

ABSTRACT

THE LIGHTNING ROD OF THE CLEARWATER BASIN

by

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One of the many problem solving categories for a fish hatchery manager is the issue of protecting your fish from natural disasters that could affect the life support systems of your hatchery. Some of the common factors normally considered for preventative maintenance schedules is the safeguarding of mechanical breakdowns on standby generators , pumps, fish transport trucks and oxygen delivery systems and fresh-flows in tanks. Another area is the routine cleaning and up keep of water intake structures and pipelines. The manager must be constantly looking ahead to anticipate seasonal events and to be on the lookout for treasures that nature can send your way to stop the flow of water to your facilities. For example spring high water runoff bringing tons of sediment, trees and floating debris or severe cold weather caring slush ice onto your intake screens blocking the flow like a sheet of plastic.

On August 4, 2010 we had nature send us an unexpected curve ball in the form of a lightning bolt. During a severe thunder storm satellite imaging documented three confirmed strikes near our holding ponds. At our Powell satellite facility lightning struck an overhead structure for a truck loading crane. The electrical charge traveled down a 1/2 inch cable dangling down from the structure and jumped approximately 20 feet to the water surface in the female Chinook holding pond killing 141 fish.

As we examined the fish we found varying degrees of damage to internal organs and hemorrhages in the flesh. These injuries matched those of an electroschocking study performed by IDFG research biologists.