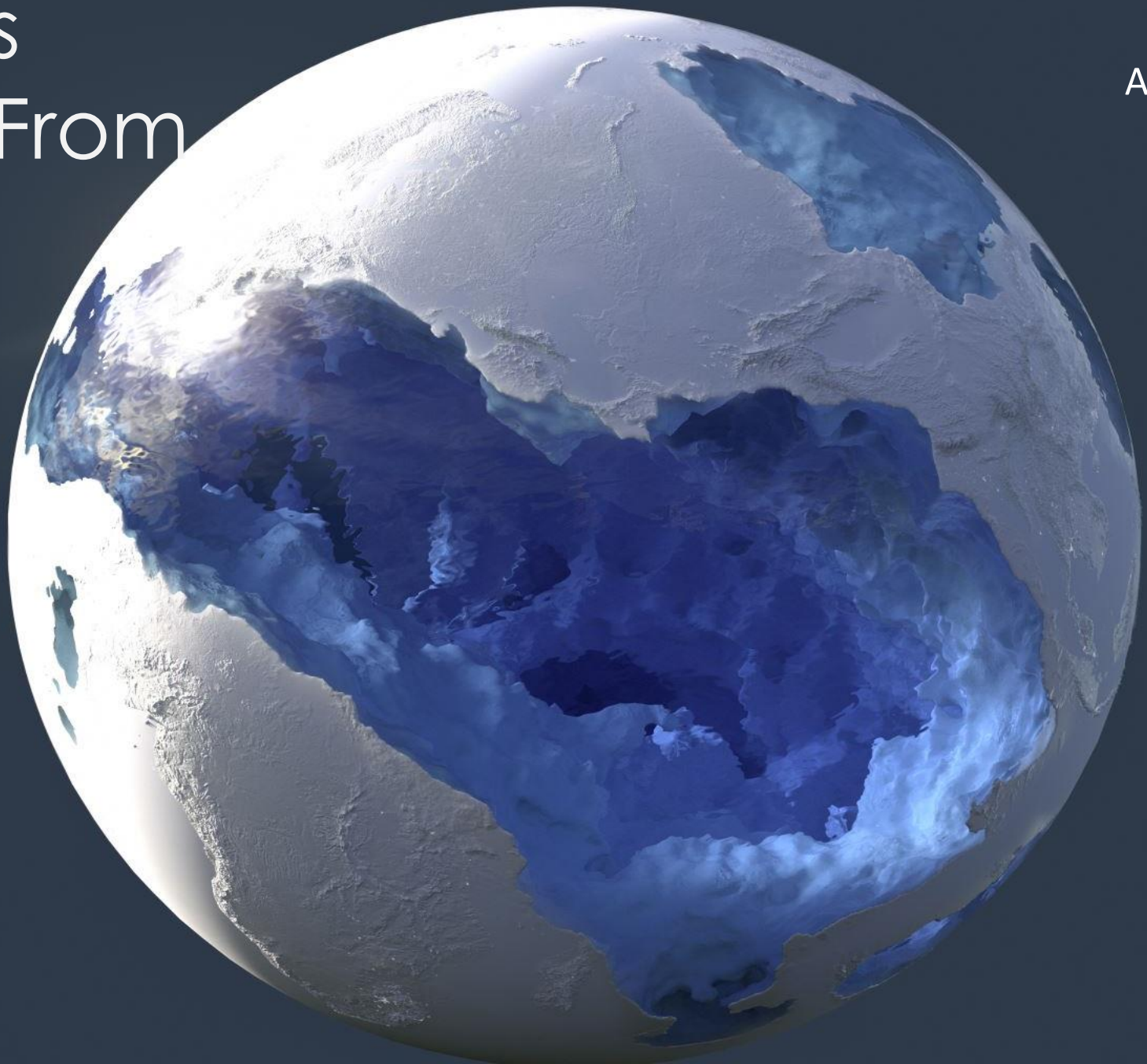
The Earth Is Drying Up From Climate Change

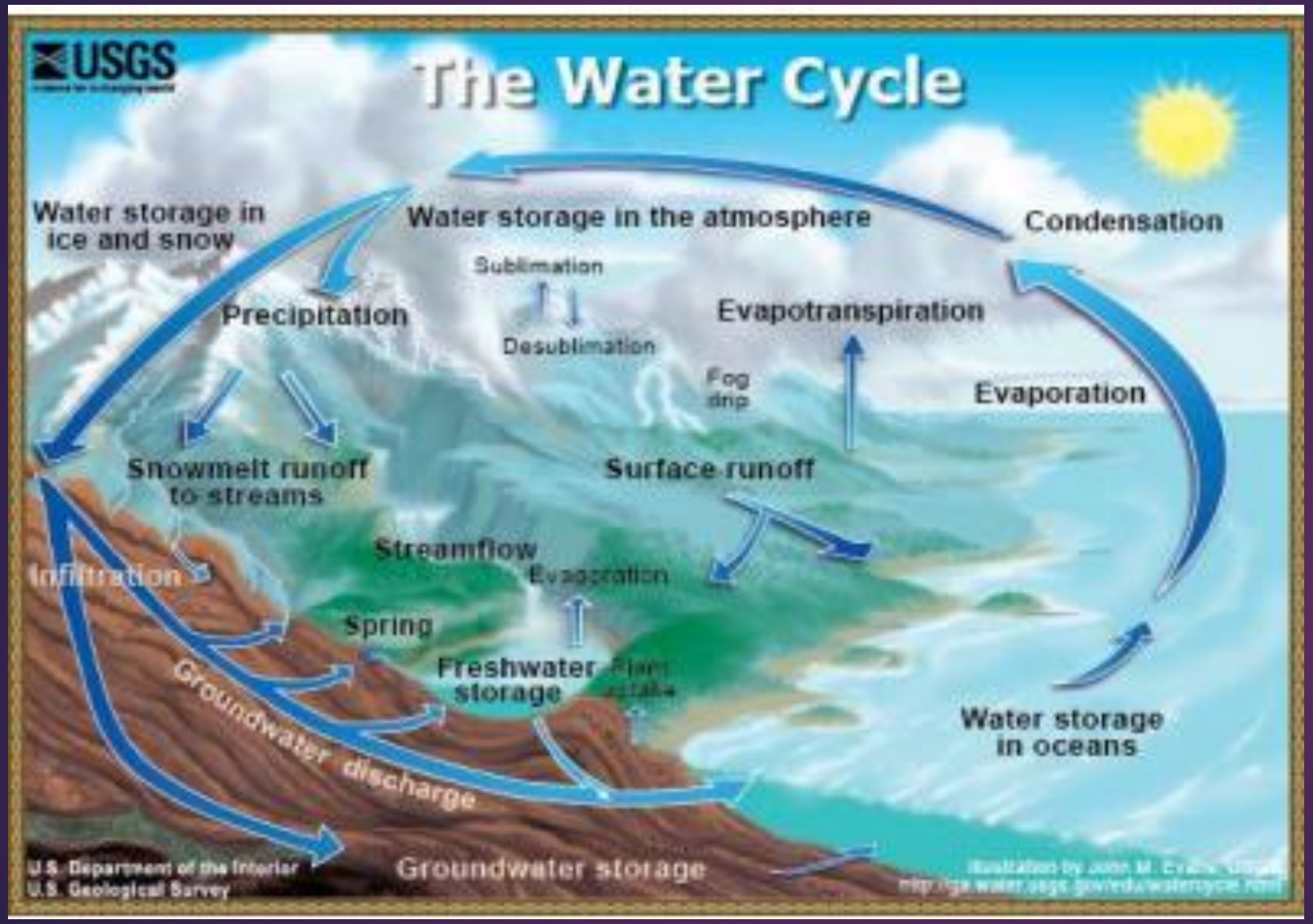


Unlimited Water

In the **atmosphere**, only 1/7 of the water vapor falls to earth as rain or snow and accounts for all the fresh water in our ponds, lakes and rivers. Through evaporation, it may be replenished many times annually

A 1 billion National Experi

This slide show is a using capturing w vapor in thousands electrolysis powe machines to create inexpensive elect that runs fans. These in an unlimited amou water vapor from th and condense it liquid. The process ne at least 30% humidit work well. This unlim supply of water can used in a variety of w but each must sup the 6.3% basis service required



WATER IS LIFE

There are an estimated 3.7 million billion gallons of water vapor in earth atmosphere. This is recycled 40 times per year through evaporation powered by the sun in what is known as the hydrologic cycle.

New Source of Water from Air

A NEW INDUSTRY IS EMERGING THAT CAN CAPTURE WATER VAPOR AND CONDENSE IT INTO LIQUID. ONLY 1/7 OF THE WORLDS WATER VAPER FALLS TO THE EARTH AS RAIN OR SNOW TO REPLENISH ALL OUR GROUND WATER IN LAKES, RIVERS AND AQUIFERS. THE NEED IS GREAT. NOW BOTH GROWTH AND CLIMATE CHANGE HAVE USED UP THE EXISTING GROUND WATER SOURCES BECAUSE IT IS NOT BEING REPLENISHED. OUR OVERHEATING PLANET HAS CREATED SHIFTS IN WATER AVAILABILITY THAT COULD MEAN A DROP AS HIGH AS 23% IN HYDROPOWER PRODUCTION BY THE MIDDLE OF THIS CENTURY. THIS SLIDESHOW ILLUSTRATES WHAT A RESEARCH LAB CAN DO TO INCUBATE A NATIONAL TEST FOR $ 1 BILLION TO BUILD 10,000 MACHINES GENERATING UP TO 91 BILLION GALLONS OF WATER PER YEAR. WE WILL DO THIS AS A PUBLIC PRIVATE PARTNERSHIP AND WANT OTHER STATES TO COPY.

A wheat field next to a wetlands

Three-quarters of the world's land is drying out, 'redefining life on Earth'

This means arid regions, experience persistent, long term climatic conditions in which evaporation exceeds rainfall,

WILDFIRES FUELED BY CLIMATE CHANGE

In Los Angeles, wildfires this year have scorched more than 40,000 acres, damaged over 12,000 structures, and incurred costs exceeding $275 billion solely from the Pacific Palisades fire. This image depicts the devastation.

Future wildfires are a direct result of warming planet and can be prevented by using residential fire suppression systems with on-site reservoirs that cost less than $10,000 per site and can be paid for in future property taxes. Oasis Machines can be one of these providing 500 gallons per day for landscape and fire emergencies for many States.

Hotter, drier, more flammable and 40 times more likely than before climate change

Included with other fire safety practices

THE DIRECTION OF OUR RESEARCH FOR WILDFIRES

A $10,000 site cost including an Oasis Machine, a water cistern, sprinklers, underground hoses and installation could be amortized in the property taxes very cheap, maybe $650 per year. On top of that there will be revenues from selling $500 of water per month. This would grow a profit surplus, and over 30 years this will grow huge.

To animate click: https://apparent-technologies.com/FMS4.mp4

WILDFIRES HIDDEN COSTS

THE INFRASTRUCTURE SUFFERS TOO

* As buildings burn, so do their pipes
* The water system will quickly fail without the right kind of backup power.
* San Francisco has spent Billions on this and going for a $4.5 Billion expansion
* Contaminated drinking water from the soot will be around a long time
* Emergency Water Sources are needed
* Remote Shut Off Values Save water and money
* The Insurance Industry will be raising rates soon to cover their losses
* 10 years from now, coastal homeowners may not be able to get insurance
* Bloomberg Intelligence reports that lost wages and sickness now exceed $1 trillion

Scientist Sound The Alarm

Trees Are being Destroyed by Climate Faster Than we can replace them in a CSU Study Examining 25,000 plots in the United States.

"Trees provide a lot of value to humans in terms of clean water, clean air, wildlife habitat and recreation"

There are two primary causes of the desiccation: rising temperatures unleashed by using oil and gas, and widespread over pumping of water that took millennia to accumulate underground.

Examples of Drought

Rio Grande River Running dry.
More on Rio Grande

Panama Canal drought reduces usage

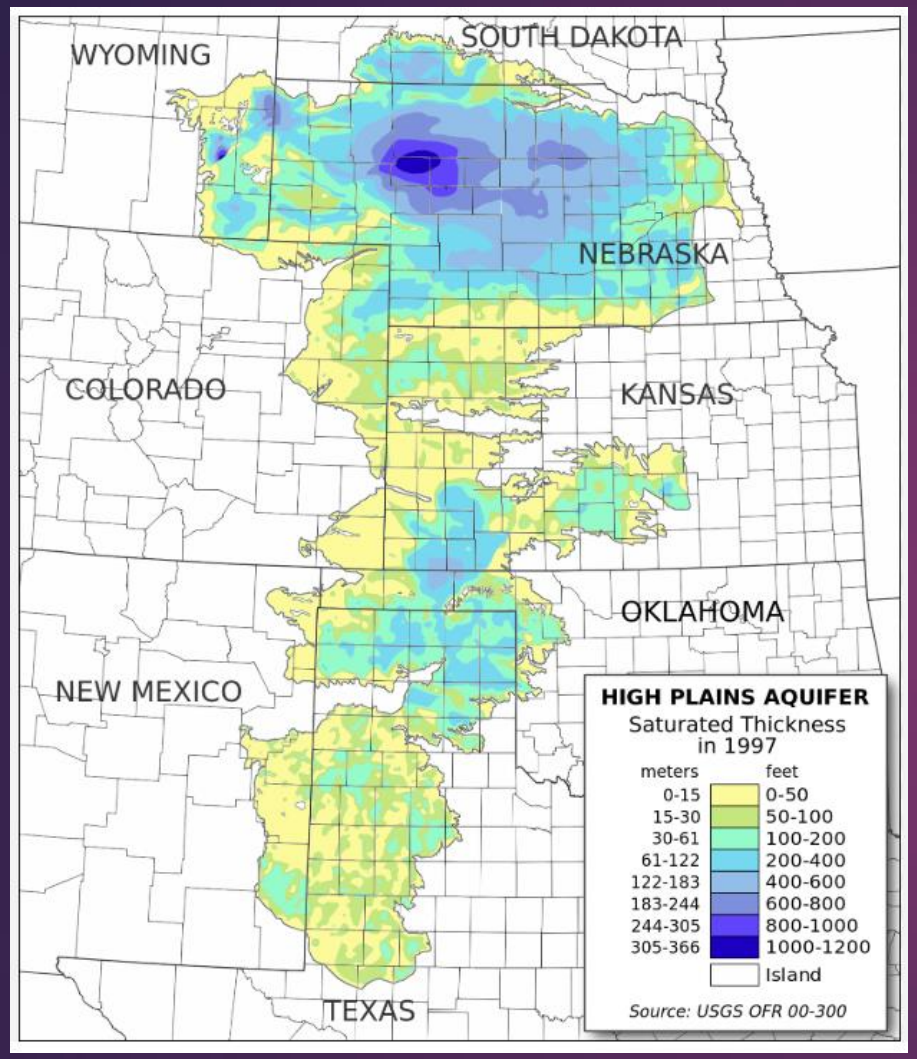
Ogalla Aquifer Kansas to Texas Running Dry

Hoover Dam and Lake Meade Down 70%
Water shortage at Hoover Dam is causing concern.

40 million People Rely on the Colorado River, and Now It's Drying Up. Link to a YouTube Video (wait for it)

California Farming and land is sinking.

Yangtze River China's Beating Heart



The Vanishing Lifeline: Ogallala Aquifer and the Fate of Rural America

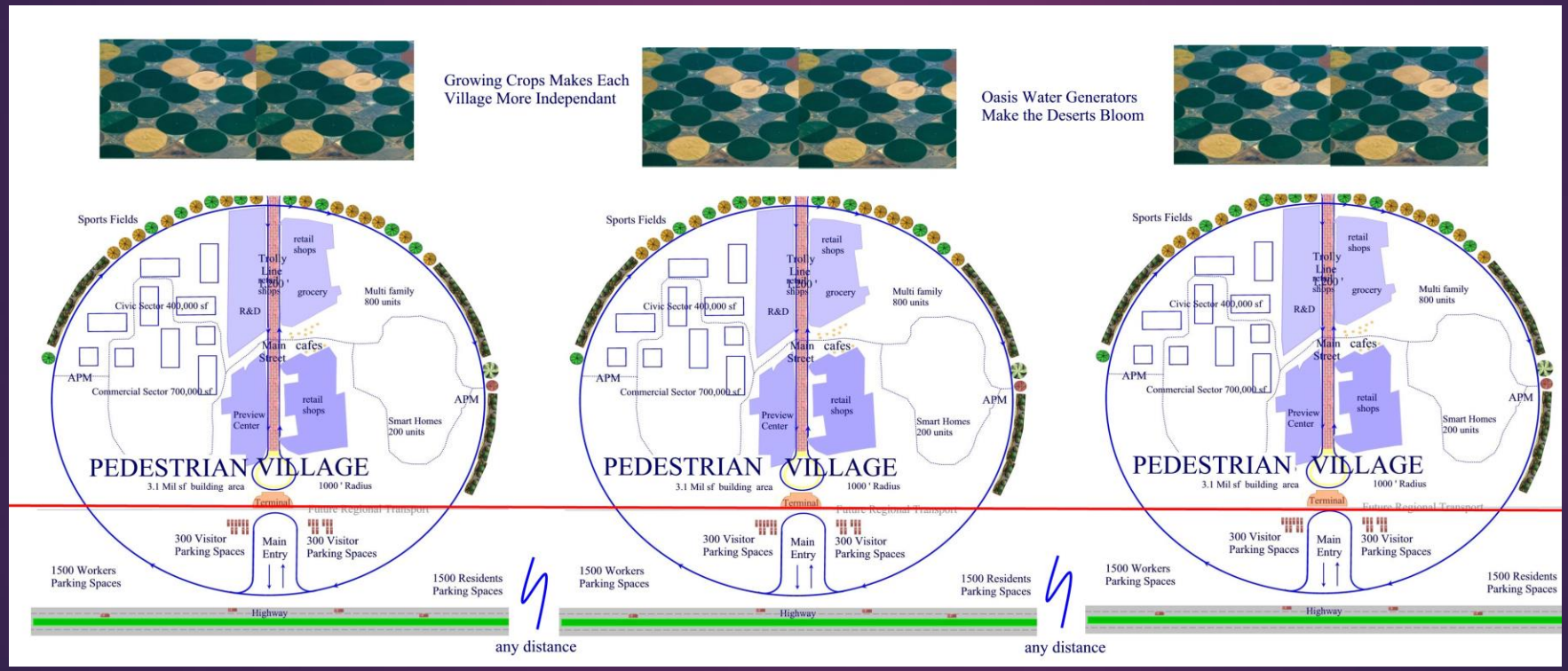
THE OGALALA AQUIFER

The Ogalala Aquifer is the greatest concentration of center pivot sprinklers in America with over 200,000 irrigation wells. Many farms are closing because they hear a great sucking sound now like the sound you get from a straw when the soda is gone. This is the breadbasket of America generating over $30 billion of crop sales to world markets.

The Ogallala Aquifer 8 States supports about 30% of all irrigation in the United States. On average, the aquifer provides approximately 32 billion gallons of water yearly.

FARM BELT

AN EXAMPLE WOULD BE 6,000 WATTS GENERATED COULD BE DISTRIBUTED: 1000 WATTS TO RUN SKYWAYS, 3000 WATS TO OPERATE ATMOSPHERIC WATER GENERATORS THAT CAPTURE 1,000'S OF GALLONS OF WATER VAPOR PER DAY FROM THE SKY. OVER ONE MILE, THIS CAN BE OVER ONE MILLION GALLONS PER DAY. THIS IS ENOUGH WATER TO RUN ONE-MILE-WIDE FARMS USING 9 PIVOT SPRINKLERS OF 60 ACRES. THIS IS ONE SQUARE MILE OF FOOD PRODUCTION FOR EVERY MILE OF A CROSS-COUNTRY ROUTE. THE REMAINING 2000 WATTS IS PUT INTO A SMART GRID OR SOLD OFF. THIS TECHNOLOGY IS SCALABLE BOTH BIGGER AND SMALLER. YOU CAN SEE WHY SKYWAYS WANTS TO CONTINUE THIS RESEARCH AND INCORPORATE OASIS MACHINES INTO OUR PROJECTS WHEN THE TECHNOLOGY IS READY



The Mission is Water Economic Development with a State approved Public Development Corporation providing $1 Billion in funding through revenue bonds.

- State gets 25% ownership, then 100% in 30 years when Bonds are paid
- State's role represents the public in use of air rights like they do oil
- State sets up new agency, authorizes, regulates and provides R-O-W
- Sets pricing for various markets from Data Centers, fracking to farming

Data Centers need for Water is Huge

The largest water and electricity user will be Data Centers, so much in fact that the research lab will need to develop a special larger prototype to handle Data Center's needs. Recent estimates are 12% of America's power industry with 3 years. Total water consumption in the USA in 2015 was 1218 billion liters (3.75 liters = one gallon) per day, of which thermoelectric power used 503 billion liters, irrigation used 446 billion liters and 147 billion liters per day went to supply 87% of the US population with potable water. See consumption figures.

Water Cooling gets Complicated

Data Centers take the Lead in Water Urgency

* Each AI is a Data Hog needing many times the existing supply for its own uses.

* This creates a much higher need for water and electricity- enough to pay more

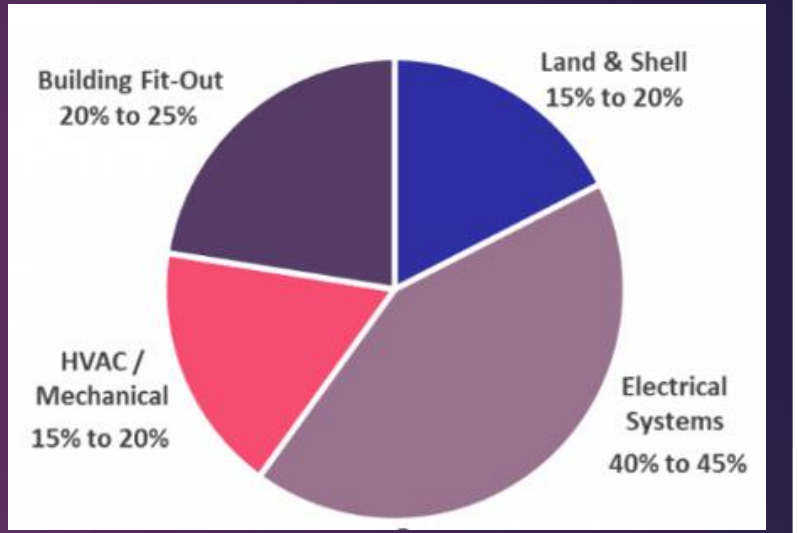
* Big Tech is planning for 3,000 new Data Centers using many times more water

* Currently they are getting that water from municipal systems putting citizens at risk

What are the Components of Building a Data Center?

Building a **greenfield** data center, including the necessary infrastructure and components used in the operation of the facility, can generally be broken down into four main categories: i) land and building shell, ii) electrical systems, iii) HVAC / mechanical / cooling systems, and iv) building fit-out. Below is a description of each of these categories, alongside their typical cost breakdown ranges:

1. **Land and Building Shell (15% to 20%):** building shell, raised floor
2. **Electrical Systems (40% to 45%):** electrical backup generator, batteries, power distribution unit (PDU), uninterruptible power supply (UPS), switchgear / transformers
3. **HVAC / Mechanical / Cooling Systems (15% to 20%):** computer room air conditioner (CRAC), computer room air handler (CRAH), air cooled chillers, chilled water storage and pipes
4. **Building Fit-Out (20% to 25%):** lobby / entrance, meet-me room (MMR), shipping & receiving area



Water Needs For Cooling

IT IS ESTIMATED THAT GROWTH FROM AI WILL CREATE 3,000 NEW DATA CENTERS. MORE WATER IS NEEDED SOME PLANNED DATA CENTERS WILL USE 1 MILLION GALLONS PER DAY TAKING IT FROM HOUSEHOLDS THE CURRENT PRICE PAID BY THIS MARKET IS FROM 5 TO 7 CENTS PER 1000 GALLONS ACCORDING TO AI RESEARCH

Evaporative Cooling

Evaporative cooling, also known as "swamp cooling" or "wet air cooling," is a method of removing heat from data centers. This technique involves spraying water onto a surface or into the airstream, where it evaporates and absorbs a significant amount of heat in the process of transitioning from a liquid to a gas. The resulting cooling effect lowers the temperature of the air passing across the sprayed surface or stream, subsequently cooling the equipment within the data center.

This cooling method is especially effective in arid or dry climates with low humidity. Dry air can hold more water vapor, which enhances the evaporation process and makes the cooling more efficient.

Data Center Cooling:

A Comprehensive Overview

Don't Tell Public How Much

•According to a report by the Natural Resources Defense Council (NRDC), the average cost of water for data centers in the United States is around 0.05 to 0.15 per gallon. Here is a breakdown of the average cost of water for data centers in different regions: West Coast: 0.05 to 0.10 per 1000 gallons * East Coast: 0.06 to 0.12 per 1000 gallons * Midwest: 0.07 to 0.14 per 1000 gallon * South: 0.08 to 0.16 per gallon

Here are some examples of water costs for specific data centers:
•Google's data center in Council Bluffs, Iowa: $0.03 1000 per gallons Facebook's data center in Prineville, Oregon: $0.04 per1000 gallons, Amazon Web Services' (AWS) data center in Ashburn, Virginia: $0.05 per 1000 gallons Microsoft's data center in Quincy, Washington: $0.06 per1000 gallons

How would a $1 billion National Experiment Work ?

* Using our formula of $10,000 per machine, someone would manufacturer and install 100,000 AWG Machines. Since many of these will need pipelines to get to a destination where the water is needed, we will assume 25% of the $1 billion is for pipelines. This leaves $750 million for AWG machines and at $10,000 installed, then 75,000 machines could be built, each capturing up to 500 gallons per day with current suppliers or wait for new electrolysis. This amount of generation everyday for 365 days would generate billions gallons per year. Even one half this amount would produce huge revenues. This water is worth different prices to different users, but we can illustrate that an average of 1 penny per 1000 gallons would be worth $130,000. According to the City and County of Denver's Water Department, the average cost of water per gallon is around 2.50 to 3.50 per 1,000 gallons. This translates to a cost of around 0.0025 to 0.0035 per 1000 gallons

* The $1 Billion breakeven price for covering 3% interest and 3.3% Bond amortization is $63 million or less than ½ of a penny per gallon. Investors will take up most of their profits from the surplus dividend after breakeven.

* Each market has different pricing structure, so the State should sort it out. For example, farmers historically only pay a few $100 per acre foot while Data Centers are paying up to 7 cents per 1000 gallons with an urgent need for much larger amounts.

*The operating costs are unknown, but we can use 20% for now and raise our breakeven

* The National Experiment is the feasibility of growing nationally using these models in other States

the average cost of water for semiconductor manufacturing in the United States is around 0.50 to 1.50 per gallon.

Colorado's Water Supply is subject to:

- **Climate Variability**: Colorado's is heavily dependent on snowpack in the Rocky Mountains. Changes in climate patterns can lead to unpredictable snowfall and runoff, affecting water availability.
- **Over-Allocation**: Many of Colorado's rivers are over-allocated, meaning more water rights have been granted than the rivers can sustainably provide. This can lead to conflicts among water users and impact downstream states.
- **Aging Infrastructure**: Aging water infrastructure can lead to leaks, inefficiencies, and contamination risks. Upgrading and maintaining this infrastructure is crucial but costly.
- **Contaminants**: Colorado's water sources can contain contaminants like radionuclides, heavy metals, nitrates, and microbial contaminants due to natural geology, mining activities, agricultural runoff, and urban development.
- **Population Growth**: As Colorado's population grows, the demand for water increases, putting additional pressure on the already limited water resources.
- **Wildfires**: Increasing wildfire activity can impact water quality by introducing ash and other pollutants into water

- According to a report by the Natural Resources Defense Council (NRDC), the average cost of water for Data Centers in the United States is around 0.05 to 0.15 per 1000 gallons.
- Fracking operators On average, the total cost for water per well can range from $21,420 to $63,630. And this translate from $0.012 to $0.036 per 1000 gallons.
- Semi conductors manufacturing in USA is .005 to $.015 cents per1000 gallons
- Ogallala Aquifer was $1.50 to 3.00 per 1,000 gallons, now with the water drying up, those days are likely to much higher

This project is part of a National Test of new infrastructures with a $1 Billion Budget just for new Water Development in Multiple Markets

Allocations for 100,000 Water Capture machines to spread tests around in:

* 40% for mini Data Centers including the 25 towns along 210-miles Front Range Corridor
* 10% for the Ogalala Aquifer for farming
* 10% for Fracking
* 10% for Manufacturing
* 20% for Town Parks in Colorado
* 10% for Miscellaneous