

COTTON ELECTRIC COOPERATIVE

Electric Emergency Response Utilizing GIS to improve response to electric infrastructure problems



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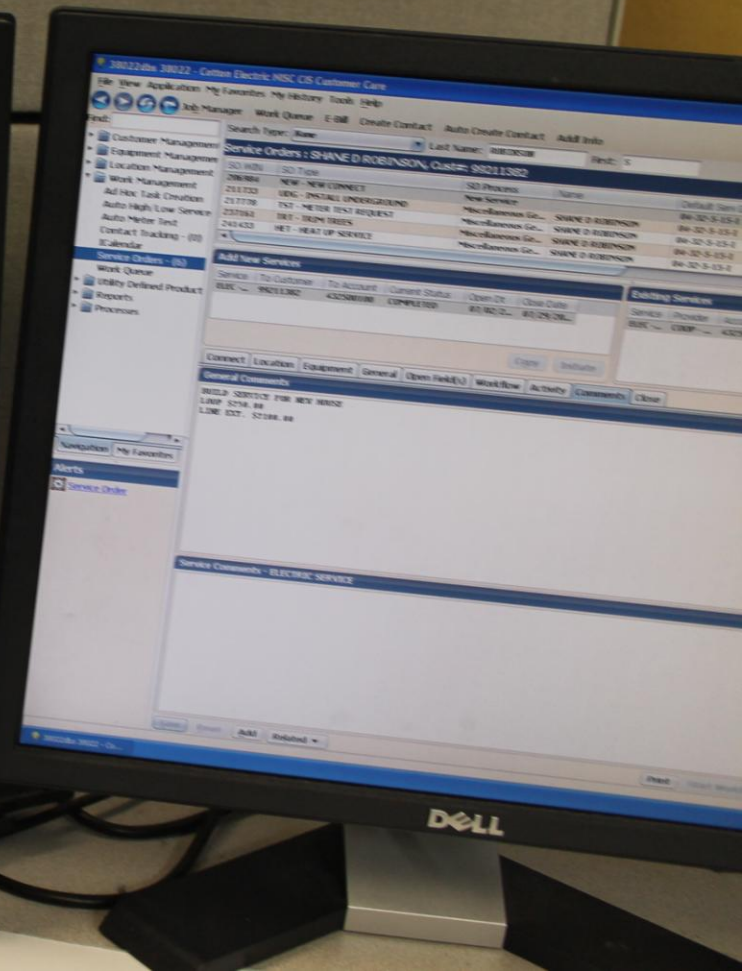
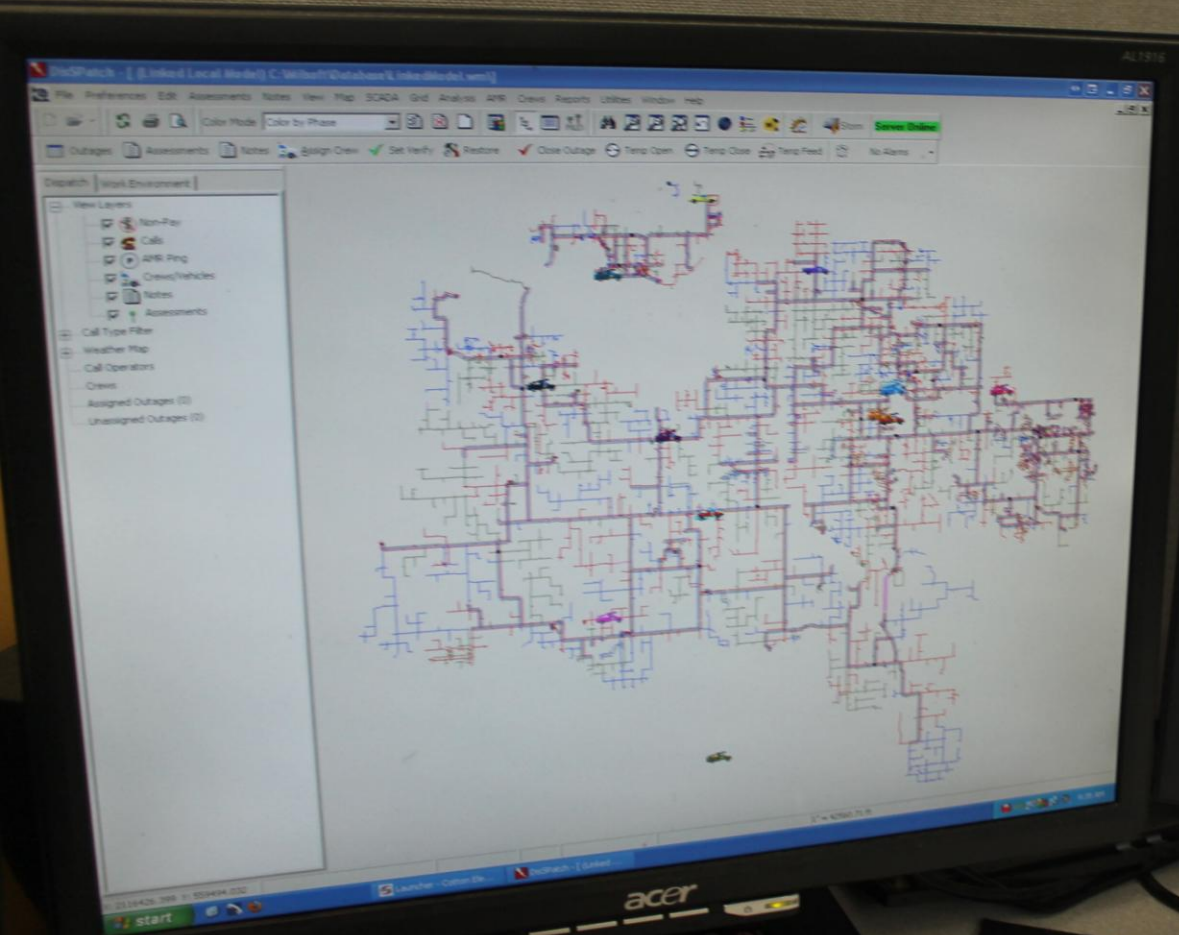
Cotton Electric Cooperative Stats.

- CEC is a not for profit rural electric cooperative. FEMA eligible!!!
- Meters: 21,500
- Number of Employees: 90 full time
- Serves parts of 8 counties in Southwest Oklahoma
- Did Pertinent Point Inventory to Create GIS 7 years ago.

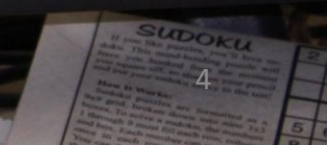
NORMAL DAY @ COTTON ELECTRIC COOPERATIVE

minimum credit balance of \$20 is required to reactivate the account. Once payment is received, power is normally restored within thirty (30) minutes.
6. MyChoice accounts are not eligible for payment arrangements.
7. Energy assistance programs will not keep service from being disconnected. Energy assistance monies will be applied to a MyChoice account only after funds are received.

Ark. Elec. System
1-800-267-3022



IN FIND FIELD
YOU UP



Not How Things Should Look



Not How Things Should Look



January 29, 2010 more crews arrive



Massive Amount of Damage



CEC Stats. From 1-28-2010 to 2-13-2010

- At one given time less than 200 meters with power.
- 400 workers including the 90 CEC employees
- Over 12 million dollars in damage.
- Over 3000 poles replaced due to damage
- Longest outage 16 days



How Did We Do it???





FEMA



- 3 Steps to Handle FEMA disaster
 - Have to begin documentation immediately!
 - Have to document everything!
 - If in doubt document!!!

Damage Assessment

- Before you can fix it you have to know where and what things are broken.
 - Began initial assessment with our crews
 - Hired Contractor
 - Used GIS to Input data collected
 - What we have learned

Damage Assessment

Partner Platform File Edit View Actions Reports Help

Last Broadcast Loading...

(1855099, 417956) 54 ft. 301 deg.

My Messages My Outages: ?

Data Find Edit

Damage Assessment

Inspections

Flags

PoleAndLine Road

Blocked Debris Line Outage Pole Traffic Tree Water

Distribution Inspection

Inspections

OverHead UnderGround Meter

Drawing

Staker

Design Templates Sketch Symbols Sketch Lines Sketch Texts Snapshots

GPS

No GPS

W N E S

Add Move Follow Settings

Home 0 1 2 3 4 5 6 7 8 9 Pole

DamageAssessment Inspection

General

Flags

Pole? ☒ Line? ☒

Tree(s)? ☐ Blocked? ☐

Traffic? ☐ Water? ☐

Debris? ☒ Outage? ☐

☒ Is Resolved? ☐

Details

Photo

Medicine Park 023.jpg

View Choose Clear

Standard Notes:

Crew Needed Add Delete Line

Notes:

Safety Risk

Crew Needed

OK Reset Cancel

0.25X Zoom in Zoom out Reset Close

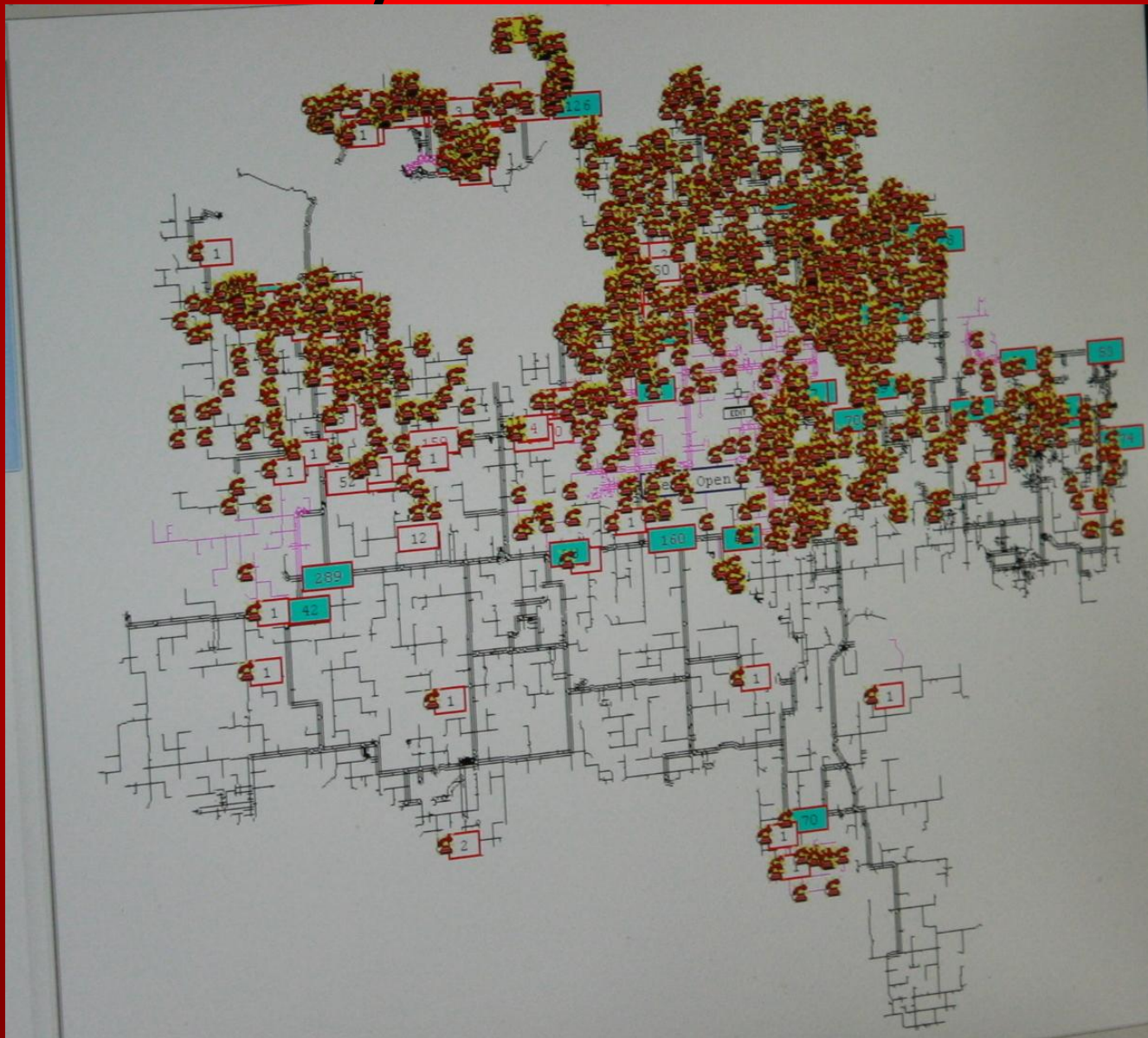
Image showing a damaged utility pole and wires.

Map showing the location of the damage assessment.

Priority Crew Placement

- We used our Outage Management System (OMS) to determine where the highest priority places were to send crews.
- What we learned

Priority Crew Placement

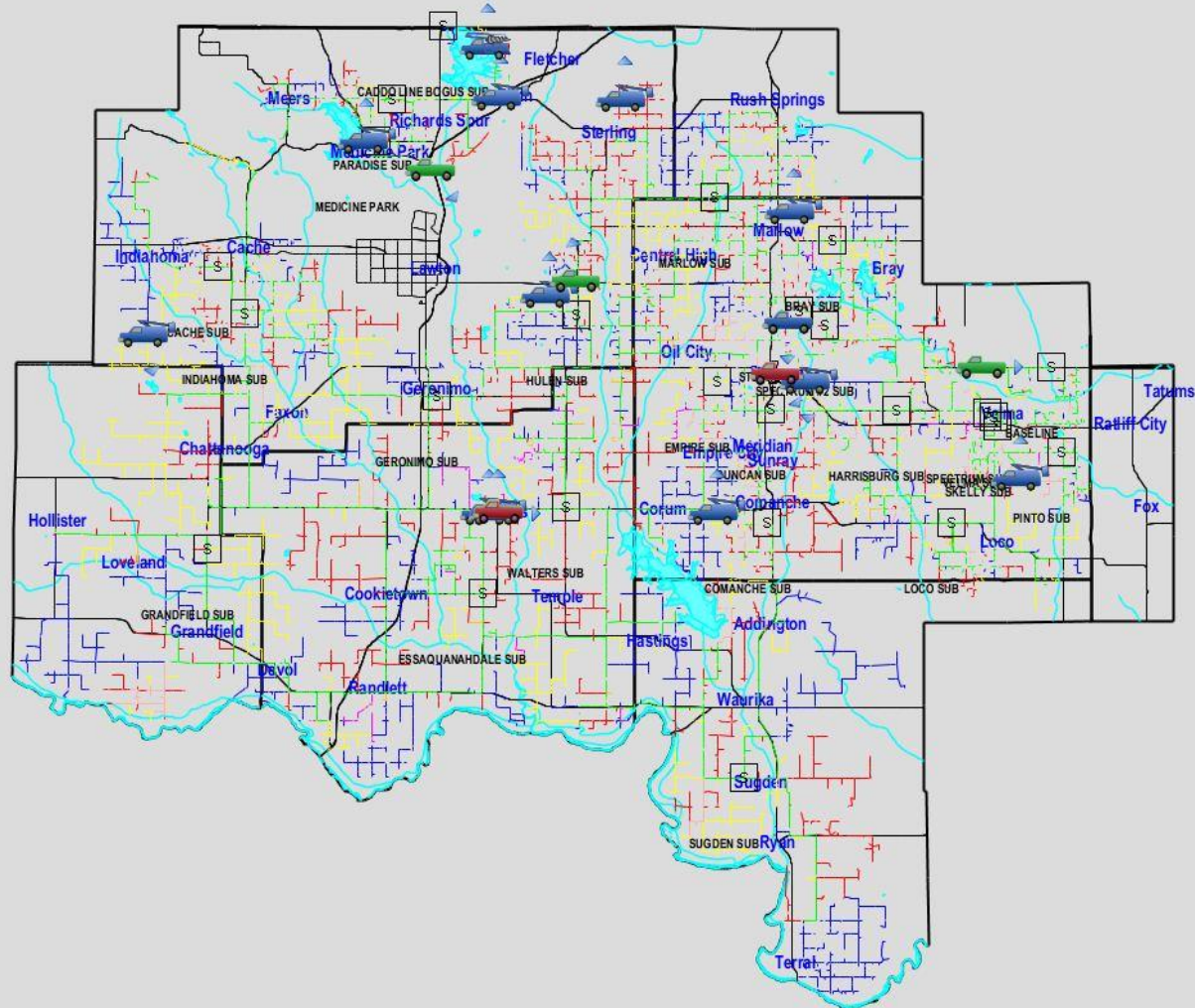


Managing for the Future

- Questions we asked ourselves following the disaster.
 - How can we speed response time.
 - How can we manage a large number of crews better.
 - How can we better protect our system.

Managing for the Future

- AVL



Managing for the Future

- Distribution Inspection

Partner
Platform File Edit View Actions Reports Help
Last Broadcast
Loading...

(1854318, 417346)

106 ft. 314 deg.

Data Find Edit

Distribution Inspection: (0a449750-ac76-46a4-84b5-0c88bf)

Overhead

General

General	
Inspection Status	OK
Date of Inspection	2012/09/24
Inspected By	Chace Penn
Assigned To	None
Needs SO?	false
Service Order Number	
Needs WO?	false
Work Order Number	
Needs Map Correction?	false
Comments	
Poles	
Pole Number	1521
Pole Type	
Pole Owner	
Pole Height	
Pole Class	
Pole Condition	OK
Pole Needs	false

Inspection Status: Immediate Attention Needed
Assigned To: Construction

OK Reset Cancel

Overhead Primary Line PL13136

Home 0 1 2 3 4 5 6 7 8 9

???Questions???

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