

WILD HOPE
Return of the Manatees

	TIME CODE	VIDEO	AUDIO
1.	01:00:01:12		<p>LISA: Crystal River was perfect for the manatees.</p> <p>When you lose the basis of your ecosystem which is your plants, everything else goes away, it just becomes a chain reaction of devastation and that's what happened here. We lost it all. Our river basically died.</p> <p>We are a manatee refuge. They needed food. There was no food for them to eat.</p> <p>It's one of those situations; your house burns down. What do you do? You rebuild. You have to start from scratch.</p>
2.		<p>GRAPHIC: TITLE WILD HOPE: RETURN OF THE MANATEES</p>	<p>ACT ONE</p>
3.	01:00:54:10	<p>GRAPHIC L3rd: Lisa Moore Community Advocate</p>	<p>LISA: Growing up in Crystal River was any child's dream. You could go out on the boat all day long, go fishing, swimming in the spring.</p> <p>And the water was crystal clear. You could see fish all around you, big fish, and they would just swim by, and manatees could come up here.</p> <p>There was plenty of food. And they could bring their young. They could have their babies here, and they would spend the winter here in our springs. Our water's 72 degrees year-round. It was just a great habitat for wildlife.</p>
4.	01:01:34:10		<p>NARRATOR: MANATEES, ALSO KNOWN AS "SEA COWS", ARE HERBIVORES THAT LIVE IN COASTAL RIVERS, BAYS, AND ESTUARIES.</p>

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		<p>GRAPHIC: Map showing migration of manatees.</p>	<p>FLORIDA MANATEES WILL TRAVEL AS FAR NORTH AS VIRGINIA OR AS FAR WEST AS TEXAS IN SUMMER. BUT EACH WINTER THEY RETURN TO FLORIDA AND ITS WARM, SPRING-FED RIVERS AND BAYS.</p> <p>TWO THIRDS OF THE POPULATION NOW RELIES ON THE WARM DISCHARGE WATERS FROM POWER PLANTS.</p> <p>MANATEES BEGAN TAKING REFUGE THERE OVER THE PAST 30 YEARS, AS URBAN DEVELOPMENT SWALLOWED UP SPRING-FED RIVERS AND BAYS.</p>
5.	01:02:18:05		<p>NARRATOR: THERE ARE STILL A FEW GOOD NATURAL SPRINGS REMAINING, AND ONE OF THE BEST IS CRYSTAL RIVER.</p> <p>BUT THIS MANATEE HAVEN WAS ALMOST LOST.</p>
6.	01:02:29:02		<p>LISA: Back in the '70s we had a lot of hydrilla and that kind of filled the river. It caused a problem. It was an invasive freshwater plant.</p>
7.	01:02:37:20		<p>NARRATOR: THE HYDRILLA DEPLETED OXYGEN LEVELS IN THE WATER AND OUTCOMPETED THE NATIVE EEL GRASS. A STAPLE OF THE MANATEES' DIET.</p> <p>THEN, IN THE '90S, THINGS GOT A WHOLE LOT WORSE.</p>
8.	01:02:54:15		<p>LISA: The 1993, they called it Storm of the Century, or the No-Name storm, we didn't know it was coming. And it blew in so much saltwater from the Gulf of Mexico it inundated all the waterfront homes.</p>

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9.	01:03:13:01		NARRATOR: THE STORM SURGE PUSHED LOADS OF SALT WATER INTO CRYSTAL RIVER'S FRESHWATER SYSTEM.
10.	01:03:20:00		LISA: It really affected the water, but nobody knew it at the time. We were so worried about people that we didn't know that so much hydrilla was dead and fell to the bottom of the river. That caused a problem because it started to rot.
11.	01:03:40:00		NARRATOR: EEL GRASS IN THE RIVER FARED BETTER BECAUSE IT THRIVES IN BRACKISH WATER, BUT THE ROTTING HYDRILLA SUFFOCATED THE GRASS, AND TRIGGERED AN EXPLOSION OF AN INVASIVE ALGAE CALLED LYNGBYA.
12.	01:03:54:20		LISA: It turned into slime, and then it looked like the surface of the moon on the bottom. It was noxious to animals. It would give people rashes. Huge plumes of nasty algae destroyed the eel grass.
13.	01:04:15:00		NARRATOR: MANATEES NEED TO EAT CLOSE TO 10% OF THEIR BODY WEIGHT IN EEL GRASS EVERYDAY; UP TO 350 POUNDS OF IT. THE DISAPPEARING EEL GRASS IN CRYSTAL RIVER FORCED MANATEES TO VENTURE OUT INTO COLDER WATERS, WHERE IT'S HARDER TO FIND FOOD AND WHERE THEY RISK DYING FROM COLD STRESS. MANATEES CAN'T SURVIVE LONG IN WATERS BELOW 68 DEGREES.

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14.	01:04:42:10		<p>LISA: It had never happened before, and nobody knew what to do to fix it.</p> <p>I had children and grandchildren and I just kept thinking, we can't leave it like this. We know what this river used to be, and we have to fix this. So, neighbors got together, friends got with other friends, and we formed Save Crystal River.</p>
15.	01:05:05:00	<p>GRAPHIC L3rd: Marie Bienkowski Community Advocate</p>	<p>MARIE: Do you remember how bad it was? This park was closed. It was probably the only time in my life I wanted to leave Crystal River because it was just terrible.</p>
16.	01:05:13:20		<p>NARRATOR: AFTER WATCHING THE LYNGBYA TAKE OVER, LISA AND HER FRIEND MARIE URGED THE COMMUNITY TO TACKLE THE CRISIS.</p>
17.	01:05:21:10		<p>MARIE: It was 2015 when we went to every school, and we asked them to write a letter about why the river was important to them. They wrote 5,280 letters, and so then we took them to Tallahassee.</p>
18.	01:05:40:00		<p>LISA: I think that was important, showing them that their opinions mattered to the legislators. And it made an impression because they knew that these people cared.</p>
19.	01:05:50:05		<p>NARRATOR: THE CAMPAIGN ALSO OPENED THE GOVERNMENT'S COFFERS. SOON, THE COMMUNITY NONPROFIT HAD THE FUNDING TO HIRE A PRIVATE CONTRACTOR TO START RESTORING THE RIVER.</p>
20.	01:06:01:02		<p>LISA: One day somebody told us about a project that was similar to what we needed to have done. They were taking out algae and replacing it with healthy eel grass.</p>

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			So, they came up here, and they said, "We think we can fix this."
21.			ACT TWO
22.	01:06:21:00		NARRATOR: JESSICA MAILLIEZ WORKS WITH AQUATIC RESTORATION FIRM, SEA & SHORELINE, TO REPLANT THE MANATEE'S EEL GRASS ON BEHALF OF THE COMMUNITY.
23.	01:06:32:05	GRAPHIC L3rd: Jessica Mailliez Biologist	JESSICA: I guess I first realized that a career working with seagrass and eelgrass would be something that I absolutely loved was when I realized that really everything depends on it. I love the manatees, the turtles all those charismatic creatures.
24.	01:06:52:06		NARRATOR: EEL GRASS CLEANS THE WATER, ITS ROOTS HOLD THE SEDIMENT IN PLACE, AND IT SERVES AS A CRITICAL NURSERY FOR MANY KINDS OF FISH. BUT FOR EEL GRASS TO RETURN AND THRIVE, THE LYNGBYA ALGAE HAD TO GO.
25.	01:07:17:03		JESSICA: It's a nasty, mat-forming algae. It really blankets everything. It blocks out the sunlight, and nothing can grow beneath it. That stuff smells awful. I mean it is thick.
26.	01:07:32:21		JESSICA: We have divers that go in and they hand vacuum the bottom. It's hours and hours, full days, 4 to 8 hours underwater in no visibility. Just feeling around on the bottom and making sure that you remove all of this nasty algae. It's a dirty job. We've removed over 500 million pounds of lyngbya and detrital muck.

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27.	01:08:06:00		<p>JESSICA: I think one of the proudest moments for our divers and our dredge crew is being able to uncover those large spring vents.</p> <p>You start going down, down, down into a hole and you realize when you start to feel some water gushing out that you have just opened up a spring vent that's been clogged for who knows how many years.</p>
28.	01:08:33:10	<p>GRAPHIC: Diagram of where waters coming from beneath riverbed, and where it comes out.</p>	<p>NARRATOR: THE VENTS ARE LIKE FAUCETS, DELIVERING WARM WATER FROM UNDERGROUND AQUIFERS DEEP WITHIN THE EARTH.</p>
29.	01:08:41:19		<p>JESSICA: We have cleaned and uncovered over 800 spring vents in the Crystal River area.</p>
30.	01:08:50:05		<p>NARRATOR: ONCE THE ALGAE IS REMOVED, YOUNG GRASSES CAN BE PLANTED. THERE'S A LOT OF RIVERBED TO COVER, AND IT'S ALL DONE BY HAND.</p> <p>PREROOTED PODS ARE PLANTED EVERY 3 FEET.</p>
31.	01:09:11:20		<p>JESSICA: After we plant these, we come back to check on them every single week for the first four weeks then biweekly after that and then every single month for a total of 12 months.</p>
32.	01:09:25:00		<p>NARRATOR: THE COMMUNITY'S EFFORTS TO REMOVE THE ALGAE MATS AND RESTORE EEL GRASS HAVE REVERSED THE RIVER'S DECLINE.</p> <p>MANATEES ARE ONCE AGAIN THRIVING HERE, AND TOURISM AND FISHING ARE BOTH UP.</p>

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33.	01:09:40:10		<p>JESSICA: Crystal River is a huge success story. We have some of the healthiest manatees in the state. And this warmwater refuge is also like a salad bar to them.</p> <p>Last winter we had our, our highest concentration of manatees in this area reaching over 1000.</p>
34.	01:10:05:17		<p>NARRATOR: THE NUMBERS STATEWIDE HAVE INCREASED SIGNIFICANTLY OVER THE PAST 50 YEARS—FROM A LOW OF JUST A FEW HUNDRED MANATEES IN THE 60s, TO A HIGH OF ABOUT 9000 in 2016.</p> <p>BUT SINCE THEN, THE TREND HAS BEEN GOING DOWN AGAIN, AND THE CRYSTAL RIVER MANATEES ARE ONE OF THE FEW POPULATIONS DOING WELL.</p> <p>ONE OF THE MOST THREATENED POPULATIONS IS IN THE INDIAN RIVER LAGOON, WHICH IS FACING A CRISIS EERILY SIMILAR TO THE ONE CRYSTAL RIVER ENDURED.</p>
35.	01:10:41:15		<p>JESSICA: The Indian River Lagoon is on the east coast of Florida. And the problem that we've seen there is we had gradual seagrass loss and then a huge brown tide bloom came in and completely starved the grass of all sunlight and we lost what we were already short on.</p>
36.			ACT THREE
37.	01:11:09:20		<p>NARRATOR: THE MANATEE CRITICAL CARE CENTER AT ZOO TAMPA IS TRYING TO MANAGE THE FALLOUT.</p>
38.	01:11:16:15		<p>MOLLY: We've had over 500 manatees come through our doors and over 300 go back to the wild.</p>

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39.	01:11:23:05		<p>NARRATOR: MANATEES ARE HERE FOR A VARIETY OF REASONS. SOME HAVE BEEN STRUCK BY BOATS, OR OVEREXPOSED TO COLD WATER, BUT INCREASINGLY, THEY'RE BEING BROUGHT IN BECAUSE THEY'RE STARVING.</p>
40.	01:11:40:12	<p>GRAPHIC L3rd: Molly Lippincott Animal Care Manager</p>	<p>MOLLY: All over the state of Florida we are seeing a die-off of natural seagrasses for manatees. Manatees on the east coast in particular they're coming in, basically starving. They're emaciated, they are very ill.</p>
41.	01:11:57:15		<p>NARRATOR: THE ZOO TRIES TO SAVE AS MANY PATIENTS AS POSSIBLE.</p>
42.	01:12:01:10		<p>MOLLY: Manatees have a pretty slow gestation which means they don't give birth that often. About every 2 to 3 years, so if you're losing a lot of adults that can be really detrimental to the species in the long run.</p>
43.	01:12:16:15		<p>MOLLY: This year alone we took in 17 manatees in two months, which is an incredible number. We've seen quite a few orphans coming in our doors, and we don't really know what happened to their mother, but they come in with no wild experience. And so, we want to set them up for success. They have to gain a lot of weight when they're at the zoo.</p>
44.	01:12:34:15		<p>MOLLY: They eat about 8 hours of their day and so that is a ton of food. We can give them romaine lettuce and things to get their body condition back up, but we need the natural vegetation in order for them to thrive.</p> <p>This is natural seagrass that's been collected from the wild, and today I'll be putting it in for our orphan calves.</p>

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			Our goal is to feed it every single day so that way they're used to it.
45.	01:13:05:05		MOLLY: They need seagrasses out in the wild for them to survive. So it's really important that we're out there protecting the seagrasses and helping them to grow so that the manatees will be here for many years to come.
46.	01:13:21:15		NARRATOR: WHEN THE MANATEES FROM ZOO TAMPA ARE READY TO RETURN TO THE WILD, A DESTINATION OF CHOICE IS THE RESTORED CRYSTAL RIVER ECOSYSTEM.
47.	01:13:30:03		MOLLY: Crystal River in particular has changed and it's such a bountiful environment for them that we're releasing those animals to that space.
48.	01:13:41:05		NARRATOR: IT'S ALSO BECOME A MODEL FOR RESTORATION ELSEWHERE.
49.	01:13:44:18		LISA: We wanted everybody in the state of Florida who had a problem like this to know what we did, how we did it, how to get others involved, share this information.
50.	01:13:54:00		NARRATOR: ALONG THE INDIAN RIVER LAGOON, CONSERVATIONISTS ARE TAKING NOTICE. THE REGION HAS A LONG ROAD TO RECOVERY, BUT CRYSTAL RIVER HAS GIVEN THEM A ROADMAP FOR SUCCESS.
51.	01:14:06:10		LISA: Indian River Lagoon is replicating the same kind of process that's being used in Crystal River.

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52.	01:14:14:15		JESSICA: You don't have to be a scientist to be part of the solution. You can do something as simple as not using fertilizers, pulling weeds by hand. You can even be a responsible boater by being conscious of where you're anchoring, making sure you're using grass-friendly anchors. You can help educate the younger generation about the importance of creating a healthy ecosystem.
53.	01:14:45:13		LISA: I think my grandchildren, and all the children that are growing up now will inherit from our generation a clean, healthy river teeming with wildlife both above and below the water. This river is the life that runs through this community. We want to protect it forever.
54.	TRT 01:15:59:06		END