

# Electronic Sanitary Survey and Lessons Learned

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# Maine History

- 2003 EPA Drinking Water Academy began piloting the ESS with New England states (EPA Region 1)
- Supplied each state with a PDA
- ESS Software
- EPA created comprehensive question set containing over 2000 questions.

# History Continued

- Remainder of 2003 into 2004 piloted ESS and created question set for Transient systems.
- Learned quickly 2000 questions was not doable in the field
- Created a Transient question set with 100 questions. Designed for campgrounds restaurants etc.

# History continued

- In 2005 Field staff of 6 met 3-4 times to create an NTNC/Small community question set.
- With 2 inspectors using software 46 ESS inspections were completed. Continued use of the PDA
- In 2006 each field inspector was asked again to look at question set and add or delete questions
- With one active field inspector using software 32 ESS inspection completed.

# History continued

- 2007 field staff agree question sets are workable. 5 additional PDA's were purchased. Began implementing ESS Field Desktop with 5 additional inspectors in 3 satellite offices
- 67 ESS inspection completed that year.
- Field Desktop brought it's own unique challenges:
  - Loss of independence to create own sanitary surveys
  - Having to rely on someone else

# History Continued

- Cumbersome process – ESS-local drive – C drive – local drive – ESS
  - Not very well excepted
  - More time consuming
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- In 2008 inspectors continue to work through the challenges completing 73 Electronic sanitary surveys

# History Continued

- In August? Of 2008 move from SDWIS 8.0 to SWDWIS web. No longer able to use ESS
- ESS web not finished development until December 2008.
- 2009 - Spend next 4 month piloting new version
- Created large community question set.
- One inspector begins testing the Tablet for use with the ESS

# History Continued

- All other inspectors required to use ESS paper question sets in the field at a bare minimum.
- 210 sanitary surveys created so far in 2009
- Maine has worked with the ESS now for 7 years and we are still working to develop and improve the technology

# Lessons learned

- **IT person is absolutely necessary**
- Must have a question set that works for your state and field inspectors. Took us 7 years to develop the 3 question sets. As we use it more we will continue to improve them with new rules etc.
- Inspectors using an electronic device in the field – personnel differences – light issues – my hands are too big for PDA – not water proof – battery dies in cold weather
- Loss of natural conversation between operator/inspector. Looking at questions not the operator – Learning process What questions do you really ask? Everyone? No --

# Lessons learned

- First time tablet used at a small MHP vs Large community system
- MHP – holding tablet entire time – got heavy – no place to sit in small pump house – felt uncomfortable taking computer to such a small system – strange looks when they see the tablet.
- Utility – much more comfortable feeling – office to sit and answer several questions - more widely accepted by systems – think it is a good idea

# Future

- Electronic is where everything is going (Paper processes are going away)
- Every inspector will have a tablet???
- The ESS is the only software Maine will be using. It has to work and continued support will be crucial

# Future Continued

- Citrix – implement for satellite offices so they have the independence to use the ESS when they want and need to.
- Maine is currently transferring all our hard files to electronic files. Sanitary Surveys are and will be no different.