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(Please consider this as an outline  
or a rough draft, which can be cut  
or changed.) *about 3,800 words*

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## What Are They Doing To The Everglades?

by

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There, was, there is, no place in the world like the Florida Everglades. There are no others anywhere. For five thousand years, since the melting of the last ice-cap began, they have existed, a slow river of sweet water and saw-grass, forty miles wide and about one hundred miles long. They include 2,820,00 acres of one of the greatest concentrations of organic soils ever known, and many more too thin for cultivation. They reach south-west from Lake Okechobee to the mangrove-covered end of that huge paw shape of Florida.

For over fifty years the agitation to drain the Everglades and use the rich black soil has torn the state and brought, by bungling inadequate methods, all the southern part of Florida very near to ruin. Today, the government of the United States and the State of Florida are working together in a huge project, under a single authority, to carry out the first scientific, well-thought-out plan the Everglades has ever known.

It is a project of earth moving second in all our history only to the majestic scope of the Panama Canal. They are building a system of canals and levees, pumping stations, spillways and water conservation areas which will save and conserve and control all that wonderful sweet water for the crowding cities and farms of the East Coast. It will prevent flood such as that which, in a single year of excessive rain and hurricane worked damage to the extent of \$59,000, 000. It will prevent the loss by drowning and starvation of thousands of head of cattle in the growing Everglades cattle industry.

It will prevent such loss of life around the Lake as the 400 people ~~drowned~~ in 1926 and in 1928, of two thousand ~~killed~~ <sup>drowned</sup>. It will help develop and save the 657,000 acres of land available for more cattle, more fields of beans, celery, cabbage and other vegetables, more cane fields reaching from horizon to horizon.

The thousands of other acres whose soils are too thin over the ~~oolitic~~ limestone for usefulness are being made into shallow lake<sup>s</sup> where water for the well-fields of the East Coast will be stored. As wild-life refuges for tens of thousands of ducks and innumerable bass and bream they will offer fishing and hunting in season for ~~the~~ people from everywhere.

The overall cost, which must be allotted in successive years, has been set by the U.S. Army Engineers who studied the region, ~~and~~ ~~with~~ with the co-operation of the U.S. Geological Survey and the Soil Conservation Service of the Department of the Interior, and are now proceeding with the work, at \$208,000,000. It is believed that in land benefits alone the new Everglades will regain a value of \$15, ~~225,000,000~~ 805,000 a year. But no one has been able to reckon the value to the cities of the lower East Coast, with a total of population increased in fifty years to over a million and still growing, of protection from salt intrusion and the guarantee of a never-ending supply of fine water.

It seem<sup>s</sup> to be getting drier throughout the country. Southern California, Arizona, <sup>ew</sup> New Mexico and much of Texas must spend billions for even an inadequate water supply for farms as well as cities. In Florida in the future, the fresh rainwater, from an average of 50 to 60 inches a year, once dan<sup>g</sup>gerous to human life, will at last be controlled without waste.

In the pounding heavy rainy season, it is gathered into the 750 square miles of the shallow basin of Lake Okeechobee from the slow

streams and bright lakes of the Kissimmee Valley. The rains swish and seethe across Okeechobee itself and go racing over the wide reaches of sawgrass to the south. ~~and~~ The water rises and follows all the way south-west to the delta-like end among the mangroves, of the river of grass.

In the old days, the water flowed there, from the black jungles of the southern Lake rim, as much as four miles an hour.

Some of that pure, moving overflow worked west from the Lake to the Gulf of Mexico along the green curving banks of the Caloosahatchee. Some moved east through the green floating islands and lilled sloughs of the Loxahatchee, and so to the sea. Overflow water from the central course of the grassy water went out the East Coast rivers, the Hillsborough, the jungly New River, Snake Creek, the Miami river opening into Biscayne Bay and Snapper Creek. But much was held ~~into~~ the natural course of the Everglades, like a gently tipped reservoir, by the rock barriers the retreating sea had left along the East Coast. There in high water the falls and busy rapids foamed.

Scientists only just recently have proved that besides all that overflow, the moving water seeped<sup>3</sup> through the porous million-holed oolitic limestone, like a kind of soft rock sponge, that underlies the lower part of the 'Glades. "Permeable limestone," they call it and have proved that the seepage of water through this ~~everywhere~~ is more than 40 per cent of the total water held there every year. Add to that water loss the constant vast condensation and transpiration of the surface water by the unrelenting power of the sun.

The pressure of fresh water in the holes and crannies of the fretted rock held back the salt water of the tides so that the coast-wise land was sweet. So for nearly five thousand years nature



silently held that unknown, glittering watery, grassy region in balance. There were flood and there were dry times, when fires set by lightning roared through the dry saw-grass. But after that, there came thundering the rains again. No extremes of weather could upset that balance permanently.

Only the white man did that. The Indians, the Seminoles who found refuge here only in the 1800's, did not change it. The pre-historic Indians, long, long before them, who dug their salt-water canals through mangroves for safe canoe transportation and engineered the mounds we wonder at today, for village and burial and temple sites above high water, did ~~no more~~ <sup>nothing</sup> to it ~~then that~~.

It was the white American at the end of the last century who saw the possibilities of the rich black muck of the upper Everglades, ~~and~~ <sup>he</sup> thought that they were stagnant water which could easily be drained off and ~~made~~ <sup>the soil converted</sup> into great wealth. For over fifty years, in fact, the arguments about draining the Everglades have raised turmoil in state politics, anger, bad feeling, vain hopes, criminal actions and wasted millions of dollars. Worse, they almost destroyed the unique region itself, which gives meaning and balance to all of south Florida, within the salt waters of Gulf and sea.

The first clumsy attempts to drain them, which tipped a little that fine balance, consisted of blowing up the natural rock dams, the falls and rapids, of the eastern rivers. In flood times, Everglades soil began to stain the beautiful clear green waters of Biscayne Bay and cover its shallows with silt. The heavy salt water began its first intrusion of the porous rock which in time would threaten the well-fields.

Then ~~Napoleon~~ Bonaparte Broward of Jacksonville ran for governor of Florida under the slogan, "Drain the Everglades and Build the Empire of the Sun." In the shouting, thb-thumping enthusiasm of his campaign

the whole state was led to believe that anybody who opposed Broward was an enemy to the great future of Florida. There were only a few quieter voices to protest, like that of my father, the late Frank B. Stoneman of Miami who insisted, in editorials in his first paper, the Record-News and then in the reorganized Miami Herald, that nobody yet had made any attempt to study scientifically in true nature of the Glades. He warned that guess-work and hoping was not enough. He insisted that hasty and ill-advised action might endanger the water supply.

Broward was elected. He set dredges to work cutting the first canal, the North New River, west of Fort Lauderdale. That was in 1913. The Hillsborough canal was dredged next and the Miami canal begun, ~~which was~~ the rock of which was excavated only beyond the present Hialeah. It remains a surface muck canal to the Lake to this day.

The effect was electric. Lumber men, with axe and fire, cleared the ancient jungles of the southern Lake rim, exposing the wonderful peaty muck, in those days as much as nineteen feet deep. A land speculator named "Dicky" Bolles dug his own canal south of the Lake rim and paralleling it, between the Miami and New River canals. He had bought land at two dollars an acre and sold it at thirty. Small board houses and even villages, sprang up in the muck lands along the canals, and people who had bought land by mail, in Western cities, school teachers, postmen, clerks, tax writers, began to raise their first tall crops. The canals transported the supplies and produce. The rich bared land steamed and sank a little, although no one paid any attention to that. Broward had drained the Everglades.

The truth of the matter was that when Broward was governor there were a few dry, almost rainless years. The water levels sank. The black muck burned under the sun, in a relentless, invisible oxidization. That is the process which still threatens the over-

drained region. The soil may all be gone in another fifty years.

~~But~~ <sup>They</sup> the water saved it. In another year the running, pounding, pouring rainy season began again. Lake water crept back to its old stages across the bean fields. The sluggish canals overflowed, too full to carry off the water. Men stared out at their houses, half under water and their ruined farms as they left in rescuing rowboats. Angry and ruined people crowded into the cities crying "fraud." There were mass meetings and almost-riots. Canal banks were dynamited, but still the water spread.

The Everglades were not drained after~~all~~. There were trials of real estate dealers on charges of using the mails to defraud. There were indictments, heavy fines, and jail sentences in a few cases. But no one could prove whose fault it was, that the floods had destroyed all those hopes.

Yet people forgot. All that was needed, they insisted, was more canals. The North <sup>New</sup> River canal was dug and the West Palm Beach canal. In 1924 the St. Lucie canal completed the list. The surplus water had run-off, seeped away and evaporated. People went back to live around the Lake.

Still flood times alternated with dry times. Engineers learned that in rainy seasons the Lake rose faster than the water ran off ~~in the canals~~. In 1922, a small muck levee was dredged along the south-east and southern rim. At once, with the rising real estate prices in Florida, that climaxed in Miami in the great boom of '25, new towns like Moorehaven ~~set~~ <sup>grew</sup> ~~set~~ in the drying lands behind the levee. A sugar company whose lands were under water in the back country of Miami, moved up to the ~~land~~ <sup>Lake</sup> and the great development of sugar cane reached out across the cleared black muck. Canal Point, Belle Glade, Pahokee and other Lake towns began to boil with real estate speculation.

But in 1926, the hurricane that hit Miami and stopped the boom



cold, hit the Lake also. Filled up water crashed over the melting levee and boiled over the farming country and the new towns. Four hundred people were drowned. The town of Moorehaven was wiped out under a sheet of water.

Yet when that water finally ran off and the land dried and the sun began its invisible burning again, people went back, more than ever, behind the patched up levee. Two years later the Lake was in the direct path of another hurricane which blew all the water over the levee and drowned and killed two thousand people more.

In the uproar for more and better drainage that followed that tragedy, the Florida Legislature of April, 1929, created a Flood Control District for the Everglades, which appealed for help to the Federal Government. Congress adopted the work as a flood and navigation project. The Rivers and Harbors Act of 1930, co-operating with the State of Florida, cut a canal from the St. Lucie canal on the east, through the southern shallows of the Lake and west, straightening the curves of the Caloosahatchee that had maddened boatmen but had slowed the run-off of water. The water table was lowered and fires invaded the fine oranges groves along the river.

The U.S. Engineers began work on a great rock-and-sand levee to block off the southern Lake rim and control the water. They put in locks and a <sup>spill</sup> ~~slip~~way at the St. Lucie canal and the Cross-State Canal was opened for transportation. It was used <sup>only</sup> by a few oil boats during the war, ~~but~~ <sup>because of</sup> with the increase of roads everywhere. <sup>had been</sup> Twenty million dollars ~~was spent on the canal and the levee.~~

But still, no careful, scientific study had been made of the whole problem of the Everglades. There was no overall plan. There was no single authority to carry one out. There was no money.

That was the end of the first period of so-called "Everglades drainage," from 1907, a time of reckless waste and political bungling.

The time from 1931 to 1942 might be called, "the era of utter confusion." Drainage districts had been set up within the several counties, each with its own local board, its own taxes and its own plan of operation shaped ~~entire~~ to local desires. The cattle and vegetable men around the Lake demanded a low water table. But farther south, the people of Broward and Dade county wanted the Lake level to be maintained high enough to guard their own fields and their drying, over-used, city well-fields. Along the coast, wells were coming in brackish.

The results were bad feeling, wrangling and confusion. The several drainage districts were hopelessly tied up with debts and court action. All canal improvements and maintenance stopped. Canals were choked with hyacinths and silting up. Cattle died, around the Lake, for lack of water in the dry times, and every two years or so there were more floods, drowning cattle and driving away the people.

Or the fires came again, raging red along the saw-grass horizons. The flames ate down into the peat, burning sullenly and secretly to the blackened limestone. Clouds of acrid smoke hung over the coastal cities, driving hundreds of people away. Traffic through the 'Glades roads was stopped, because of the thick smoke and the flames jumping roads and canals alike. And still silently, the stripped soil shrivelled and was destroyed. ~~In fifty years, scientists figured, it would all be gone.~~

In 1942 a group of resident Florida scientists who had been meeting to discuss the Everglades situation, calling themselves "The Soil Science Society", framed a resolution to the Florida legislature. They asked for an overall Everglades Drainage District to be set up which would take the place of the useless local authorities, straighten out the confusion and co-ordinate studies for a single complete plan.

In April, 1943, the Legislature set up the district. It asked for and got the co-operation of the Soil Conservation Service of the



Department of Agriculture and the Geological Survey of the Department of the Interior, At last and for the first time in Everglades history, the real nature of this unique region began to be studied. 1947.

In ~~xxxxxxx~~ an interim report was submitted. ~~xxxxxxx~~ Among many important things it stated was that not all the soils of the Everglades were suited to agriculture; that the present canal system was inadequate both in flood time and dry time; and that the fine fresh water of the 'Glades must no longer be wasted.

Yet perhaps nothing would have been done still if that same year the rains had not increased and the floods surged again, not only over the cleared lands south of the Lake but far up the over-charged course of the Kissimee Valley. The loss and damage was over ~~\$50x~~ fifty million dollars. But now there were thousands more angry, sober, thoughtful and determined citizens demanding action.

The District office of the U.S. Engineers at Jacksonville submitted its over all report on the Everglades. A master plan was outlined. It was argued for by every fact set up by scientists and practical men. It was considered by the Congress of 1948 and the first phase of the work was ~~xxxx~~ approved, under a central authority called "The Central and Southern Florida Flood Control District." An initial expenditure of \$70,000,000 was allowed, of which \$16,300,000 was authorized for the beginning of the work. The State of Florida would cooperate with land and fifteen per cent of the money. That is the plan, with a few minor changes, which is changing the face of the Everglades now. ~~But strangely enough,~~ It is a complicated engineering devise to ~~do~~ keep the water of the Everglades in balance just as nature had once maintained it and in much the same way. The ancient south-west course of the grassy river, ~~itx~~ is fully recognized. *preserved.*



The lovely old Loxahatchee Slough, down to the spillways at the Hillsborough Canal, the flowery, ~~waddy~~ lilled swamp, has been leased to the U.S. Fish and Wildlife Service for a wild game refuge. Mr. Gerald Baker, the director, last year planted rice among the tussocky grass. This last fall more than ten thousand ducks from the north, pin-tails, ring-necks and others, descended to eat up the rice harvest and spend the winter among the protected ways. <sup>This winter he planted millet and other grains for miles along the levee</sup> Mr. Baker is having the Slough cleared of ~~fine~~ water weeds which choke the clear water, ~~and~~

Already the bass and bream are crowding and increasing there, just as the small tarpon ~~are~~ <sup>are</sup> rolling and jumping in the canals. In season, hunting and fishing will be allowed in the Slough and all the East Coast towns near-by will be benefited by the increase of business.

South of No. 1. Conservation area, No. 2 lies in Broward County and No. 3 in South Broward and Dade Counties. ~~These~~ These two are to be maintained as wildlife refuges by the State Game and Fish Commission. When the West Palm Beach pumps let in the water to these three areas it will stand two feet at least higher than the present high water level, vast sheets of clear water etched here and there with grass tops, as it was in the old days, reflecting clouds and moons and sunsets and sheltering ~~skramaxand~~ and reflecting ten of thousands of marvellous white birds.

But the beauty and the wild life aspect of these three areas are only incidental, ~~that~~ <sup>in</sup> their total acreage they will retain the fresh water, inspite of transpiration and seepage, controlled in flood time, to protect the whole water supply of the lower East Coast.

South of the Tamiami Trail, the levee moves in its majesty down to the high pine ridge of the Everglades National Park, to protect all that lower Dade area. ~~Flomdxwtarxz~~ Smaller levees and canals will take care of Snake Creek and Snapper Creek. And far ~~the~~ to the west, on the edge of the Big Cypress Indian reservation, the other levee



will be built straight from the Lake, to guard the western boundary of the ancient saw-grass Everglades. The water will flow again, as it always did, down through the mangroves, ~~south~~ south-west, to the Ten Thousand islands.

The whole scheme, levees and canals, pumping stations and spillways and water conservation areas, will affect seventeen counties of Florida, including the enormously growing East Coast and over a million people now, with more to come.

The ~~New~~ budget for the Federal Rivers and Harbors Bill provides money to continue the Everglades work now in progress. As far as the white man is humanly and scientifically capable, the Everglades he almost ruined, the floods and dry spells, the fires, the loss of water, the salt intrusion of the last fifty years, as a problem will be solved. The rich earth will be saved. The vast supply of wonderful water will be controlled and used to their utmost needs by the people of Florida and their unborn generations to come.