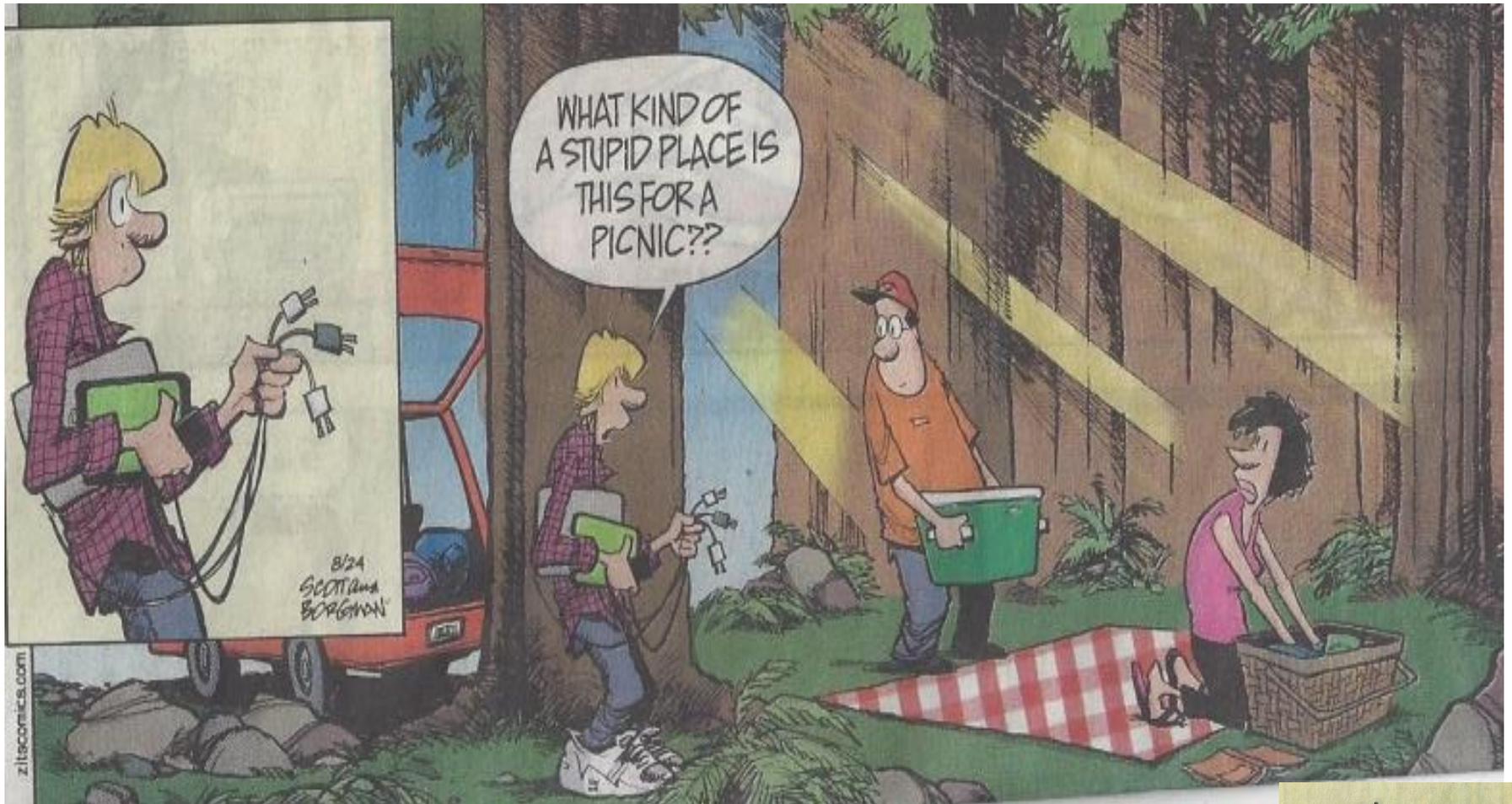


**WL = WS**

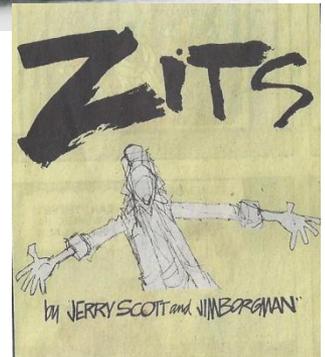
# **WHERE THE WILD THINGS ARE!**



Image courtesy of WTWTA author Maurice Sendak



**HAS TECHNOLOGY SURPASSED OUR HUMANITY?  
OUR APPRECIATION OF NATURE?  
THE UNDERSTANDING OF THE VALUE OF ALL LIFE FORMS?**



# WHY SHOULD I CARE — LAND IS EVERYWHERE!

- From 1940's to 1980's there has been a 50% decline in populations of mid-Atlantic migratory songbirds. Some species never even returned.
- From 1966 to 1985, a decline of 37 species of birds in the Western half of the US. (Possibly due to larger tracts of land and fewer people)
- For hundreds of years, the same aerial pathways have been used. In the 20<sup>th</sup> century, humans have changed the landscape dramatically - skyscrapers, city lights, airplanes...
- In between the north and south, forest fragmenting and urbanization.
- In the southern hemisphere, humans are altering the landscape by habitat destruction - Deforestation for profit, for ecotourism resorts, for urban development...
- The majority of top predators “consistently fare the worst in relation to people” and are in decline. Most are missing from over 90% of their historic ranges. We have extirpated our charismatic mega-fauna.
- In 1900, 60% of the nation was rural. In 2000, 80% is urban!

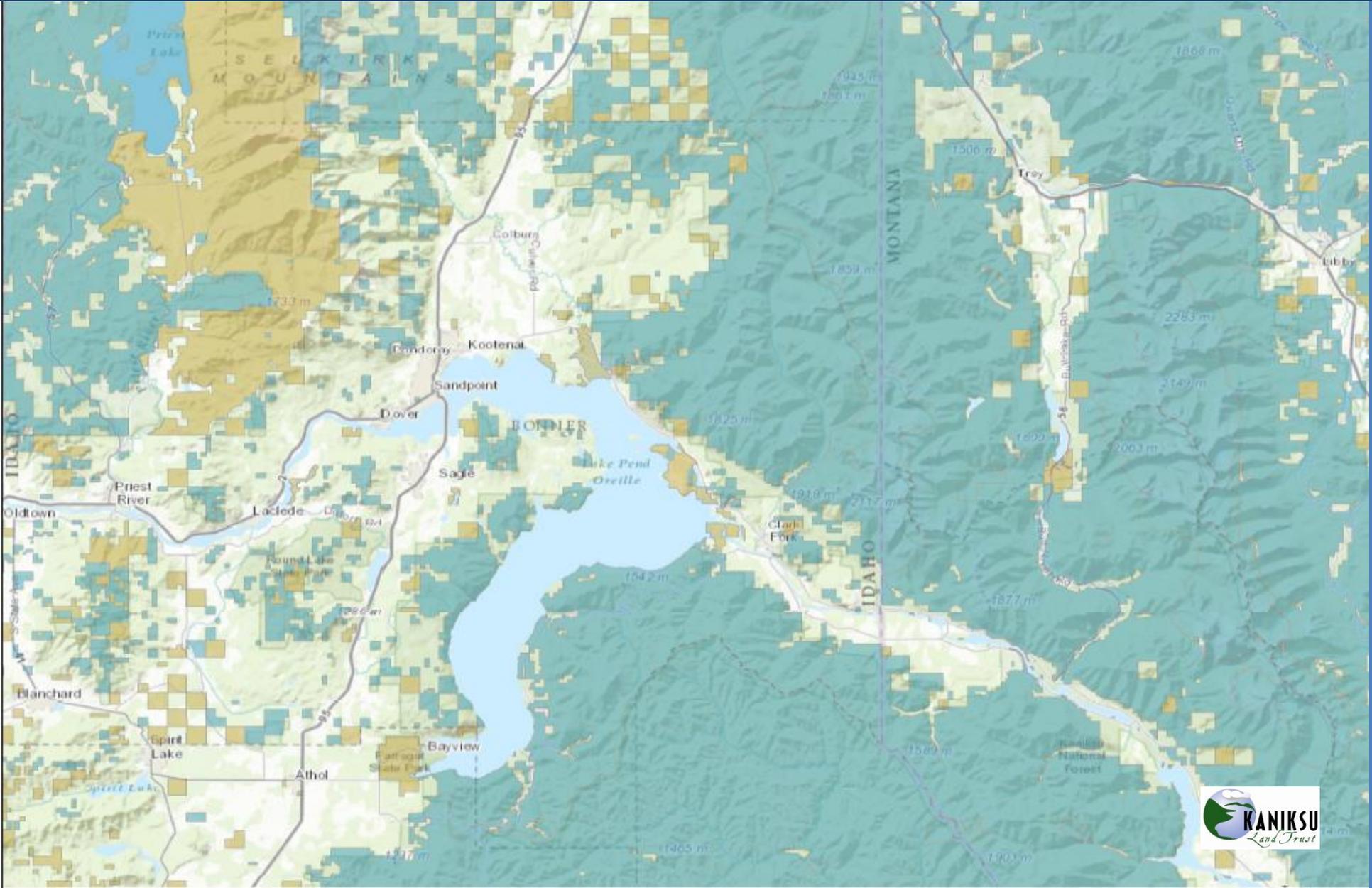
# WILD SPECIES NEED WILD LANDS!



Home range is 1.4–10.5 sq. mi. or more. Requires 40 +pounds food per day. Males weigh well over 1,500 lbs. Lifespan potential over 25 yrs. Top running just under 35mph .

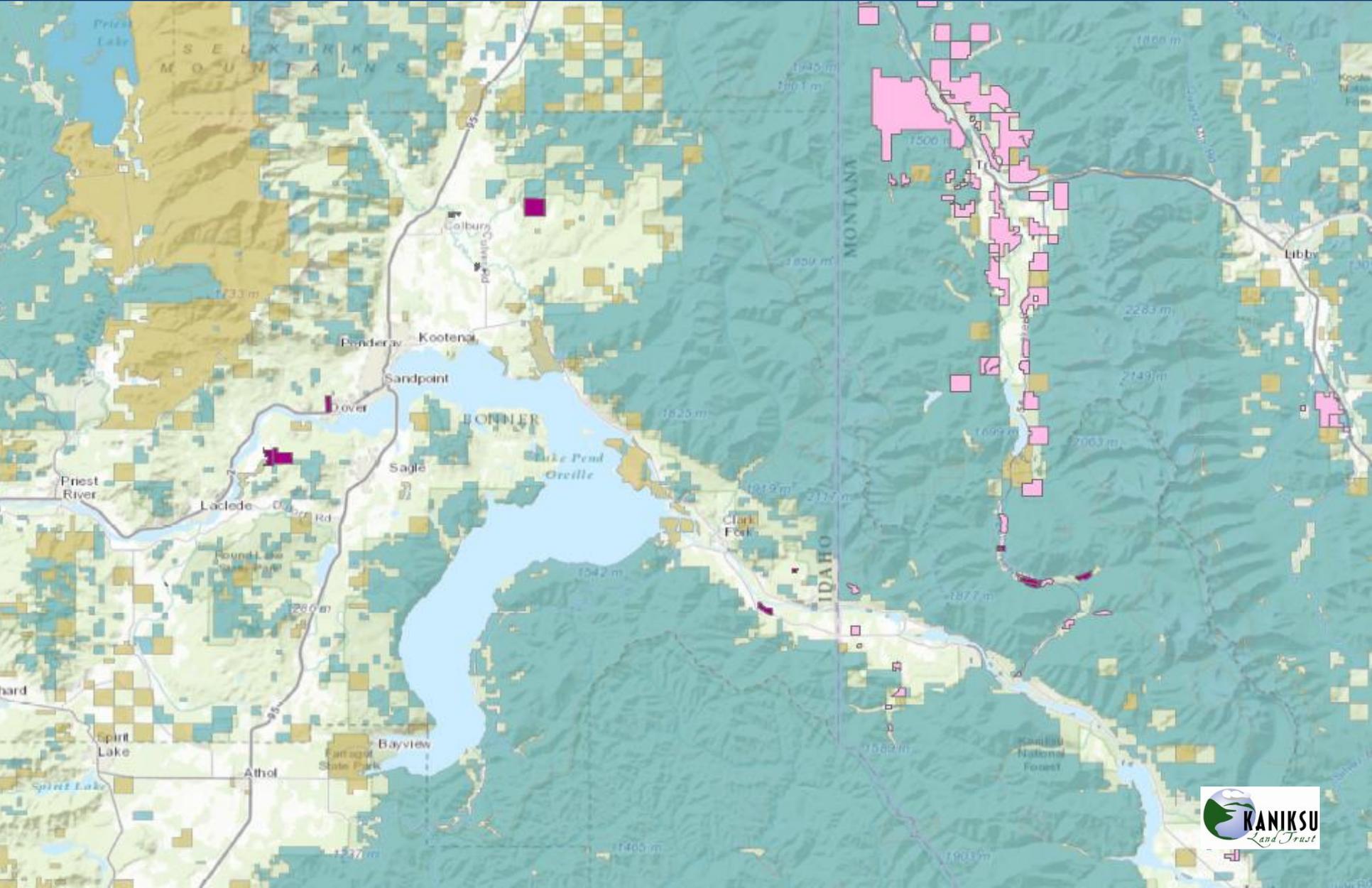
# Where is the Wild?

59% of Bonner County  
57% of Sanders County



# What about private?

40% of Bonner County  
43% of Sanders County



# Kaniksu Land Trust



Wood Duck Conservation Easement

*“Working with landowners to protect natural values that contribute to our quality of life.”*



# One Hundred Years From Now...



Gold Creek Ranch Conservation Easement

- *Large tracts of open space*
- *A permanent land base for agriculture & forestry*
- *Community access to natural areas*
- *Clean Waterways*
- *Economic vitality from balanced conservation/development.*

# What is a Land Trust?

- Publically supported 501 c3
- Land protection by working with private land owners
- 1,700 land trusts nationally
- 47 million acres conserved



Wood Duck Conservation Easement

# Conservation Easement



Wild Horse Trail Conservation Easement

- Voluntary legal agreement
- Restricts right to develop
- Owner retains & manages
- Flexible
  - *Protect specific values*
  - *Working landscape*
  - *Reserved building areas*
- Permanent

# Conservation Easement



Bull River Conservation Easement

## Benefits to Land Trust:

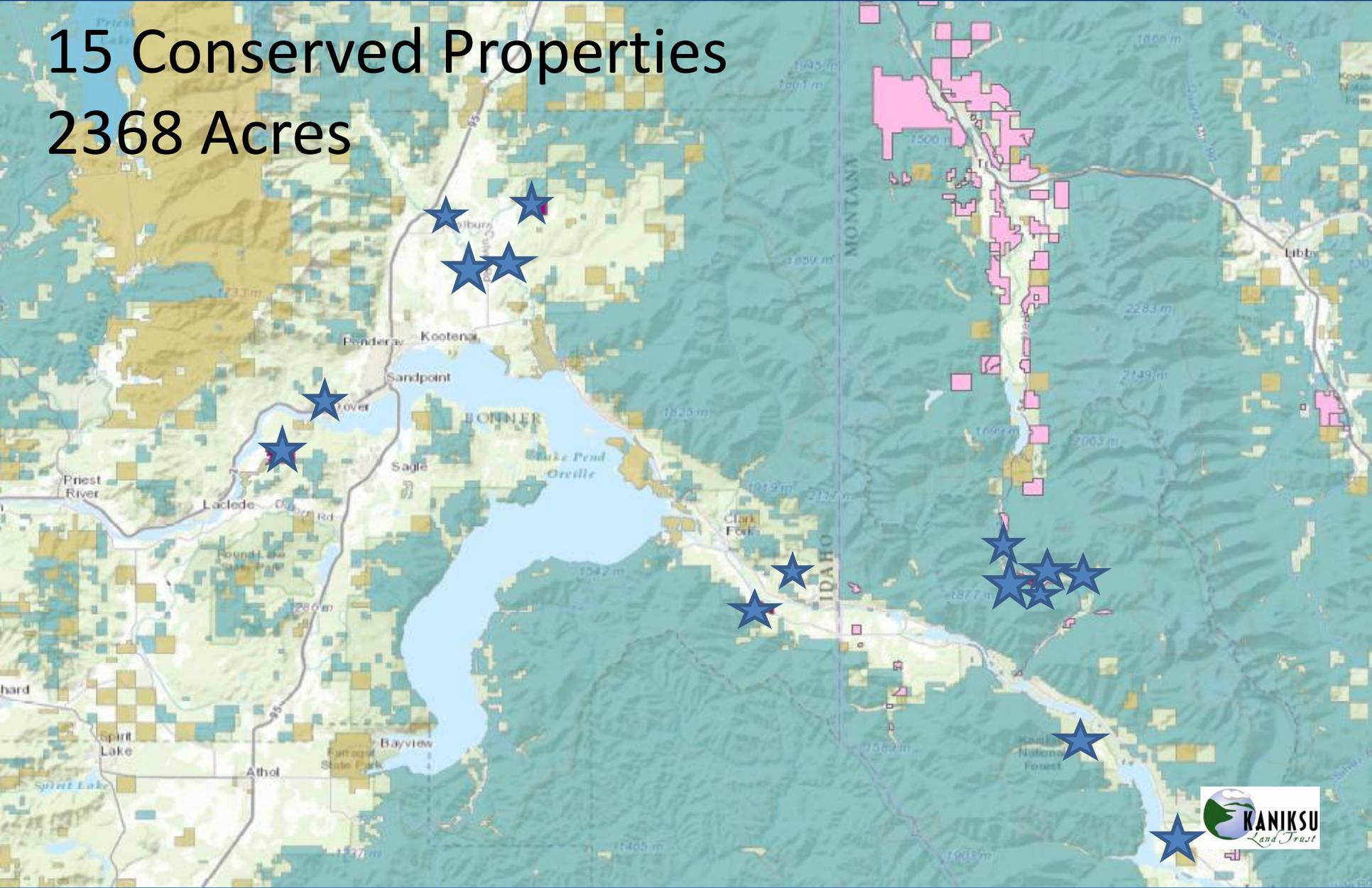
- *No land management*
- *Low cost*
- *Protect specific values*

## Benefits to Landowner:

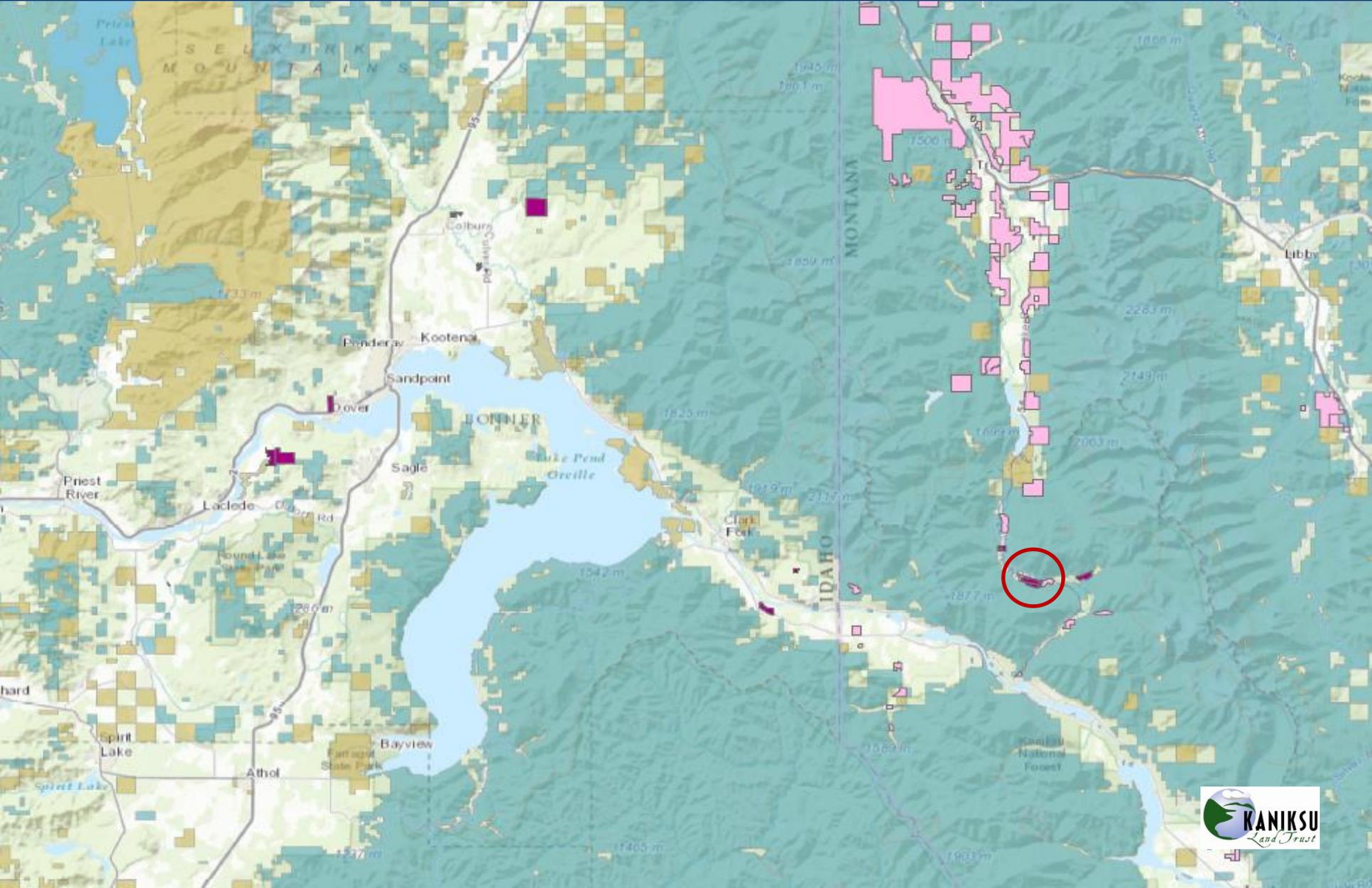
- *Land ethic fulfilled*
- *Retain ownership*
- *Unlock equity in land (if sale)*
- *Tax incentive (if donated)*

# Private land / Wild spaces

15 Conserved Properties  
2368 Acres



# Private land / Wild spaces



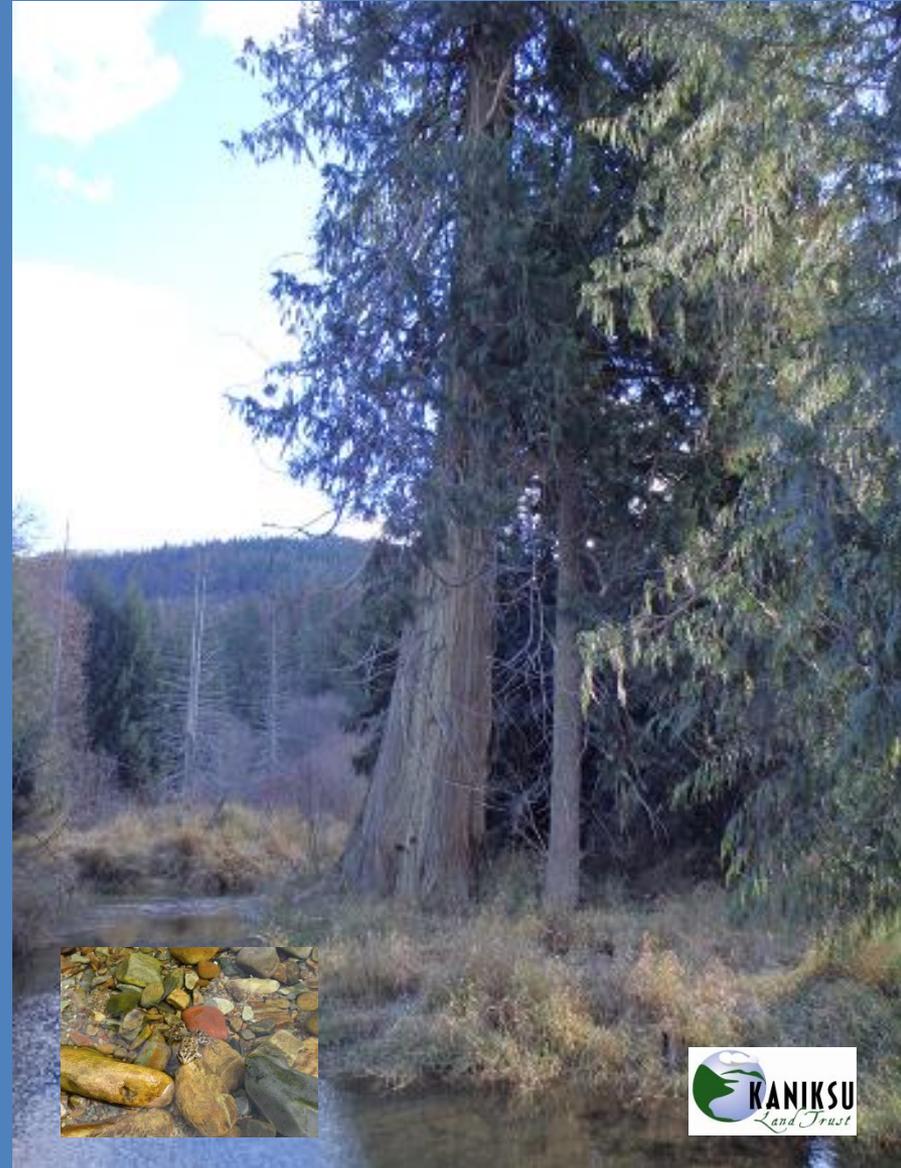
# Bull River Valley

106 acre

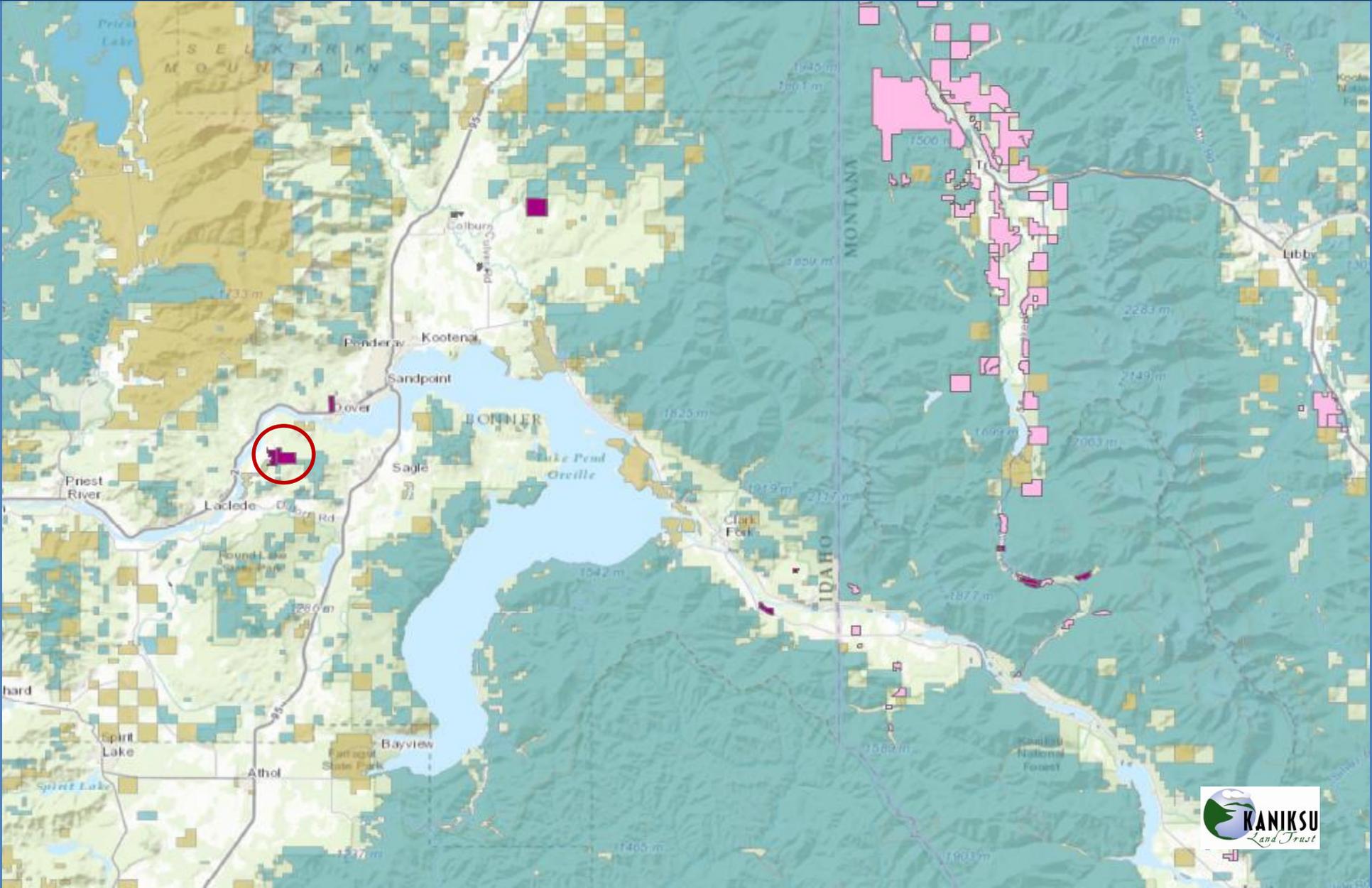


# East Fork Bull River

139 acre



# Private land / Wild spaces

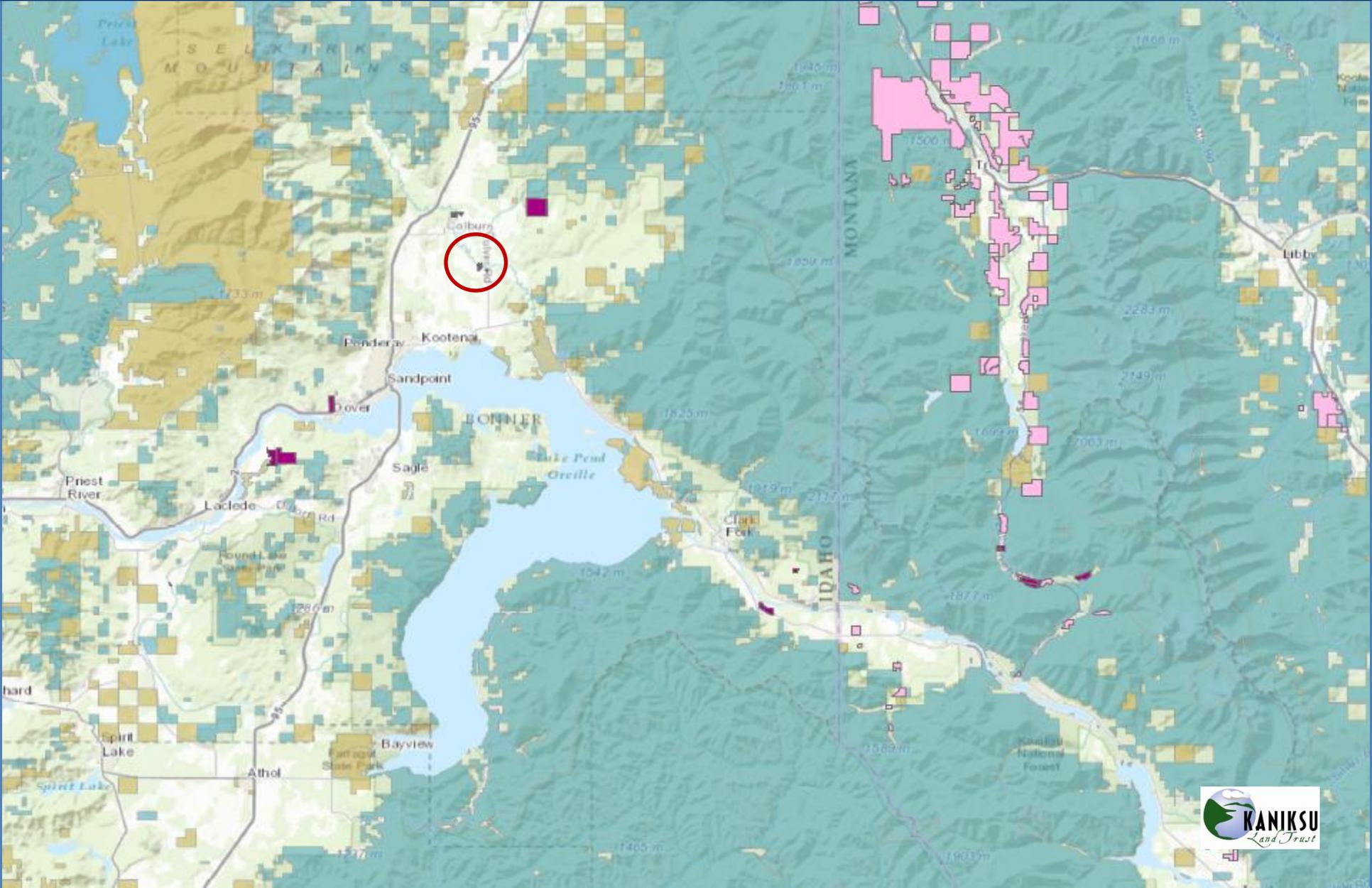


# Morton Slough

616 acre



# Private land / Wild spaces



# Pack River

37 acre



**Over 130 Bird Species**

Photo Credit Fred Forsell



# What ARE WILD LANDS?

- Most people think of vast acres of nothing as wilderness.
- BUT...in that 'nothingness' is LIFE!
- So what are open lands, wild lands or natural spaces or habitats?
- Natural habitats = environments. They offer a place where a plant or animal naturally lives.



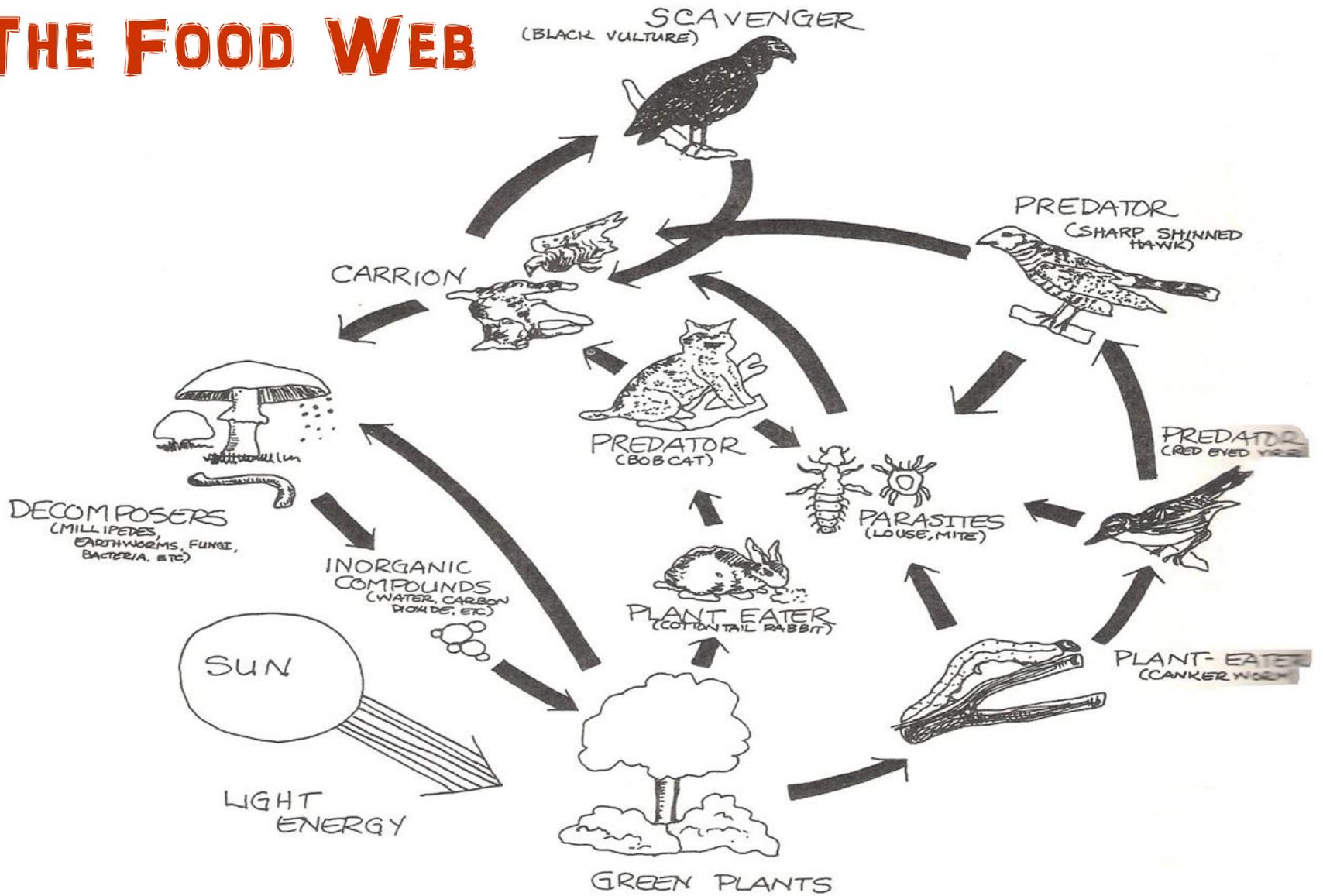
- Not the same as an ecosystem. That is an 'intricate mosaic' of life forms

# Habitat is not Equal to Ecosystem

- ECO= prefix comes from GREEK - “OIKOS”
- Meaning - HOUSE
- Ecology refers to the house we live in.
- Economy refers to how we manage that house.
- Ecosystem – a ‘household’ of organisms and its environment.
- It is constantly changing, or in flux. It is a succession of stages & affected by humans.
- Whose in the ‘household’ or community?
- There are producers – organisms that can create its own organic compound.
- There are consumers are Herbivores, Omnivores, Carnivores and Decomposers (fungi).
- Food web – the relationship of animals to each other and their habitat (the interaction of multiple food chains)
- We provide the environment our native neighbors work together to create the ecosystem.

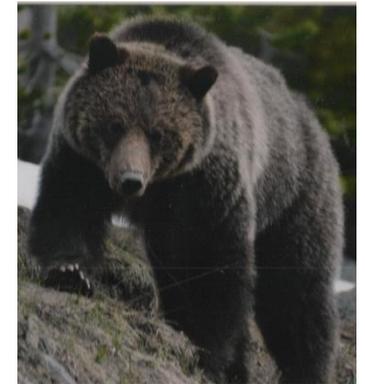


# THE FOOD WEB



# “BUILD it and THEY WILL COME”

- How do we keep the North Idaho we all love alive?
- “In the end, we will conserve only what we love; we will love only what we understand. We will understand only what we are taught.” – B. Dioum
- Think about what you love and appreciate, maybe what you take for granted.
- Now imagine it gone...



# HOW TO BUILD IT AND KEEP IT?

- Get involved with movements working locally.
- A nonprofit group may have wonderful photographs on their brochures and website. The social media pages provide some detail of the activities BUT did you take time to research and talk with the group(s) directly? Do you agree with their beliefs and interests? -If you can say YES then jump in and volunteer!
- Take 5 minutes a week to spread the word through your preferred social media platform.
- Give up an hour (or more) a month to help with projects or fundraising efforts.
- Let the organization know your talent(s).
- You will feel GREAT when you take an active part in preserving what you love.



# WILD SPACES & WILD SPECIES NPO'S



AHWF.ORG  
American  
Heritage  
Wildlife  
Foundation

**WE ARE WORKING TO PROTECT ALL OUR NATURAL RESOURCES.**

**KLT** has the vision that 100 years from now there will still be pristine waterways, access to natural areas for recreational activities, permanent land base with vibrant agricultural and forestry practices, and tracts of undeveloped land to provide critical habitat for all species.

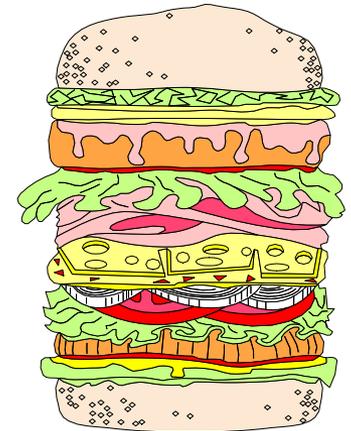
**AHWF** has been rehabilitating the injured and orphaned wildlife of north Idaho since 2001 as well as providing community education with no paid staff or government funding. The vision is to create the first Nature Center of the Inland Pacific Northwest.

**WE NEED YOU TO HELP US PRESENT THE PRESENT AS A PRESENT FOR FUTURE GENERATIONS!**

# WILD LANDS NEED 7 COMPONENTS!

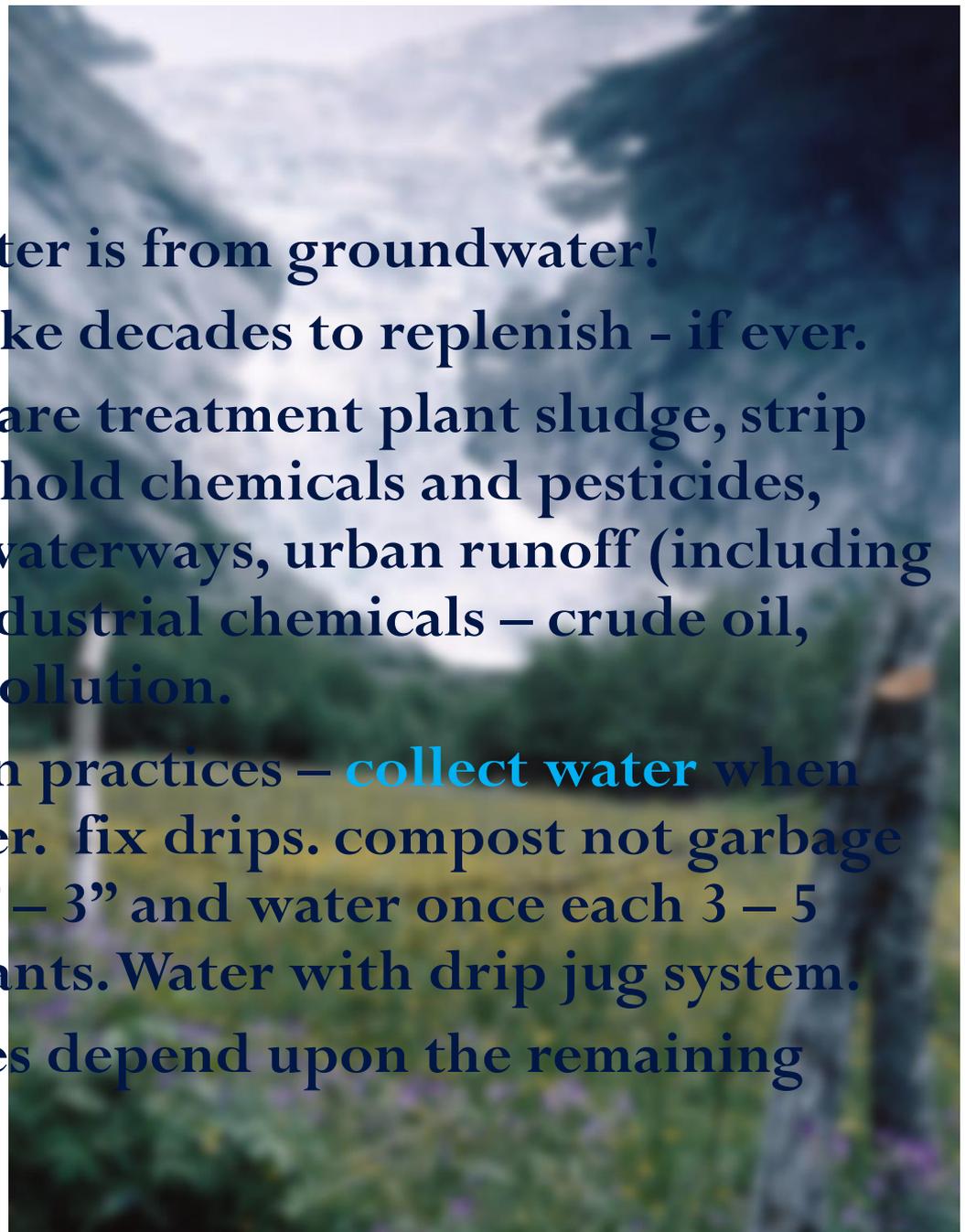
- A habitat patch must be large enough to provide equal input and output features to sustain a population. It is not just size but structural components.

- Water
- Soil
- Light
- Air
- Heat
- Food
- Shelter



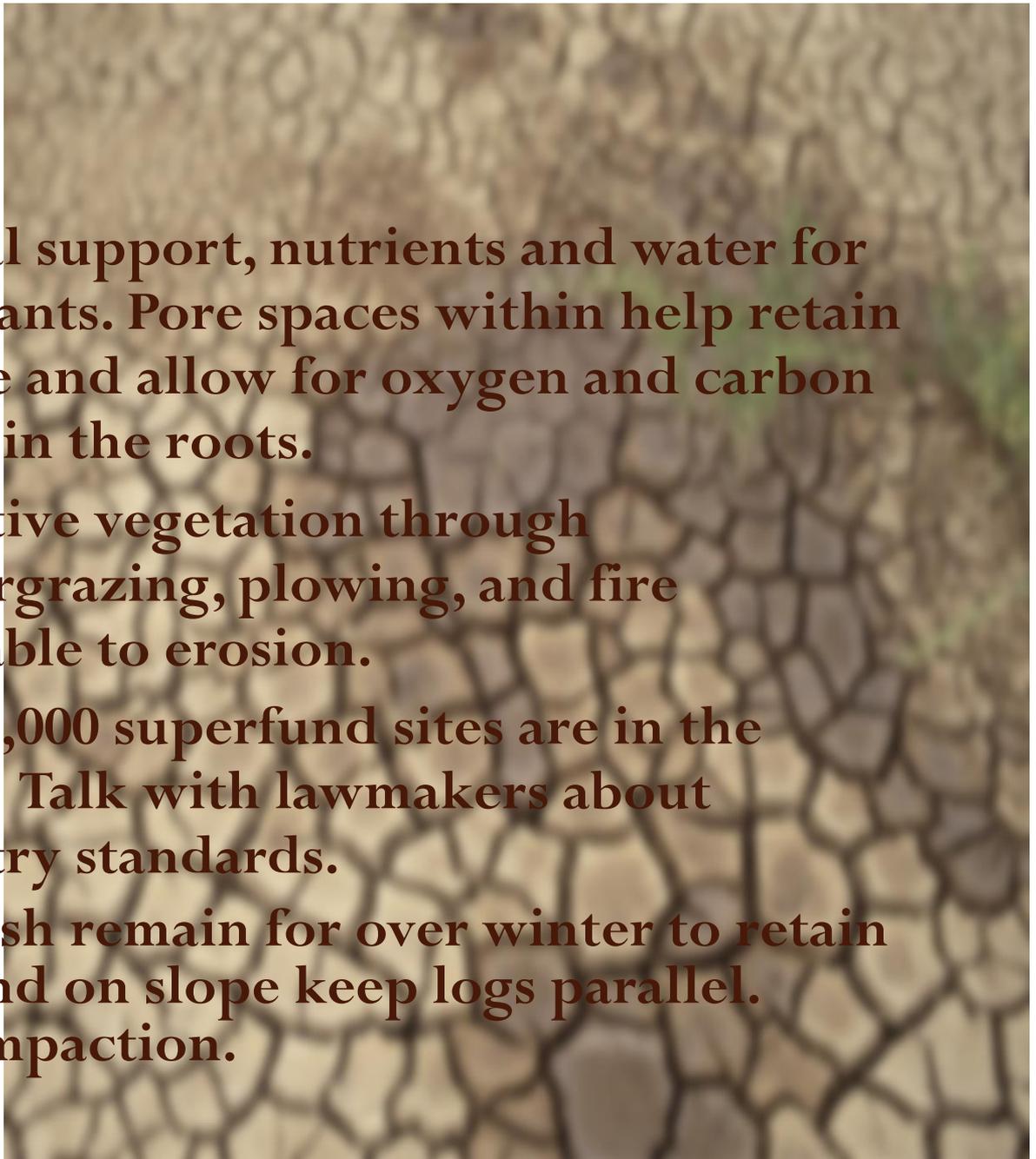
# WATER

- 95% of our drinking water is from groundwater!
- Once depleted, it can take decades to replenish - if ever.
- Contamination sources are treatment plant sludge, strip mining practices, household chemicals and pesticides, livestock grazing near waterways, urban runoff (including winter de-icing salt), industrial chemicals – crude oil, heavy metals, thermal pollution.
- Implement conservation practices – **collect water** when waiting for the hot water. fix drips. compost not garbage disposals. keep lawns 2” – 3” and water once each 3 – 5 days OR plant native plants. Water with drip jug system.
- 75% of our native species depend upon the remaining 1% of Idaho wetlands.



# SOIL

- Provides structural support, nutrients and water for trees, fungi and plants. Pore spaces within help retain and store moisture and allow for oxygen and carbon dioxide exchange in the roots.
- The loss of protective vegetation through deforestation, overgrazing, plowing, and fire makes soil vulnerable to erosion.
- 91 of the almost 15,000 superfund sites are in the Pacific Northwest. Talk with lawmakers about toughening industry standards.
- Help by letting slash remain for over winter to retain more nutrients. And on slope keep logs parallel. Also avoid soil compaction.



# LIGHT

- **More than 450 migratory bird species use the moon and stars for their biannual migrations. Bright lights may disorient and cause crashes or circle endlessly and drop from exhaustion.**
- **Research has yet to be done to discover the effects on bats and moths, who thrive in darkness.**
- **Solutions: replace high wattage exterior fixtures with low watt bulbs.**
- **Find out about any lighting codes in the community.**
- **Go to [www.darksky.org](http://www.darksky.org) for more information**

# AIR

5 step to clean air globally. Contact your political representatives!

1. Clean up coal fired power plants, install scrubbers at utility & smelters – release particulates.
  2. Strengthen ozone air standards – G.W. Bush overturned recommendations for stronger protection.
  3. Clean up ocean going vessels – release nitrous oxide, co2 & particulates.
  4. Improve pollution monitoring network – only 1,000 for 3,141 countries.
  5. Enforce the law – refuse budget cuts of staff.
- **LOCAL TIPS:** cycle or walk, carpool or public transport, use high octane fuel, maintain tire pressure, avoid ‘jackrabbit’ starts. Plant trees & shrubs in strategic locations, avoid leaf or snow blowers (when possible use rakes or shovels). Recreation: hike, kayak, canoe, and cross country ski rather than ATV’s, boats, jet skis, snowmobiles.

# HEAT – FUR/FEATHERS OR FOSSIL FUELS

- Conservation of our limited supply fossil fuels.
- Set your Heating & Air Conditioning systems to the lowest settings. (when away turn the breaker off including the water heater)
- Set the water heater to 120 degrees (take short showers).
- Unplug appliances such as coffee makers and toasters.
- Use compact fluorescent bulbs.
- Air dry the dishes instead of the dishwasher cycle.
- Line dry your clothes instead of the dryer.
- Turn off the computer and monitor when not in use.
- Plug home electronics into power strips – turn the power strips off when not using the equipment.
- Track your use - Read your meter daily. Have block challenges.

# FOOD & SHELTER – IMPORTANT BASICS

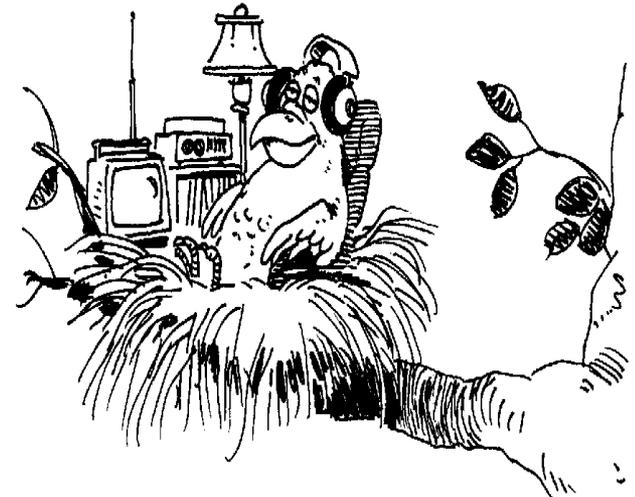
- These two habitat (environment) components are the two easiest and most commonly provided for our native neighbors.
- Feeding one means accepting all!



- Shelter can be artificial or natural.



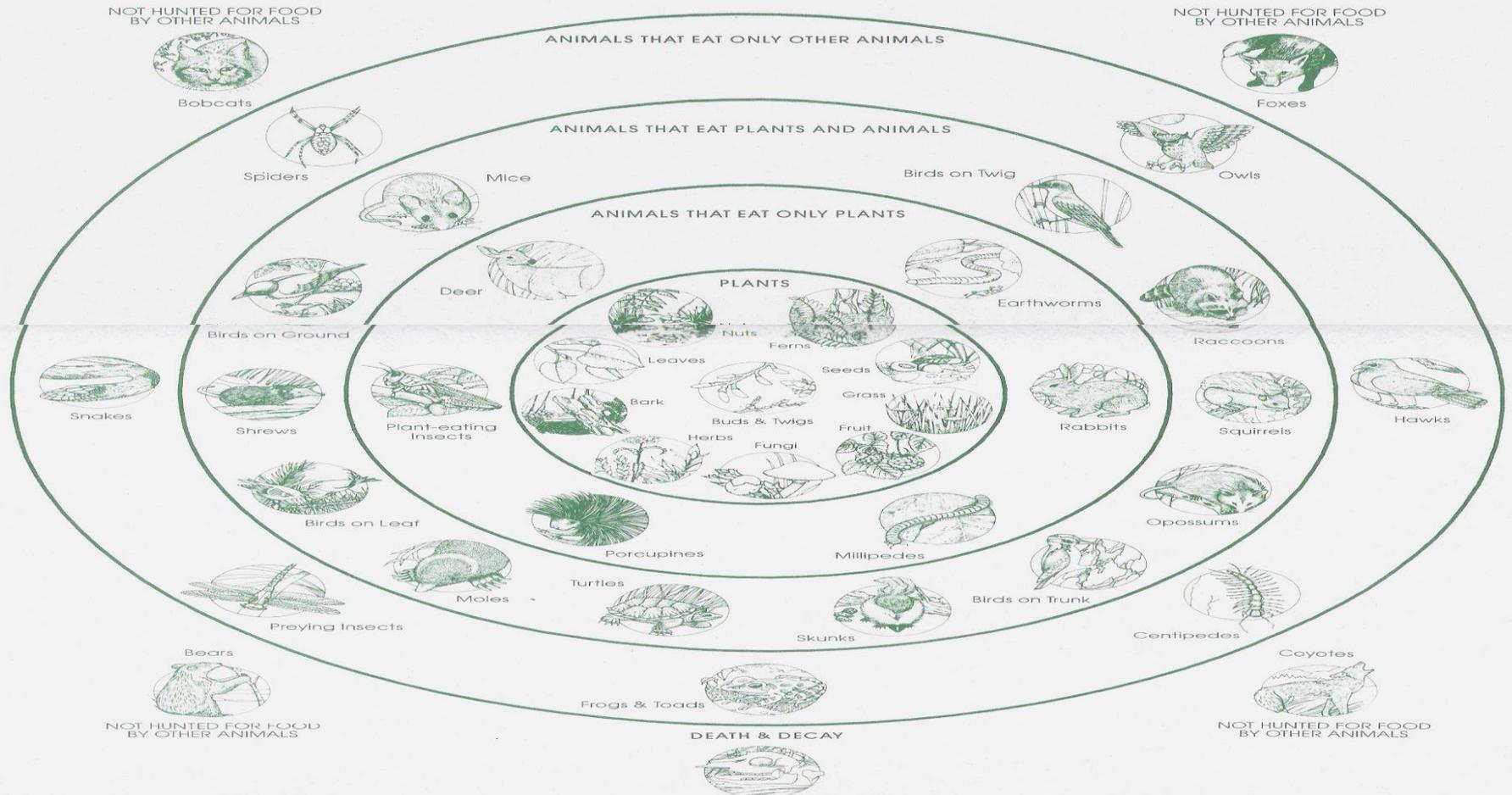
Nests, Bird houses,  
Trees (internal or external)  
Caves, Dens &  
Hollow Trees.



# EVERYTHING IS CONNECTED !!!

## NATURE'S FOREST FOOD WEB

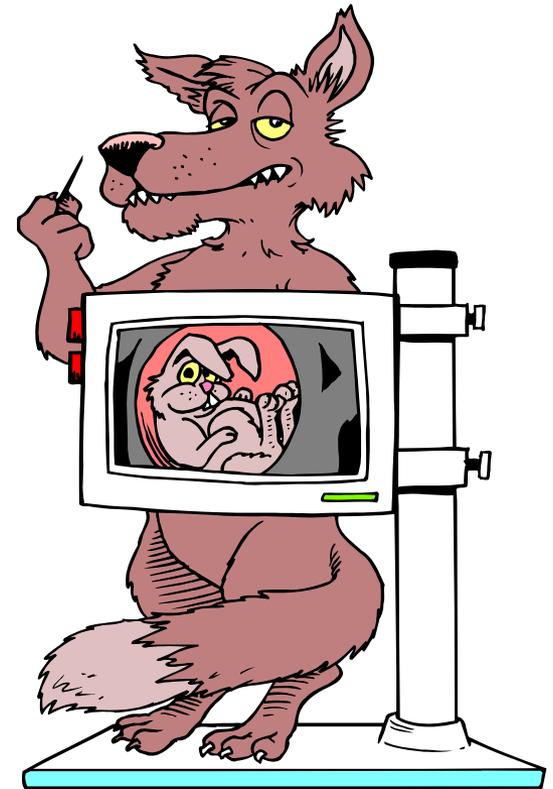
Plants are at the center of the forest universe. Animals that eat plants carry the plants' energy out into the animal world. Death and Decay bring matter back to the earth to be available to plants again. The sun provides energy to the plants.



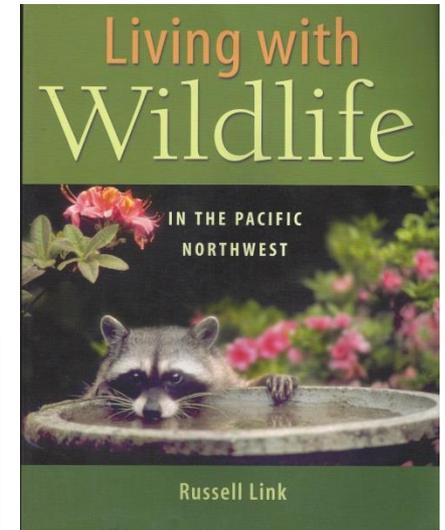
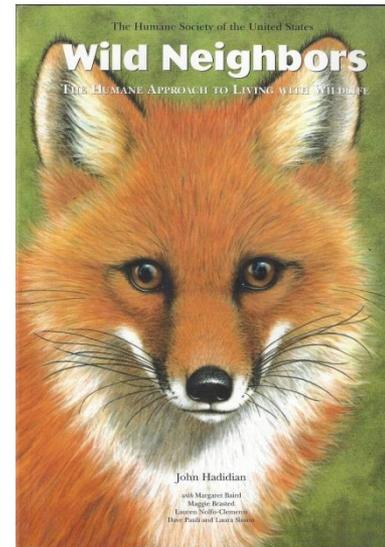
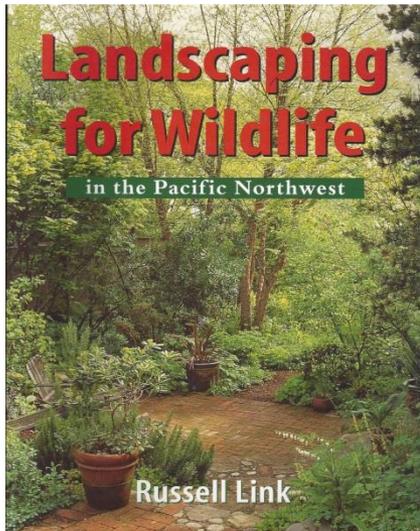
➤ HUMAN KIND HAS NOT WOVEN THE WEB OF LIFE. WE ARE BUT ONE THREAD WITHIN IT. WHATEVER WE DO TO THE WEB WE DO TO OURSELVES. ALL THINGS CONNECT. – chief seattle in a letter to president pierce.

➤ There is no such thing as a bad animal and a good animal. They all rely upon each other and at the core is the land!

➤ “Space is air for the great beasts who roam the earth. Now is their final breath”.  
John Weaver – Wolf Researcher



**THE REALITY OF SIMPLY EXISTING IS THAT ALL NEED SPACE AND UNDERSTANDING!**



**“IN THE END, WE WILL CONSERVE ONLY WHAT WE LOVE; WE WILL LOVE ONLY WHAT WE UNDERSTAND. WE WILL UNDERSTAND ONLY WHAT WE ARE TAUGHT”. – B. DIOUM**

#### 4 FLYWAYS – ATLANTIC, MISSISSIPPI, ROCKY MOUNTAIN, PACIFIC

## *Migration Miracles*

- There are larger land masses in the Northern Hemisphere.
- Migration north required as days get hotter and drier.
- In search of food, nesting sites & places to escape predators.
- Migration south required as days get shorter & less plant growth.
- Migrating flocks use land marks to navigate as well as other factors. The experienced adults lead the way and transfer knowledge from generation to generation.
- Single species use instincts to guide them and rely on navigational skills: solar position and star configuration. Also using Earth's magnetic field to find way – like a compass
- Some species with a sense of smell use odors to recognize way.

### *Aves de las Americas:*

An impressive 50% of western non-passerine birds migrate from their breeding grounds in the north to their wintering grounds in the south. The migration is a complex process involving a variety of factors, including changes in day length, temperature, and food availability. The birds use a combination of navigational skills, including solar position, star configuration, and Earth's magnetic field, to find their way. The experienced adults lead the way and transfer knowledge from generation to generation. Some species with a sense of smell use odors to recognize way. The search of food, the resident Mexican species have a tougher task in finding food and nesting grounds as human expansion leads to more and more land conversion.

## **6 STEPS TO TURN YARD INTO A BIRD SANCTUARY**

- **Provide water. Planting native plants to offer food & shelter.**
- **Offer safe and appropriate natural foods.**
- **(Keep areas clean (move feeders) wash trays.)**
- **No cats or keep indoors at peak times.**
- **No fungicides, pesticides, herbicides & never near the water.**
- **Mount inaccessible feeders, install fences, predator repellents.**
- **Reduce window collisions with decals & flash tape. Place feeders 3 feet away or install screen = bounce off.**

# THINGS TO MAKE YOU GO HMMM...

- Weak base of food pyramid = weak structure (ecosystem). When indicator species population stable & sound = healthy food chains.
- The higher up the food chain you are the fewer 'enemies' you have.
- The more aggressive the species is the less likely the young will reach adulthood. Adults are away defending territories and not protecting or teaching their offspring.
- The number of Wolverines declines when reduction Wolf numbers.
- Aspen populations in Wyoming and Cottonwood in Utah are directly linked to Wolf and Cougar populations (respectively).
- Recent Central Idaho livestock survey: domestic dogs are 5 times greater danger of mortality than wild cousins the wolf. Less than 1% of total were due to wolf predation (only 515 of <140,000).
- Stable Grizzly Bear populations rely on army cutworm moths – which feed on lupine daisy and paintbrush after arriving from plains wheat fields.
- Stable deer populations become unstable without top predators.

## HOW can that BE? ... DECLINING MOTHS = GRIZZLY CONFLICT!

- In a web, every action touching one strand will be felt by all others.
- Grizzly Bear & Moths. Moths follow wild flower nectar and pollen from wheat field plains to the cooler high country alpine flowers. Hide from heat of day in rock crevices. Bears dig out and consume about 40,000 per day. Additional protein is from White Bark Pine Tree seed caches from squirrels . Without the moths, they move lower (to urban areas) to fill caloric needs. Causes increased conflict as garbage becomes food source.
- Pesticides kill bugs. Trees dominate in warmer temps compared to wildflowers. Pine seeds are relied upon heavier but blister rot invades and therefore no seeds to consume. No seeds means future trees, no Squirrels, no Clarks Jays, no Bears, ...etcetera, etcetera, etcetera.

## How can that BE? ... PREDATOR REMOVAL = DYING PREY!

- In 1905 to 1925 hunters killed thousands of Cougars, Wolves & Coyotes. This threatened the Deer population! Because unchecked the population grew from a stable 4,000 to over 100,000 in 20 years. The habitat could not support such a population. 60,000 starved to death in one year.
- Recent turn of this century study in 6 N.P.'s resulted in a link between top predator decline & tree decline. Less trees = Soil and land erosion = water temp increase = fish & amphibian decline = decline flowers and streamside vegetation = butterflies and songbirds decline. All due to increase of herbivorous deer species and their need to browse feed on these favorites. No young saplings growing to replenish the old.

# WISDOM OF ALDO LEOPOLD

- “if we are to understand the whole we must save all the pieces”.  
*I ask you now ‘what pieces should be kept’?*  
The metaphor being: A vase is knocked over
  - it breaks into four pieces, once glued it is still recognizable;
  - it breaks into thousands of pieces –  
how can we still create a recognizable vase?
- **think like a mountain** is the coin phrase, interpreted meaning - where the mountain is not bothered by the wolf consuming the deer because the wolf keeps the deer in check. Without him, the deer overrun the mountain and consume all vegetation therefore destroying the mountain.
- “A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community.”

# A THING IS RIGHT WHEN ... KNOWLEDGE

- Conservation – a planned management of natural resources.
- Preservation – to keep safe, to safeguard, to protect.
- Where do we begin? Look around:
- Big picture: an environment and its components.
- Local picture: native wildlife & plants (Living with the locals - our native neighbors!)
- Recognize ways to recycle, reuse, restore, reduce & respect. *The five R's of eco-efficiency*
- Find out and use 'Household alternatives'
- Native American tribes all had different rituals when they removed one element from the environment. Example: the Chippewa placed tobacco near the plants they harvested. To honor the plants purpose. What does modern man do?
- Learn to live within the carrying capacity of this planet.

- Become educated about your surrounding.
- Discover who your 'native neighbors' are and learn to cohabitate!
- Accept ALL species as vital to a healthy ecosystem.
- Build nest boxes or bat houses.
- Make choices that keep prairies or forested areas whole and waterways clean.
- Examples: Vote against agricultural to residential zoning changes. Keep timber on your property (including standing dead & CWD). Sign petitions against the proposed increase in the number of coal trains passing by our waterways. Use natural insect removal products. Acknowledge the possible groundwater contamination threats and don't contribute. Recycle, Reuse, Reduce. Encouraging your neighbors to do likewise.
- Jeremy Irons documentary on and crusade against trash. Each person creates over 3 pounds of garbage - everyday! (worldwide) landfills are overcapacity. Learn ways to reduce and contact manufacturers.

# A THING IS RIGHT WHEN ...actions

- Small steps yield big results!
- Major contributors to the problems are not “factories”.
- Pollution Prevention - causing air, soil, and light contamination.
- Water pollution - Biomagnification. = 1K-5K times more in photoplankton (producer) then 10Kto50K in zooplankton/aquatic invertebrates (primary consumers) then small fish 100Kto500K (secondary consumer) then 500K to 50million more polluted in cormorants (tertiary consumer)
- Waste Minimization
- Source Reduction
- Renewable Energy
- Habitat destruction – human interference causing removal of food, shelter, or water sources.
- Intentional killing & Unintentional trapping, maiming/killing.
- Domestic Cats & Dogs.

# HELPFUL POLICIES

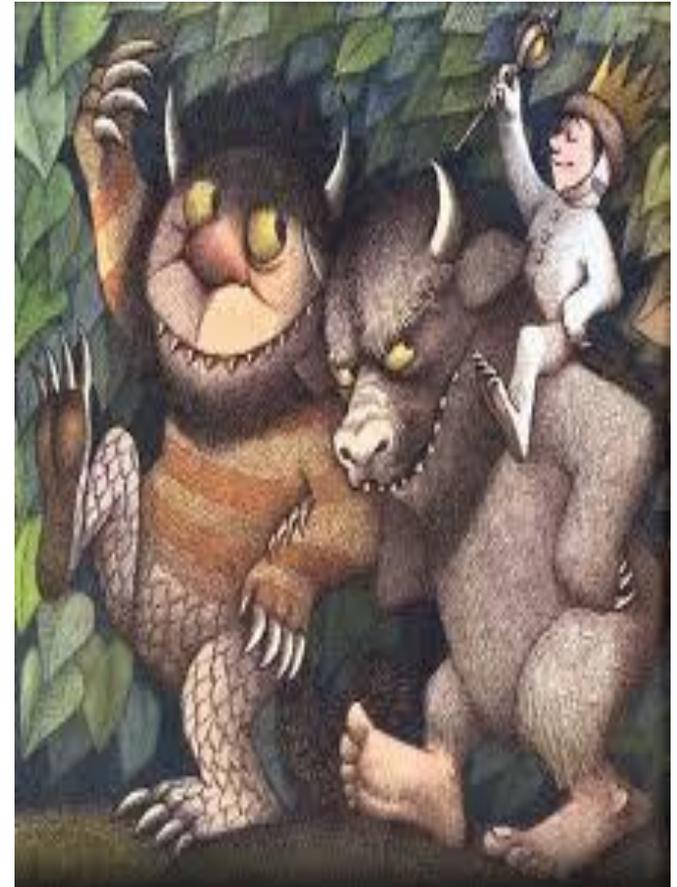
- Migratory Bird Treaty Act – 1917
- Federal Insect, Rodent & Fungicide Act – 1947 (amended 1972)
- Federal Water Pollution Control Act - 1948
- Wilderness Act – 1964
- Solid Waste Disposal Act & Shoreline Erosion Protection Act – 1965
- National Environmental Policy Act - 1969
- Creation of EPA & Clean Water Act – 1970 (amended 1990)
- Coastal Zone Management Act - 1972
- Endangered Species Act – 1973 (amended 1982)
- National Forest Management Act & Toxic Substance Control Act & Resource Conservation and Recovery Act - 1976
- Safe Drinking Water Act – 1977
- Nuclear Waste Policy Act - 1981
- Oil Pollution & Pollution Prevention Acts – 1990
- Federal Recycle and Procurement Policy - 1991
- Food Quality Protection Act – 1996 (relating to pesticides)
- Interior Appropriation Act – 2003

# A THING IS RIGHT WHEN ...YOU SHARE

- The challenge is to live within the carrying capacity of this planet! – *neighborhood challenges*
- “There can be no purpose more enspiriting than to begin the age of restoration, reweaving the wondrous diversity of life that still surrounds us.” - E. O. Wilson
- Become involved with: Wild lands restoration project.
- Partners in Flight is an international program dedicated to migratory bird conservation.
- The Christmas Bird Count and Backyard Bird Count are always seeking volunteers.
- The Forest Service has point counts & AHWF has Osprey Study.
- Support eco-friendly laws. Talk with local representatives.

# HELPFUL HUMANS

- Conservationist – studies wise use of natural resources
- Naturalist – studies the natural world
- Ecologist – studies ecosystems
- Biologist – studies life forms
- Botanist – studies plant life
- Zoologist - studies animal & kingdom
- YOU & ME -  
each of us can take action!
- “Wilderness is the best place to learn humility, dependency and reverence for all life.” -Roderick F. Nash



# THESE LEADERS UNDERSTOOD — DO YOU?

- The intricate relationship between species.
- That any component removed disrupts the balance and negatively impacts the entire structure.
- Humans must respect the land and treat it as if it were merely loaned to us by our children.
- *“For if one link in nature’s chain might be lost another might be lost, until the whole of things will vanish by piecemeal.”* - Thomas Jefferson
- *“The loss of animal species is like the loss of a gallery of masterpieces.”* - Theodore Roosevelt
- Without the wild animals and pristine habitats, man will cease living and merely survive. —Chief Seattle (from 1854 letter).
- Without wild species, wild lands are simply barren zones of decay.



**QUESTIONS ?**

**COMMENTS !**

