

# ACFN Community Based Monitoring

## Final Report on the 2011 Water Quantity Monitoring

Bruce Maclean - Shell Jackpine Panel Presentation | 11.2012

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# Project Background



# ACFN Community Based Monitoring Program

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- **Based on ACFN Traditional Knowledge Holders' understanding of water levels in the Athabasca Delta.**

Elders and active land users note a steady decline in water levels.

- **Access to Traditional use areas increasingly difficult.**
- **Site selection for CBM program based on the “As Long as the Rivers Flow” report by the Firelight Group, and through direct consultation with authors Craig Candler and Steven DeRoy as well as ACFN IRC members Jonathan Bruno, Lisa King, Nicole Nicholls and hydrologist Martin Carver.**
- **Began sampling in September 2011 at 8 sites**



# CBM Sites





## CBM Sites (Athabasca Delta only)



# Aboriginal Base Flow (ABF)

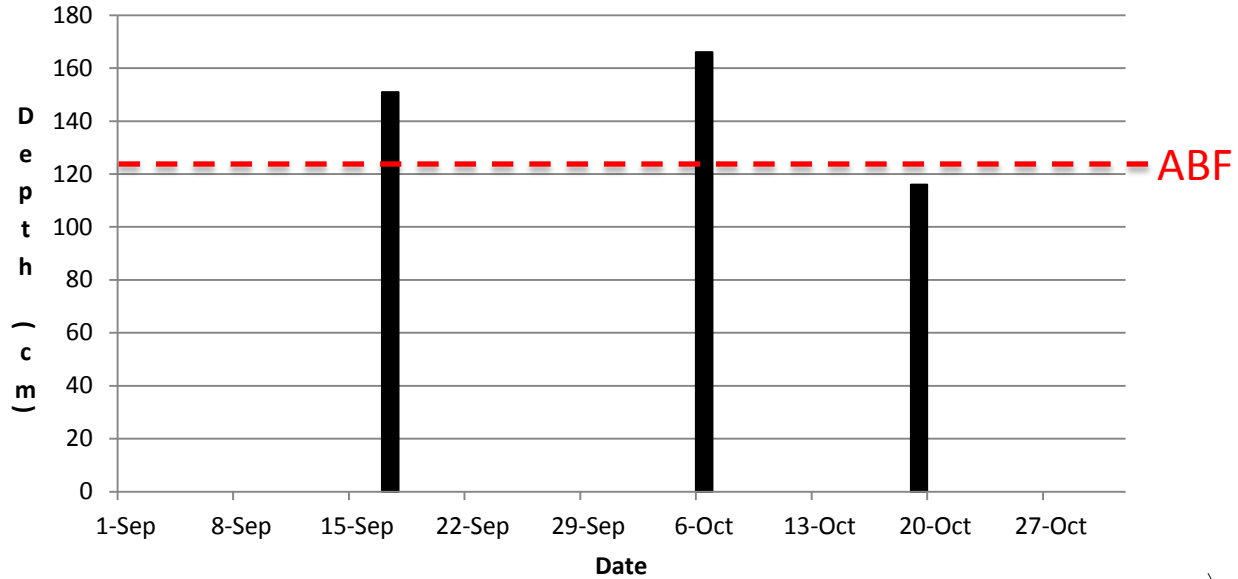
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- **ABF is 4 feet (121.92 cm)**
- **The 4 ft level was developed and verified by elders and river users from the ACFN as a reasonable approximation of water depth needed to get on step and travel with confidence in a fully loaded boat with outboard motor.**
- **Part of the CBM program goal was to test the appropriateness of this ABF**



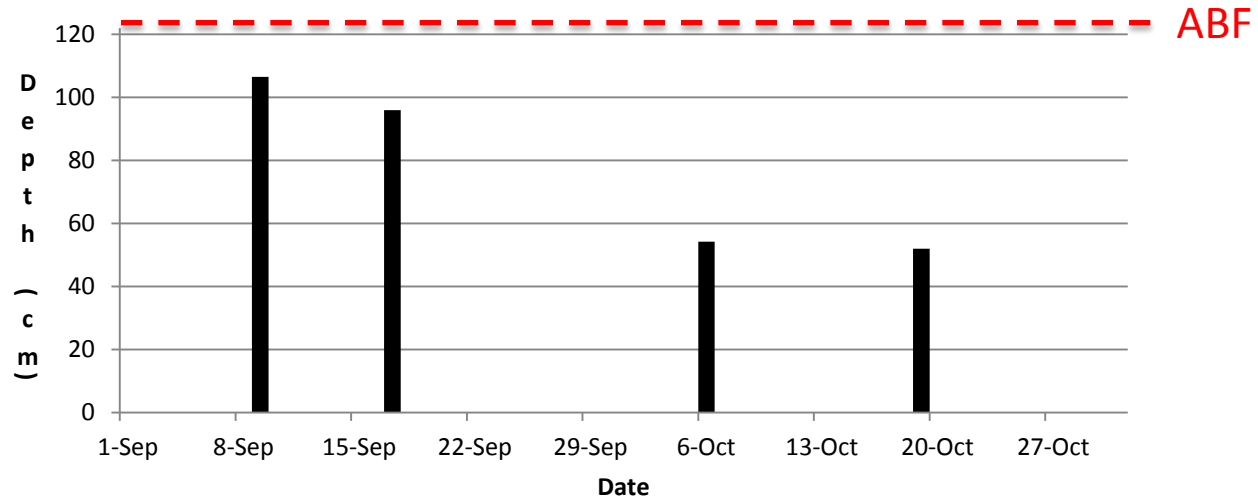
# Water Quantity Results

## Depth of Goose Island Channel

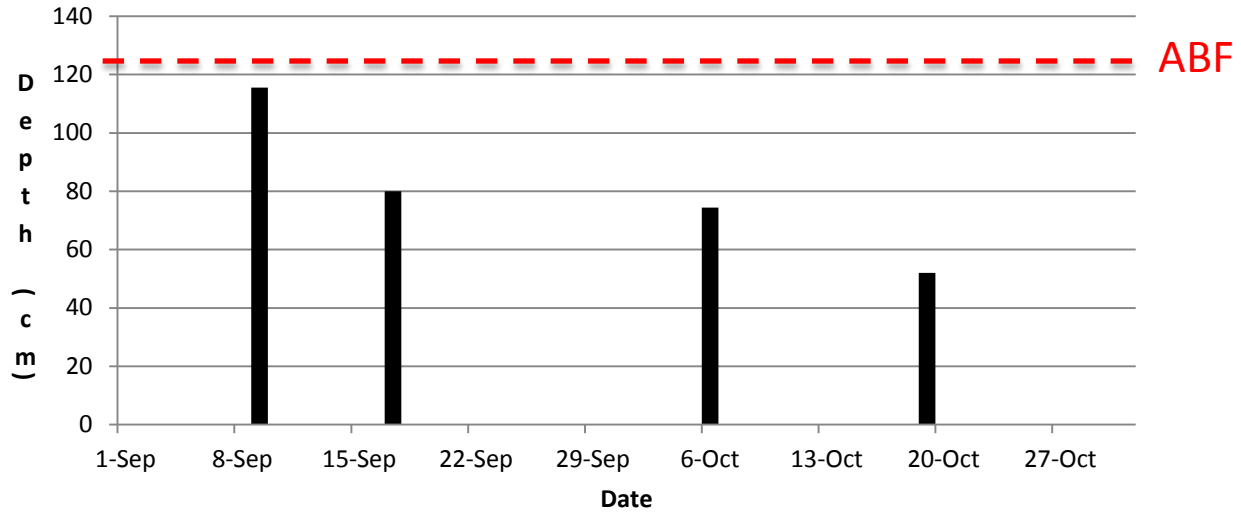




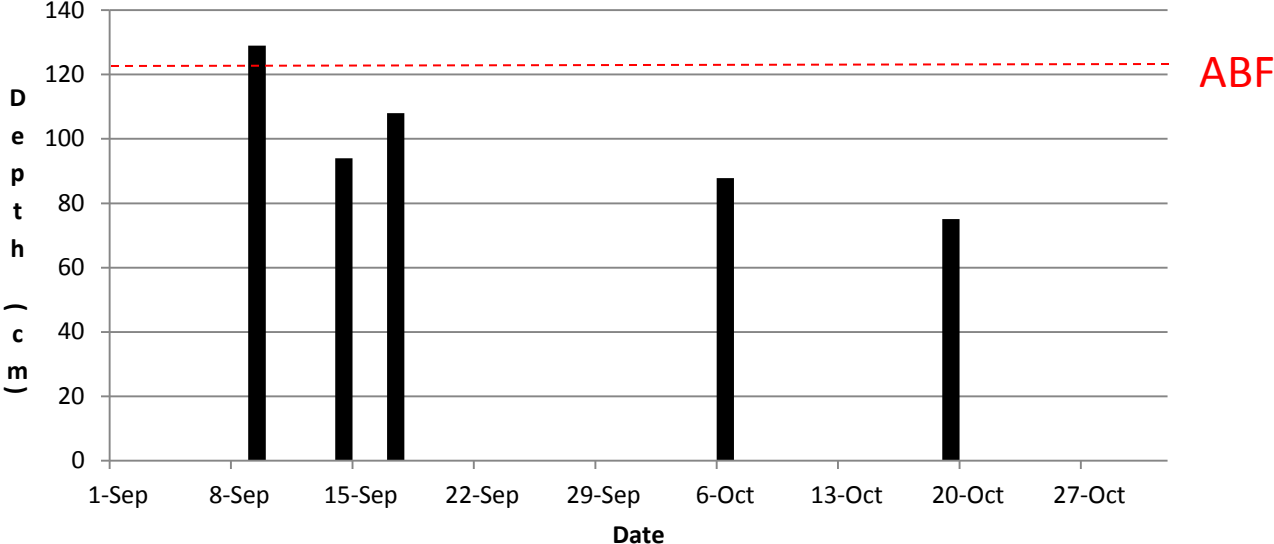
## Depth of Channel at Flower Bay



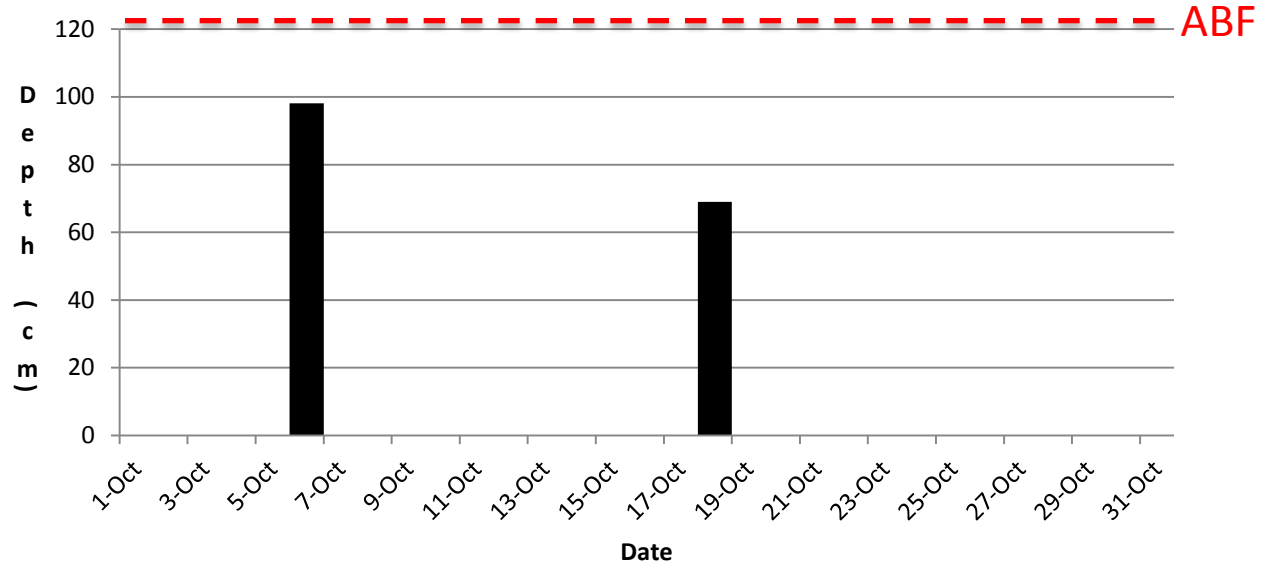
## Depth of Channel at Mabel Creek



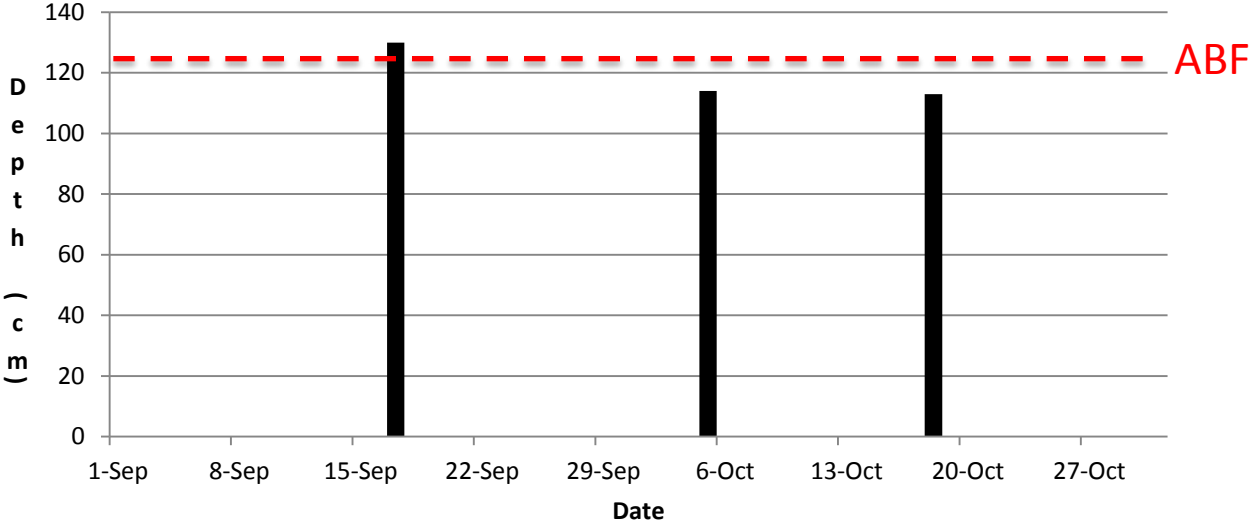
# Depth of Channel at Keane Creek



## Depth of Channel at Richardson River

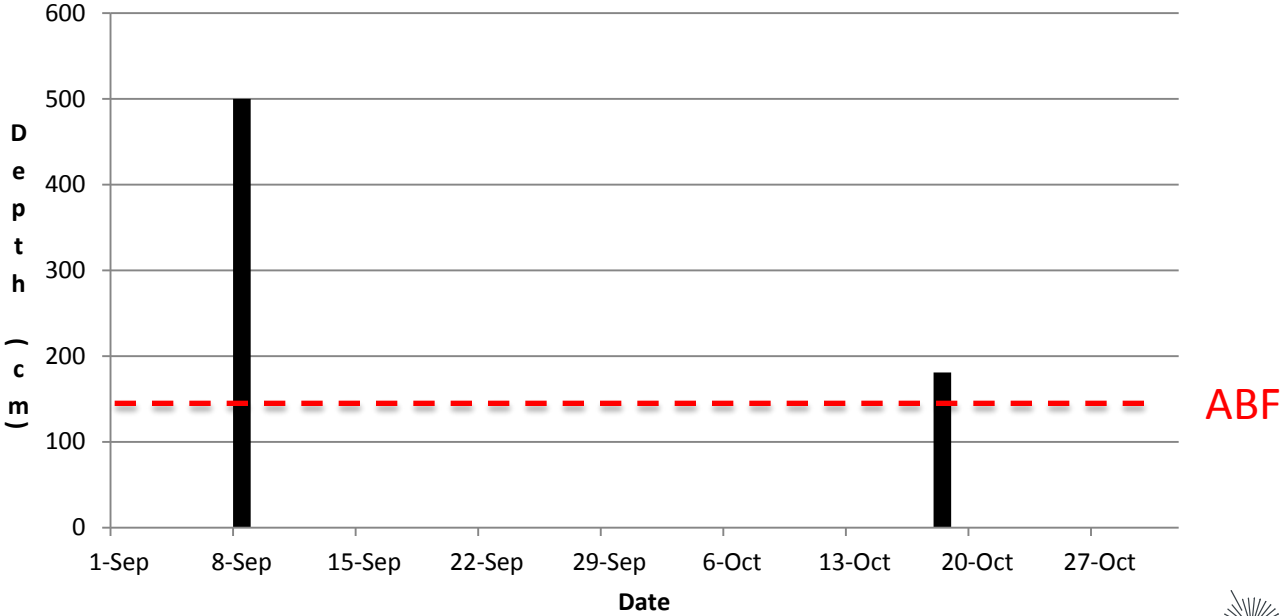


# Depth of Fletcher Channel





# Depth of Channel at Poplar Point



# Safety Concerns due to Low Water Levels

- Chief Alan Adam, after having hit a sandbar at Poplar Point

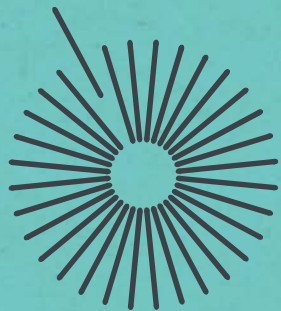


# Recommendations

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- **Determine the impacts of low water on treaty rights before further water withdrawal permits be granted.**
- **There is a water withdrawal threshold based on fish and fish habitat needs on the Athabasca. Why not one for navigational access as it relates to Treaty Rights? Why do fish have more rights in Alberta than First Nations? Traditional Knowledge and western science together affirm the reasonableness of the 4 feet as an ABF. This ABF needs to be established.**
- **Consider with equal weight and respect the Traditional Knowledge of the ACFN people. They are the real experts on the state of the Athabasca Delta. They also suffer all of the repercussions of poor development planning that ignores their wisdom.**

# Questions?



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