

Monitoring Remote Livestock Watering Systems



Funding

Growing Forward 2

A federal-provincial-territorial initiative



Background

- Remote Watering System reliability is identified as a barrier to adoption
- System monitoring can increase confidence and encourage producers to adopt the technology



Objectives

- Identify existing alarm systems that can be adapted for remote livestock watering sites
- Evaluate and demonstrate a small selection of systems
- Create a fact sheet for producer awareness



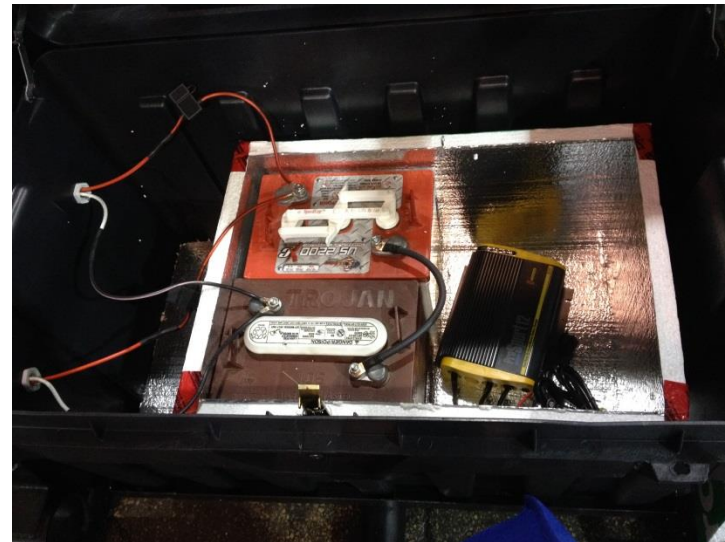
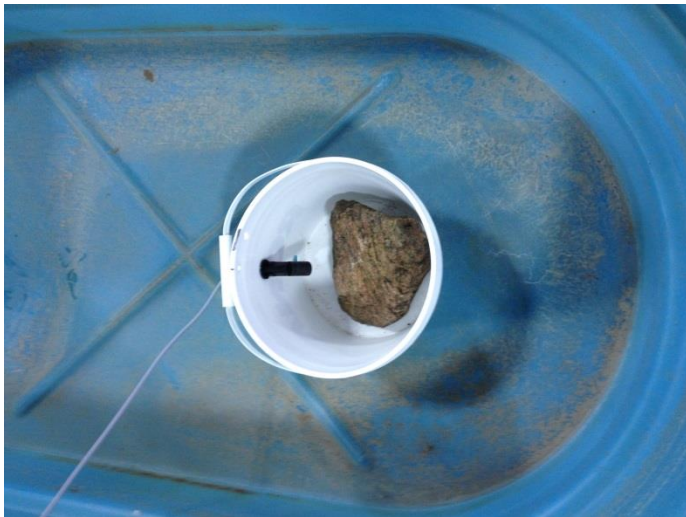
Benefits

- Makes the remote watering system more reliable
- Reduces the frequency of the producer having to physically check the system
- Gives peace of mind



Monitoring Parameters

- Low Water Level
- System Battery Voltage



Alarm Systems

- Line of Sight (Beacon Light)
- Cellular
- Satellite



Beacon Light Monitor

Lights up and flashes the beacon light when system experiences an alarm condition

Advantages

- Low cost
- Easy to design and install

Disadvantage

- Alert effectiveness is limited to line of site



Cellular Monitor

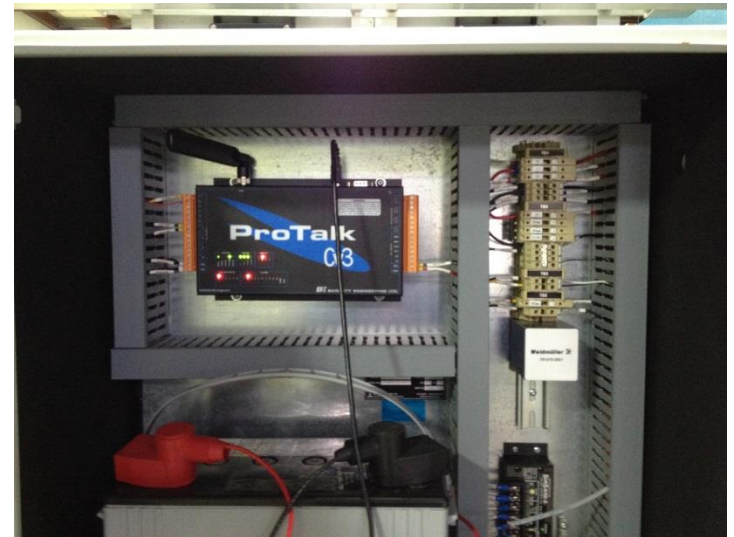
- Requires producer to have a cell phone
- Sends a text message when the system experiences an alarm condition

Advantages

- Easy to use interface
- Lots of user control to customize settings
- Several alert method options

Disadvantages

- Expensive
- Limited to cellular service areas
- Monthly cellular contract charges
- High power requirements



Satellite Monitor

- Requires a smart phone to be effective
- Sends an email when the system experiences an alarm condition

Advantages

- Less expensive than the cellular system
- Better remote service coverage than cellular
- Low power consumption
- Simple to set up

Disadvantages

- Less intuitive user control than cellular
- Requires external setup
- Monthly satellite contract charges
- Fewer alarm notification options than the cellular system



Status

- Working with county Ag Extension staff to identify producer stakeholders
- Demonstrating alarm systems on producer watering sites
- Developing a fact sheet for producers



Producer Feedback/Observations

- Increased confidence in the watering system
- Saves time in reducing the frequency of site visits
- Peace of mind knowing the remote waterer is okay
- Float for low water level has potential to freeze into the ice



Outcomes

- Producer factsheet on alarm systems
- Possible producer funding for alarm system purchase through Growing Forward
- Raise awareness for alarm system potential



Contact Information

Ken Janzen

Project Technologist

Alberta Agriculture and Rural Development

Tel: 403-329-1212 Ext 231

Email: ken.janzen@gov.ab.ca

