

# Field Data Collection: Meeting Users Where They Are At

1. Our Most Successful Collect Forms.
2. A Not So Successful Collect Form – But a good learning experience.
3. More Collect Form Requests, BUT....
4. Finding the Right Solution for Everyone's Requests
5. Skill Set Requirements For Successful Deployment of Collect Forms

# Our Most Successful Collect Forms

8:41

WWW Static WLS - July 2... Map Reports

Search text Cancel

Sample (0) New

Gauging Event (0) New

LocRef (289) New

8:42

WWW Tannery DF072523 Map Reports

Search text Cancel

Sample (0) New

Gauging Event (0) New

LocRef (90) New

## Gauging & Low-Flow Sampling Collect Forms

- Prepopulation
  - Form/Subform – Sample/Results
  - Lots of Error-Checking
  - Use Stabilization Functions
- 
- Eliminated paper forms.
  - Helped determine stabilization.
  - Visual cues – users love that.
  - Submitted data easily reported back out for internal/external purposes.

# A Not So Successful Collect Form

Location

- Lithology\_Subform
- Lithology\_Notes
- Well\_Constr\_Hardware
- Well\_Costr\_Backfill
- BlowCounts

+ New Sub Form

DrillPhotos

+ New Sub Form

LocRef

+ New Sub Form

+ New Form

- GZA acquires Water Well Drilling Company.
- Create very detailed form for logging drilling data.
- Create very detailed well log template with EnviroInsite.
- Gazillion reference values and hours (days?) creating lithology graphics in EnviroInsite.
- Sorting of all records to help user mentally “visualize” the resulting well log.
  
- Semi-adoption of data entry
- Continued data entry errors – users kinda got it but couldn’t totally grasp all the required nuances – teaching drillers how to log their wells as per EQulS schema and and EnviroInsite requirements.
- No real well log visualization within Collect.
- Collect Forms – Missing data editing feature - Once data was submitted, needed Data Manager for corrections (very frustrated users).
- Very frustrated developer (me)
  
- **Hoping new Geotech module overcomes these issues.**

# More Collect Form Requests, BUT....

## Gauging and Low-Flow Forms are a hit

- Eliminated paper forms.
- Helped determine stabilization.
- Visual cues – users love that.
- Submitted data easily reported back out for internal/external purposes.

## BUT..

1. Lots of new requests for data entry forms where the data doesn't fit into any EQUIS table.
2. A bunch of our data management crew want to learn Collect and get in on the action – Training program is needed.

# Resolving the Problems

## **Issue #1a – Data doesn't fit into any EQUIS table**

- Data was primarily text and/or paragraphs of text – multi-page residential survey.
- Even if this type of data were forced into some table, reporting it back out was a problem.

## **Solution:**

- Quire Field Data Collector – has been very successful for text data entry and reporting.

# Resolving the Problems

**Issue #1b – Field observations and measurements related to structures.**

**Solution:**

- ArcGIS Field Maps – Mapping feature, measuring feature, data collection feature where any number of fields can be created and typed as needed.

# Resolving the Problems

## Issue #2 – Training Program

### Solution:

- Started a Collect – 101 program of general concepts and required skills to successfully deploy Collect Forms.

# EQuIS Collect – 101

## General Concepts Required Skill Set



# What is EQUIS Collect?

## How It Works



Data Collection Forms



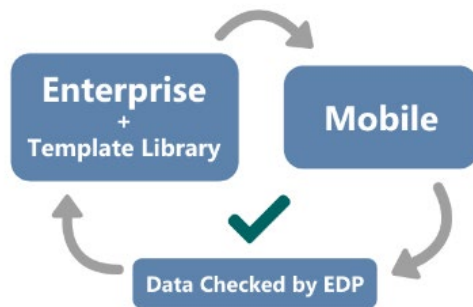
Collect Data in Field



Upload Data to EQUIS

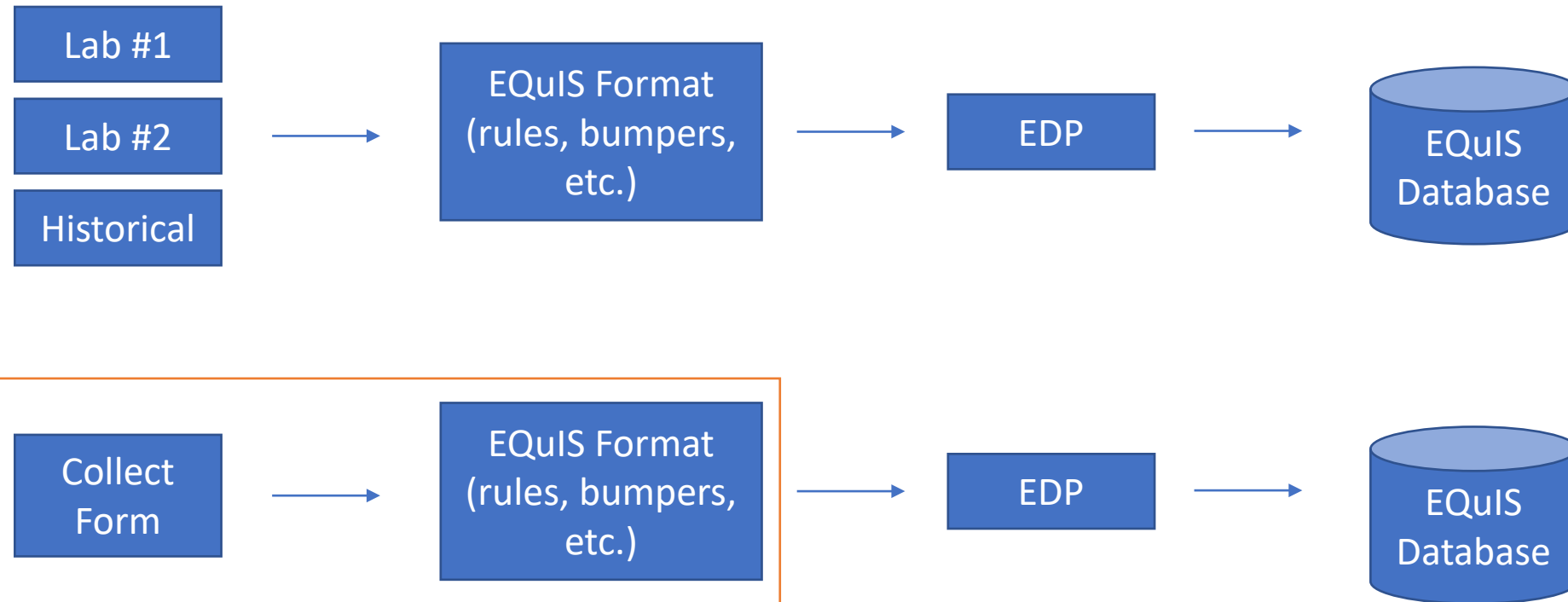


Use Data and Review Analytics



1. A data collection form is created in EQUIS Enterprise.
2. The form is pushed out to a mobile device (phone, tablet, laptop).
3. Data is collected in the field.
4. The populated form is submitted to EQUIS.
5. The data is checked by EDP (EQUIS Data Processor), then uploaded to the database.
6. The data can be reported and/or used for analytics/visualization.

# Flow of Data (Lab vs Collect)



- EDGE Format
- Collect Inspection Format
- All formats can be attached to a form.

# Example

### Gauging Event Form

2:48 | Cancel | Editing | Save

Location: B-11: B-05

Measurement Date:  **Required**

Well Dry?:

LNAPL Depth:

Water Level Depth:  **Required**

Measured Depth of Well:  **Required**

Remarks for Location:

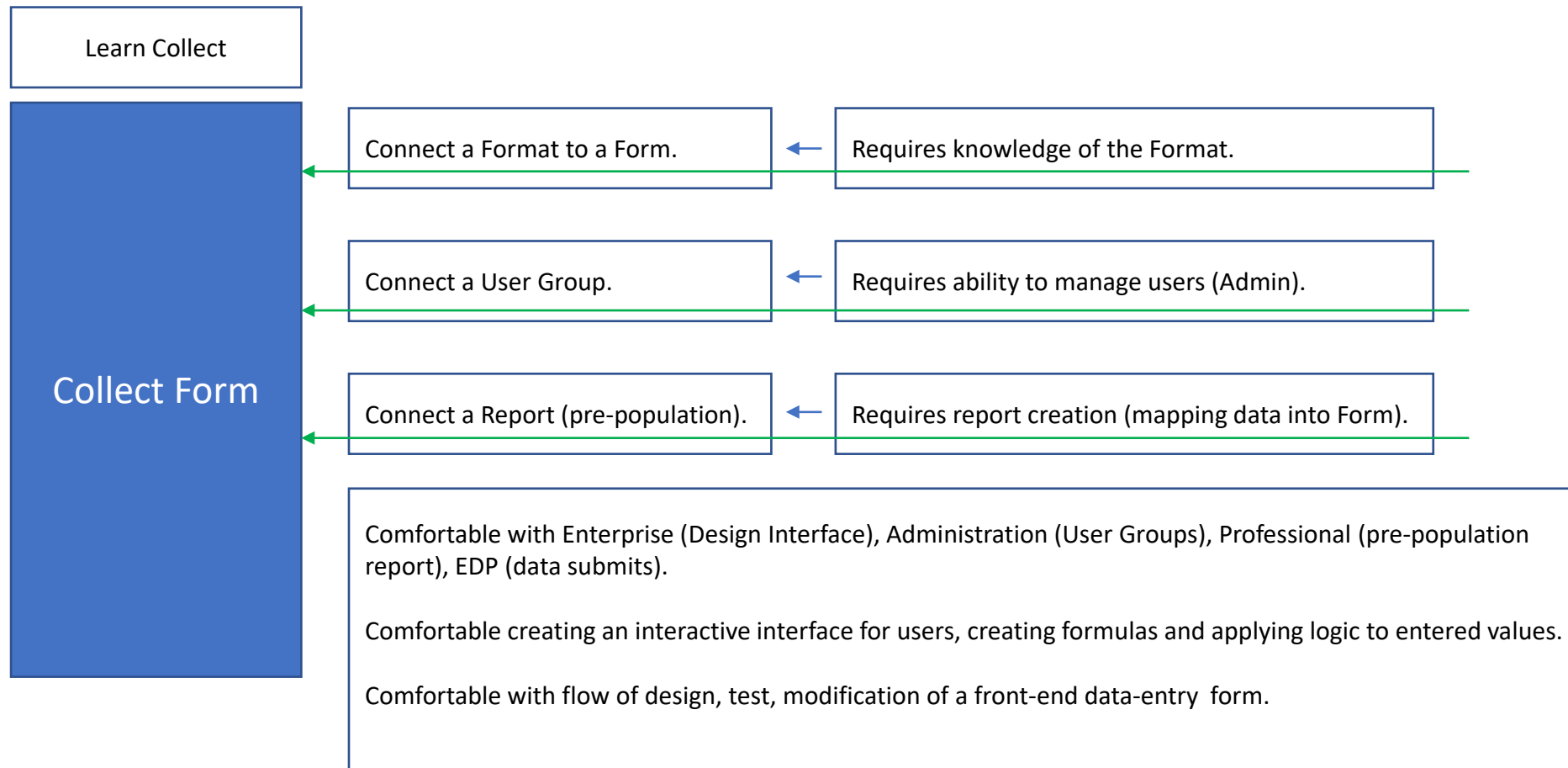
Excel Screenshot: EDGE\_7.22.1\_Blank.xlsx

	A	B	C	D	E	F	G	H	I	J	K
1	#sys loc code	measurement date	historical_reference_elev	water_level_depth	water_level_elev	corrected_depth	corrected_elev	measured depth of well	depth unit	technician	dry_indicator_yn
2	#Text(20)	DateTime	Numeric	Numeric	Numeric	Numeric	Numeric	Numeric	Text(15)	Text(50)	Text(1)
3											
4											

EDGE Format is connected to the Collect Form.  
Data Entry fields on Collect Form are mapped to a Field on a TAB (WaterLevel\_v1).  
Submit Data Button – Data flows from Form --> Format --> EDP --> Database.



# Layers of EQUIS Knowledge/Skills



# Layers of EQUIS Knowledge/Skills (cont)

Comfortable designing data entry forms – having the ability to take paper data entry forms or someone’s idea of data entry and translating that into a user-friendly data entry work-flow.

I can attribute my ability to do that from years of creating Microsoft Access forms. Over time, just developed a knack for doing that. And then adding in all the bumpers needed to keep the user on track and the data clean.

A programmer’s background lends itself well to using Collect.

Encourage newbies to read and reread the documentation.

Encourage newbies to watch and EartySoft training videos.

We will see where all of this goes for building a team of Collect Form developers.