

# GSHPA Standards Development

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## Content of this presentation

1. The need for standards
2. The importance of writing our own standards
3. Standards published to date
4. Standards underway
5. Feedback on published VBS

## Why have our own Standards?



## **GSHPA Standards published**

1. Vertical Borehole Standard (VBS)
2. Published September 2011
3. TSC Rep Responsible – Andy Howley
4. Thermal Pile Standards (TPS)
5. Published October 2012
6. TSC Rep Responsible – Duncan Nicholson

## **GSHPA Standards underway**

1. Shallow Ground Source
2. TSC Rep Responsible – John Barker-Brown
3. Open Loop Standards
4. TSC Rep Responsible – John Findlay

## **“Vertical Borehole Standard”**

**3 years in the making and 2 years in the field**

- Started in December 2008
- At least 10 revisions and different drafts
- Consultation included all members, consultants, clients, BDA, WDA FPS and many more stakeholders
- Published in September 2011
- Integrated into MCS

## What's in it

- Materials details
- Competency requirements
- Working practices
- Quality control of the installation
- The first standard produced to provide a framework for all other standards to follow

## Is it being implemented? What should go through revision?

- Huge pumps
- Use of MEG
- “Sharp” materials for backfill
- Backfill poured from surface





## What else should be included?

- Details on services searches
- More clarity on suitable granular backfill
- More work on thermal transfer fluids



## Please Share !

- Your experiences in trying to implement the standard
- Issues you may have seen on other projects where standards were not followed
- Any suggestions for any of the standards you are about to hear about