Introduction and Project Goal

Me:
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My Goal:
- Provide a summary of the water resources for each of Louisiana’s 64 Parishes.

Water Resource Literacy

- There is a clear need for an increase in general hydrologic/water resources literacy. Water topics have been a focus of news, policy, and general discussion in the past few years:
  - Hurricanes Katrina, Sandy, Harvey, etc.
  - California drought
  - Flint, Michigan

History

- Water-resource summaries for most of Louisiana’s parishes were published during the 1940’s to 1970’s.
- Updates needed

Problem

- Parish (same as a county) boundaries do not necessarily correspond to the study areas for the many reports which are available.
- Basic information for a parish therefore must be gleaned from multiple reports.
- Older reports use different terminology and often are difficult to locate.
- Oftentimes interested parties are not scientists/engineers, and simply don’t have the time to synthesize the available literature

Problem

- A summary which is too short is very easy to digest but is not useful because it lacks content
- A summary which is too long can become practically un-useable if the reader does not have enough time to read and digest it
Solution: Brevity and Accessibility

- A concise (generally 6 page, but some 4 page) fact sheet with a broad reference base providing support for in-depth research
- Available in-print and online
- Broad in scope and audience
- Multi-format: text, 4 figures, 4 tables

Project Benefits

- Concise, free, and readily accessible knowledge for anyone taking part in water-resource stewardship and development discussions and decisions at a local level.
- Helps the reader to see groundwater and surface-water use, quality, and availability as a whole—avoids silo effect
- Very handy to bring to meetings
- Provides multiple references for readers who want more in-depth knowledge
- Advances USGS priorities of continuity in scientific knowledge in that it updates the reports that were completed up to 75 years ago
- Consistent template which allows for inter-parish analysis

Publication Tour

- Groundwater
  - Spatial aquifer descriptions and flow relationships
  - Grain size
  - Water levels, flow direction, recharge
  - Well #, type, depths, yields
  - Basic QW
  - Withdrawals
- Surface-water
  - HUC basin delineations (usually 6 or 8 digit) and major surface water bodies
  - Flow relationships
  - Streamflow data
  - GW-SW interaction, data depending
  - Basic QW
  - Withdrawals

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Current Status

- 44 fact sheets published
- 20 fact sheets remaining
- Current production rate is about 7–10 fact sheets (6 page) per year

Challenges

- Explaining the hydrology and water-use for a parish in 2500–2700 words.
- Requires wordsmithing to maximize the publication’s value without dumb-down, miscommunication, or losing scope
- Great experience for improving one’s communication skills in general, and especially if you are a professional who attends meetings with non-scientists/non-engineers.
- Managing 5 to 10 publications concurrently

Collegial Tidbits

- Organization is key for productivity and stress management
- Personal organization skills and project management software are crucial
  - Organizing from the Inside Out by Julie Morgenstern
- Microsoft OneNote is an extremely useful free-form journal for tracking daily details
- Always know where I’m at with each fact sheet even if I haven’t touched it in weeks
- Jot down quick notes from emails which may refer to multiple publications

Observations

- Received positive response to our news release a few years back
- The story showed up on NPR and 5 other Louisiana news sites
- Scientific culture:
  - Maybe recent attempts to reduce funding for scientific agencies are an indication that the scientific community and the wider culture would benefit from increased engagement in the form of fact sheet type publications in print, video, web, etc.

Questions

- Thank you to the Louisiana Department of Transportation and Development for their support

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