DATA FROM FIELD TO DATABASE: ELECTRONIC FIELD APP

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WHAT ARE THE NATIONAL AQUATIC RESOURCE SURVEYS?

A nationwide probabilistic study that create regionally relevant data to address the following:

**Extent of healthy waters.** What is the extent of waters that support healthy biological condition, recreation and fish consumption?

**Impact of stressors on aquatic life.** How widespread are major stressors that affect biological condition, and which are most strongly associated with poor biological condition?

**Change over time.** Are conditions of our waters getting better, worse or staying the same?
HUMBLE BEGINNINGS

• Initial app was piloted in NLA 2012 with versions used in NRSA 2013-14, NCCA 2015 and NWCA 2016
• Developed for Windows, Android, and iOS
• Users provided their own tablets
SOLUTIONS

• Starting in 2017 – iPad Air 2
• Easier to troubleshoot problems when only dealing with one app and all using the same device
• App was built only in iOS by contractors- General Dynamics IT.
• During the first year using iPad
  • Over 90% data submission via the app
  • Time savings – field and office
  • Less transcription errors
HOW IT WORKS: DEMO OF THE APP

Crews enter data into the app during field collection:

- Each page can be saved separately
- Can use multiple iPads per site to make collection quicker

Once the crew submits the data (via WIFI), the data goes to our NARS IM:

NARS IM returns the data in a JSON file for crews to review for accuracy to their e-mail:

- Any changes they submit are automatically updated in NARS IM
WHERE DO WE GO FROM HERE?

- On the ground, real time fixes being applied to the app
- Solicitation of suggestions from field crews who use the app regularly to streamline data collection
- New inclusions in 2019:
  - Q/A features in app prior to submitting data
  - More info buttons/graphics
  - Thinking outside of the app: using R Shiny to look at raw data as well as create instantaneous landowner reports
QUESTIONS

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