video transcript

video name

human energy™

Cynthia Durance	00:06	I'm Cynthia Durance. My company is Precision Identification. We specialize in eelgrass restoration and research. I started studying eelgrass back in 1981 and I've had a passion for it ever since. I've done over 130 transplants so far. This project is designed to find out whether the methodology that I developed and I've used elsewhere would work in Douglas Channel outside of Kitimat.
Catherine Grima	00:28	So Golder is involved in this pilot eelgrass transplant project, which is part of the wider Kitimat LNG project. Today we're mapping the eelgrass at Bish Cove and we're doing a harvesting of the eelgrass and processing it ready for our transplant into Gobeil Bay and into Minette Bay.
Cynthia Durance	00:48	Eelgrass is so important to the ecosystem, I think primarily for fish and shellfish, because it's a hiding place. And it's like a cafeteria, because there's so much food in there, all the little crustaceans and things that they can eat. And also, it is a place when salmon are migrating, they can pull into an eelgrass bed and the water quality is clearer there because the leaves baffle the sediment out of the water column. And so they can clean their gills while they're in there. The sites we selected were, through discussions with the Haisla and Chevron, and also because they provided an environment that was similar in some ways to Bish Cove, similar sediments, similar depths.

So we use divers to harvest it. And they harvest from the same depth as we're going to be planting at because that's the depth that plants are accustomed to.

When the divers are harvesting the eelgrass, they're careful not to create bald patches within the meadow. So they just pull up a shoot or two, and then move a meter or two, pull up a shoot or two, and so on.

And eelgrass has what's called compensatory growth. So when a shoot is ripped off, it stimulates the plant to produce an additional one. So hopefully, within a few weeks, every shoot we've taken away has been replaced.

The divers go down and they collect the plants by hand and put them in a goody bag. And the goody bag is brought to the surface. And then it's brought to the shore team.

And they attach an anchor to each one. And the anchors we use are plain steel washers with a twist tie that holds the eelgrass.

And another advantage of the plain steel washer is that when they start to rust, the rust chelates with the sulfates in the sediment and actually improves the amount of oxygen, which is good for bivalves, clams, things like that.

So we've put 100 anchored shoots in a laundry basket, which the divers can easily carry through the water, because water flows through. And then they set up a grid for planting on one meter centers.

And they swim along and they take out 10 anchored eelgrass shoots. They excavate a narrow depression just about five or 10 centimeters deep. And they put the 10 anchored washers in there. Then they cover it up with sediment again. And they go on and do the next one. So it looks like a checkerboard when they're done.

Success is if the eelgrass that we transplant survives over the long term. And it should expand. Under good conditions, one shoot of eelgrass can vegetatively reproduce and produce 10 a year. So it can increase in density exponentially.

This project is a definite win for everybody, for the community, for the environment, for the fish, for the crabs, you name it. And hopefully, the eelgrass beds that we establish here will last for hundreds of years and continue to serve the environment and the community.