

# Humpback Creek Cable Splicing

Cordova Electric Cooperative

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Bob Pudwill and Mark Heidbrink Dove to the existing cable splices, marked each side of the splices with different colored tie wraps, and cut the cables on the Humpback Creek (HBC) side of the splices. A buoy was attached to the end left in the water (background), and the cut ends lifted to the surface (foreground).



## Situating wire for first series of splices



Scraping sea growth, barnacles, and rust from the cable



While one lineman is completing construction of the first splice, the rest of the crew is preparing the next set of cables for splicing. The cables are cut to length, the neutral left longer than the cable, the red insulation peeled back 1.75" to expose the bare, aluminum, 1/0 conductor. The insulation is sanded with non-conductive abrasive cloth to remove traces of semiconductor (black portion between red insulation and neutral tails).



Large outer heat shrink is applied to the first splice



Final outer heat shrink is applied to the whole splice



The new cordless crimper is used to make quick, consistent, 7 ton connections





Outer heat shrink almost complete on splice 4. So far, three cables tested good back to HBC, and one tested bad. Either way, the splices have to be completed before day's end. Note the three completed splices on the deck. Each splice is allowed to cool before being lowered to the deck so that the outer heat shrink isn't stretched or stressed.



Picture stretched to illustrate the stainless steel “zipper”



The other end of the cable is lifted to the surface. The first set of splices has been laid back in the water, and the boat has moved up the anchor line 75', paying out the new wire and tie wrapping it every 5-10'. The old splices will be cut out of the cable, and the new cable cut to length and spliced to the existing wire (town side of splices).



## Testing each cable with the megger



## Removing outer jacket in preparation for splice 5



Damage is noted in one cable. The hole extends through the jacket and neutral into the semiconductor



## The Eighth and final splice nears completion



Good shipping skipper and crew preparing to lower cable





And away it goes...

