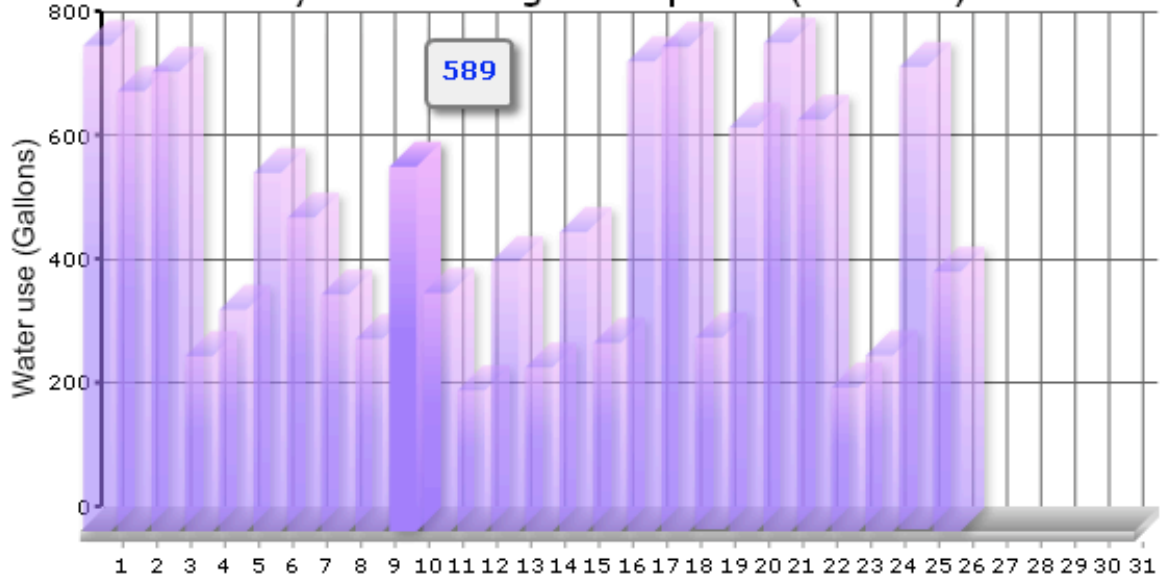
- Collect EcoRewards
- Buy & Sell EcoShares
- Donate EcoShares

\$1,250.00

Compare My Use

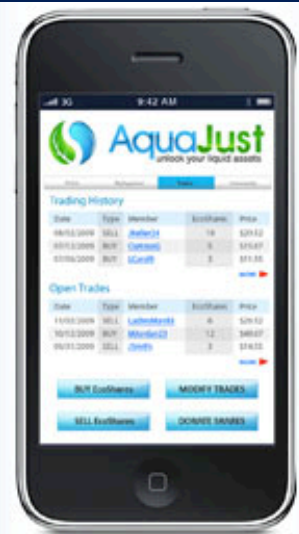
Monthly | **Daily**

Daily Water Usage Compared (October)



Climate Data

Monthly | **Daily**



If so, be sure to download AquaJust to your phone so you can save, trade, and reward yourself while on the move! The power of AquaJust in the palm of your hands - FREE!

[DETAILS](#) ▶

...from your trades in local utility exchange

AquaJust
unlock your liquid assets

ABOUT AQUAJUST CONTACT US LOGOUT

Welcome back Arnold Schwarzenegger!

Home MyAquaJust **Trades** Community

Trading History

| Date | Type | Member | EcoShares | Price |
|------------|------|---------------------------|-----------|---------|
| 08/02/2009 | SELL | JKeller24 | 10 | \$20.52 |
| 07/12/2009 | BUY | CuriousG | 5 | \$15.67 |
| 07/06/2009 | BUY | LCarol9 | 3 | \$11.55 |

[MORE](#)

Open Trades

| Date | Type | Member | EcoShares | Price |
|------------|------|-----------------------------|-----------|---------|
| 11/02/2009 | SELL | LadiesMan83 | 6 | \$26.52 |
| 10/12/2009 | BUY | MJordan23 | 12 | \$48.67 |
| 09/31/2009 | SELL | JSmith | 3 | \$14.55 |

[MORE](#)

Actions

[Buy EcoShares](#) [Modify Trades](#)
[Sell EcoShares](#) [Donate Shares](#)

EcoShares Earning Rank

Your EcoShares earning rank compared to the rest of the [AquaJust Community](#):

83%

Here's the money you could earn by saving & selling EcoShares at today's price:

\$16.43

EcoShares Market

Number of trades for AUG in district: **34,731**
Average price of each for AUG: **\$2.34**
Total volume exchanges: **\$81,270.54**
Largest single transaction: **8,950 EchoSares at \$2.21**
AquaJust participation rate in district: **73%**

Water Trading Mgmt

ACTIVE

Automatic EcoShare Management

I'm far too busy to follow my EcoShares on a regular basis. I authorize AquaJust make the trades automatically: Sell my surplus credits high, and buy my shortfall needs low, doing so all at prices that maximize my earnings and minimize my charges. (Up to 100 shares per day)

EcoShares California 100 Index

\$12.13 ▲
Change **+0.10 +0.79%**

Compare: Indexes ▼ [ADD](#)

Water's 3 Paradoxes, Resolved

- Exchanges take place until value in exchange rises to equal value in use
- Individual efficiencies are captured to sell or donate; not lose to system
- Virtual 'click' markets unlock physical 'brick' monopolies from within vertically integrated structure





HEART OF DRYNESS

◆ ◆ ◆
HOW THE LAST BUSHMEN
CAN HELP US ENDURE THE COMING AGE
OF PERMANENT DROUGHT

JAMES G. WORKMAN

Thank you

- James G. Workman
- SmartMarkets LLC
- Mobile: +1 415 728 3494



SmartMarkets



SmartMarkets

**Using Technology to Secure Social Equity,
Economic Efficiency, New Job Opportunities and
Stable Growth in the Kingdom of Saudi Arabia**

Monty Simus & Jamie Workman

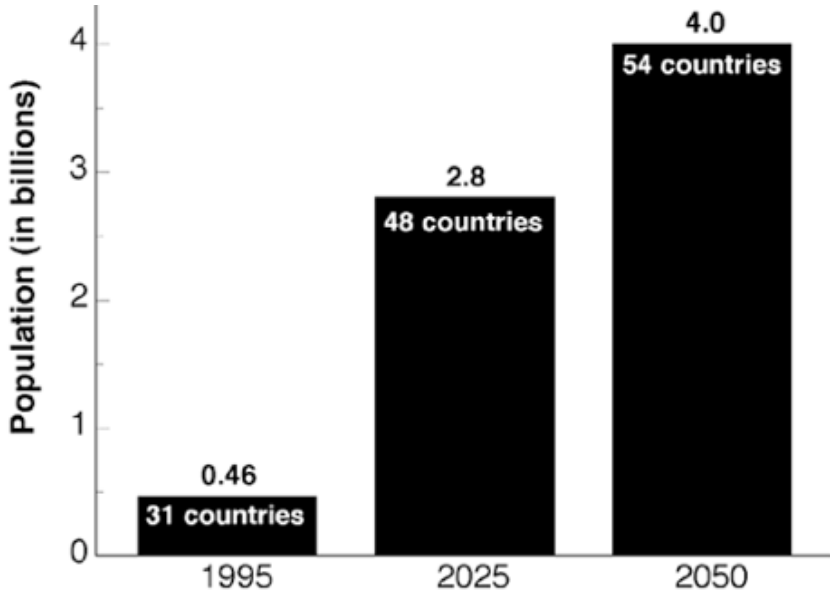
23 September

Risks

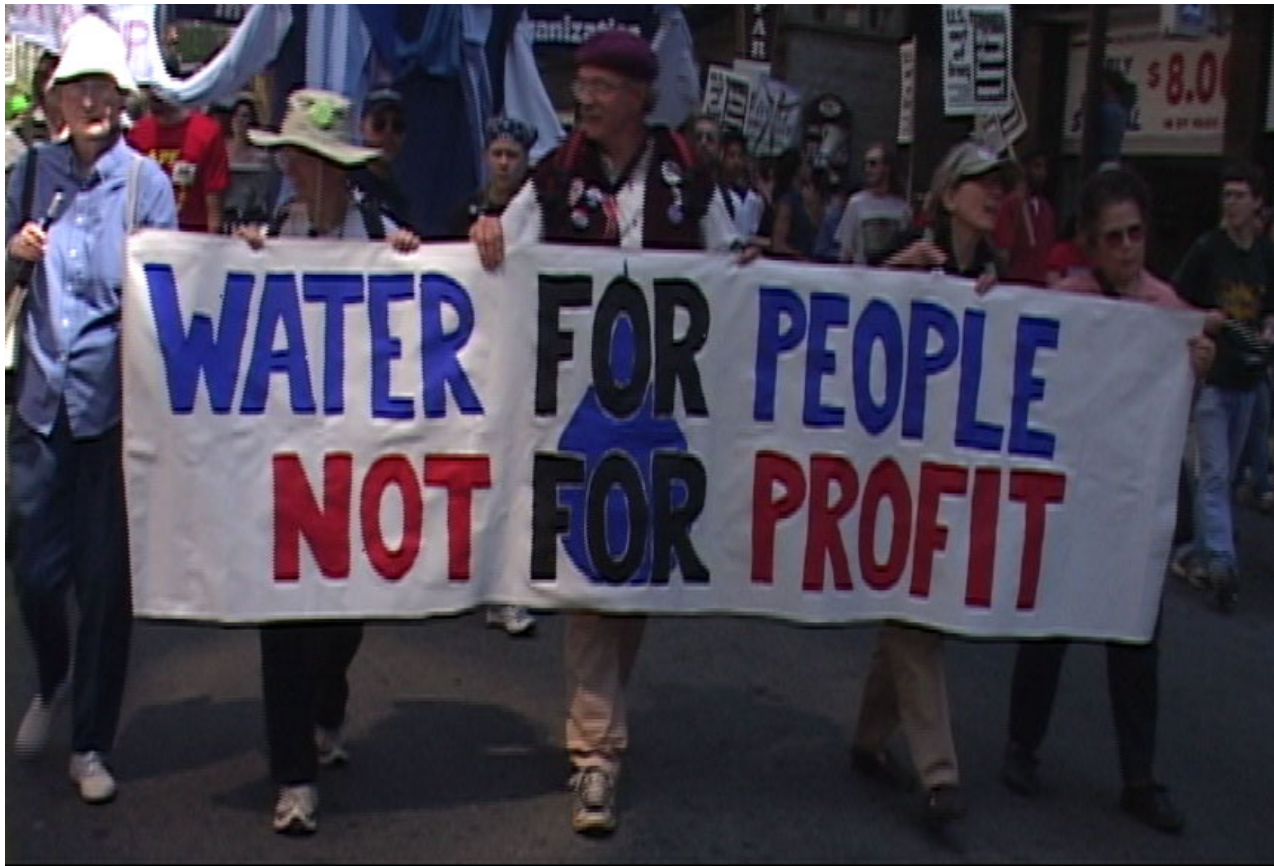
“No value in exchange”



Water & Energy Scarcity



Political Rights



get Rewards



Ancient + Modern



+ ebay =

Deploy



AquaJust
unlock your liquid assets

Online Save & Trade™ Platform

Scale

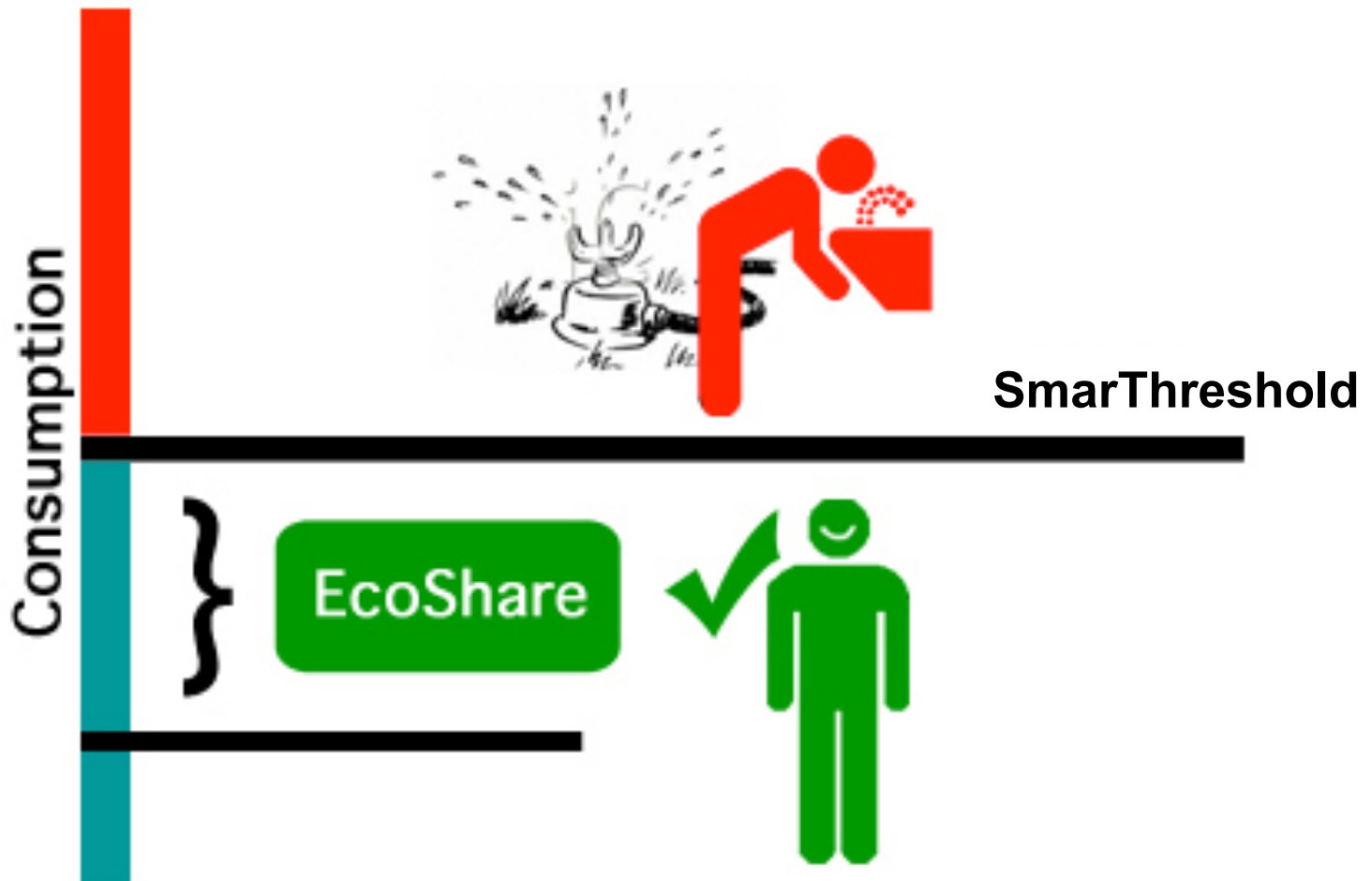


Scope



KSA Utilities: Water & Energy

Earn



Own



EcoShares
Saved

This
Month **23.47**

Year to
Date **149.13**

Trade

SELLERS



BUYERS



Wasters



Businesses



Foundations



Utilities



Government

Inspiration - Not Just Information



Buy EcoShares

Sell EcoShares

Modify Trades

Donate Shares

sell EcoShares for
\$ each.

Bid

Earning Rank



83%

Partners

Smart Meter Companies



Smart Grid



Traction – Targeted Pilots

Metered
Accounts

S
C
A
L
A
B
I
L
I
T
Y

County 200,000

State 2 million

Nation 7 million



Eco Impact



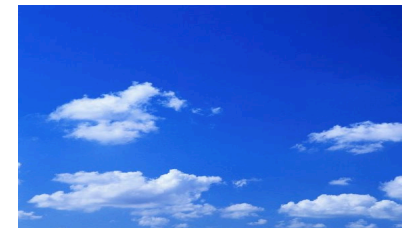
Each month AquaJust would save:
unlock your liquid assets



Gallons



kWh



Tons CO2

| | | | |
|----------------|--------------------|--------------------|--------------------|
| County: | 350 million | 4 million | 8 million |
| State: | 1.5 billion | 20 million | 40 million |
| Nation: | 7.0 billion | 140 million | 190 million |

Social Impact



Each month AquaJust would create:

unlock your liquid assets

Green jobs

Cash for poorest



County:

22

300,000

State:

200

1 million

Nation:

1,000

9 million

Options

“Hardware”

Desalination / Supply
Infrastructure repairs

“contentious”?

“high dollar”?

“compliance permitting”?

“community consensus”?

“water rights-dependent”

“long term”?

“equitable”?

“ecological impact”?

Software

AquaJust / Demand
SmartMarkets

“collaborative”

“low dollar”

“no permitting”

“consensus driven”

“water rights-free”

“immediate”

“fair”

“ecological benefit”



**Rather than subsidize supplies
Invest in demand outcomes results
that help Saudi Arabia
secure its 'priceless'
Liquid, energy & financial assets**



AquaJust
unlock your liquid assets