

# CASE STUDY

## Cattle Ranchers Sustainable Environmental Practices

BEEF



BeefTracker

## CHALLENGE

As public concern about climate change and the environment has increased, pressure on industries to demonstrate sustainability has also increased. In response to this pressure, the National Cattlemen's Beef Association (NCBA), representing the beef industry has developed one of the largest and most comprehensive Life Cycle Assessments (LCA) published in the United States. In an effort to continue to improve on this work, they are in the process of trying to develop tools that would assist beef producer's to document their activities, and demonstrate that their operations are sustainable.

## SOLUTION

Utilizing research money provided by the Beef CheckOff, the NCBA has contracted with University of California Agriculture and Natural Resources (UCANR) to help design and test a set of GIS based tools to track livestock movement, document field conditions, and capture improvements made by cattlemen on range lands across the United States. VESTRA has been working with UCANR and NCBA as the geospatial / IT systems designers and developers on this project, which has been named BeefTracker.

All the information presented in the BeefTracker web application is cloud-based, utilizing web services hosted in Esri's ArcGIS Online. The BeefTracker web application allows users to capture their pastures, facilities, conservation efforts, and field observations. It also allows the user to display authoritative information provided by federal agencies on soils, critical habitat, wetlands, flood risk, and recent fires.

The BeefTracker mobile application is an iPhone application that allows users to track the livestock in their operation. The application maintains both a current and historic livestock inventory. Due to the remoteness of many ranches in the United States, the application will run disconnected (i.e. in locations without cell service) to enable users to collect data while in the field and import that data into the web application at a later time. The BeefTracker web application allows users to report and graph the livestock inventory data.

Through GIS software, BeefTracker allows users to collect data related to conservation and land resources, archive and retrieve geo-located monitoring data, record operational parameters, locate opportunities for improvement, add ranches and pastures, and adjust inventory.

## BENEFIT

America's farmers and ranchers are leaders in the area of sustainability and are committed to producing responsibly raised beef for consumers across the globe. This checkoff-funded software solution is one of many research tools designed to benchmark sustainability by demonstrating how cattle farmers and ranchers balance environmental responsibility, economic opportunity, and social diligence across their operations.



VESTRA Resources, Inc.

5300 Aviation Drive, Redding, CA 96002  
530-223-2585 | info@vestra.com | www.vestra.com

