

ArcGIS Platform: Office to Field, Field to Office



Myron Shields Jr., Crow Tribe Water Resources Department
Tim Penfield, Bartlett & West

AGENDA

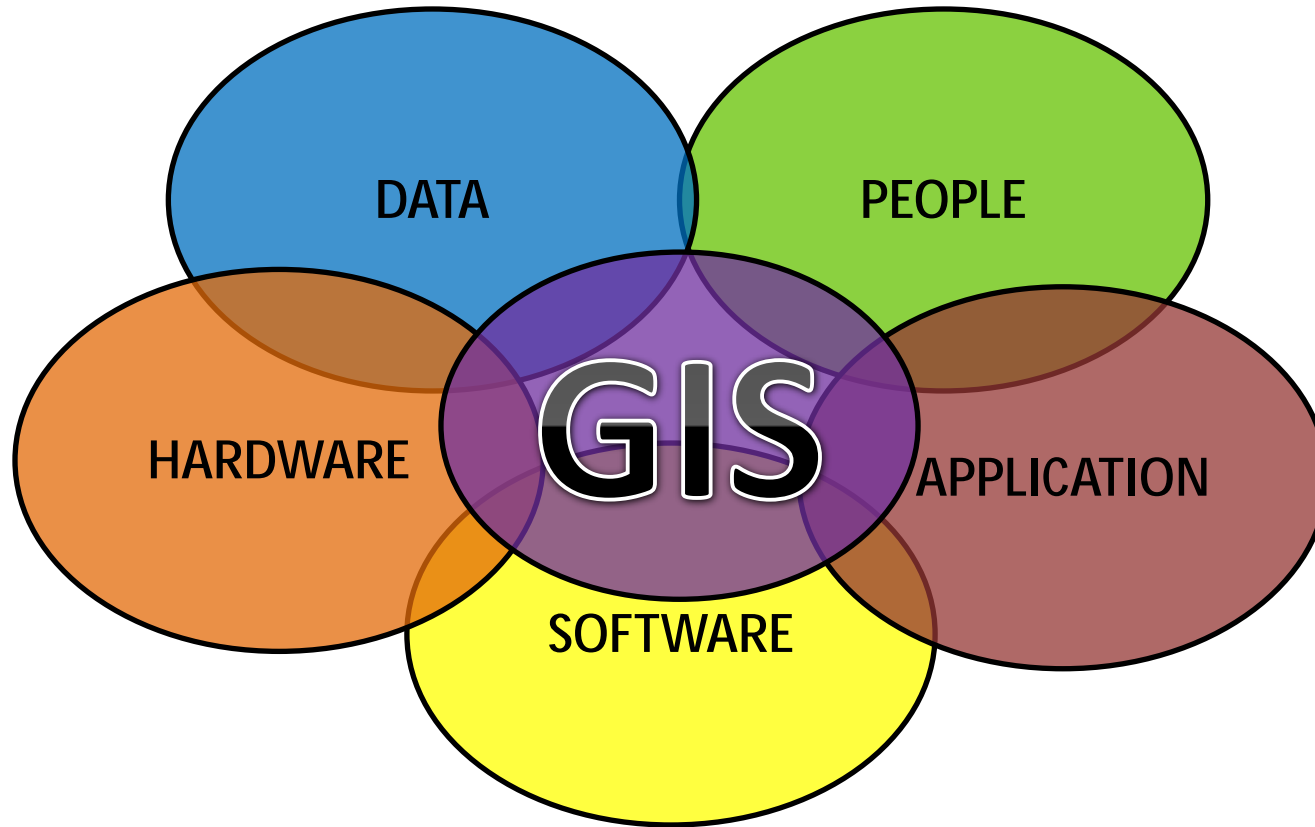


Resources

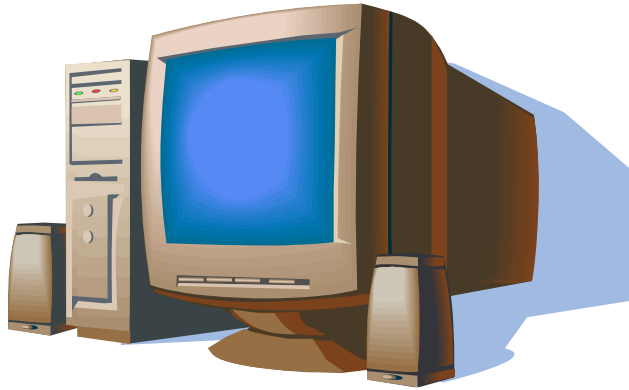
Project Background

Phases

RESOURCES



HARDWARE



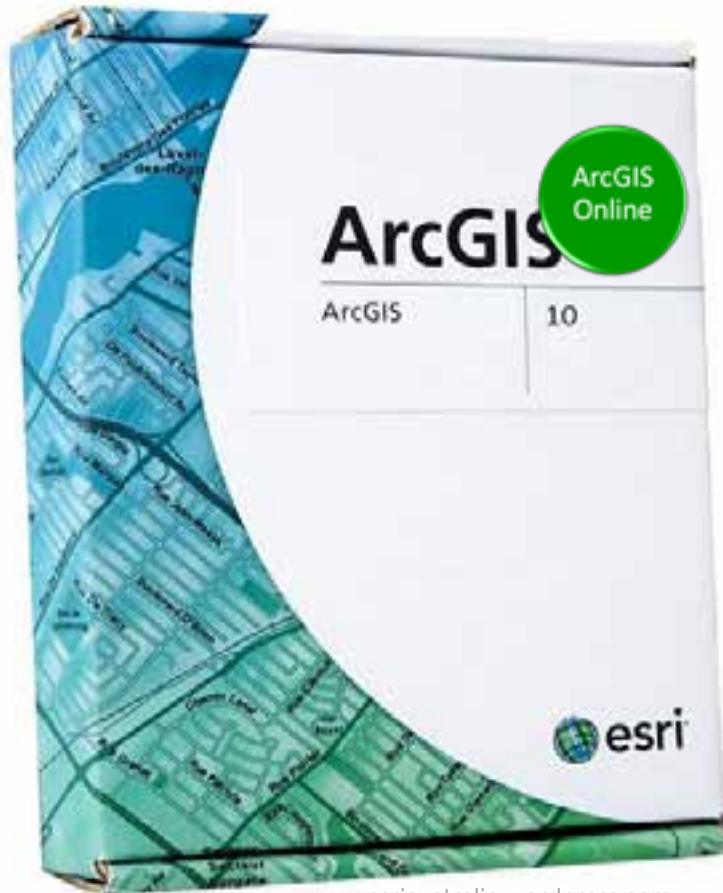
1. PC'S - Local Area Network (Cable)

2. LAPTOPS – Wide Area Network (Wifi)

3. MOBILE DEVICES – Cloud Based (Cellular)



SOFTWARE



www.esriaustralia.wordpress.com

Pads/Tablets
SmartPhones

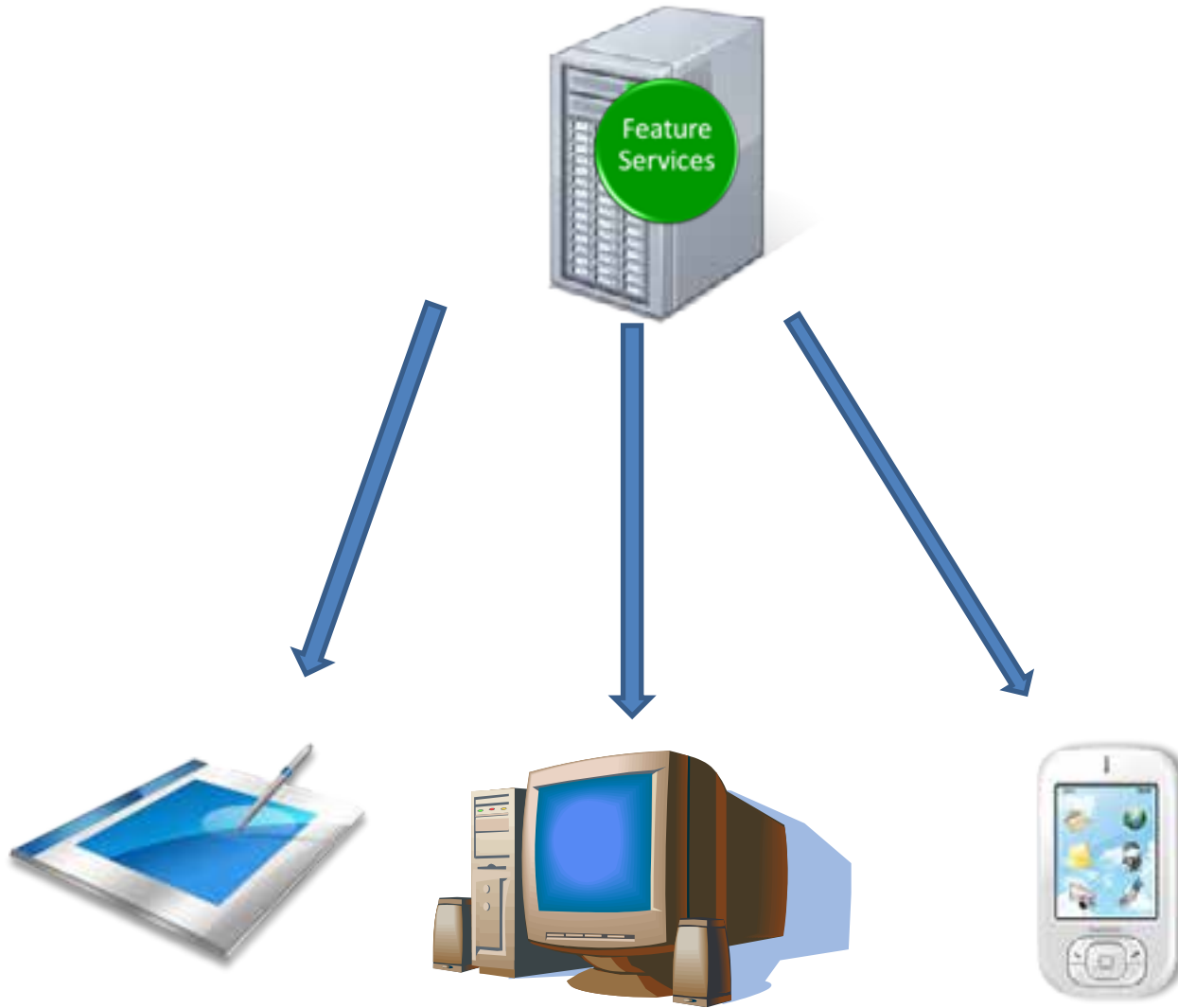
APPLICATIONS



Pads/Tablets
SmartPhones

ArcGIS
Online

DATA

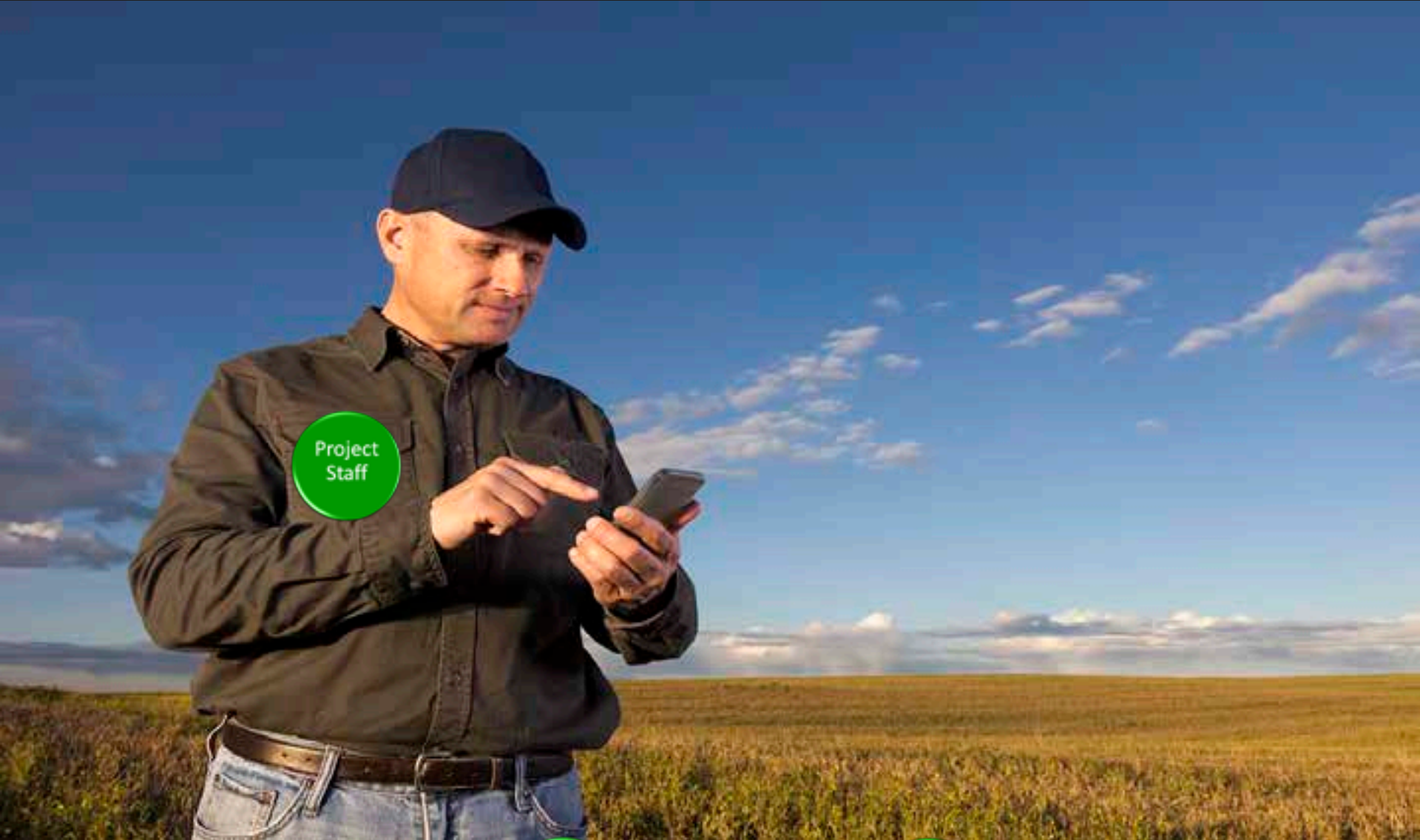


Pads/Tablets
SmartPhones

ArcGIS
Online

Mobile
Apps

PEOPLE



Project
Staff

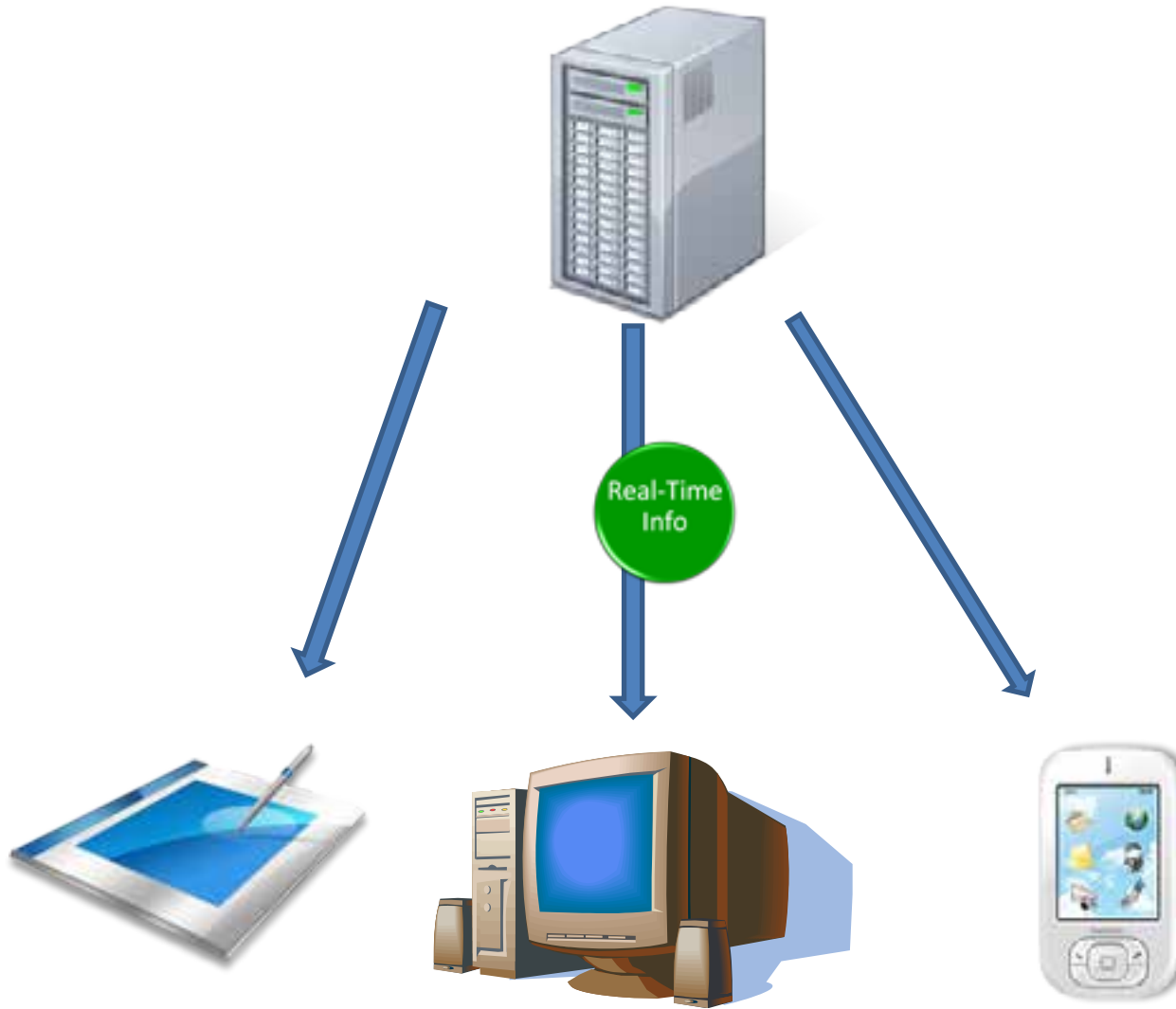
Pads/Tablets
SmartPhones

ArcGIS
Online

Mobile
Apps

Feature
Services

WORKFLOW



Pads/Tablets
SmartPhones

ArcGIS
Online

Mobile
Apps

Feature
Services

Project
Staff



Project Background

2010 Water Settlement

- Irrigation Project
- Water Project

IRRIGATION PROJECT

1. History of System
2. Purpose of Project

A Story Map
to
Completed
Projects

WATER PROJECT

1. History

A Story Map

2. Purpose of Project

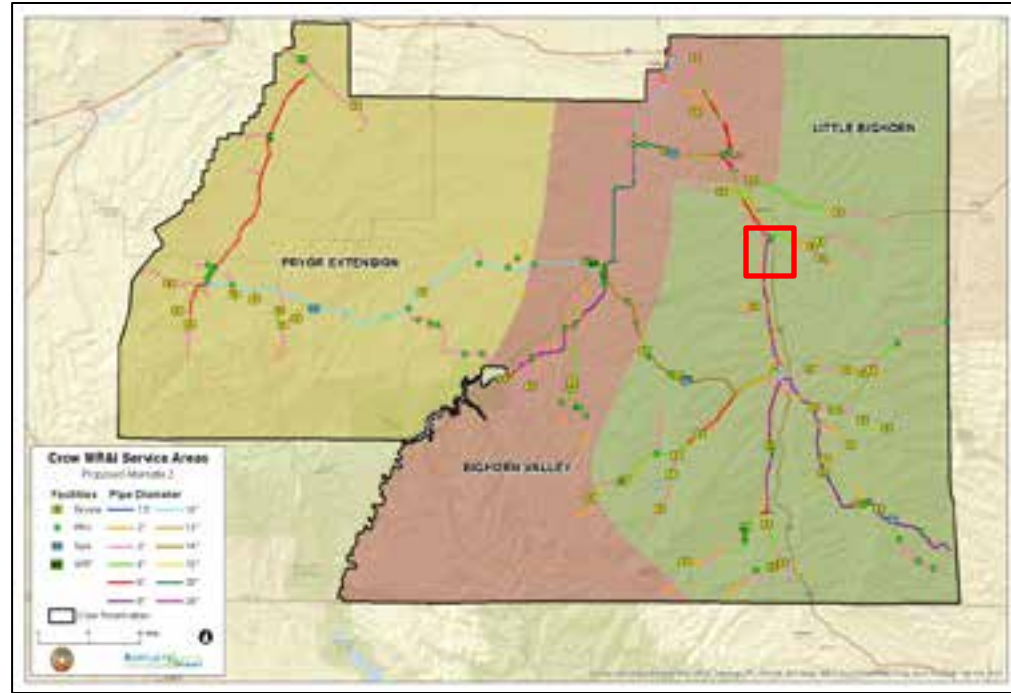
to

Project

Phases

Project Scope

1. Planning
2. Design
3. Right-of-Way
4. Construction



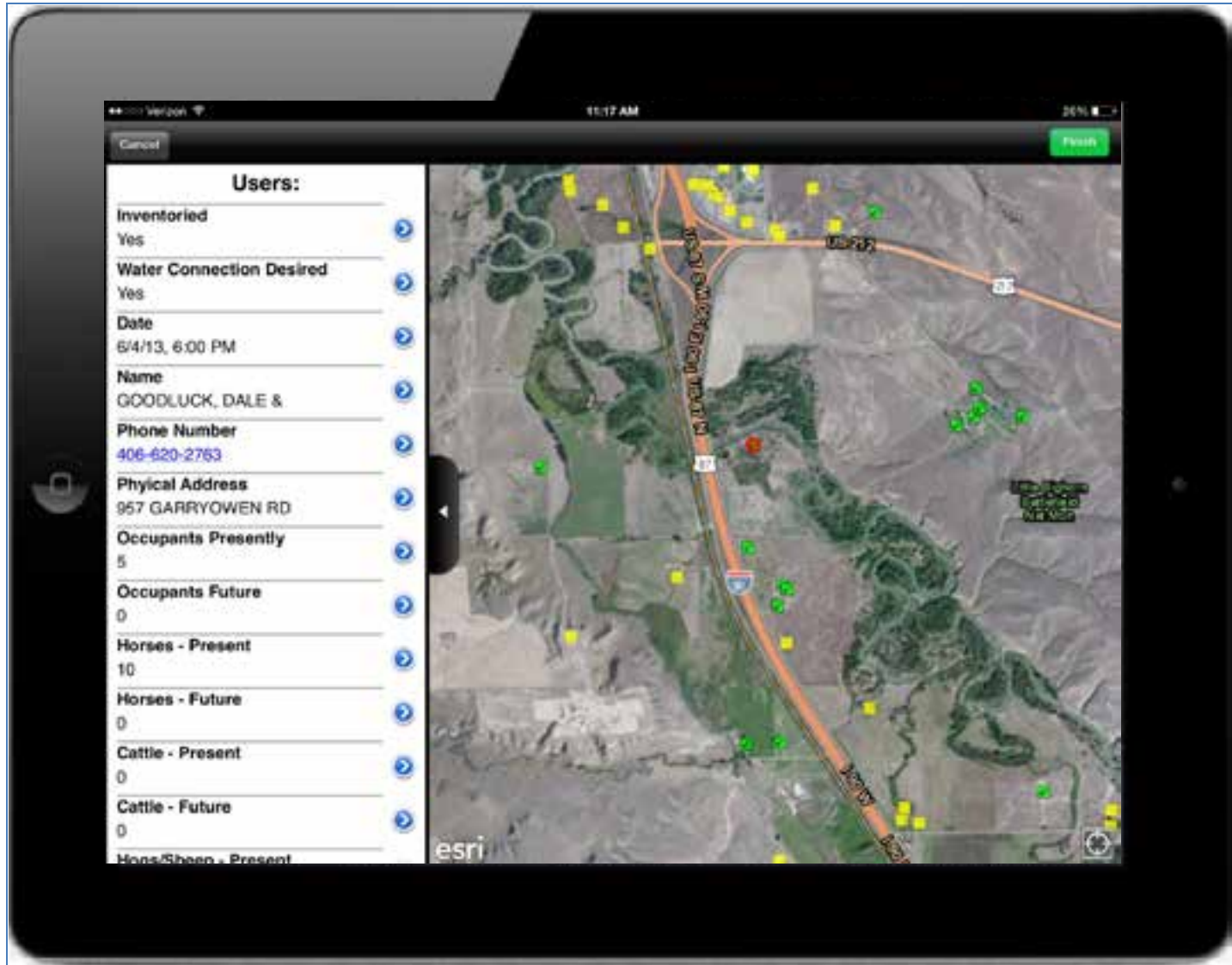
Operations & Maintenance

PHASE 1: PLANNING

1. Hardware: Smart Phones, Tablets and Pads
2. Software: ArcGIS Online
3. Data: Structure Feature Service
4. Application: ArcGIS
5. People: Crow Tribe
6. Task: User Inventory
 - **Navigate to Structure**
 - **Complete Inventory**
 - **Verify Interest in System**
 - **Confirm User Inventoried**



Inventoried Users Example



Committed Users Example

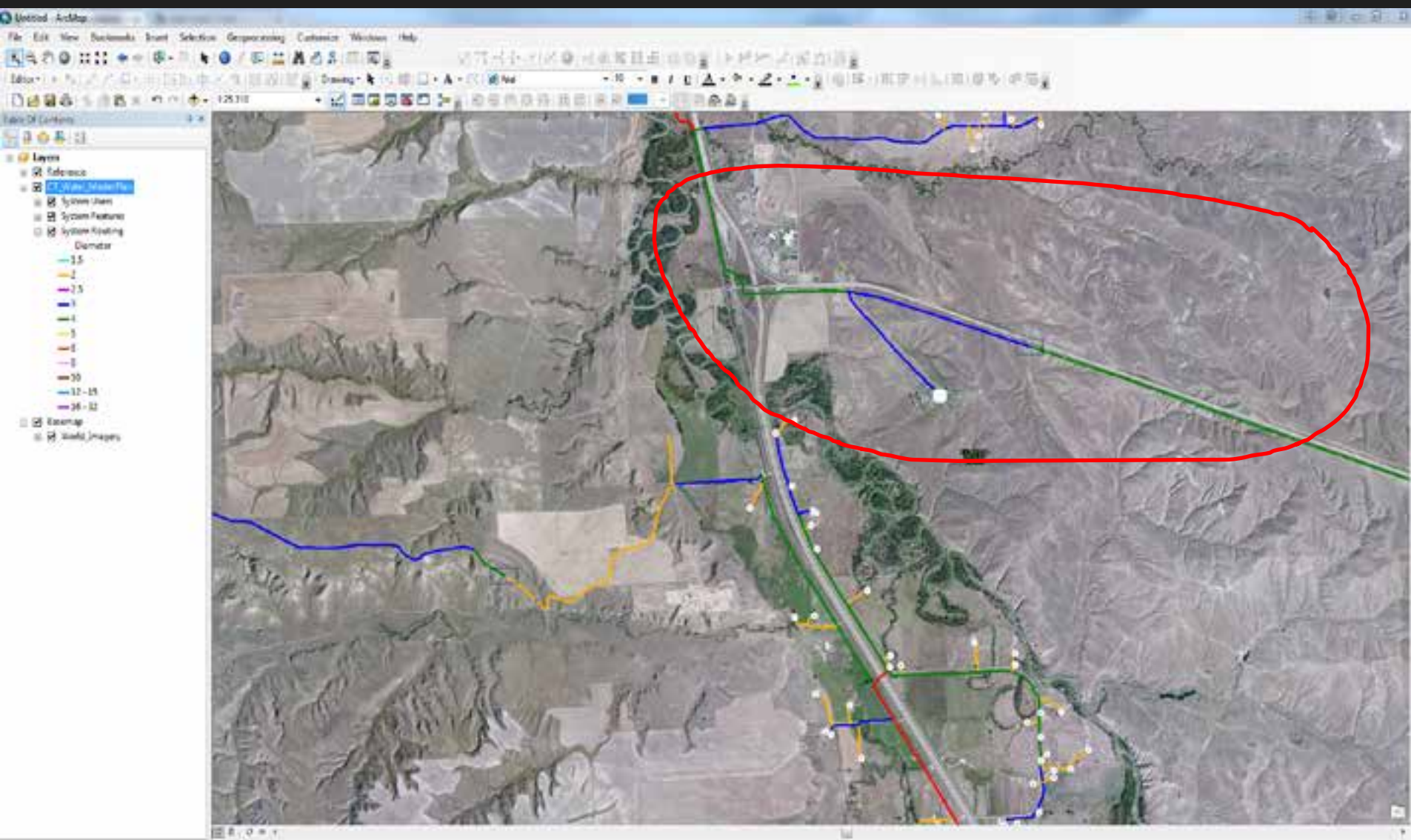


PHASE 2: DESIGN

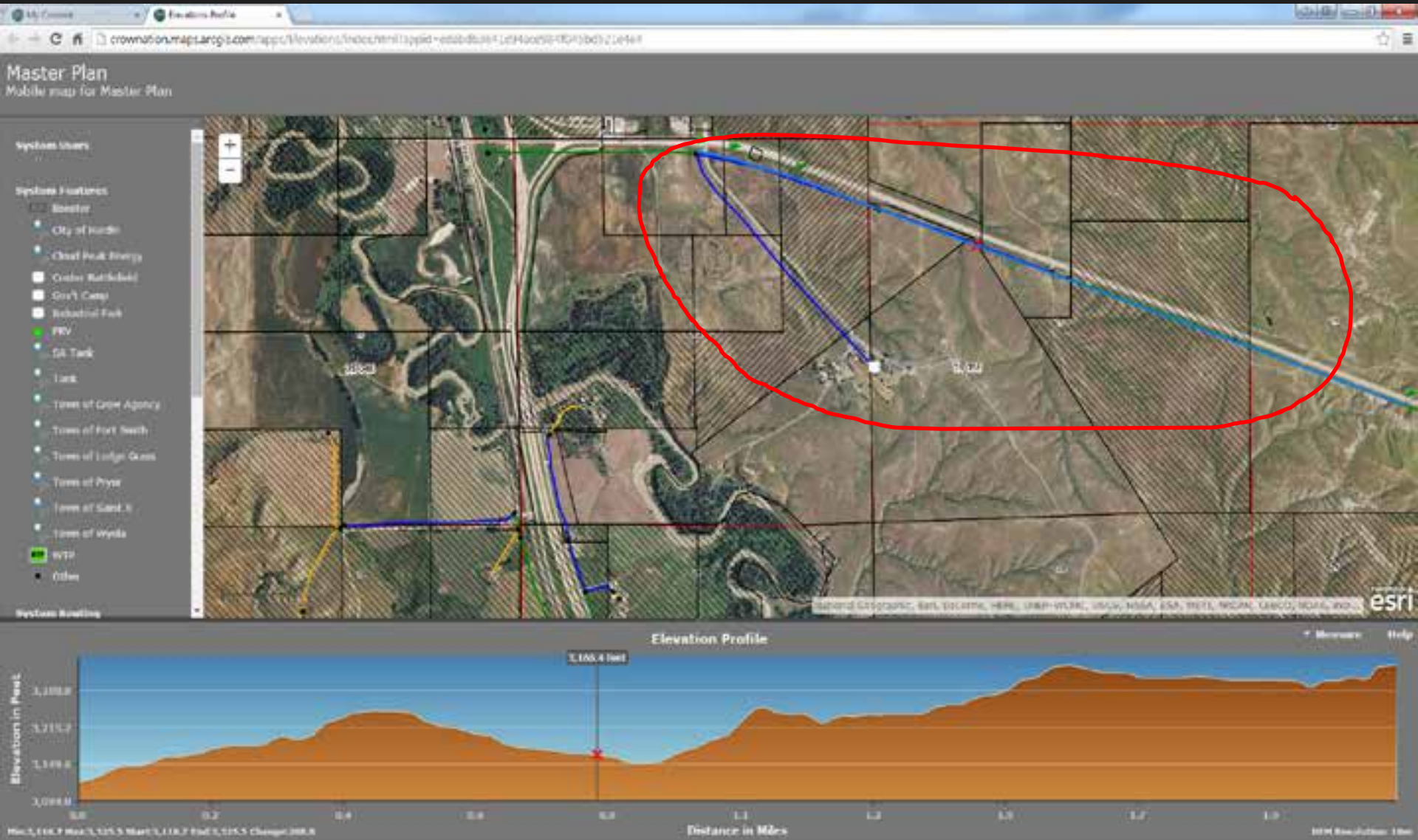
1. Hardware: Desktops
2. Software: ArcGIS Desktop
3. Data: System Routing Feature Service
4. Application: Hrun
5. People: Bartlett & West Engineers
6. Task: Pre-Construction
 - Potential Users
 - System Routing
 - Elevation Profiles
 - System Hydraulics



SYSTEM HYDRAULICS EXAMPLE



ELEVATION PROFILE EXAMPLE

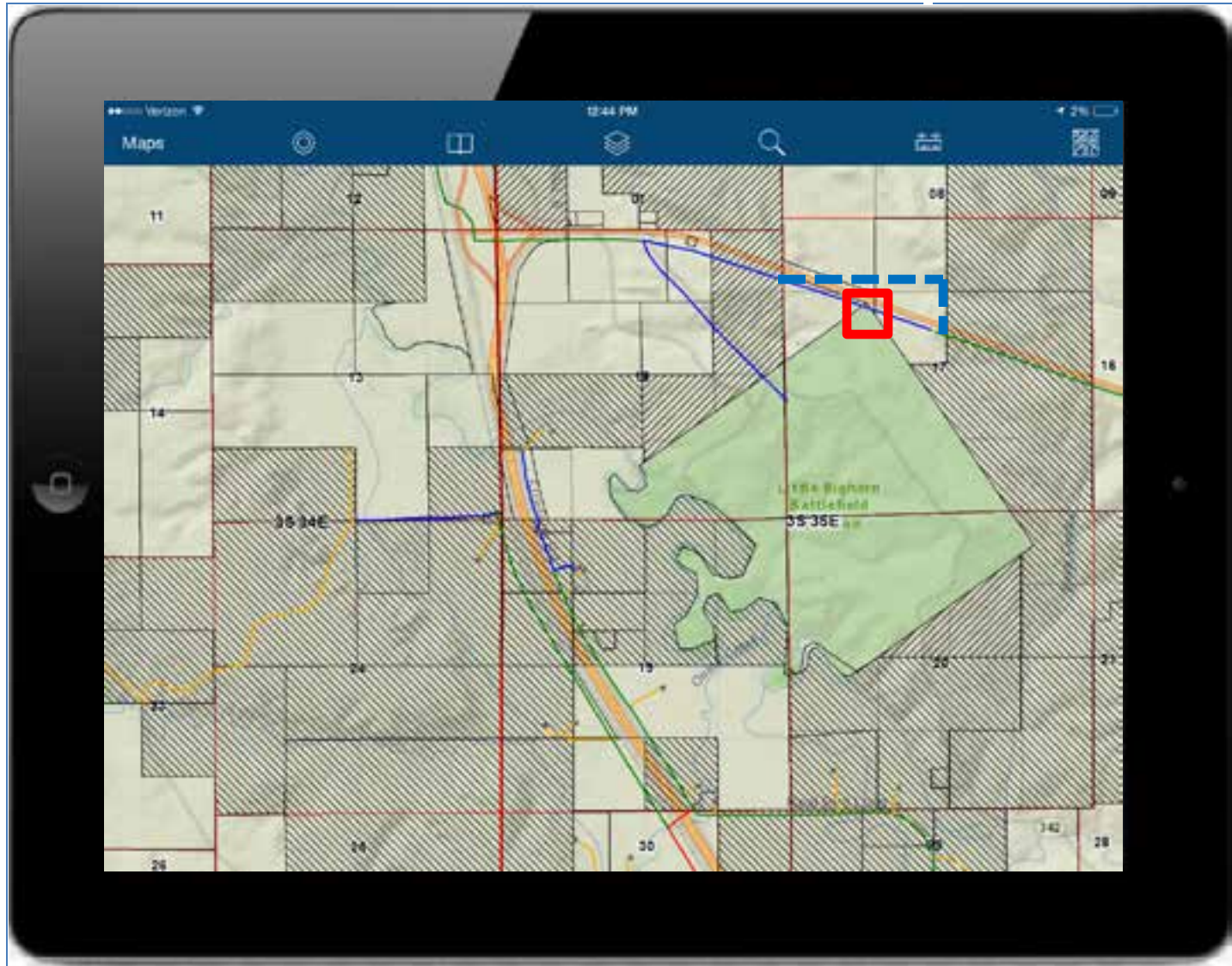


PHASE 3: REVIEW

1. Hardware: Desktops, Phones, Tablets and Pads
2. Software: ArcGIS Desktop and Online
3. Data: Master Plan Feature Service
4. Application: ArcGIS, Collector
5. People: Crow Tribe/Bartlett & West
6. Task: Pre-Construction
 - Field Review
 - Environmental Assessment
 - Permitting
 - Easements



Re-Route Example



Design Example



PHASE 4: RIGHT-OF-WAY

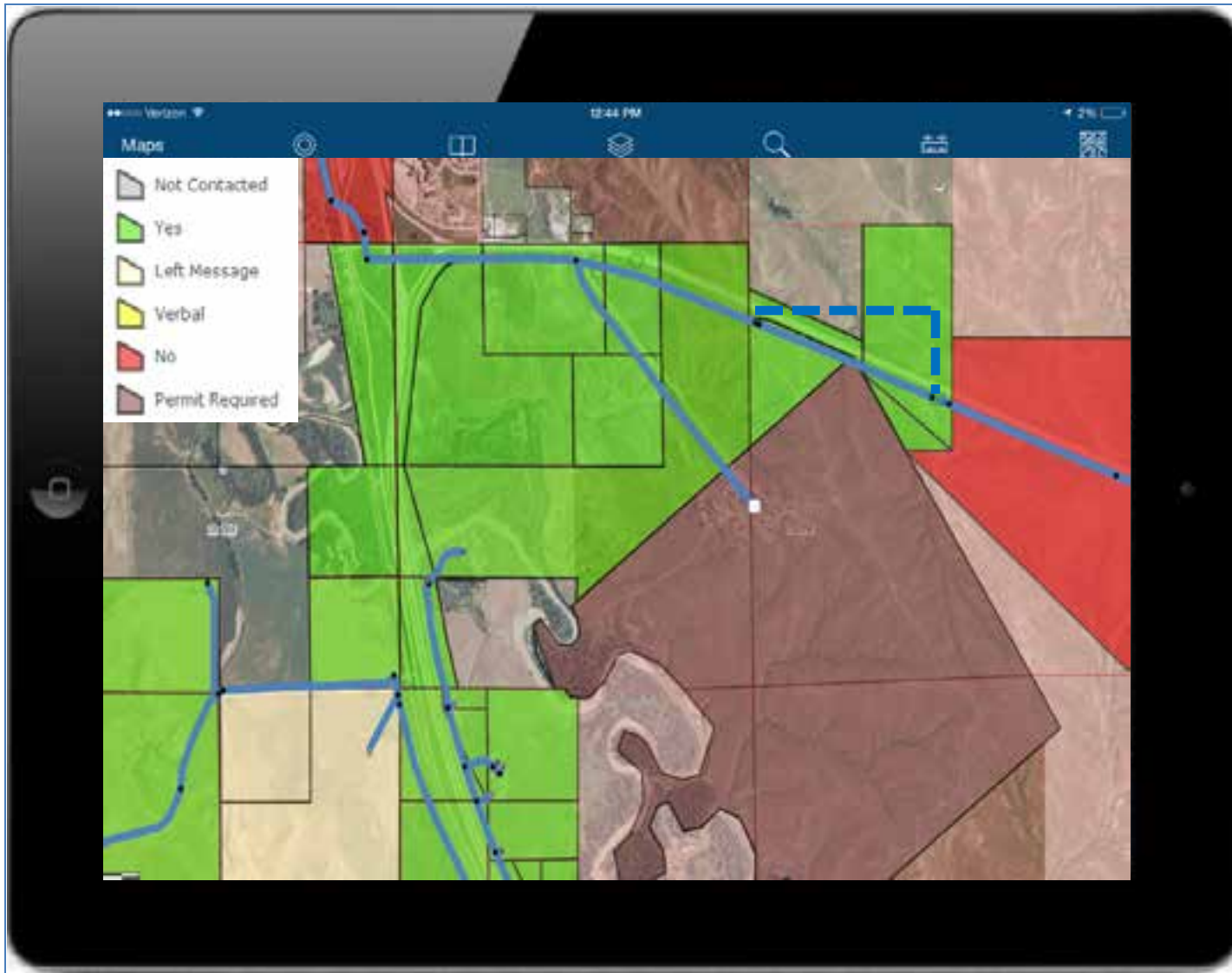
1. Hardware: Desktops, Phones, Tablets and Pads
2. Software: Land Insight, ArcGIS Online
3. Data: Land Ownership Feature Service
4. Application: ArcGIS, LandInsight
5. People: Crow Tribe, Bartlett & West
6. Task: Easements
 - Contact Land Owner
 - Obtain Survey Consent
 - Obtain ROW Consent
 - Record Easement



SURVEY CONSENT EXAMPLE



ROW CONSENT EXAMPLE



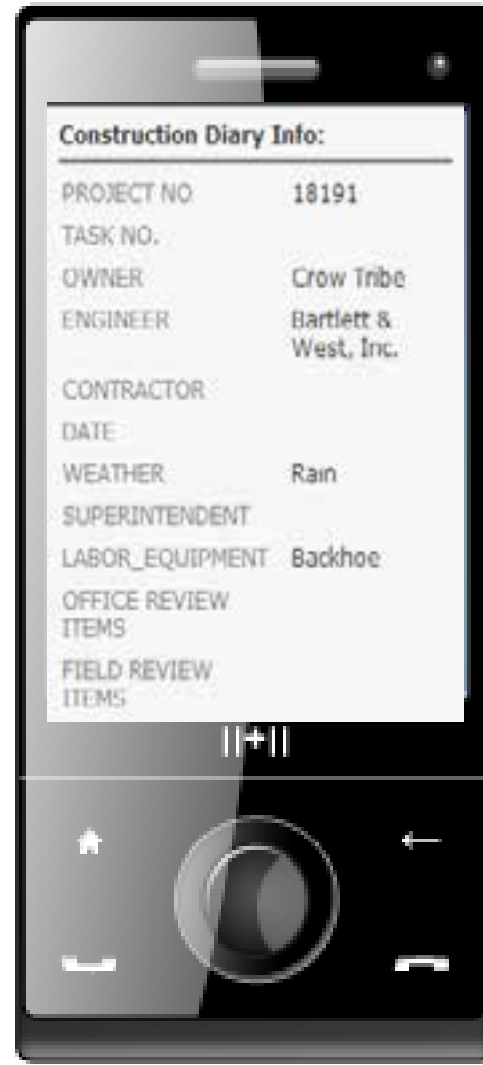
PHASE 5: CONSTRUCTION

1. Hardware: Desktops, Phones, Tablets and Pads
2. Software: ArcGIS Desktop and Online
3. Data: Record Drawings Feature Service
4. Application: Collector, Operations Dashboard
5. People: Crow Tribe, Bartlett & West
6. Task: Material Installation

- Project Progress
- Construction Observation
- GPS Assets



Observation Example



Construction Observation Example

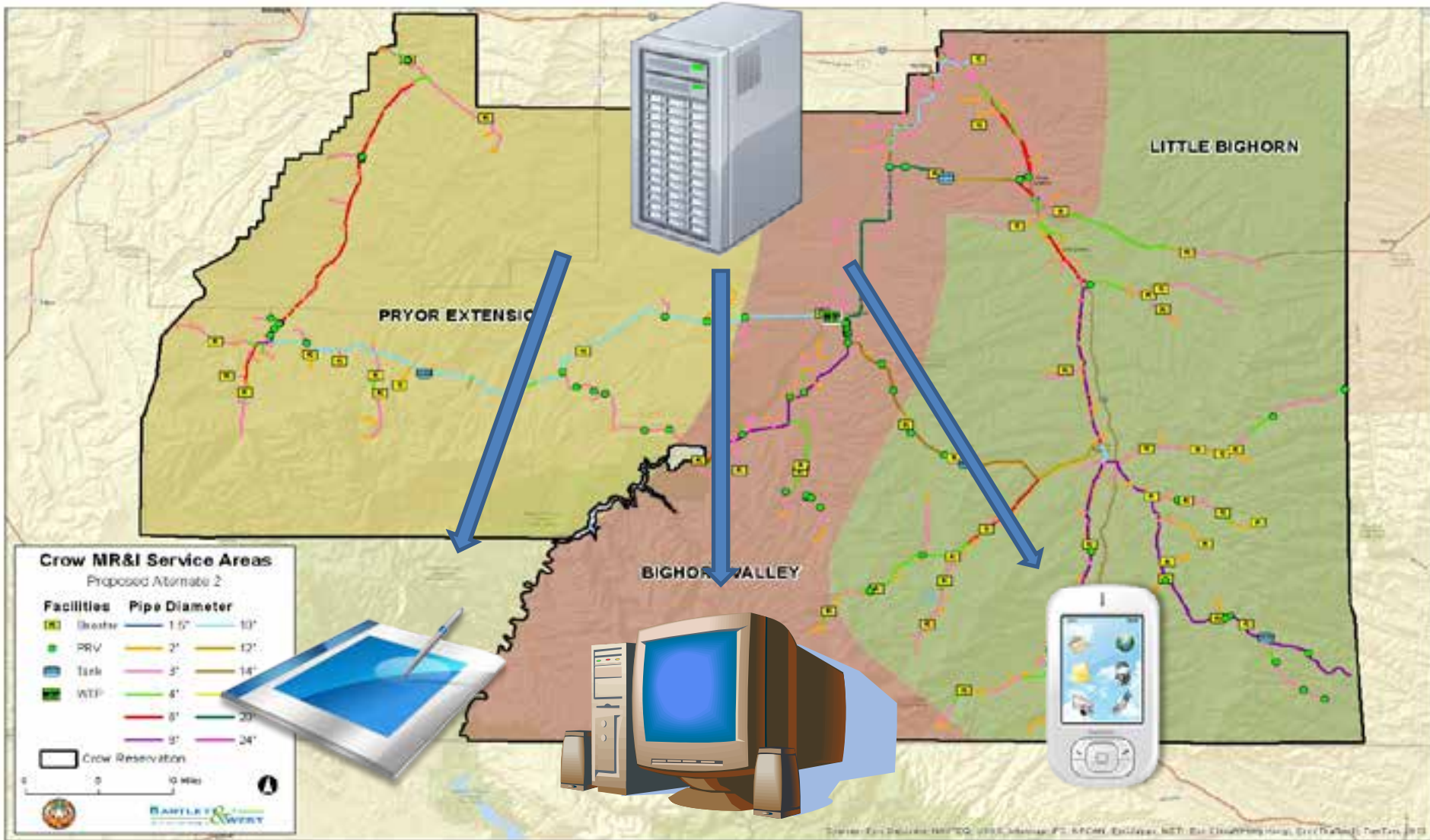


OPERATIONS & MAINTENANCE

1. Hardware: Desktop PC's, Laptops, Mobile Devices
2. Software: ArcGIS Online, ArcGIS Desktop, Mobile
3. Data: Operational System Feature Service
4. Application: ArcGIS, Collector, Operations Dashboard
5. People: Crow Tribe
5. Task: Repair & Maintenance

- Utility Bills
- Asset Inventories

BENEFIT: REAL-TIME INFORMATION



QUESTIONS

Myron Shields Jr.
Crow Tribe Water Resources Department
Myron.Shield@crow-nsn.gov



Tim Penfield
Bartlett & West, Inc.
Tim.Penfield@barwest.com

