Captain Everglades



His power lies in his ability to hold vast amounts of water for long periods of time, and feed an ecosystem unlike any other on earth.





The secret to this power is a large heart ...



And..., a thick skin of wet, peaty soil.



His fertile, organic skin is like gold — Black Gold and just like the California Gold Rush, humans rushed to Florida to exploit it.





By around 1920, human communities were getting well established, installing simple drainage systems to harness his powers during the dry season and protect against his rage during the wet season.





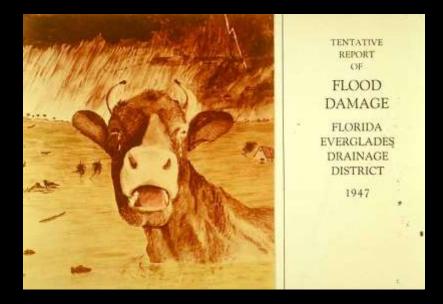
The Black Gold Rush went on for many decades and by 1940 the skin of the Captain's <u>entire upper</u> body was exposed.









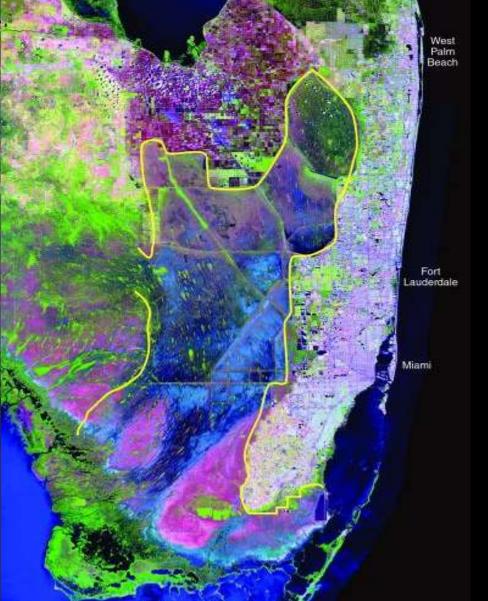


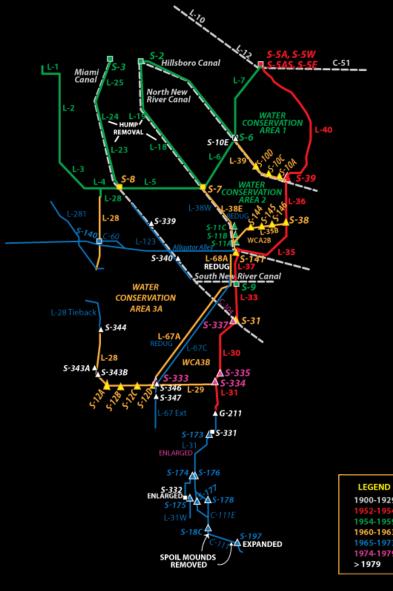
The people of Florida were furious with the Captain, and invited an Army battalion to come down from Washington DC to restrict where the Captain could go.





Thus, began the 50-year-long: "Great Hydrology War with the Everglades." During this time, significant powers — and major features of the Everglades —were drained.





But finally, the war ended.

The Truces of 1988 and 2000 were like the Marshall Plan of World War II.



Florida realized that it was in its own best interest to clean out the debris of war and rebuild Captain Everglades into the superhero he once was.

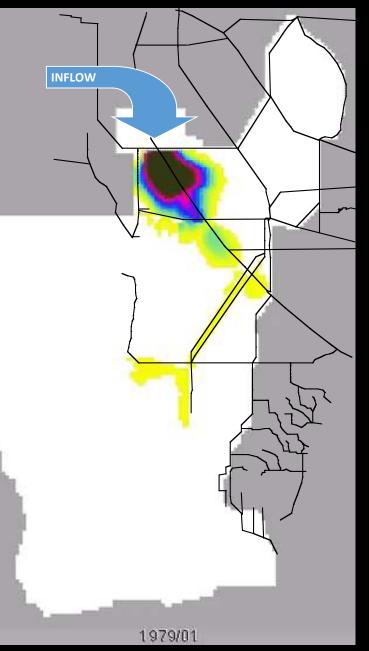


What does he need to eat?

How do you reconnect a severed arm?

How do you remove the toxins that have bioaccumulated?

What ailments do you treat first?



Today, Captain Everglades is in intensive care.

Fortunately, the Captain's vital signs are stable. His heart still pumps some 1M Acre-ft of vital fluids.

We can follow a parcel of water through the system and see it pulse just like a human heart.

The Everglades Landscape Model, by Carl Fitz

A condition made very complicated by the fact that his heart also has a structural vulnerability.



Captain Everglades has a leaky valve and vital fluids are not reaching critical organs.



Doctors are putting in stents to strengthen his arterial walls — giant underground cement walls —

-- with the hope that during a high fluid illness, like a flood, he will not bleed-out onto surrounding farmland, and that during a low fluid illness, like a drought, he will not have a heart attack.



Meanwhile, another set of doctors, recruited during the Truce of 1988 discovered that **our patient also has cancer**.

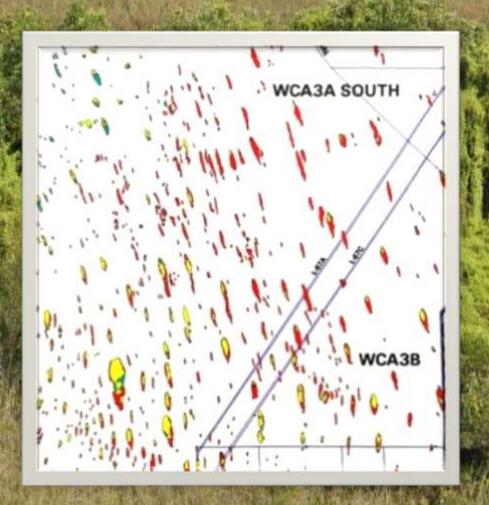


As a result of the <u>nutrient bombardment</u> of the "Great Hydrology War,"...... cattails spread throughout his system. Yet another set of doctors, recruited during the Truce of 2000 discovered that Captain Everglades had a compromised Immune system.

His tree islands, like tcells, capture and bury phosphorus.

T-cell 421 g m⁻²

Marsh 6 g m⁻²





The problem is that his T-cells are disappearing due to subsidence and infection.

The patient has <u>a history of going into septic shock</u>. Toxic algae has been known to travel from his heart to his estuarine extremities

St. Lucie Canal

Algae bloom

Lake Okeechobee



And, when his fluids slow down, his blood can get hypersaline, causing vital organs like seagrass beds to shut down.



Johnson Key Basin August 2015 First..., to control the cattail cancer, the doctors have spent billions building **special feeding tubes** to reduce the carcinogens entering the Captain's body.



Second, a cancer trial called AMI (Active Marsh Improvement) is extracting the cancer cells and replacing them with healthy wildlife cells.



Third..., a hospital trial called DPM (Decomp Physical Model) is looking at ways to increase blood flow to the Captain's arteries (sloughs).



Increasing blood flow and physically removing the plaque is expected to "jump start" ridge and slough restoration

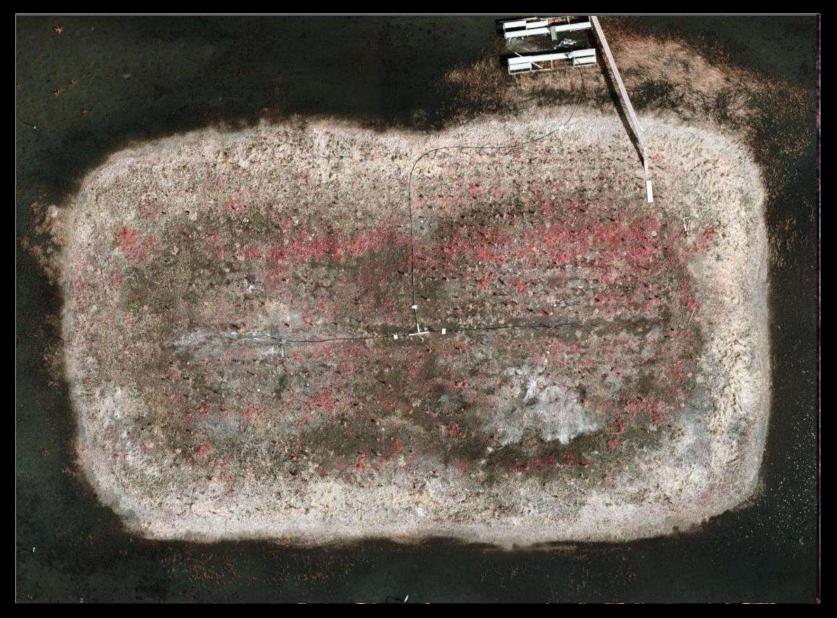
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Fourth, a special lab was built to better understand the Captain's physiology.





Procedures for rebuilding Captain Everglades' T-cells look very promising.



Last, but not least, Captain Everglades is moving around more. His doctors are improving the timing of his medications and increasing his flow velocities.



They are getting him out of bed, because the longer he stays in the hospital and the longer he is bedridden, the more likely he will be to get infected by some exotic organism. Last, but not least, Captain Everglades is moving around more. His doctors are improving the timing of his medications and increasing his flow velocities.

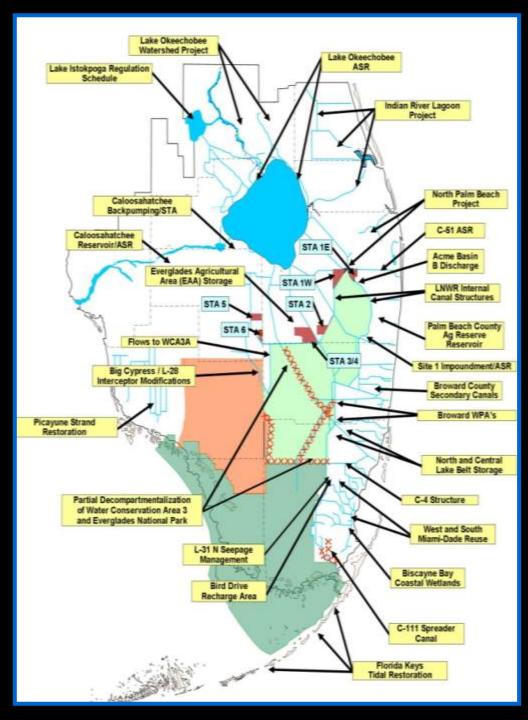


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Things are looking up for Captain Everglades.



But his road to recovery will take some time. One reason: He needs 68 separate CERP "treatments!"



Another Reason:

The doctors took a Hippocratic oath to **not make the patient worse**.

They are being careful about the medicine, the dosages and the order in which each ailment is treated.



Fortunately, the doctors keep learning new and quicker ways to restore Captain Everglades...

...which is good, because his most important battle still lies ahead...

...he is about to be confronted by the greatest adversary of his life.



And, the sooner our patient recovers, the stronger he will be to help us ward off the coming pandemic called...

Climate Change

