

The State of The Commons

A Report to Owners
from **Tomales Bay Institute**



A letter from FRIENDS OF THE COMMONS

Dear Fellow Owner,

You and your family are richer than you think. Here's why:

All Americans are joint owners of a trove of hidden assets. These assets — natural gifts like air and water, and social creations like science and the Internet — constitute our shared inheritance. They're vital to our lives and make our economy run. Though it's impossible to put a precise value on them, it's safe to say they're worth trillions of dollars.

The trouble is, our shared inheritance is being grossly mismanaged. Maintenance is terrible, theft is rampant and rents often aren't being collected. To put it bluntly, our common wealth — and our children's — is being squandered. We are all poorer as a result.

We published this report in 2003, but it proved so popular, with requests for it still coming in, that we decided to reprint it. This report, *The State of the Commons*, can be read in tandem with our 2006 report, *The Commons Rising*, which focuses on the rich explosion of commons-based solutions to our many environmental, economic and social problems.

The State of the Commons is an introduction to the commons and its distinct dynamics. As joint owners of a wide variety of common assets, we believe that we have an obligation to do what any responsible owner should do: conduct an audit. Take inventory of the assets that belong to us, and assess their value and how well they are being managed.

To this end, the Tomales Bay Institute, on behalf of American commons owners, formed an audit committee to identify problems and make recommendations. What follows is the committee's report.

The report has three parts. Part I describes our common wealth and sets forth basic principles for managing it. Part II examines the state of six important commons. And Part III makes recommendations for the future.

To learn more, check our sources, download a pdf copy or order printed copies of this report, please visit our website, www.onthecommons.org.

Sincerely,



Harriet Barlow, chair

If you steal \$10 from a man's wallet, you're likely to get into a fight. But if you steal billions from the commons, co-owned by him and his descendants, he may not even notice.

— Walter Hickel, former Secretary of the Interior



The commons is the sum of all we inherit together and must pass on, undiminished, to our heirs.

Understanding | The Commons

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Redefining the boundaries between the market and the commons is a task each generation undertakes anew.

WHAT IS THE COMMONS?

In this report we use the terms *commons*, *common assets*, *common property* and *common wealth*. They all refer to the same thing in slightly different ways.

Commons is the generic term. It embraces all the creations of nature and society that we inherit jointly and freely, and hold in trust for future generations.

Common assets are those parts of the commons that have a value in the market. Radio airwaves are a common asset, as are timber and minerals on public lands. So, increasingly, are air and water.

Common property refers to a class of human-made rights that lies somewhere between private property and state property. Examples include conservation easements held by land trusts, Alaskans' right to dividends from the Alaska Permanent Fund, and everyone's right to waterfront access.

Common wealth refers to the monetary and non-monetary value of the commons in supporting life and well-being. Like stockholders' equity in a corporation, it may increase or decrease from year to year depending on how well the commons is managed.

The commons itself is as old as the earth, and the concept of the commons goes back many hundreds of years.

The Romans distinguished between three types of property: *res privatae*, *res publicae* and *res communes*. The first consisted of things capable of being possessed by an individual or family. The second consisted of things built and set aside for public use by the state, such as public buildings and roads. The third consisted of natural things used by all, such as air, water and wild animals.

In the United Kingdom during the Middle Ages, the commons were shared lands used by villagers for foraging, hunting, planting crops and gathering wood. In 1215, the Magna Carta established forests and fisheries as *res communes*, resources available to all. (Prior to the Magna Carta, the king could grant or sell exclusive usage rights.)

In America, four early states — Massachusetts, Pennsylvania, Virginia and Kentucky — called themselves 'commonwealths.' Several states declared in their constitutions that natural resources belong to the people and that government acts as the people's trustee.

By the law of nature these things are common to mankind — the air, running water, the sea, and consequently the shore of the sea.

— *Institutes of Justinian (535 A.D.)*

Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people.

— *Pennsylvania constitution*

The most useful way to understand the commons today is as the sum of all we inherit together and should pass on, undiminished, to our heirs.

In this way of viewing things, the economy is divided between the market and the commons. The market encompasses private things (which we mostly manage for short-term monetary gain), while the commons comprises shared things (which we manage, or should manage, for shared long-term life enhancement).

The boundaries between the market and the commons shift over time. Redefining those boundaries is a task each generation undertakes anew.

For a vocabulary of commons-related terms, see page 31.

KEY FUNCTIONS OF THE COMMONS

Basic sustenance

For most of human existence, the commons supplied everyone's food, water, fuel and medicines.

Ultimate source

The commons is the source of all natural resources and nature's many replenishing services.

Ultimate waste sink

The commons recycles water, oxygen, carbon and everything else we excrete, exhale and throw away.

Knowledge bank and seedbed

The commons holds humanity's vast store of science, art, customs and laws, and is the seedbed of all human creativity.

Communication

Humans communicate through shared languages that are living products of many generations.

Travel

Humans use the commons for land, sea and air travel.

Community

The commons is the village tree, the public square, Main Street, the neighborhood and the Internet. Outside of families, it's the glue that holds us together.

The state's role is to nurture both the commons and the market, and to maintain a healthy balance between them.

THE COMMONS, THE MARKET & THE STATE

Conventional thinking divides the world between the market and the state. The market is responsible for productivity, while the state is responsible for control.

In reality, the economy has another sector that's as valuable as the market and its necessary complement as well. This sector is *the commons*.

The commons precedes and surrounds the market, is the source of most that enters it and the sink for all that leaves.

At one time the commons was vastly larger than the market. Today, however, the commons is in grave danger because the market relentlessly attacks it.

The market assault comes from two sides. With one hand, the market takes valuable stuff from the commons and privatizes it. Historians have called this 'enclosure.' With its other hand, the market dumps wastes and side-effects into the commons and says, 'It's your problem.' Economists call this 'externalizing.'

Much that is called 'growth' today is actually a form of cannibalization in which the market diminishes the commons that ultimately sustains it.

The state's role is to nurture both the commons and the market, and to maintain a healthy balance between them. This balancing role is essential to prevent humanity from devouring its own nest. Unfortunately, in recent years, the state has abandoned a balancing role and become a single-minded champion of the market.

COMMONS	MARKET
<ul style="list-style-type: none">• Shared things• Enduring• Managed for long-term common benefit	<ul style="list-style-type: none">• Private things• Transitory• Managed for short-term private gain



Our old **Manifest Destiny** was to carve up the commons. Our new task is to rebuild it.

WHY THE COMMONS MATTERS NOW

Both the idea and the reality of the commons have been declining since the 18th century. Why now, at the beginning of the 21st century, should we revive them?

The simple answer is that *we have to*.

Despite the many benefits it brings, the market is like a runaway steam engine. It has no internal governor to tell it when to stop depleting the commons that sustains it.

To put this another way, we've been living off common capital and we have to stop.

In the beginning, America was a vast commons. The original inhabitants lived off the commons and shared it with other species. They took what they needed and left the rest alone.

Then new settlers came. They filled the continent with cities, highways and shopping malls — more stuff than the earth had ever seen. They built a great multi-cultural nation. But as they did so, they turned forests into plywood, wetlands into parking lots, the atmosphere into a dump.

If our old Manifest Destiny was to carve up the commons, our new task is to rebuild it. We must do this to protect the planet, enhance our quality of life, reduce inequality and leave a better world for our children.

The fundamental rules for commons management are similar to those for private trusts.

PRINCIPLES OF COMMONS MANAGEMENT

Garrett Hardin's 1968 essay, *The Tragedy of the Commons*, led many people to think that all commons are self-destructive. But Hardin's essay was misleading.

Hardin assumed there's only one kind of commons, the unfenced pasture or waste dump with no management system. In such a situation, overuse can lead to destruction.

What Hardin overlooked is that there are many kinds of commons and many ways to run them. For example, you can have a fenced commons with a gate-keeper, or fishing limits with licenses, or a cultural commons with infinite possibilities. There's no tragedy inherent in these and many other commons. (See page 27 for a sampling of successful American commons.)

Still, the proper way to manage a commons isn't always obvious. So let's explore some basic principles, beginning with a look at standard business management.

There are two sets of rules for managing private assets. One applies to corporations, the other to trusts such as pension funds, charitable foundations and family estates.

The goal of corporate rules is to maximize short-term return to capital. The goal of trust rules is to preserve assets for the long term and assure that beneficiaries receive their due. It's these latter rules that merit attention here.

Over centuries, several principles of trust management have evolved. These include:

- Managers have a **fiduciary responsibility** to beneficiaries. If a manager fails this obligation, s/he can be removed and penalized.
- Managers must **preserve the principal**. It's okay to spend income, but don't invade the *corpus*.
- Managers must assure **transparency**. Information about money flows should be readily available to beneficiaries.



A university endowment is a private trust that is managed for long-term preservation.

As with private trusts, the goal of commons management is to preserve assets and share benefits. Hence, the basic principles of commons management are similar to those of private trusts.

Commons managers must, first and foremost, protect shared assets for the long term. They must also assure that the benefits flowing from the assets are widely shared.

Beyond these basic principles, specific rules for commons management vary from one commons to another. Broadly speaking, they depend on the *level of use* society wishes to allow or encourage.

If a commons needs to be off limits to all but the most non-invasive use — a wilderness area, for example — the guiding rule is, ‘No trespassing.’

If a commons has no inherent limits on use — like the Internet or the cultural commons — the guiding rule is, ‘The more the merrier.’ Use should be as free as possible, and management’s main job should be to minimize private toll booths.

If a commons can be used up to, but not beyond, some physical threshold — fisheries, aquifers and the atmosphere are examples — management’s job is to set and enforce sustainable use limits. In economic terms, its challenge is to live off income without diminishing capital.

In managing physically limited commons, it’s often desirable to cap total use and charge users a fee. Such caps and prices assure preservation, let markets sort out competing uses, and generate revenue for social and environmental needs.

Setting a total usage cap can be controversial. If the physical threshold is uncertain, a critical question is, “Which side should we err on?” Under the **precautionary principle**, if the potential harm from overuse is substantial (e.g. the polar ice caps could melt), the cap should be set with safety as the guide.

The process of protecting and sustaining a commons involves several steps. The asset must first be identified and given a legal and/or institutional structure. In some cases, usage caps and new kinds of property rights may be necessary. It may also be necessary to appoint trustees and acquire pre-existing property rights.

Once a commons is protected and given a proper management regime, markets can come into play.

The precautionary principle’s fundamental idea is that we prevent problems rather than clean them up afterward.

— Carolyn Raffensperger

The assets we share are worth more than the assets we own privately.

HOW MUCH IS THE COMMONS WORTH?

It's impossible to give an exact answer. Many of our shared inheritances are simply beyond pricing. Others are potentially quantifiable, but there's no current market for them.

Nevertheless, based on numerous studies, it's possible to get an order of magnitude. It turns out that the assets we share are worth trillions of dollars — more in fact than the assets we own privately.

Which raises an obvious question: why is so much attention paid to the management of private wealth, and so little to the management of common wealth?

One answer is that it's easier to study things that can be measured precisely. Another is that we have a direct personal interest in private wealth. But the main reason is that economists don't think the commons is important. That belief must change.

THE VALUE OF SKY

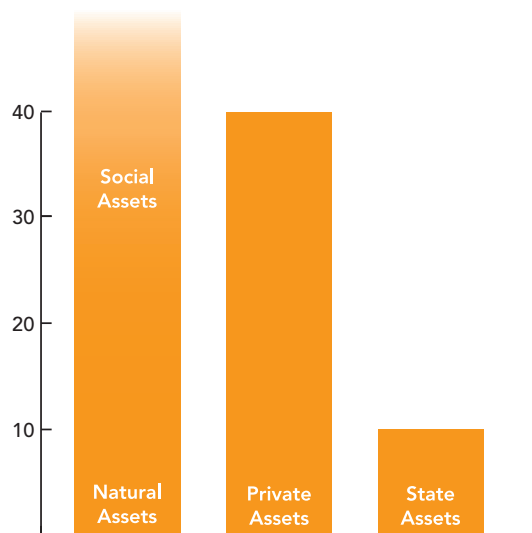
The sky does a lot of valuable things for us. It shields us from asteroids and ultra-violet rays, regulates the earth's temperature, replenishes our fresh water and delivers oxygen to our lungs and machines. Such services are worth a lot of money.

Exactly how much is, of course, impossible to say. And it's important to distinguish between the sky's *intrinsic* value, which is truly beyond knowing, and its *exchange* value, which is what markets understand.

In our calculations we use the estimated exchange value of just one vital sky service, carbon dioxide absorption. This represents real income that could be earned from the sale of carbon emission permits.

According to recent government studies, this could range up to \$400 billion annually, depending on many variables. This means the value of the sky as an income producing asset easily exceeds \$1 trillion.

APPROXIMATE VALUE OF COMMON, PRIVATE AND STATE ASSETS (2001)
(US\$ trillion)



Reflects only quantifiable assets

Values for private and state assets from US Census Bureau and Urban Land Institute. Values for natural and social assets from several studies and authors' calculations. See www.friendsofthecommons.org.

On behalf of American commons owners,
we formed an audit committee to identify
problems and make recommendations.

The State | of The Commons

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Many commons are not recognized as commons and therefore have no legal or institutional protection.

HIGHLIGHTS

The commons is a mosaic of natural and social inheritances. In this section we look at six important commons and how they've fared in recent years.

Good News

- The market value of the atmosphere and the radio airwaves has increased
- The Internet has provided an enormous boost to cultural sharing

Bad News

- Our shared life support systems — the atmosphere and our fresh water supply in particular — are deteriorating
- Our airwaves are being stolen
- Our cultural and scientific commons are being privatized
- Noise of all sorts is destroying the commons of quiet

Management Failures

- Failure to maintain assets
- Failure to prevent theft
- Failure to charge for use of scarce marketable assets
- Failure to pay dividends and raise public revenue

Recommendations

- Strengthen common property rights
- Appoint new trustees
- Make polluters and broadcasters pay
- Pay dividends to owners and other public beneficiaries
- Nurture non-corporate culture and science
- Put limits on noise

*They hang the man and flog the woman
That steal the goose from off the common,
But let the greater villain loose
That steals the common from the goose.*

— English folk poem, ca. 1764



The Sky Trust model is based on the premise that the sky belongs to everyone and must be held in trust for future generations.

SKY

If anything is a commons, it's the sky. We all depend on it for oxygen, climate regulation, fresh water replenishment and much else. Yet the day isn't far off when the sky will be propertized. The unanswered question is, will it be the common property of everyone, or the private property of a few?

Propertization of the sky is coming because we're running out of it. Since the Industrial Revolution, humans have used the atmosphere as a dump for factories, furnaces and internal combustion engines. Unfortunately, the sky can safely absorb only so much ozone-eating chlorine, acid-brewing sulfur and heat-trapping carbon dioxide. What waste-absorbing capacity remains is thus a scarce economic asset whose use can be allocated through markets.

Accordingly, Congress in 1990 set up a 'cap-and-trade' system for sulfur dioxide emissions, the chief cause of acid rain. Beneath a gradually declining cap on total emissions, power plants were given — free of charge — tradeable rights to emit sulfur dioxide into the atmosphere. Power plant owners can use these free rights to pollute at lower levels, or they can sell them to other polluters and pocket the cash.

Now Congress is considering similar plans to reduce carbon dioxide emissions, the chief cause of global warming. Still undetermined is whether Congress will give carbon emissions rights to polluters for free, or make polluters pay the people a market price. Because of carbon's huge role in our economy, trillions of dollars are at stake.

The Sky Trust model

Fortunately, there's more than one way to run a cap-and-trade system. The Sky Trust model is based on the premise that the sky belongs to everyone and must be held in trust for future generations. It requires polluters to purchase emission permits from a trust representing all citizens. The trust's income can be used for public purposes and/or rebated to citizens through equal dividends.

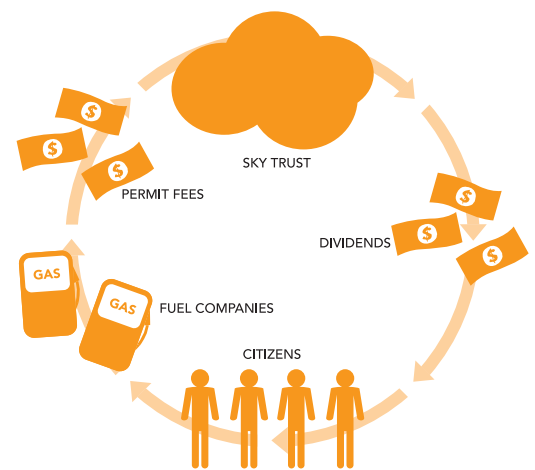
The total volume of air in the world is actually quite small, and we are filling it up every hour of every day.

— Al Gore

One advantage of the Sky Trust model is that it makes polluters pay a price for dumping wastes into the commons. (In economic terms, it internalizes costs polluters currently externalize.) Another advantage is that it returns to consumers the extra money they'll pay for fossil fuels once carbon burning is limited.

A study in 2000 by the Congressional Budget Office found that, of all cap-and-trade systems that might be used to reduce carbon emissions, the Sky Trust would be the easiest to implement, have the most positive effect on household incomes, and result in the lowest overall cost to the economy.

HOW A SKY TRUST WORKS



TWO EFFORTS TO PROTECT THE SKY

Congress and several states are considering ways to cap carbon emissions. The Climate Stewardship Act, authored by Senators John McCain and Joseph Lieberman, would cap carbon emissions nationwide. The Regional Greenhouse Gas Initiative would cap them in seven northeastern states. Here are the key features of each:

Climate Stewardship Act (McCain-Lieberman)

- Caps carbon in 70% of the economy
- Creates a trust to return money to consumers and displaced workers
- Authorizes Secretary of Commerce to issue emission permits, but sets no limit on gifts to polluters

Regional Greenhouse Gas Initiative

- Caps carbon from power plants in NY, NJ, CT, NH, VT, ME and DE
- Requires states to auction at least 25% of emission permits
- Allows other states to join and other carbon sources to be covered



If we charged market rates for our airwaves, the income could buy free air time for political candidates, fund non-commercial TV, and help education and the arts.

It is the purpose of this Act to provide for the use of [radio] channels, but not the ownership thereof...[No] license shall be construed to create any right beyond [its] terms.

— Federal Communications Act (1934)

THE AIRWAVES

The **airwaves** (also known as the broadcast spectrum) are a gift of nature that modern technology has turned into a valuable economic resource.

As a communications medium, the airwaves have enormous advantages over paper and wires. The problem in the early days was that signals often interfered with one another. To eliminate interference, Congress set up a system of exclusive licenses. Each broadcaster got its own local band.

The deal, as spelled out in the 1934 Communications Act, was this: In exchange for free licenses, private companies would broadcast programs serving ‘the public interest, convenience and necessity.’ The airwaves themselves would remain public property, with the Federal Communications Commission acting as trustee.

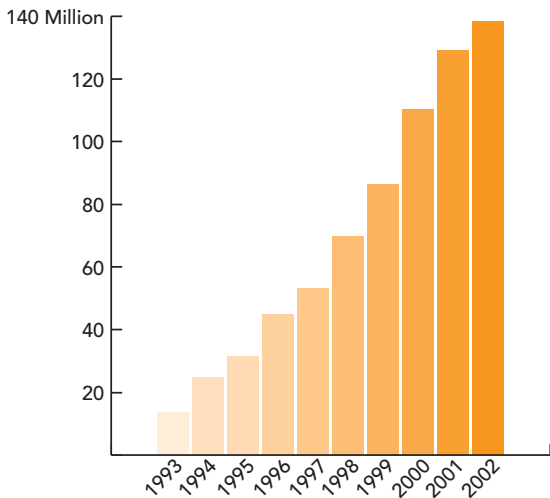
Broadcasters grew large and profitable under this arrangement. But over time, as their advertising revenues soared, their public interest obligations declined. In the 1980s, the FCC dropped the Fairness Doctrine, which required broadcasters to air both sides of controversial issues. Educational programming also waned.

In the 1990s the spread of cell phones created huge new demand for the airwaves. Instead of giving frequencies to cell phone companies for free, Congress wisely chose to auction them, raising billions of dollars for the federal treasury.

Broadcasters, however, lobbied hard for still more free spectrum, and in 1995, Congress gave it to them — ostensibly for digital TV.

Today, spectrum policy is at a crossroads. New digital technology makes it possible for ‘smart receivers’ to pick out only the signals they need. Signal interference thus is, or soon will be, a thing of the past — which makes exclusive licenses unnecessary. The airwaves, could be an open access commons.

US CELL PHONE USERS



Source: Cellular Telecommunications and Internet Association

For more than a decade, broadcasters have held exclusive rights to two valuable slices of spectrum, for both analog and digital transmissions. Recently, after years of industry resistance, Congress finally ordered TV broadcasters to complete their long-delayed transition to digital transmission and surrender their analog spectrum by February 2009.

Congress scanted the public interest, however, by failing to require TV broadcasters to pay for use of their new spectrum. Nor did Congress require them to meet any public interest obligations.

In the meantime, radio broadcasters are seeking their own digital windfall. By moving from analog to digital transmission, radio stations will soon be able to send dozens of programming streams over a spectrum assignment that previously allowed only one program stream.

Which raises the question of who should reap the gains of this "multicasting dividend." Despite enormous demand for scarce spectrum, radio broadcasters are claiming this valuable benefit for themselves - and the public is once again like to be stiffed.

If the FCC treated the airwaves as a common asset, it would lease most of them at market rates for limited terms to the highest bidders. The billions of dollars thus raised could buy free air time for political candidates, fund non-commercial radio and TV, and help education and the arts.

Alternatively, the FCC could start turning the airwaves into an open access commons. Using technologies like WiFi (wireless fidelity), everyone could enjoy high-speed Internet access for almost nothing. Fortunately, there are proposals afoot to assign more spectrum for unlicensed uses such as WiFi, which can be productively used by everyone as a commons.

*They used to rob trains in the Old West.
Now we rob spectrum.*

— *Senator John McCain*

VALUE OF SPECTRUM IN 2002	
	\$ billion
Broadcast TV	495
Mobile phones	203
Satellite communications	50
Other	23
TOTAL	771

Source: New America Foundation





Under the riparian principle, people adjacent to a body of water may use it, but not diminish it for others.

WATER

For eons human societies deemed water to be a common inheritance, something people could use but not own. In English common law and in early America, this was embodied in the ‘riparian principle.’ It meant that no single user could diminish a water source for anyone else.

As settlers moved west, however, courts replaced the riparian principle with that of ‘prior appropriation’ — that is, perpetual property rights belong to whoever grabs water first. Take it first from the commons and you own it forever for yourself.

The result was that America became the most profligate water using nation in the world. Cities and irrigated farms bloomed in the desert. Mining and power companies, among other industries, used water like there was no tomorrow.

Now America is depleting its water commons. Groundwater — the source of half our drinking water — is going fast. For every 75 gallons we pump out, nature puts only 60 back.

Rivers, too, are running dry. In 2001, the Rio Grande ceased to flow into the Gulf of Mexico. The Colorado River is practically empty by the time it reaches the sea. In Massachusetts, the Ipswich River ran dry in three recent years, despite plenty of rain.

At the same time, old water systems throughout the country are falling apart, and recent tax cuts mean less money to upgrade them.

As water becomes scarce, private corporations see profits. “Water promises to be for the 21st century what oil was for the 20th century,” declared *Fortune* magazine.

Corporations such as US Filter, United Water and American Water Works (all subsidiaries of French and English multinationals) have bought public water systems in dozens of U.S. cities. Service has often been terrible and rates high. The taxpayers of Jacksonville, Florida, actually put up \$219 million to buy their system back.

‘Prior appropriation’ granted the right to divert as much water as the appropriator wanted.

— Robert Glennon

WATER WITHDRAWALS	
Cubic meters per person, 2000	
U.S.	1,688
Germany	712
Britain	201

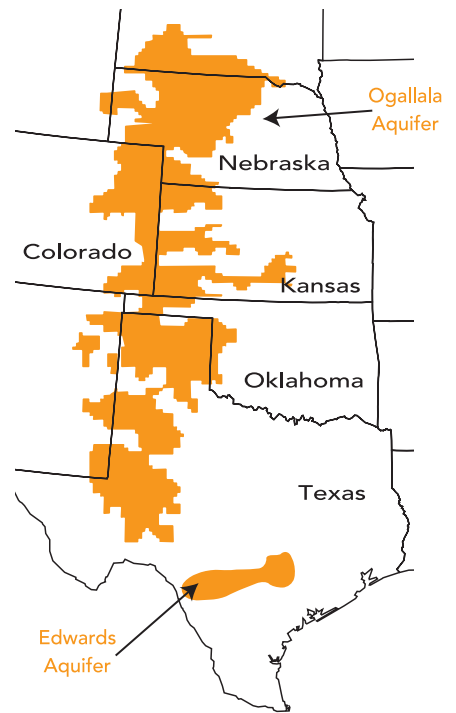
Source: World Water Council

Is water merely a commodity?

Both NAFTA and GATT define water as a 'commodity' which private companies can trade globally, and virtually prohibit governments from limiting such trade. One California company, Sun Belt Water, has sued Canada under NAFTA, claiming billions in damages because Canada won't let it export fresh water in supertankers.

These treaties suggest it may now be possible under international law for private corporations to thwart the ability of nations to protect their commons. If this is so, the consequences would be dire.

THE OGALLALA AND EDWARDS AQUIFERS



ARE WE PUMPING AMERICA DRY?

Excess groundwater pumping has several consequences. One is sinking land, which damages roads and buildings and costs billions of dollars annually. Another is salt water intrusion, which threatens fresh water supplies in coastal communities.

But the main problem is that excess groundwater pumping isn't sustainable. In the 1940s, farmers began industrial-scale pumping from the Ogallala Aquifer, an ancient underground reservoir that stretches from North Dakota to Texas. Today, in many parts of the High Plains, the water table has plunged and farmers are returning to dryland farming.

For similar reasons, many cities in the Southwest face looming water shortages. San Antonio, for example, gets 99 percent of its water from the Edwards Aquifer. As the city grew, the aquifer shrank.

Under threat of court order, the Texas legislature created the Edwards Aquifer Authority, the first agency in America with the power to limit groundwater withdrawals. Today San Antonio is still depleting its water reserve, but less rapidly.





Will we have a culture that's authentic and diverse? Or a commercial monoculture in which 'content providers' sell proprietary products to consumers?

If nature made any thing less susceptible than all others of exclusive property, it is the thinking power of an idea.

— Thomas Jefferson

CULTURE

The framers of our Constitution sought to encourage popular expression. To this end they struck a bargain: Congress could grant creators exclusive rights in their works if the public got some benefits in return. These benefits included:

- a *limited term* for copyrights so that all works are eventually available to everyone for free
- *fair use* rights to quote or excerpt from copyrighted works without asking permission
- the right to use purchased works as we wish (a rule that allows public libraries to lend books and video stores to rent DVDs).

The Founders' vision prevailed for nearly 200 years, with extraordinary results.

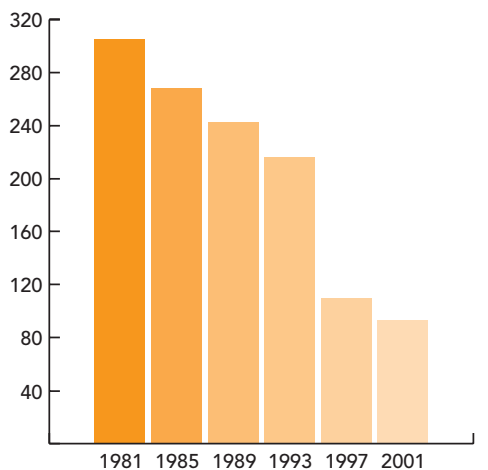
Within the last quarter century, however, the careful balance between copyright protection and public benefits has tilted badly. Film studios, record labels and publishers asserted broad new 'intellectual property' rights. In 1998, they pressured Congress to pass the Sonny Bono Copyright Extension Act, which makes copyrights nearly perpetual.

Today, private companies own (or claim to own) fictional characters, web-site links, common words, letters of the alphabet and facts compiled in databases. The Disney Company owns not only Mickey Mouse and Winnie the Pooh, but re-makes of dozens of myths and fairy tales it took from the public domain. ASCAP, a music industry body, once told summer camps they can't sing copyrighted songs around the campfire without paying a licensing fee.

Private companies have also won new laws and installed technological locks that limit our right to access, share and make personal copies of works we buy or view online.

Over the same period, funding for non-corporate culture has declined. In 2002, National Endowment for the Arts grants were at the lowest level in 20 years. Disney's sales alone were 200 times the NEA's budget.

FUNDING FOR THE NATIONAL ENDOWMENT FOR THE ARTS



In millions of 2001 dollars

The enclosure of childhood

Not long ago, children inhabited a commons of story and play. They were weaned on fairy tales, nursery rhymes and family lore. They invented games and passed them down through generations.

Today, children's stories and games are largely the product of corporations. Kids spend 38 hours a week with commercial TV, videos, movies and electronic games. And they become hooked on corporate brand names and junk food.

The question we now face is over the very nature of American culture. Will we have a culture that is indigenous, authentic and diverse? Or a commercial monoculture in which 'content providers' sell proprietary products to consumers and consumers' attention to advertisers?

Fortunately, there's resistance to corporate enclosure of culture. Parents are fighting advertising in public schools. Millions of families participate in TV Turn-off Week. Sports fans are opposing the sale of stadium names to corporations. And the Internet has provided an enormous boost to information and cultural sharing.

FROM THOMAS JEFFERSON TO MICKEY MOUSE: THE TRAGEDY OF COPYRIGHT CREEP

- 1790** First copyright term is 14 years + 14 year renewal
- 1976** Copyrights extended to author's life + 50 years (75 years if owned by a corporation)
- 1998** Sonny Bono Act extends existing copyrights another 20 years
- 2003** Supreme Court says Sonny Bono Act doesn't violate Constitution's intent of limited duration

Works that would be in public domain in 2030 without recent copyright extensions: **25,000,000**

After Sonny Bono Act: **10,000,000**

DISNEY STORIES TAKEN FROM THE PUBLIC DOMAIN

Aladdin
Atlantis
Beauty and the Beast
Cinderella
Davy Crockett
Legend of Sleepy Hollow
Hercules
Hunchback of Notre Dame
Jungle Book
Oliver Twist
Pinocchio
Pocahontas
Robin Hood
Snow White
Sleeping Beauty
Three Musketeers
Treasure Island
Wind in the Willows

DISNEY STORIES ADDED TO THE PUBLIC DOMAIN

None





The lure of patents has shifted research from areas of common need to areas of private gain.

SCIENCE

Ben Franklin was no slouch when it came a dollar. Yet he never sought a patent on his most popular invention, the Franklin stove. "As we enjoy great advantages from the inventions of others," he wrote, "we should be glad to serve others by any invention of ours."

That spirit prevailed in science for the next two centuries. Scientists shared their work through publication. The knowledge commons flourished. Today this is no longer so.

The shift began with the Bayh-Dole Act of 1980, which lets universities get patents on taxpayer-funded research and license those patents to corporations. Then came a rush of corporate dollars into university labs.

Today, secrecy and distrust pervade many labs. Researchers won't discuss their work for fear someone will beat them to the patent office.

Sometimes the sponsors won't let them talk. A study at the University of California in San Francisco found that a thyroid drug was no better than three cheaper alternatives. The manufacturer who sponsored the study bottled up the results.

The obsession with patents has also created a legal minefield. Important work is sometimes stymied because of competing patent claims. Lawyers prosper while research lags.

Perhaps worst of all, the quest for patents has shifted research from areas of common need to areas of private gain. The University of California at Berkeley, for example, abolished its division of biological pest control in part, professors there believe, because corporate donors prefer genetically modified crops they can patent and sell pesticides for.

Edward R. Murrow: Who owns the patent on this vaccine?

Jonas Salk: Well, the people, I would say.

There is no patent. Could you patent the sun?

Who owns seeds?

Seeds have long been part of humanity's common heritage. And for millennia, farmers have saved seeds from each year's crops to plant the next. But today, agribusiness giants like Monsanto want to change that.

To purchase Monsanto seeds, farmers must sign a contract promising not to save seeds or use any fertilizers or pesticides other than Monsanto's. They must also allow the company to inspect their fields at any time. Monsanto's legal staff has brought over 400 lawsuits against farmers it claims misused its seeds.

Not surprisingly, the cost of seeds has escalated. But the dangers of corporate seed ownership aren't merely economic. By displacing nature's adaptive processes, corporate seeds shrink the storehouse of genetic diversity that's our ultimate insurance against crop failure.

MARKET SHARE OF PATENTED TRANSGENIC SEEDS

	1997	2002
Soybeans	2%	74%
Cotton	4%	70%

THE HUGE COST OF DRUG PATENTS

Patents enable pharmaceutical companies to charge monopoly prices for up to 20 years after introducing a new drug. This is said to benefit society by providing incentives for research. But is the benefit worth the cost?

According to the Center for Economic Policy Research, the answer is a resounding 'No.' Here's the math:

- U.S. pharmaceutical companies spend about \$25 billion a year on research, of which about 70% is for 'copycat' drugs that mimic competitors' brands and add no significant health benefits.
- The federal government could fund 100% of non-copycat research — and place the resulting drugs in the public domain — entirely from cost savings to Medicare and Medicaid.
- The savings to consumers from lower drug costs would amount to hundreds of billions of dollars each year.

PRIVATE PILLS FROM PUBLIC RESEARCH

Prozac (depression)
Taxol (cancer)
Capoten (hypertension)
AZT (AIDS)
Xalatan (glaucoma)





To protect our peace we need volume controls that let less noise into the commons around us.

QUIET

Quiet is a gift of nature. Until a few generations ago, the only noises filling the air were made by animals, wind and water. Today our senses are assaulted by two kinds of noise: audible and commercial. Both are costly, incessant and getting worse. Both affect our health and well-being.

Audible noise — unwanted sound — comes from cars, trucks, motorcycles, airplanes, sirens, car alarms, jack-hammers, lawn mowers, boom boxes and cell phones, to cite the most obvious offenders. It causes hearing loss, sleep loss, learning disabilities, heart disease, mood disturbance and other ills. It also diminishes productivity and peace of mind.

According to the U.S. Census, Americans' top complaint about their neighborhoods — above crime, traffic and poor public services — is noise. Every day, over 130 million of us experience noise levels rated as 'annoying and disruptive.'

Commercial noise comes from TV and radio ads, billboards, direct mail, spam (unwanted email), junk faxes and telemarketing calls. Though the Constitution limits the ability of government officials to enter our homes, there are as yet few limits on the 'freedom' of marketers to invade our minds.

What's more, the din of commerce inexorably mounts. Every new product needs to announce its existence. And the greater the ambient noise, the more each ad has to shout in order to stand out.

RISE IN AUDIBLE NOISE SOURCES

Source	% growth since 1960
Auto traffic	360
Large trucks	430
Airliners	600
Air cargo	2,460

Noise sources non-existent in 1960: leaf blowers, boom boxes, jet skis, car alarms and cell phones.

MINUTES PER HOUR OF PRIME-TIME TV ADS

1960	9.5
2002	15.0

Number of ads viewed by children per year: 20,000
By a 65-year old American in a lifetime: 2 million

Once quiet is lost, it's hard to regain. To protect our peace we need volume controls that let less noise into the commons around us.

For example, cities, states and the federal government can:

- Require quieter planes, trucks and motorcycles
- Create car-free zones
- Ban outdoor billboards (as Vermont and Hawaii do)
- Ban TVs, radios and cell phones in public places
- Limit TV ads to fewer minutes per hour

RISE IN MARKETING NOISE

Billions of pieces or calls	1992	2002
Junk mail	62	87
Telemarketing	7	51
Spam	0	84

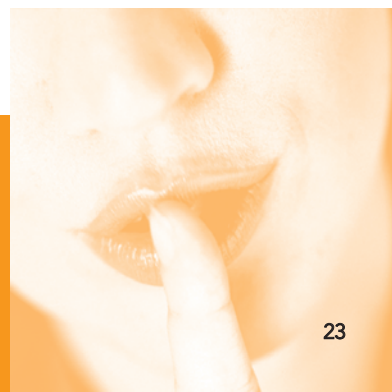
THE RIGHT TO SELL VS. THE RIGHT TO QUIET

Who has first claim to the spaces around us: those who want quiet, or those who want to sell us things?

Sellers claim precedence in the name of 'free speech,' and courts have tended to agree. But Americans increasingly do not.

After years of consumer outrage, the Federal Trade Commission in 2003 created a national 'Do Not Call' registry. Telemarketers must now purge registered phone numbers from their calling lists or face fines of \$11,000 per unwanted call.

Within weeks after the registry opened, 25 million households signed up. Now Congress is talking about similar curbs on spam.



Without a healthy commons, the market (and much else) won't survive the 21st century.

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The market needs a counterpoise with a different calculus. The ideal counterpoise isn't the state. It's the commons.

THE 21st CENTURY

The 21st century can't be a continuation of the 20th. We're too close to too many edges for that.

In the 20th century, the market triumphed over all. It defeated communism, leveled national boundaries to trade and brought material abundance never seen before.

But the market's triumph was accompanied by huge unpaid costs — bills that are now coming due. Of these, the most momentous are those owed to nature and the poor.

The 21st century must not only pay these bills. It must, at the same time, solve two systemic problems: How can we share a crowded planet with billions of other humans, other species and ecosystems? And how can we improve the quality of life for rich and poor alike?

The unbridled market can't solve these problems alone. It needs a counterpoise with a different calculus. The ideal counterpoise isn't, as many thought in the 20th century, the state. It's the commons.

Government's job in the 21st century is to restore the balance between the commons and the market that grew so distorted in the 20th century. This can be done without raising taxes or expanding bureaucracy.

What might America look like with a healthy balance between commons and market? Here are some glimpses:

- **A market sector that pays its way**
Polluters and other commons users pay for usage rights. Pollution, advertising and congestion are reduced. More money flows to common purposes, without higher taxes.
- **A stronger democracy**
Spectrum fees cover most electoral campaign costs. Fewer elected officials are indentured to monied interests.

A great change in the stewardship of the Earth is required if vast human misery is to be avoided and our home on this planet is not to be irretrievably mutilated.

— Statement of scientists from 70 countries, including 102 Nobel laureates (1992)

- **A culture of popular participation**

An open Internet hosts diverse commons and provides access to other media. There are shorter copyrights and new legal vehicles for sharing creativity. Funding flows to the arts, non-commercial radio and TV.

- **Science in the public interest**

University research focuses on common needs. Most discoveries remain in the public domain.

- **Every baby a trust fund baby**

Everyone receives, as a birthright, a cash inheritance and yearly dividends. This income comes from rent charged for use of scarce common assets. The commons thus becomes a source of sustenance for all, as it was in pre-industrial days.

Restoring a commons/market balance isn't a utopian dream. It's a necessary and doable task. Nature and our ancestors have already done the hard work — they created most of the wealth we simply inherited. All that's missing — all we need to build — are appropriate legal and institutional protections for that wealth.

The real utopians are those who believe the market can continue unbridled forever. This dream has great allure, but it's a dangerous fantasy. The reality is that, without a healthy commons, the market (and much else) won't survive the 21st century.

State land trusts have been around since 1787.

WORKING MODELS

This report has focused on poorly managed commons. But America abounds with commons that work well. The examples below can serve as models for the larger common sector we need to build.

- **Public libraries** let anyone sit, read, borrow books and access the Internet for free.
- **Blood banks**, academic disciplines and many civic organizations are communities of shared purpose. Members of such communities (sometimes called *gift economies*) freely give their time and creativity to the commons and reap benefits in return.
- **The Internet** and **World Wide Web** spread like wildfire because their protocols and languages are free for all to use.
- **Sidewalks** are marvels of common use. With a minimum of law enforcement and maintenance, they foster mobility, commerce and social interaction.
- **Parks** in cities are islands of quiet and play. Typically they are fenced but free and open to all. Some sporting fields require reservations. Others have informal rules such as 'winners stay, losers sit.'
- **National parks and wilderness areas** protect habitat and provide millions of Americans a direct experience of nature.
- **Wildlife populations** are managed partly through hunting and fishing licenses, which limit human killing and raise revenue for conservation. Sales of federal duck stamps, for example, have helped preserve 5 million acres of waterfowl habitat.
- **State land trusts** have been around since 1787, when Congress required western territories to set aside land for 'common schools.' Today over 150 million acres are held in trust by states. Much of this is leased for timber, grazing or oil production, with revenues going to public schools.
- **The Texas Permanent School Fund** owns submerged lands along the Gulf Coast. Proceeds from offshore oil and gas leases launched the Fund in 1954. Earnings from investments go to local schools.
- **The Alaska Permanent Fund** is like a communal savings account for all Alaskans. Initial capital came from oil leases on state land. Today a \$23 billion diversified portfolio pays every Alaskan a yearly dividend. Last year's was \$1,540.



Public libraries let anyone sit, read, borrow books and access the Internet for free.



Community gardens are springing up in urban areas around the nation, often on vacant land that had been considered without value.

The Edwards Aquifer was more than a million years in the making. Our mission is to protect it for another million years.

— Edwards Aquifer Authority

- **Agricultural land trusts** buy conservation easements from farmers using private and public funds. Farmers continue to own and operate their farms, while trust-owned easements preserve the shared landscape and the farm economy.
- **Community gardens** rejuvenate neighborhoods and enable landless city-dwellers to enjoy the fruits of gardening.
- **The Nature Conservancy** and **Trust for Public Land** are private trusts that have acquired and protected millions of acres from development.
- **Soil conservation districts** were created throughout America after the Dust Bowl. They help landowners conserve soil, water and wetlands.
- **Air quality districts** were formed in California and elsewhere in response to smog. Some now issue tradeable pollution permits.
- **The Oregon Water Trust** acquires water rights and uses them to augment flows of rivers and streams.
- **The Edwards Aquifer Authority** caps withdrawals of underground water and sells tradeable withdrawal permits.
- **Seed banks** preserve the diversity of plant species by keeping seeds and regularly re-growing them.
- **Open source software** is licensed software (such as Linux) that anyone can read, modify and redistribute. Because the code is shared in a commons, bugs are fixed and improvements made more rapidly than in most proprietary software.
- **Creative Commons** is an on-line licensing service that enables creators to share their work without fear that someone will re-use it for profit.
- **Time Dollars** are a currency that helps build community. Help a neighbor for an hour and you get credit in a computer bank that you can use when you need help yourself.
- **The Music Performance Trust Fund** was formed in 1948 by the recording industry and the musicians' union. A small percentage of record sales goes into a fund that pays for free concerts in schools, parks and hospitals. Sales of corporate products thus support living culture.

Protecting the commons must be an organizing principle for the 21st century.

RECOMMENDATIONS

The audit committee's main findings are:

- 1) The wealth we inherit together is badly managed. Many commons are not even recognized as commons and therefore have no legal or institutional protection.
- 2) To protect the planet and assure a decent quality of life for all Americans, we must restore a proper balance between the commons and the market.

We recommend a number of parallel ways forward:

- **Strengthen common property rights**

Common wealth needs legal rights. These rights should be equal to, and sometimes superior to, those of private wealth. They should be assigned to airsheds, watersheds, aquifers and other ecosystems pressured by markets.

- **Overhaul management**

In theory, government is the trustee for our common assets. In reality, government in the U.S. has largely abandoned this role. It's time to appoint new trustees.

The new trustees can be quasi-public entities like air quality districts and the Alaska Permanent Fund, or non-profit entities like pension funds and land trusts. The main requirements are: trustees must be legally accountable to beneficiaries, beneficiaries must be broad classes of citizens (including future generations), and resource flows must be fully transparent.

- **Make polluters and broadcasters pay**

Polluting the commons can no longer be free. Someone — either polluters or pollutees — must pay for it. The best solution is to make polluters pay into trusts that use the revenue for common purposes and/or dividends.

Broadcasters aren't polluters, but they've been using a common asset rent-free, and want to sell it for a profit. That should be stopped.

- **Pay dividends to owners**

Because of the skewed distribution of private wealth, a small self-perpetuating minority receives a disproportionate share of America's non-labor income. To offset this structural inequity, some income from common assets should be distributed on a one-person, one-share basis.

- **Nurture non-corporate culture and the public domain**

Copyright terms should be shortened and patents should be issued more stringently. Internet sharing of information and creativity should be encouraged. New funding flows for artists, live performances and independent films should be created.

- **Make protecting the commons an organizing principle for the 21st century**

The boundaries between the market and the commons have shifted too far toward the market. Starting now, all sectors of society need to push those boundaries back toward the commons. Thus:

Religious leaders should remind us often that the sacred gifts of creation belong to everyone and must be cherished and preserved.

Industry leaders should support capping and paying for pollution.

Media and entertainment companies should replenish the cultural commons that enriches them.

Political leaders should stop giving away common assets to private corporations.

Courts should reinvigorate the public trust doctrine, the riparian principle and our rights as common owners.

Economists should recognize the commons' role in meeting human needs and making the economic engine run right.

Artists should develop new distribution systems that benefit both themselves and the cultural commons.

Educators should include the commons in their curricula and involve students in local commons.

Universities — themselves part of the commons — should focus their research on shared needs, not private gain.

Creative thinkers from many fields should flesh out the details of what a large common sector would look like.

A COMMONS VOCABULARY

- asset**, n. Anything owned that has value
- beneficiary**, n. Someone who receives income from a trust
- cap-and-trade system**, n. A pollution reduction system in which a limited number of pollution permits are issued and traded
- copyleft**, n. A license which allows free re-use and modification of creative work, so long as the derivative work remains available on the same terms
- corporation**, n. A self-perpetuating legal entity whose mission is to maximize short-term return to stockholders
- dividend**, n. A distribution of earnings to owners or beneficiaries
- enclose**, v. Turn a commons into private property
- externality**, n. A social or ecological cost that's not paid by its creators
- fiduciary responsibility**, n. The legal obligation of a trustee to act on behalf of beneficiaries
- gift economy**, n. A community of shared purpose, such as an academic discipline, whose members give time and creativity to the commons and reap benefits in return
- inheritance**, n. A gift from previous generations
- polluter pays principle**, n. The notion that polluters should pay to dump wastes into the commons
- precautionary principle**, n. In situations of uncertain but potentially vast risk, the notion that it's better to be safe than sorry
- privatize**, v. See *enclose*
- property**, n. Socially created rights to use, sell and receive income from an asset
- public trust doctrine**, n. A legal doctrine which says that the state holds certain resources in trust for its citizens
- rent**, n. Money paid to owners of a scarce resource
- riparian principle**, n. A legal doctrine which says that water can be used (but not owned) by those adjacent to it, so long as the users don't diminish the resource for others
- spectrum**, n. The usable frequency range of radio waves
- trust**, n. A legal entity created to manage assets on behalf of beneficiaries
- trustee**, n. A person appointed to oversee a trust

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We are richer than we think.



But we're leaving our children poorer.

All Americans are joint owners of a trove of hidden assets. These assets — natural gifts like air and water, and social creations like science and the Internet — constitute our shared inheritance. They're vital to our lives and make our economy run. Though it's impossible to put a precise value on them, it's safe to say they're worth trillions of dollars.

The trouble is, our shared inheritance is being grossly mismanaged. Maintenance is terrible, theft is rampant and rents often aren't being collected. To put it bluntly, our common wealth — and our children's — is being squandered.