# FACT & OPINION



Some ways to consider how we proceed.

I call on the Federal Government to establish an Agency that is designed to assist the states to create synchronized nationwide infrastructure based on 10, 20 and 50 year plans. This must be non-partisan and available to all states, and remain that way.

Special emphasis must be placed on flood levels, water reticulation, sewerage, waste disposal, education, transportation and safe housing standards. The investment for the future of the country and the people requires sweeping changes to the practices of the 20th Century, so that the USA remains at the forefront of living standards.

The current practice of funding based on an electoral term is short sighted and harmful for the country's growth. "We've always done it that way", should be an apology and a reason for thinking far beyond what has been done in the past.

Cities have been based around rivers, because that was essential to subsistence farming In the 1700s through to the 1900s... now Corporate Farming needs to create and maintain water catchments that serve the needs of the farms AND the communities. This will require new water catchments, water treatment facilities, pipelines, power plants, roads and even terra-forming on an approved national scale.

Considerations to building Tunnel based roads, homes with a larger underground footprints and smaller, above ground, exposed structures may be relevant for the obvious changes in climate.

Well based water can no longer be trusted as mining, fracking, and waste disposal have adversely affected ground water and will continue to do so long in to the future. Major deepwater dams that provide treated, stabilized water are required to be located along arterial routes and will foster growth in those areas.

A system of passive powered secure pipelines must exist to regulate water flow and balance water-holding between adjacent dams to maximize the value of catchments including properly redirected and re-treated flood-waters.

Road tunnels can increase traffic flow and eliminate weather issues. allowing multiple levels for different traffic types, including commuter, commercial transport, public transport, autonomous vehicles, pipelines, power-lines etc...

Canals and open aqueducts have been used in other countries for transportation with varied success, certainly they could aid in flood control, irrigation, water retention and climate stabilization.

All of these areas require working parties, Federal and State involvement and a holistic approach to guarantee America's place in the future - 2050 and beyond.

Do you have something positive to offer? Know someone who does? A website will be devoted to all our ideas. Email info@domistat.com

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#### Water Storage and Distribution.

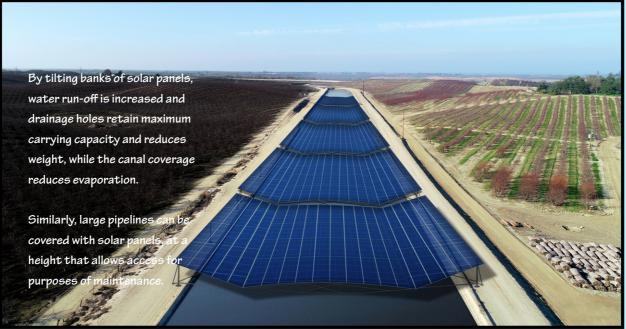
Perhaps the primary goal of all infrastructure is to provide quality water where it is most required. Apart from domestic drinking water, there is a great need for distributed water for irrigation as well as primary and secondary manufacturing.

Over a significant period of time, almost all area of the United States receive adequate rainfall for the needs of the population, but the timely distribution of rainfall is never guaranteed, and catchment of rain and flood-water is haphazard. Many areas continually flood and the water is drained to the sea before it can be directed to its most beneficial use.

Proposed areas of study may include canals and storm-water drains that lead to a much wider distribution of dams, that would lead to long term water security.

Storm-water can feed to canals, which can lead to dams and dams can lead to lower dams, with pumping stations and pipelines in a grid that can move the water as required.

The cost of infrastructure would be immense, the return on investment would be astounding. This requires long term thinking that can be only be driven by Government Initiatives. Much of the water in dams can be covered with sloping solar panels that reduce evaporation, assist condensation and still allow local rainwater to drain off into the dam. Similarly, canals can have solar covering which can be designed to provide for barges, locks, pumping stations etc...



#### **ARTESIAN WELLS - An AUSTRALIAN PERSPECTIVE**

A concept on Advancing the Nation's Economic & Social Future.

At the outset, I must stress that these concepts are mine alone, and as a totally uneducated individual, I hold no real hope that they will be read by; or if read; accepted in any way whatsoever.

I just feel compelled to make the statement, because it seems that this country is missing out on a huge opportunity. Assumed and apparently unrelated Facts.

The recent (2008/9) economic downturn has triggered enormous governmental spending to prop up the economy.

The unemployment numbers are growing and with many businesses floundering, unemployment is expected to grow.

Australia's huge land mass, while attractive to investors, is hostile and difficult to traverse.

Australia's population is largely coastal, and there is a continual movement of the population to coastal regions.

Greening Australia, and other organizations together with school based programs, plant many thousands of trees each year. Well maintained and watered floral and orchard gardens and farms thrive in the Outback.

Australian infrastructure is hampered by the lack of ... infrastructure.

A Concept for Discussion:

Create incentives for landholders in outlying regions to sink more artesian bores.

Each artesian bore should pump via the simplest system (e.g. Southern Cross style windmills) to a series of covered tanks with overflow leading to small local covered dams. Each dam should be managed as an oasis, with filtration systems to create a small percentage of potable water, while the balance of the water would be available for local irrigation from the local dam. Landholders would be encouraged to plant trees, particularly food trees such as edible fruits and nuts around the dam and beside any waterways.

A wide range of ground covering meshes should be trialed in order to attempt to hold unstable soils in place during the establishment of these trees. Large sheets of organic materials that retain moisture, such as recycled flooring materials including carpet, may provide a partial solution to disposal of unwanted products and providing a secondary use for them. Consequently, a large number of small oases are created where there is water, a food crop, wildlife and the resultant mini ecosystem that all of these assets would encourage. Ideally, corridors are created along the sites of artesian aquifers that allow sustainable development of further infrastructure, population and the resultant industries.

For the Ecologically Sensitive lobby groups, it is suggested that instead of just 'Plant a Tree', it should be "Create the water to support the planting of food trees".

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#### Funding

In the short term, Government & Industry Grants can provide a pilot scheme that will call on CSIRO and other NGOs to test materials, geophysical and hydrological data points and provide model dam systems for further public and industry input. In the longer term, concepts such as 'Work for the Dole' can provide not only a labour force, but certification for the unemployed that will provide them with enhanced employment opportunities in the general workforce. Large resource companies that wish to lease property in outlying areas could be required to fund a percentage of these oases, while sponsors would be sought from community minded commercial and industrial interests.

Competitions for design of specific windmills, pumps, rigging equipment etc... could be held, increasing the profile of this Government Initiative and ensuring the best materials and methods were being utilized. These can be held internationally to gain the best possible deigns and the greatest profile.

Road Tax incentives would be given to haulage contractors that delivered 'Oasis Kits' free, along their routes.

Production of wind powered pumps can be increased by the addition of the new labour force who can also be involved in their construction and deployment.

Competitions between landholders to create the Most Productive dam systems would increase public awareness of the Government Initiative.

#### Broadly related:

Competitions would be held for other infrastructure development programs allowing for the networking of water, electricity and data services etc... to and between outlying areas.

#### CLIMATE CHANGE NOW!

Climate change has been declared a reality by the UN – time for some big moves by courageous governments.

Sea levels have risen and are continuing to rise.

Extreme weather events are obvious to the world.

I will be hosting a Climate Change page on my own site to monitor activities, brainstorm ideas and hopefully attract a few smarter scientists than myself.

My initial thoughts;

Large countries like the USA, Australia and major African Nations should create inland seas, holding rainwater (and retaining) water from the ocean. The deeper, the better. Evaporation suppressing covers etc...

We need to consider separating H2O into Hydrogen and Oxygen on a grand scale.

Floodwaters need to be directed away from the oceans perhaps using levees to funnel excess rainfall where it can be captured, and away from the evaporative 'watershed' rather than sent to sea. A series of massive dam projects starting with a bomb crater might be required.

Mining companies will reap huge rewards - and will pay for it in producing water retention.

#### RE-ZONING THE FLOOD WATERS

South Carolina's coastal areas are highly subject to the adverse effects of Climate Change. Many homes which are close to the water are in danger of being lost to high seas, coastal erosion, property flooding and undermining of foundations, particularly in the most sought after coastal regions.

My proposal is that a Think Tank be created to find the most beneficial answers to this problem, for the long term, rather than the short term.

My initial thoughts revolve around a complete re-zoning of all areas within (e.g.) one mile of the coastline, and within 1/2 mile of all waterways.

During the initial term, buy-backs would be frozen, except to a State Government Coastal Planning Authority (SGCPA). Over a period of years, hold-outs would be subject to Eminent Domain until all property in a given zone was controlled by the SGCPA.

The properties in this zone could be available as short term accommodation - vacation rentals etc... as this would provide the greatest short term revenue, with the ability to evacuate the tenants early if a dangerous weather condition (Hurricane etc..) arises.

In the longer term, the acquired properties would be subject to major development - but with special regard to the new zoning and regulations imposed by the SGCPA. This would include large ocean setbacks, sea walls and flood abatement, drainage, sewerage and infrastructure. Short term resort style accommodation may be offered as well as retail, educational facilities and convention centers along with adequate vehicle accommodation and access roads.

As all of these facilities can be cleared quickly in the case of a natural disaster, and the return on investment of the luxury quality, short term accommodation will be relatively high, the land within the 'Climate Danger Zone' would provide a long term resource for the state and provide immediate relief for currently endangered home-owners.

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#### FLUSH WITH WATER

In most countries, water is at a premium.

The current Government answer is to tax water at such a high rate that water usage diminishes. While this is known to not work, it becomes a source of revenue.

Perhaps another answer is to increase water availability. The 'flow on' effects for this would be obvious. Faster Greening of the land, aids to cheaper production, and of course, taxpayer/voter satisfaction.

Certainly creating more dams is expensive, but is an obvious solution. In the long term (yes, beyond an electoral term) this is a major requirement. A network of pipelines is also required. Pumps that are powered by passive solar and wind are also required. But that isn't all.

All new housing builds must be far more sustainable in their energy use and production than they currently are. Currently water flows from the roof to the gutter to the downpipe to the sewer and eventually, out to sea. That was bad planning and is now unsustainable. The infrastructure of cities needs to be altered to reflect the way we live.

All new home builds require water catchment, retention and the ability to use that water, just as is still done on rural properties. This has to be a part of the building code. The most basic commodity of life (after air) is water and yet it is being taxed out of reach of people.

Even if the water that was retained by the household was only enough to flush toilets before it went to the sewer system, gigalitres would be saved daily.

This should not remove the obligation of the government to supply clean water to the household, simply relieve the strain on the current system. The government must undertake massive water catchment projects, although, it is doubtful that the traditional reservoir is the only answer. Scientists will remind us that more than 50% of water is lost to evaporation in traditional dams. Perhaps where they are used, they need to be stocked with fish and surrounded with vegetation to provide breeding grounds for life, food sources and abundance that we are stripping from the environment in other ways daily.

Wind farms are springing up across the nation, providing electrical power in a renewable way. The old Southern Cross windmills doggedly pull water from artesian aquifers to maintain livestock across the country. Perhaps a percentage of the new wind farms resources can be aimed at pumping water from aquifers, powering a network of pumps and pipelines and diverting our flood waters to manageable dams and reservoirs.

Flood management is a critical issue also – while flooding will never stop, there has been no concerted effort to redirect and retain flood water, simply to discharge it to sea as rapidly as possible. The simple fact is that Australia has plenty of water, but it has been easier to tax its use than to redirect its availability. Methods must now be employed to not only control flash flooding, but to retain the water productively. We do not need to engage in massive terra-forming projects, but we do need to invent, produce, and adapt technology to harness the resources that we have. Our sustainable future needs to be wise, balanced and do-able... not just some pie-in-the-sky Green Dream.

Please – your links are requested. I don't want to just rant at Governments, I want to consolidate thoughts & create a groundswell that will actively change a failing system.

Over the last century successive Governments have failed to supply the primary commodity that is required for a society – abundant water.

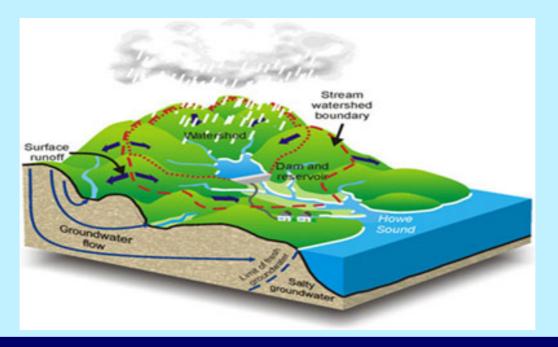
It is time for a series of massive dam projects to be established by government to forever correct the situation.

There is no excuse that lasts more than a century.

Industry has restrictions, home owners have restrictions, and yet the rainfall on the nation's soil is enough is ample to provide for a population 20 times the current size.

The government has not provided dams to fill the needs of the population and has restricted the growth of industry, the lives of the people and the settlement of the country.

Please LIKE and SHARE if you want the world to have access to abundant, clean fresh water!



FACT &

**OPINION** 

#### WAVE ENERGY

More & Updated information from BioPowerSystems.

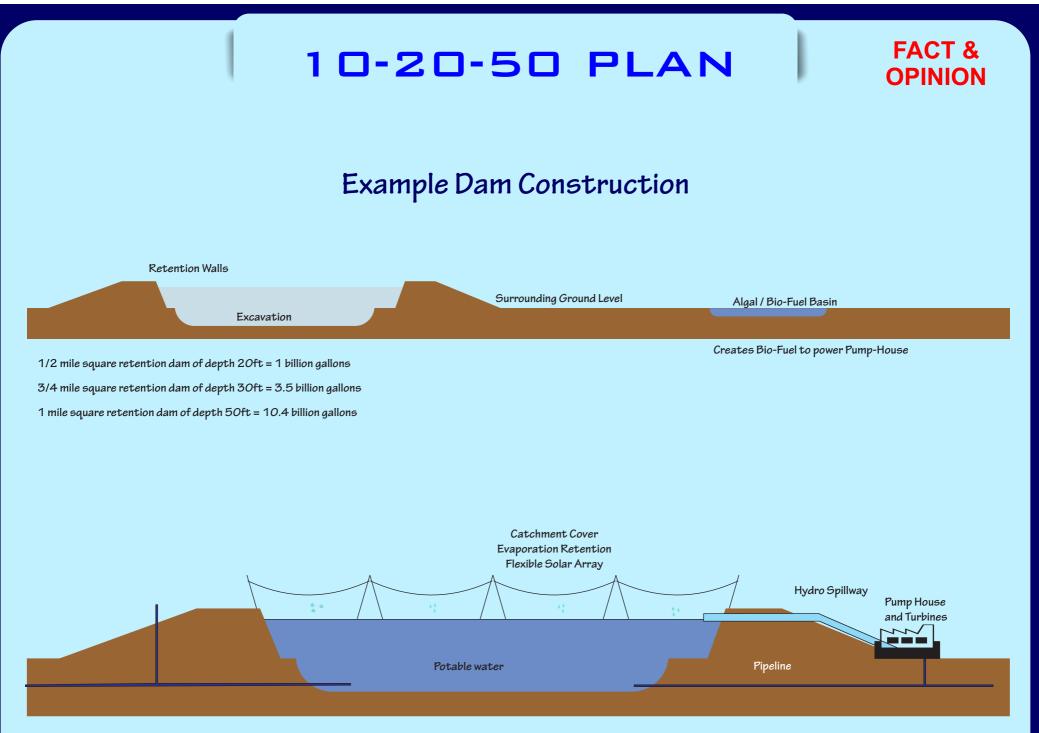
Ocean waves offer one of the most consistent and plentiful sources of renewable energy. Studies on several continents (including Europe, North America and Australia) have verified the potential of this resource.

Vast regions of coastal ocean are considered suitable for development of commercial wave energy farms

# FACT & OPINION

# **COVERED FLUIDS** By tilting banks of solar panels, water run-off is increased and drainage holes retain maximum carrying capacity and reduces weight, while the canal coverage reduces evaporation. Similarly, large pipelines can be covered with solar panels, at a height that allows access for purposes of maintenance.

This system provides maximum water conservation, maximum solar capacity and minimal environmental impact.

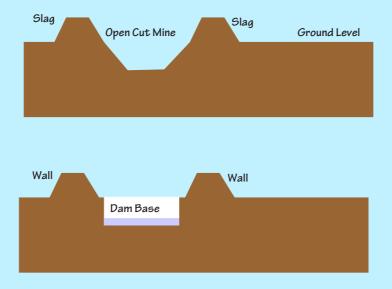


Dam excavation creates depth, walls, peripheral roadway, access and separation of treated from untreated water.

# FACT & OPINION

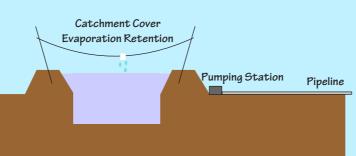
Mine construction relocates excavation material to create future dam walls.

This lifts the height of dam walls and prevents drainage of untreated water.



All open cut mines have a defined Lease Life and the site has to be able to be converted to a Dam site for the community.

Dam is covered and connected to other dams and through filtration to the Water Supply.





TIME

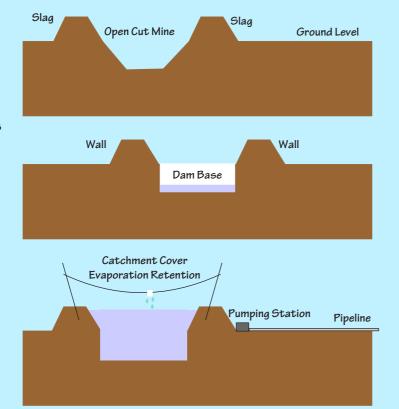
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# FACT & OPINION

TIME

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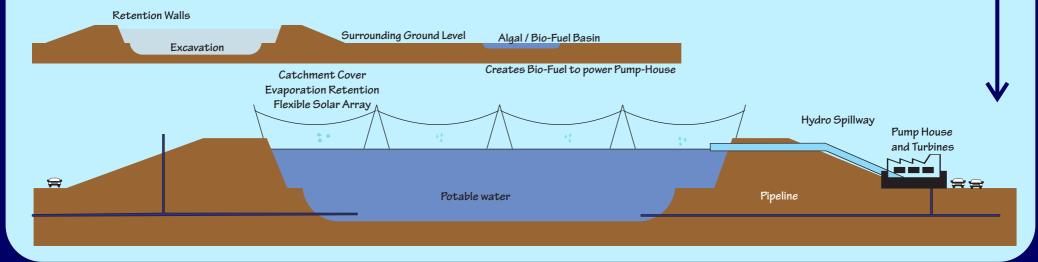


#### Turning Mines into Dams

All open cut mines have a defined Lease Life and the site has to be able to be converted to a Dam site for the community.

Dam excavation creates depth, walls, peripheral roadway, access and separation of treated from untreated water.

1/2 mile square retention dam of depth 20ft = 1 billion gallons
3/4 mile square retention dam of depth 30ft = 3.5 billion gallons
1 mile square retention dam of depth 50ft = 10.4 billion gallons



### A concept to retain Rain and Flood water

using a system of shallow and deepwater dams, 'passive' pumping stations and regulated usage.

#### Strengths:

Large holding dams can balance water availability between flood and drought. Balanced water availability provides stable pricing. Reduction in Flood and Erosion Damage. Maintains a more stable temperature and climate predictability. Uses Decentralized, Off Peak, Renewable Power for pumping. Provides irrigation stability and consequently, Food Security. Provide massive Employment opportunities.

#### Weaknesses:

Long term projects require stable political decisions beyond an electoral term. Multiple Federal and State Authorities need to be involved. Budgetary constraints.

#### **Opportunities**:

Create an infrastructure that will service the needs for the next 100 years. Provide Economic Stability through Diversified Employment over many years. Increased Commercial and Industrial growth capabilities.

Threats:

Commercialization of National Resources. Foreign Ownership of Natural Resources.

# FACT & OPINION

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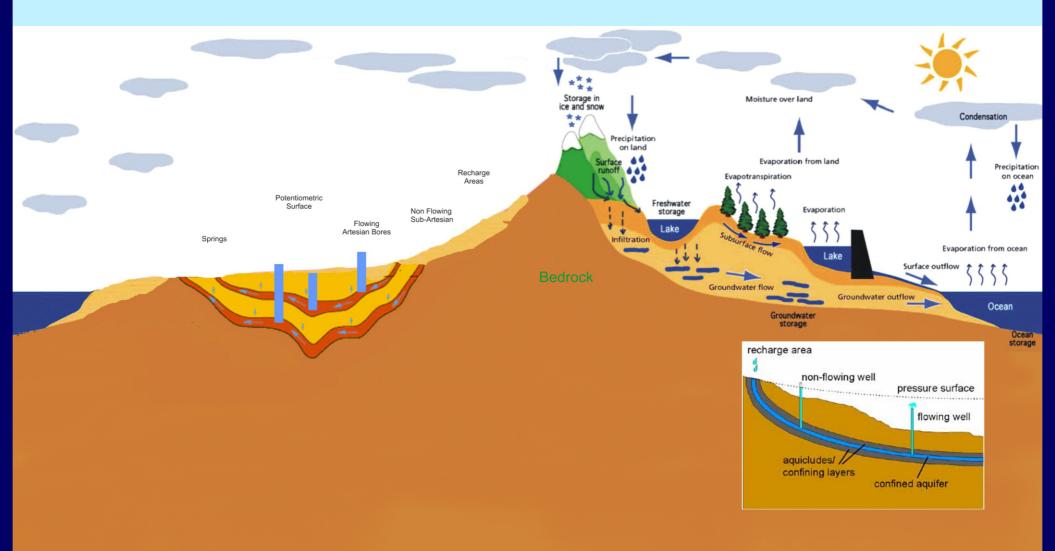
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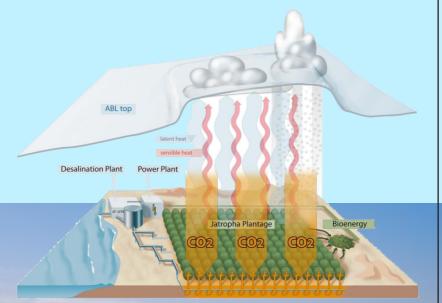


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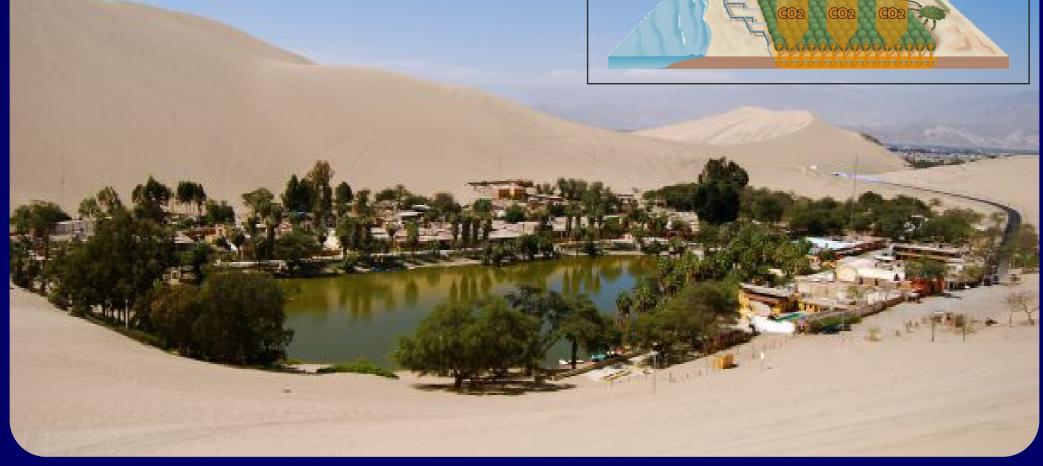
**OPINION** 



# FACT & OPINION

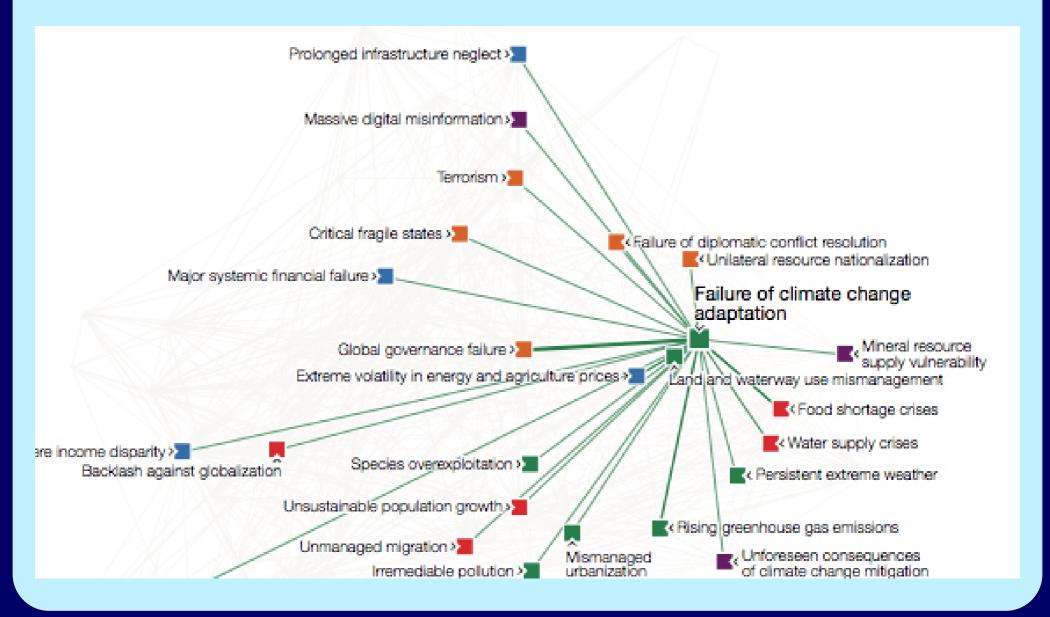


### Planting trees in the Desert

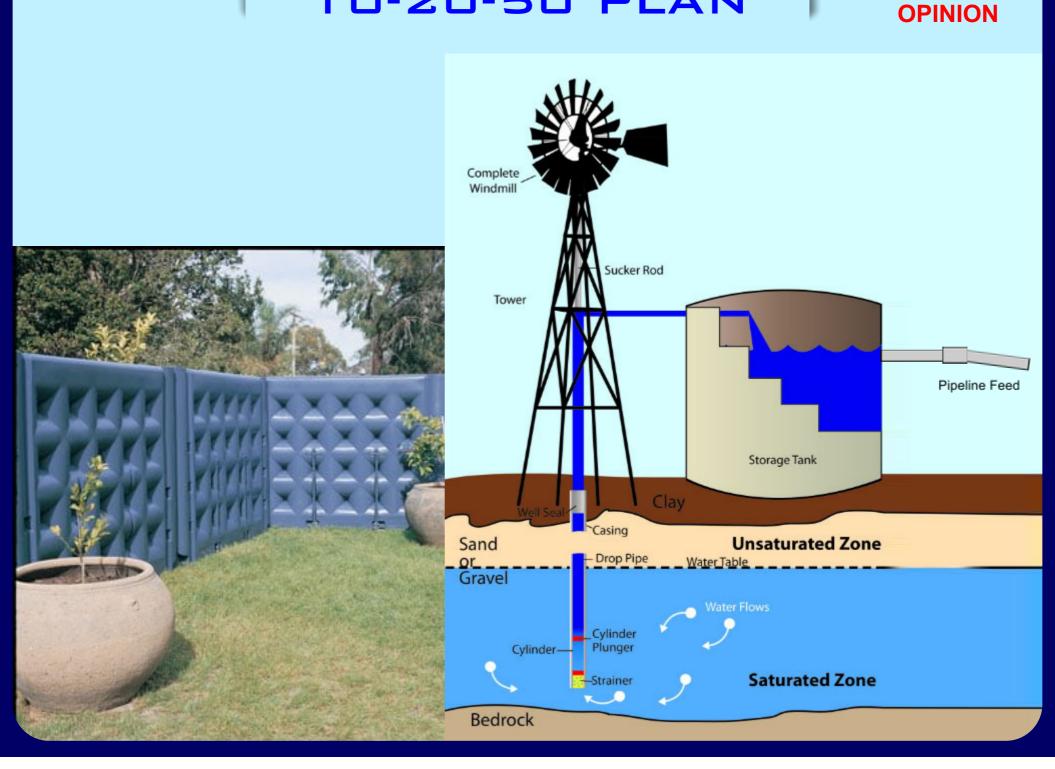


**FACT &** 

**OPINION** 



FACT &



**FACT &** 

**OPINION** 

### GROUNDWATER

The US has the highest per capita usage of septic tanks in the Western World

The US has the highest per capita usage of water wells on the same property as septic tanks in the Western World

Infrastructure can change our lives

### Water = Power

Because power grids generate excess power to be guaranteed to cover demand in peak periods, and that power can often be "drained to ground" when it is not used immediately, it is essential to find alternative systems of either Usage or Storage.

While there has been research into Salt Storage and other forms of Heat Storage, there has been little focus on industries that are able to make immediate use of excess power in their production systems.

I contend that there are many industries that can utilize "Wasted Power" that is only available intermittently, to provide highly productive systems that can benefit society.

With Plasma Boring now a reality, tunnels can be used for freight transport, rather than surface rail and trucking.

Perhaps a system of conveyor belts, similar to those used in Mail Handling and Logistic Handling systems could be implemented.

Intermittent Power could result in mini-containers on conveyors being shunted across the country more slowly, but more cost effectively than current ground transport.

Water can be pumped to high ground reservoirs with Excess Power and allowed to gravity feed down to low ground, in multiple stages, moving water across the country.

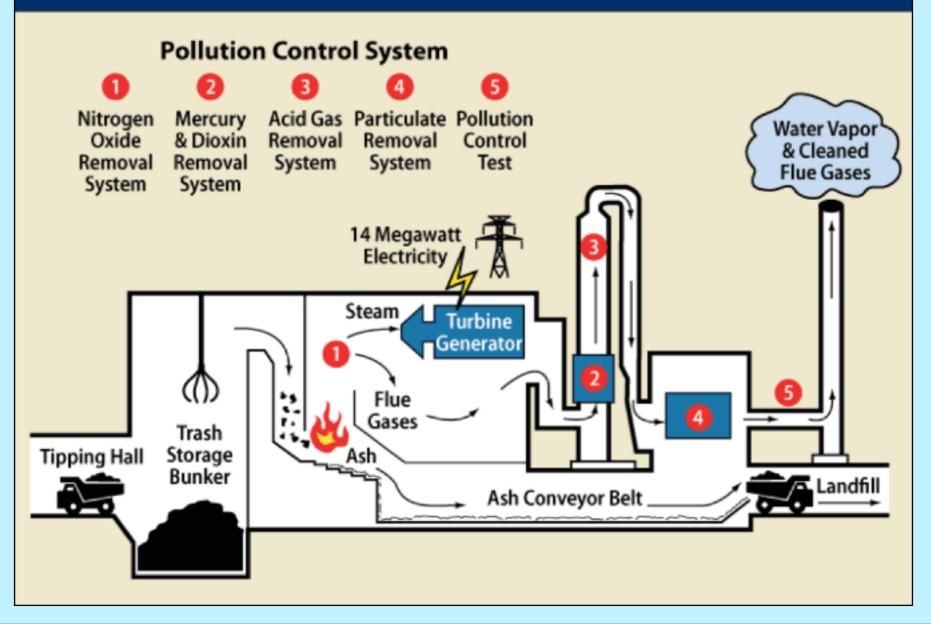
Gravity feed water can generate fully renewable power using "Hydro XS" style In Pipe Turbines.

Pipelines have been a contentious issue, but when the pipe line itself generates energy, there will be much greater acceptance.

FACT &

**OPINION** 

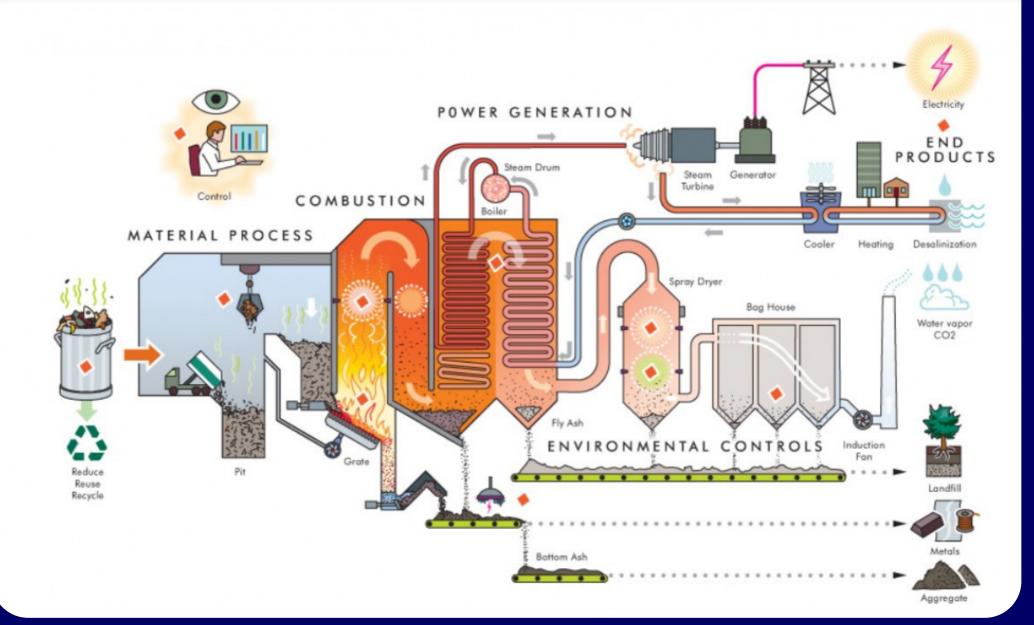
# Waste to Energy Plant Diagram



FACT &

**OPINION** 

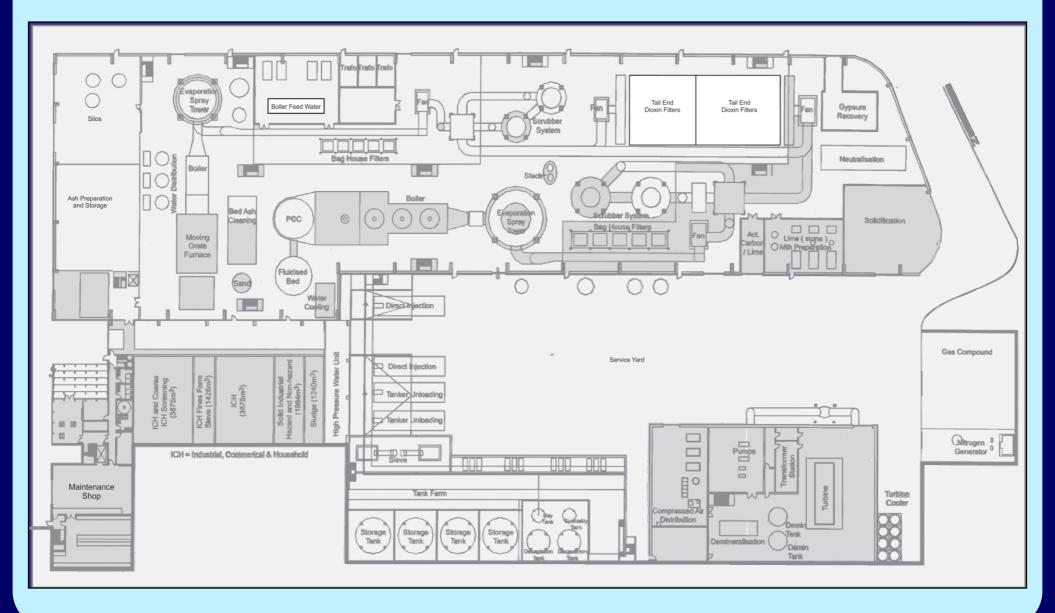
### Waste to Energy Schematic



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**OPINION** 

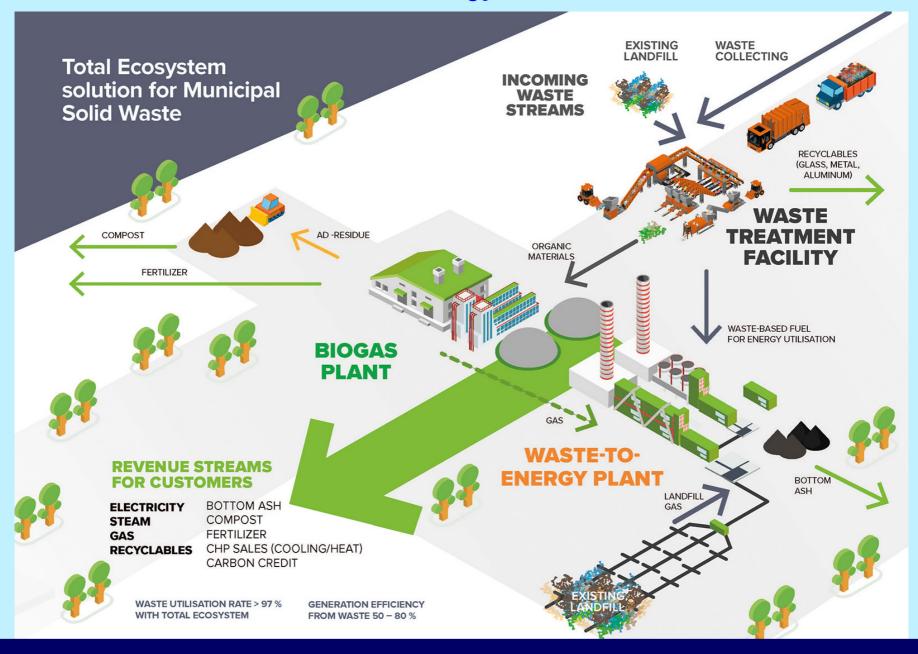
### Waste to Energy Schematic



FACT &

**OPINION** 

### Waste to Energy Schematic



FACT &

**OPINION** 

#### Further Waste Management Topics for Discussion may include:

Waste to Energy Plant:

Siting, Land Acquisition, Access, Construction, Maintenance, Costing, Grant Application and Management Including:

Waste Separation Plant - Metals Reclamation - Plastics Reclamation - Biomass Reclamation - Water Purification - Ash Usage - Co2 Capture

#### Land Management

Current land that is earmarked for future development can be planted with commercially sustainable, Non-Invasive Bamboo to provide: Windbreaks, Animal Habitats, Soil Retention, Biomass, Timber Resources and Privacy Screening. Long term studies have found species which are both clumping and high yielding, so provide no threat to the environment or neighboring properties. Trial sites are available for study in Little River.

Products potentially available for sale from the Solid Waste Authority

Natural Gas - Electricity - Metals - Aggregate - Compost - Fertilizer - Carbon and Carbon Credits - Raw Timber - Composite Building Materials

#### Waste Separation

Metals

Metals are separated and sold to salvage merchants - Onsite processing potential to be considered when viable as an economy of scale.

#### Plastics

Recovered plastics are shredded and stored for re-manufacture - Concept Factory - Mixed with sand and ash for making brick pavers etc..

#### Biomass

Grown and Stored for production of Diesel Fuel, Methane (Natural Gas) and Livestock Feed. Algal Pools and BioFeed production techniques are available from US Government Office of Energy Efficiency & Renewable Energy.

Residual Primary Waste Burnt in Waste to Energy furnace to produce steam to drive turbines for power production

Residual Secondary Waste

WTE Ash used in concrete and brick etc.. production, Biomass waste used in WTE

FACT &

**OPINION** 

The US is being overwhelmed with trash.

The trash takes precious landfill and can contaminate it for future usage. I propose that Horry County takes the lead in waste management, adopting and adapting ideas that have been successful in other countries.

Horry County can utilize the 8 year window that current waste management systems allow, to create a State of the Art Facility that will be Cost Effective, Green, Productive and create employment opportunities, joint ventures with large businesses and provide a safer and friendlier environment.

By processing waste materials efficiently, Horry County will lead the US in Science, Technology, Engineering and Mathematics through Innovation, Creativity, Manufacture and Production.

Horry County can partner with HGTC and CCU to provide specific classes and qualifications to maintain an ongoing labor force that can continue to provide a standard of excellence for generations.

A starting place for discussions may be : Sweden's Smart City Approach County Leaders could benefit from their tours and workshops devoted to the 'Waste to Energy' approach.



-ARLESTO

**FACT &** 



SUGGESTED DAM GITES

COASTAL COUNTIES S.C

Dorchester Clarendon Florence

> PERHAPS IT TIME TO DRAIN THE SWAMP... THEN EXCAVATE IT, THEN LINE IT AND FILL IT WITH WATER

BEAR SWAR

### 10-20-50 PLAN CONWAY S.C.

**PROPOSAL** 



PERHAPS IT TIME TO DRAIN THE SWAMP ... THEN EXCAVATE IT, THEN LINE IT AND FILL IT WITH WATER

Method: https://domistat.com/Innovation/Infrastructure/Coastal-Barrier

#### DAMS ALONG THE RIVER

Along the downstream path, a series of filters can be placed that remove larger material such as tree limbs etc.. At each stage along the route, the water can flow with less obstruction, while major contaminants are removed.

As the water clears, deeper dams are constructed, allowing smaller contaminants to settle, while clearer water is able to flow into deeper more regulated dams for pumping through treatment plants for community distribution.

Long term plans like these are needed to accommodate growing populations and the growth of roads & roofs that increase the runoff and contribute to flooding.

Cleared & Lined Detention Ponds can collect excess runoff, filtering more debris at each stage on the route downstream. Water collection can be utilized locally, while excess water can be quickly diverted via pipeline to the sea, with optional diversion to linked pipelines. Pumping stations at required intervals can regulate the flow

