Ice Pigging: A NEW APPROACH TO CLEANING PRESSURISED PIPELINES

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Agenda

- Introduction
- What is ice pigging
- How we deliver our service
- Blackwater Water, Central Highlands Regional Council
- Macksville, Nambucca Shire Council
- Summary of benefits



the best and most cost effective method for removing

sediment,

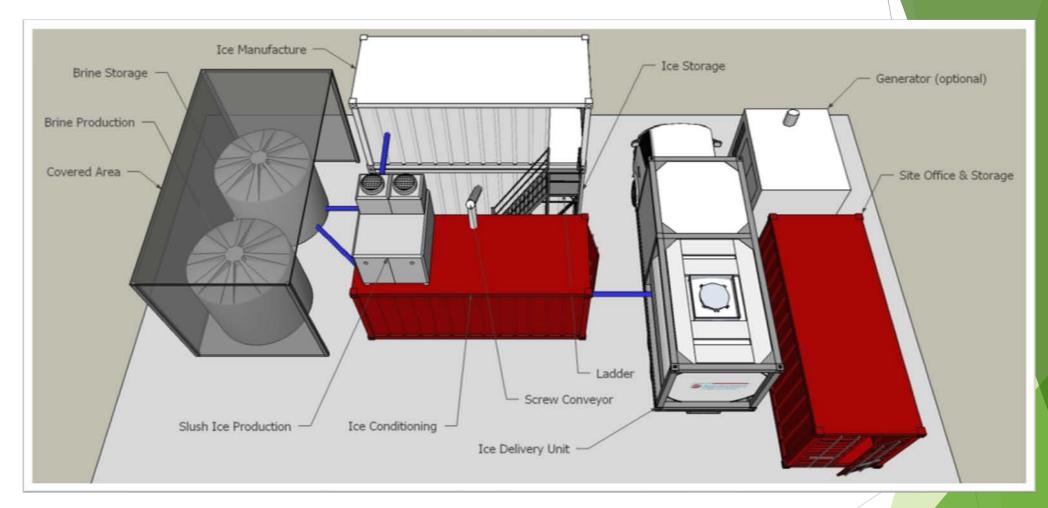
biofilm and

loose material

from pressurised pipes







Portable ice making facility

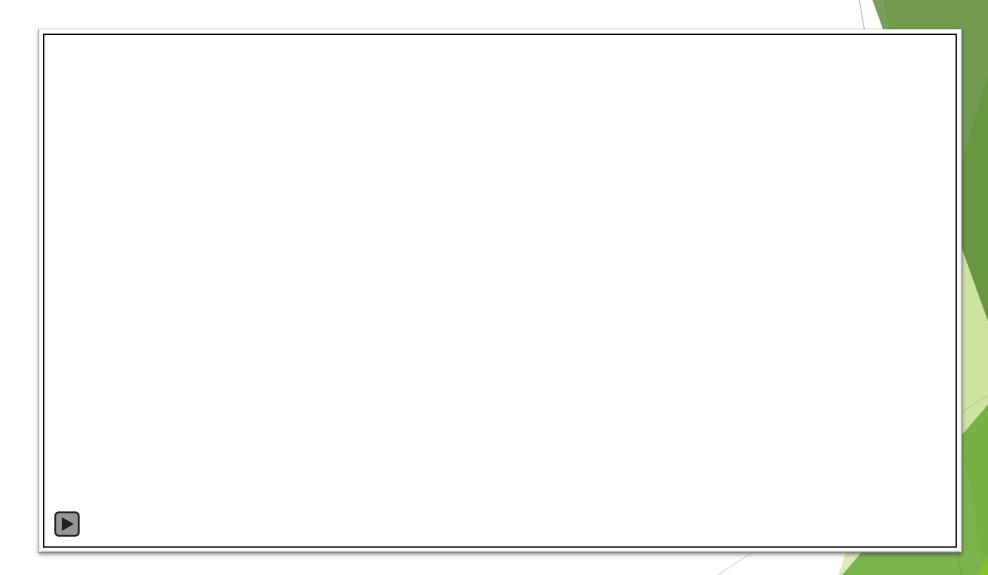


Ice Delivery Truck

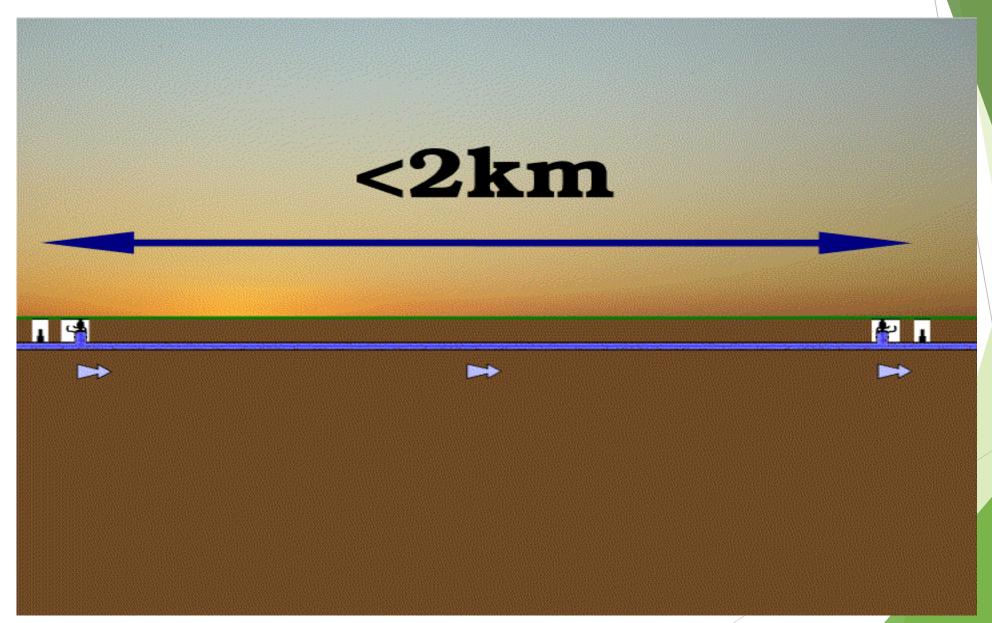
- ► Flow
- ► Pressure
- ► Conductivity
- **▶** Temperature
- **►** Turbidity



How does it work?

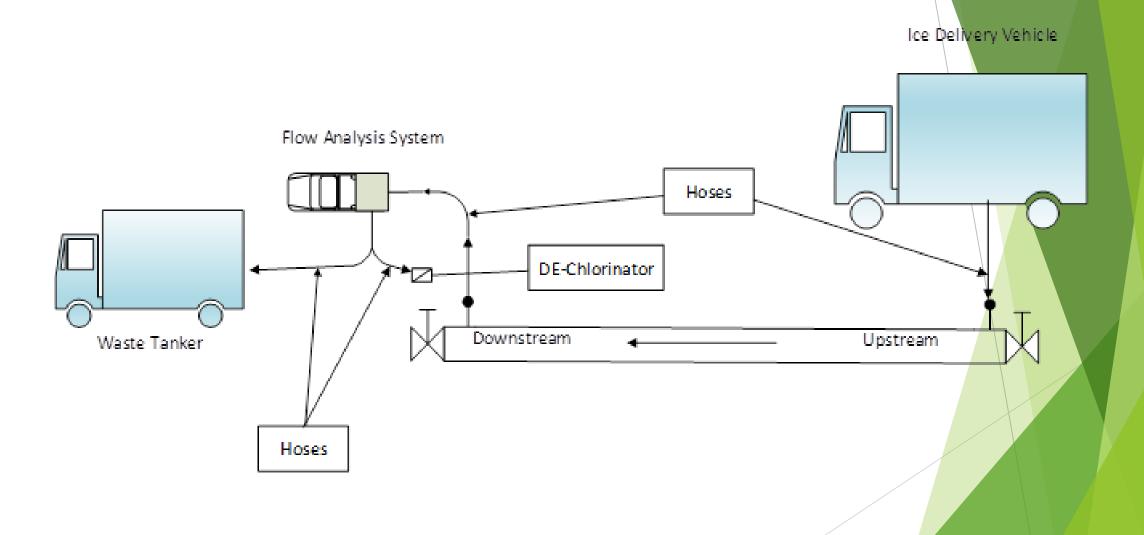


How does it work?



▶ Does it work?





Central Highlands Regional Council

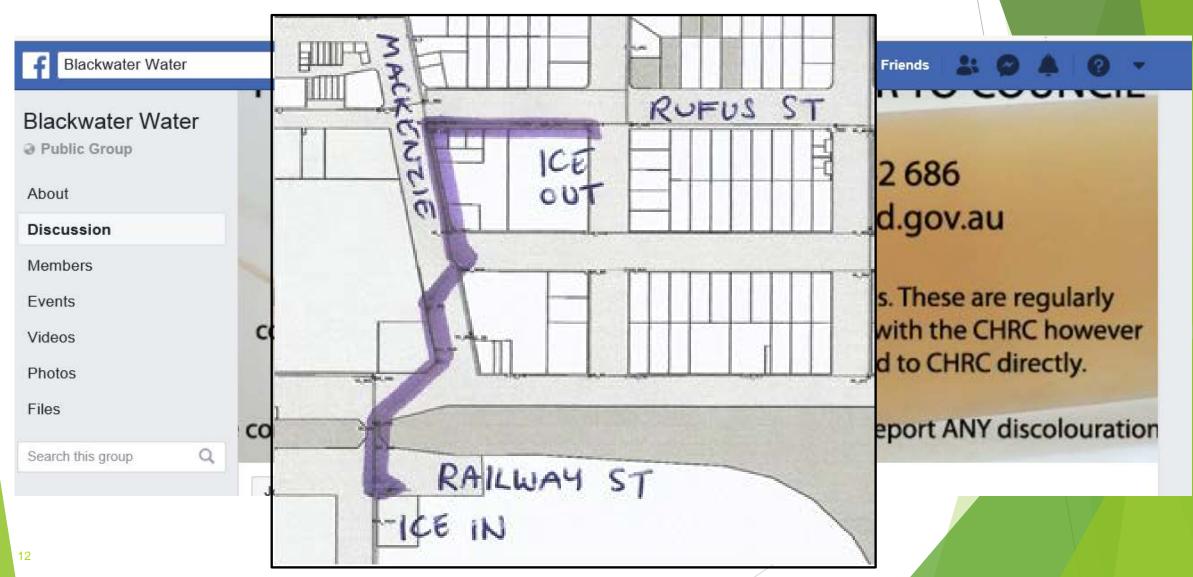


Blackwater QLD – 72.9KM in 2015



Central Highlands Regional Council

Blackwater QLD





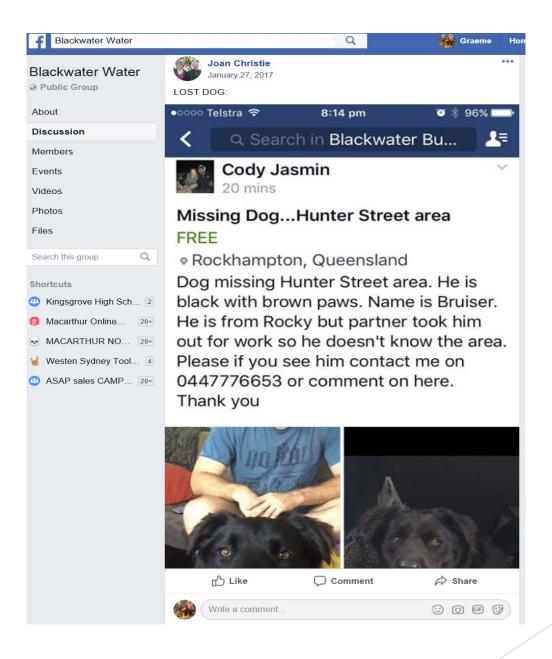
► Central Highlands Regional Council

CHRC

Blackwater QLD

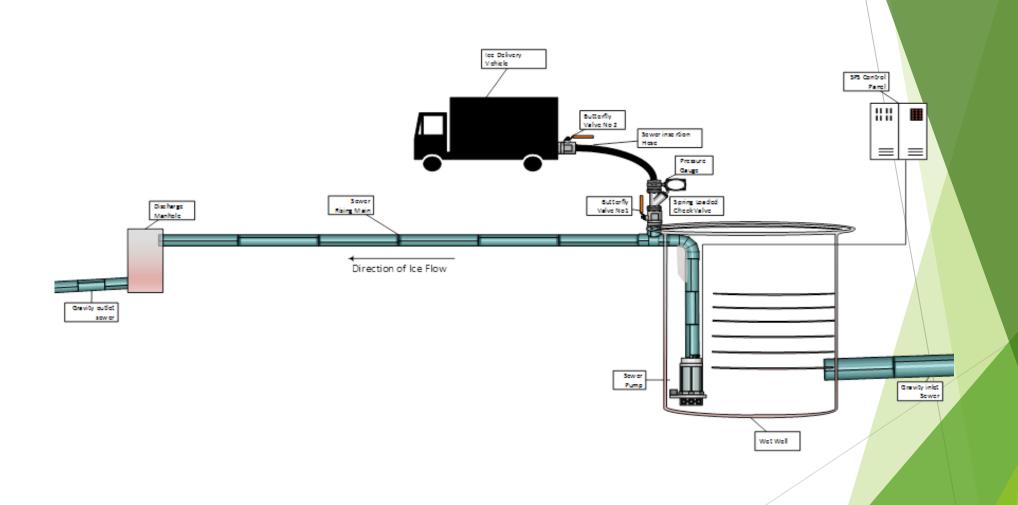
Sample #	Time (s)	Flow Rate (I/s)	Temp <u>(</u> ° C)	Sample Mass (g)	Sediment Mass (g)	Sediment Conc. (g/l)
1	14:23:00	13.2	19.6	323	0.3	0.93
2	14:24:00	13.1	17.4	326	0.3	0.92
3	14:25:00	13.1	13.4	337	0.3	0.89
4	14:26:00	13.3	8.8	350	0.4	1.14
5	14:27:00	13.2	5.6	320	0.5	1.56
6	14:28:00	13.3	3.5	339	0.9	2.65
7	14:29:00	13.3	2.2	308	2.7	8.77
8	14:30:00	13.4	-2	342	1.7	4.97
9	14:31:00	13.4	-2.8	376	2.4	6.38
10	14:32:00	13.4	-3.5	332	1.3	3.92
11	14:33:00	13.5	-3.4	326	1.2	3.68
12	14:34:00	13.5	-3.4	326	1	3.07
13	14:35:00	13.3	-3.3	326	0.7	2.15
14	14:36:00	13.5	-2.4	326	0.2	0.61
15	14:37:00	13.5	4.4	337	0.01	0.03
Sediment Removed (kg):			33.39	Sediment Removed per km (kg): 66.78		

Outcome





Ice-pigging sewer rising mains



Nambucca Shire Council





► 670M X 100mm diameter UPVC & Cast Iron pipe

Nambucca Shire Council





► Before - 3.5 I/s After - 9 I/s

suez

Thank you for your attention!
Questions?

