Interviewer: I Marjory Stoneman Douglas: MSD

[34:43]

MSD: Wonderful thing rolling.

I: We're supposed to begin buying or equipment.

MSD: Well, yes. I understand. I don't I I don't know. I there was this sort of gadget that you could get an own put on the thing. And I got it. It costs \$12,

which you know, it didn't work at all. And I never could get anybody to take it back. So this you pay oh not very much like \$1 and a half dollar,

80 or something a month. There may have been a little more initial payment,

I don't quite remember, but really not of any importance. So this way I don't mind paying rent on it at allis worth it to me.

I: Yes, if it works.

MSD: Sure. Maddening, just almost a year and not quite. As if you were completely stone deaf. He says You hear a good deal and you miss an important word on that. We've adjusted the light, I mean, his dad and said it's much better once we began, she plans to take my glasses off. If we talk continuously,

I might have to put them on again, but if we break and tall, I can put them on again. If we break, I'll be all right. Yeah.

I: I'll need a break.

MSD: That's fine.

I: While they're getting ready and stuff. what I wanted to talk with you about,

begin talking with you about is the Everglades system.

And the area that I want to cover with you is what were you what were the original system? We you and I talked about this a little bit the other day. Where you want it to begin by describing it and felt the geology and geography were important to describe. And then I'm going to then move into the area of the drainage, the drainage period.

MSD: That's alright. That's alright.

I: And then we'll go into the opposition to the drainage and to establish the park and efforts to try to protect the water supply. And then I want to end with how to think stan today. And what I'll do is I'll ask you a question and then I'll let you answer it. I won't interrupt. But if there is something that isn't clear to me

that I will wait until you finish and then I will

MSD: then you're going to ask me about it. Yes. Well, I'm trying not to make too long if statement at any given time. People kind of people's attention span is pretty short.

I: whenever you ready.

MSD: I'm ready on time.

I: Okay. You can take your glasses off, alright? Yeah. Yeah. All right. So what I wanted to ask you about today is the Everglades well,

MSD: are we on there now?

I: Yeah. I'm sorry. You understand that they're going to be editing this, so make a slip of the row.

MSD: Yeah, sure. Okay. Very good. Oh yeah. It's all right. I'm not the least uneasy about that. Alright.

I: Why I asked you to describe the Everglades system the way it was originally it was formed and what comprise did. I'm sorry they aren't quite ready. We are ready then. Do I need to repeat my question?

MSD: No, I think not. The basic geologic facts of the Everglades are the same today as they always were – that is, this end of the state of the Florida, this end of the Peninsula, was up to about 7000 years ago off and on under water because of the freezing and melting of the polar ice cap. When the last water ran off -- the salt water ran off, when it was all ocean at one time -- it left the shape of Florida as it is now. It is shaped entirely of oolitic limestone, not coral rock as everybody says. There's bits and pieces of coral in it but it is a true oolitic limestone which is a sedentary rock occurring chiefly under water. So when the water ran off, this shape of the sedentary oolitic limestone was exposed and the outside currents began to shape the peninsula as

we see it today. A gentle current coming down the Gulf of Mexico along the west coast and the piece of the great Florida Straits current which is a part of the greater Gulf Stream, the Florida Straits Current coming from between Yucatan and the western end of Cuba coming along shaping the whole East Coast. So the outsides of that mass of oolitic limestone was shaped by the salt water. But as the saltwater ran off, the interior which showed up was covered from, say, Orange County south, with a series of, well the saltwater ran off in streams and ponds and marshlands, and then the rain which had always been raining of course filled up the declivities left by the saltwater so that all the water coming down from below what is now Orange County was fresh. Freshwater coming down what we now call the Kissimmee Valley with marshlands and little ponds and all kinds of little meandering streams and tributaries down into the central declivity of Lake Okeechobee from which the Caloosahatchee River moved westward to the Gulf of Mexico with meanders. The meanders always indicate a very old stream of water. And the ocean water ran off the Caloosahatchee was always there. It is very much older really than the 7000 years that we consider the present shape of the peninsula.

Over on the east side the Loxahatchee Slough and the St. Lucie River and those freshwater marshes and streams took the eastern overflow of Lake Okeechobee. But the main part of the water ran from the southern edge of rim of Lake Okeechobee, down into a great arc curving south and southwest making a sheet flow of water down the middle of the peninsula and that is the part we call the Everglades. Where the freshwater ran, the sawgrass grew. So where you find south of the Lake the sawgrass and the freshwater -- the water flowing and the grass standing still -- you find the true grassy Everglades -- an area of, say, from 40 to 80 miles wide, surrounded on the east by the east bank of the East Coast ?? which is a ridge of oolitic limestone between the ocean and the Everglades and on the west side a kind of a rectangular triangle where the Big Cypress is, which is like the west coast of the Everglades, a much larger area extending outwards into the Ten Thousand Islands. Now that shape of the land and the nature of the gentle incline down which the water has always run is just the same today as it always was. That's the geologic part of it. It has been changed superficially so that the River of Grass, as I called it, has been changed greatly. The Lake has been changed by being polluted, and the last thing the Engineers did was to run a canal down the meanders of the Kissimmee River and that changed that thing so that all the things that man did, say from like, well it began in '81 with attempts to drain it, everything man did was likely to be wrong because people in those days did not pay any attention to the main system and picture of the Kissimmee-Okeechobee-Everglades basin.

## I: When did you first see the Everglades and what were your first impressions?

MSD: Well, I mean, it's almost impossible for me to say. I came to Florida in 1915 and it was here in Miami and I couldn't tell you when I first saw the Everglades. My earliest impressions were always of this vast expanse of open sawgrass country with in the southern part – the islands of what we called island hammocks of hardwoods -- situated on higher rock that was left when the water eroded the softer rock around it. Higher islands shaped by the falling water into sort of like small boats, boat ended and they all turned and go down in the same direction as the water covered by the hardwoods.

And very early on I saw what is now the areas, what is now the Everglades National Park and the 10000 Islands and out in boats and all that. There was no way to get across the Everglades when I first came down so you just had to stand and look at them. The Tamiami Trail, I remember, was finished as far as the Dade County was concerned but beyond that the Trail had not been begun from the West coast. So we could go out fishing in the canal and then look out beyond that at just the Everglades, there was no road anywhere across. To get from here to Fort Meyers you had to go up the coast to Fort Pierce and take a train to Orlando, and across from Orlando maybe to Tampa and down the west coast to Fort Meyers. You couldn't cut across. Or you could go in a boat around by the Keys and around by Cape Sable. It was a very untouched, unknown country always. Up until the time of the Tamiami Trail, people had only crossed it at great intervals of great difficulty.

I: People were not in the habit of going for excursions...?

MSD: Oh, no, I should say not, it was too difficult. The water was shallow, you know, it was running water but shallow water and only the Indians could get around in dugout canoes. There were attempts to cross it. I remember an attempt after I had come to the Miami and was working on the *Herald*. I remember an attempt of some men from Fort Meyers to cross it with two or three Ford cars and they had a pretty awful time. The cars bogged down and they had to be towed out and men got sick. They were days if not weeks trying to get across. One man had to be rescued on a stretcher, he was so affected by the sun and the hard work of getting the stupidest way in the world trying to cross it. They would have done better to come over in Indian canoes.

I: So there were Indians living out there?

MSD: Oh, the Indians, of course they'd always lived out there because they knew how to manage. They lived in the Everglades in the canoes, and they lived on the outskirts. They lived in the Big Cypress and they would go to the coasts for fishing or they'd go to the interior for deer hunting. The Indians were perfectly flexible -- they lived all over the place. Wherever they wanted to go. But the white man has never been satisfied to live like the Indians, in harmony with the forces of the Earth, as it were. He has to change things, do things the hard way and all that was supposed to be intelligence, I guess.

I: What did people think of the Everglades at the time?

MSD: Well they didn't think much of it. Sell the land for farms. They mostly thought there was a lot of fresh water out there and they wanted to get the water off and sell the land for farms and that's about all they knew about it. That was the whole reason behind the drainage which began in 81 when Gov Bloxham got a man named Disston from Philadelphia to come down and try to drain some of the upper marshes of the Caloosahatchee, between the Caloosahatchee and the Lake. And they said he could have half the land again that he drained and he put in a couple of little canals and dried up a little lake which is called Lake Flirt, up where more or less where Labelle is now. And I think he put in a canal somewhere at the entrance of the Kissimmee River into the Lake but I'm vague about that. And of course he didn't succeed at all. He'd gotten some land but nobody wanted to buy it so he really didn't carry on with that. It wasn't until 1906 until

Governor NB Broward who ran for Governor on the slogan of draining the Everglades. It wasn't until then that they made a serious effort to drain by starting the first dredge from the North New River Canal in Fort Lauderdale up the North River to the Lake and then the South River Canal and so on. And when they did, they cut down the jungle -- there was a band of jungle trees that had grown up south of the Lake and had laid down in that 7000 years about 30 feet of peaty muck, that is of their leaves and rotting bark and roots. So that people cut down the trees that were on top of that and farmed that peaty muck and when they came in and exposed it to the sun and then people like the sugar people came in and they burned off the leaves every spring. The fires would get down into that muck so now that 30 feet of peaty muck has almost entirely disappeared, there's not 5 feet of pm left. And they are using that up rapidly and then there will be nothing left but the hard rock underneath. So the sugar people are gonna' have to go somewhere else. They may be able to – they are already putting in, I believe there's 10,000 acres of rice up around there somewhere -- shallow plants which I don't understand about rice but I hope it does not interfere with the sheet flow of the water southward which is what we must continue.

I: Can you tell us something more about the sheet flow?

MSD: Well LAKE OKEECHOBEE is really quite shallow and its the rainfall which, incidentally, we get our rainfall from three sources – on the prevailing westerlies, we get them from the Atlantic and thunderstorms in the summer, and then approximately a third from the evaporation of the wet Everglades themselves. That evaporation goes up as water vapor and in the clouds is shed as the clouds blow around they shed as rain. Now that Everglades water is not all the water we get. People don't seem to understand that. We just have the idea of the Everglades rainfall getting through their heads. But it is not all the rain we get. We get it, as I said, from the prevailing westerlies and from the Atlantic because it would rain anyway whether we had any land there or not. But we get a large part of our rain from the evaporation of the Everglades and that is the most important reason of all why we should not drain the Everglades completely.

Well LAKE OKEECHOBEE is filled from the rainfall. It evaporates and the rainfall fills it up again. The extra water that flows over the southern rim comes form the Kiss valley. The Kiss valley is a meandering stream that collects the rain water and brings it down into LAKE OKEECHOBEE. That excess water flows out again down the sheet flows towards what is now the ENP and the 10,000 islands.

In 1906 when they began to put in the drainage ditches they began to run the water off without realizing that that was all the drinking water there was for people and the more they laid bare the soil and used it up the less water there was for the growing cities.

That has been the problem because people have not understood the basic problem of the K-O-E basin that people have got to get it thru their heads. I don't' think it is very complicated. I think they can und it if they put their minds on it. Or they can see it by looking at any map.

Do most people think of the Everglades as just that part perhaps south of LAKE OKEECHOBEE

or perhaps just...?

In a way, you might say the true grassy glades **are** just south of LAKE OKEECHOBEE but it is only a part of the whole basin. I like to make it clear that it is the K-O-E basin so they realize that the Everglades don't go all the way up to -- that is the grassy glades don't go all the way up to Orange county.

I: So where does the basin truly begin?

MSD: Well the basin begins just south of the end of Orange County. Actually OC has lots and lots of lakes leftover from the original run off of the saltwater. The northern lakes flow into the Oklawahala River. The eastern lakes of Orange County flow into the St. Johns so they are naturally in the SJ WMDistrict. Well, there were one or two small lakes at very the southern end of OC from which water could be said to flow down southward into the Ev. But actually there's a little lake called Lake Clear where a little of the water may have started but now the poor little lake is so filthy all full of inadequately treated sewage tin cans and stuff that when I was in Tallahassee at one time when they were setting up these WMD's I said "you can have Lake Clear, we don't want it. You will have to clean it up yourselves if you want to get it into the SJ system. But we don't want it at all". So we consider the K valley – what we call the Lake Okeechobee-Everglades- K- begins south of Orange County. There are upper lakes of the K and some of those lakes up there but there conditions are diff. We don't have to worry our heads about them. They are in the St. John's WMD.

I: Are there any other tributaries into LAKE OKEECHOBEE?

MSD: Yes, there's one called Fisheating Creek. That's at the northwest corner of LAKE OKEECHOBEE and actually I think Fisheasting Creek is mainly in what we call the Southwest FWMD. There are a number of river systems in SW Florida, more even than just the ones that flow into TB from the Green Swamp. There is a watershed there somewhere which I'm not familiar which the FE Creek flows eastward into Okeechobee form the northwest. And I actually can't tell you exactly where that limit of the South FLake Florida Water Management District begins. I know it is north of the Cal River but i f it includes something of the FE basin, I'm not sure. I should really know about that but I don't. Fisheating Creek is lovely, it's almost untouched. And it might just be part of ours, I just don't know.

It is not regulated, thank goodness. Nobody has tried to run a canal up it. It's in a very primitive state. Perfectly lovely, lovely to go canoeing down. People can put their canoes in quite upward and go all the way down to the Lake. It's a perfectly beautiful canoe trip.

I: I've canoed a bit on FEC but I've never been....

MSD: Oh have you? You didn't go as far LAKE OKEECHOBEE? Well you could, so I don't know what the source of the FEC is.

Does it begin in the Green Swamp? I don't think it begins in the Green Swamp because of the

river system that is north of the Caloosahatchee. Uh, let's see which is that? There's the Peace River in there, and what's the other river. Is it the Peace River at Bradenton?. They come in -- there must be a divide -- a watershed -- between the sources of Fisheating and the Peace River and that other river whose name I can't think of at the moment.

I: You know, we always speak of the Kissimmee-Okeechobee-Everglades basin and I am assuming from that the Kissimmee is the primary or the major tributary of Okeechobee.

MSD: Oh yes, it is indeed because the Caloo flows out and the St. Lucie and the Loxahatchee Slough, when it's flowing, flows out. So the major -- oh you couldn't call it a tributary, it's almost a source. But it's a source of the extra water, it isn't a source of the fundamental water. You do get the distinction there? If there were no Kiss, LAKE OKEECHOBEE would still be its normal height because of the rainfall. The extra water that comes in the K it what crosses LAKE OKEECHOBEE and flows into the EG. So the Everglades is more dependent on the Kissimmee even than it is on LAKE OKEECHOBEE, curiously enough. The O is like a holding basin, the surface of which lows out. People have not understood that.

But Gerald Parker who did the great study of the groundwater of southeastern Florida brought that point out which needs to be emphasized.

I: You talked about the Everglades System as a sheet flow from 40-80 miles wide. What causes the variation in the width?

Well, the amount of water, I think, that is, the rainfall. And you realize that this whole basin is fed by varying amounts of rain. You know, we have w and d cycles. That's quite definitely proved. In the wet cycle, we have a lot of rain and in the dry cycles we have very little. So it is the variation of the rainfall that accounts for the variation in the width not only of the sheetfLake Okeechobee but of the height of the surface water of LAKE OKEECHOBEE.

I: Is the variation – the wet and the dry cycles -- is that something that has always occurred?

Oh yes, that is the earth. That's the way the earth works. You know, there's always change. There's cycles in so many things. The world is run by cycles. Cycles of tide, cycles of rain, cycles of all that kind of ---. Nothing is exactly static all the time. There's an ebb and fLake Okeechobee. It moves that way, that's the way nature is. And that is the way the wildlife, the breeding, is geared to those cycles. And that of course is the unfortunate thing that the Water Management District doesn't understand. Cause the WMD is not geared to cycles. It wants to do what it wants to do without regard to a natural cycle. So that is one of the greatest mistakes the WMD Board makes, letting out a Lake Okeechobee of water if they think the Everglades is Lake Okeechobee they let it out at a time when the crocodiles—this just happened —the alligators have been building their nests at a time of Lake Okeechobee water which would normally stay Lake Okeechobee until the young were hatched. But now with all these rains there is so much water in these stupid conservancy areas, number two and number three, that the WMD to keep the conservancy areas Lake Okeechobee let it out at the wrong periods of time so the young alligators will probably be drowned. They don't even think about that. But you see they don't

understand or they don't care. They don't care and the COE don't care. They want to do things the way they want to do them and mankind is very pigheaded about that. That is where he makes some of his worst mistakes.

I: Let's talk about the drainage period.

MSD: The drainage that began in 1906 has kept on in a very erratic way because they put in canals, they began to put the canals in in the dry season and they seemed to dry up the Everglades and everybody went up to farm and they cut off the sawgrass and built little one story shacks and along came a rainy season and drowned them out. So they all came back to what cities there were. So then they put in more canals, thinking that more water they needed more canals and everybody was building canals. There's a law still on the books that will allow people to set up drainage districts on their own property and they can assess taxes and put in more canals. So they put in a perfect rat race of canals, some dumping water into other people's land and all kinds of things. So that in 47 the SOF brought in the Corps of Engineers under contract with the hope that they would solve the flooding problem cause they were still having floods occasionally but not all the time every six years or something like that around LAKE OKEECHOBEE but also to clear up this mess of drainage districts that were going bankrupt and everybody doing all kinds of things without knowing anything about it. And we hoped in '47 that the engineers would really do a job but all they did was build more pumps and more dikes and more canals and they could let water out or they could hold it. And they built three stupid conservancy basins where the sheetflow had been. Number one isn't so important, but number two back in Broward County and number three back in Dade County are simply stupid. They fill them up with water from LAKE OKEECHOBEE and the water just sits there and the water is now polluted that comes in from LAKE OKEECHOBEE and then the canals - the Conservancy Areas -- water leaves into the canals that go into our water supply, our well fields. So we get polluted water from the Lake into our well fields. That's why the city water of Miami has to have so many chemicals in it. People have done it without any regard to the true nature of the land or what should be done. Probably they have done so much that now people talk about they patchwork it with little things here and little things here that change this levy and that canal and its all patchwork.

They are not approaching it as an overall thing the way they should. I think they're going to have to begin to. I just came back from a conference in Tallahassee that Governor Graham called who is very much upset and concerned about the condition now of the K\_O\_E basin and he had the heads of the all the departments, government departments that have anything to do with the water, the DNR, the DER, then he had the WMD representative, I don't think he had the Corp of Engineer's people – these were all strictly state people and the Fish and Wildlife and various other departments of the state government for a conference and they all were asked to talk about what they thought about the Everglades and what should be done. Well as far as I can tell, and what I say by that they talked with so much detail half the time I would be pretty lost 'cause I didn't know what they were talking about and as far as I could tell each one of them had a small view of it. Very few of them had -- I think Mrs. Tenkel of the DER and the DNR man had a better idea of the whole basin. They know about that. All these other people were reporting about various phases. Those reports will be written and given to the Governor and he

had three what you might call civilians up there – a man called Dr. Nelson Blake, and I think Earl Storms. Why I say "I think" I don't think he is attached to the government, except I think he's up there in Gainesville--he used to be in Miami and myself were more or less the listeners. We were the ones who were supposed to evaluate, we were the evaluators and of course they were still holding on, it went on from 2 o'clock on and at 5:30 I had to catch a plane to come back. I excused myself to the Gov and he said, well now can you tell us some impression, what do you think about all this? And I said "I can't tell you now, I want to see all these people's reports; I don't have an offhand overall judgment that I would consider considerable at the moment. I will have to see" but I said again it's got to be considered, the whole basin has got to be considered beginning with the restoration of the Kissimmee River. We can't do it piecemeal and we can't do it by patchwork. It's got to be considered as a whole.