



Enterprise GIS for Managing Reservation Land

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GIS Manager

Agua Caliente Band of Cahuilla Indians

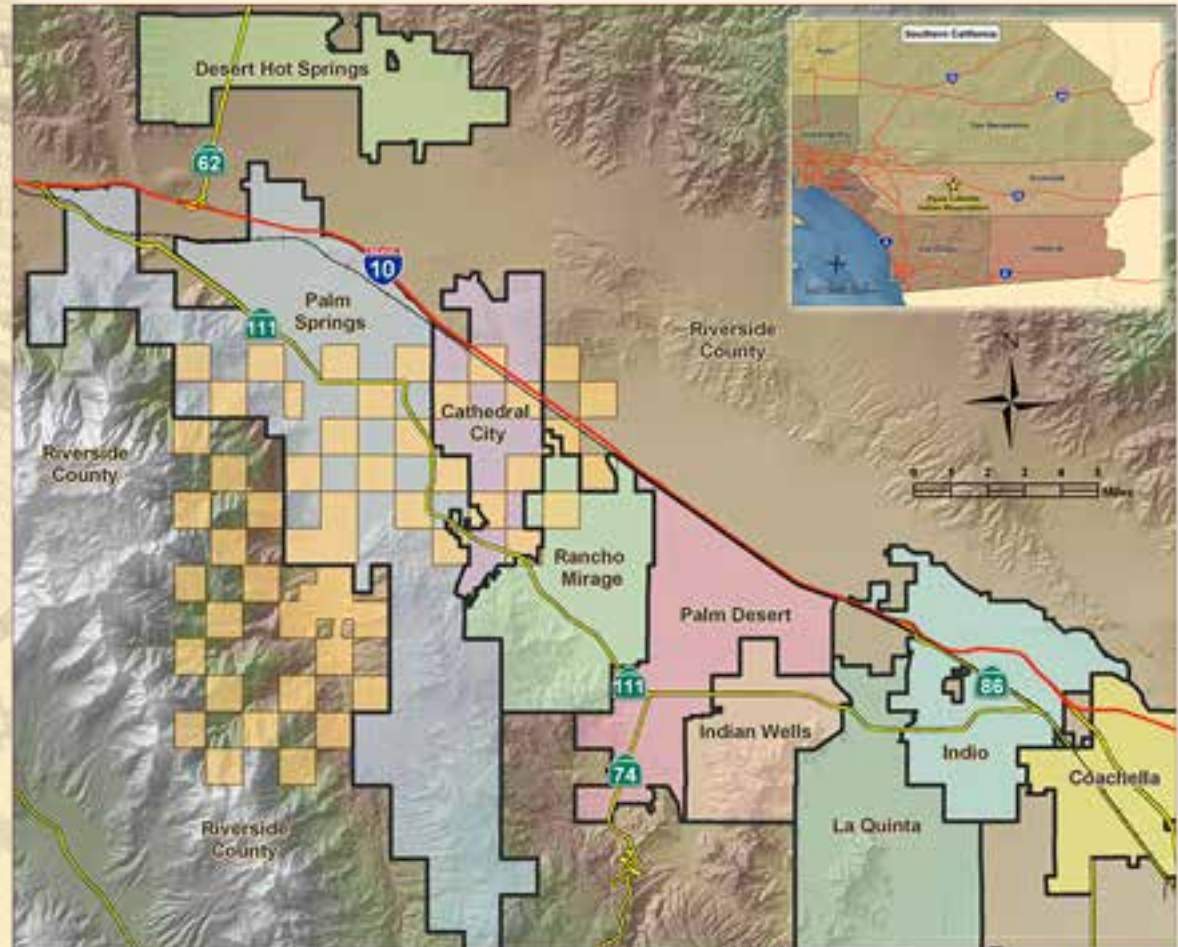
ESRI UC 2014

Tribal Indigenous GIS Track

Empowering Tribal Governments with Enterprise GIS

What makes the Agua Caliente Indian Reservation unique?

- ✓ Checkerboard pattern
- ✓ Shared jurisdictions
- ✓ Land use agreements
- ✓ Mixed land status
- ✓ National monument
- ✓ 2 casino properties
- ✓ THPO
- ✓ In-house BIA



ACBCI Tribal GIS Department

GIS Manager, Senior GIS Analyst, and GIS Analyst



ArcGIS Server &
Desktop 10.1

Microsoft SQL
Server 2012



2 VM Servers
2 60" HP Printers
54" Scanner
2 Trimble GPS
Units



Advanced Enterprise
Geodatabase
50GB Vector Data
5 TB Raster Data
250 GB Ancillary Data



ArcGIS Online for
Organizations
Business Analyst
Online

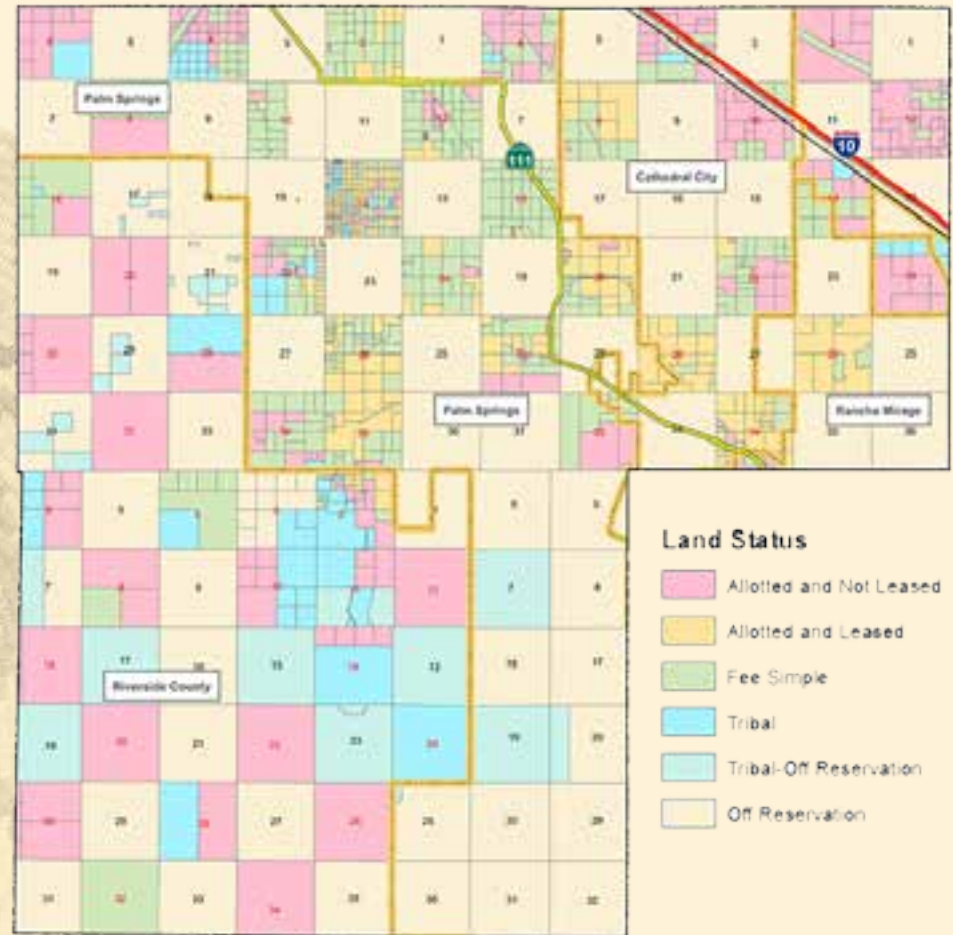
Who are our customers and what do we do for them?



- ✓ Parcel Mapping
- ✓ Records Management
- ✓ Habitat Assessment
- ✓ Floodplain Analysis
- ✓ Resource Inventories
- ✓ Coordinate Geometry
- ✓ Land Use Mapping
- ✓ Demographic Analysis
- ✓ Image Interpretation
- ✓ Emergency Response
- ✓ Incident Mapping
- ✓ Watershed Analysis
- ✓ Environmental Modeling
- ✓ Site Selection

What challenges do we face in managing land records?

- ✓ Ownership
- ✓ Boundary
- ✓ Fractionalization
- ✓ Probates
- ✓ Encumbrances
- ✓ Partitions
- ✓ Patents
- ✓ Fee-to-Trust transfers
- ✓ Tribal acquisitions
- ✓ Leaseholds



What is our process?



Receive land records from LTRO

Boundary Description, Easement, Leasehold,
Fee Partition, Probate Order, etc.



Update data in production database

COGO boundaries, link records, update
ownership information, etc.



Sync changes to web and user databases

Updates become viewable on Desktop clients
and through intranet web applications



Push changes to ArcGIS Online

Updates become viewable on web and
mobile devices through organization account

How is GIS data disseminated?



Desktop Clients

- ✓ Concurrent Desktop Basic licenses
- ✓ Select Planning & THPO staff
- ✓ Access to replicated 'User' databases
- ✓ GIS provides access to web training
- ✓ GIS assists with custom mxds and map products



Intranet Clients

- ✓ Custom intranet web mapping applications
- ✓ Select Tribal government staff
- ✓ Access to replicated 'Web' database through applications
- ✓ Ability to query records and perform advanced searches
- ✓ Export custom graphics and tables
- ✓ View related records



Web Clients

- ✓ ArcGIS Online web maps & applications accessed through organization account
- ✓ Select Tribal government staff, BIA LTRO, and contract employees
- ✓ Ability to view and query select records
- ✓ View attached records

Interactive mapping applications ...allow users to search records and retrieve information without GIS experience

Land Status
Apia, California Indian Reservation

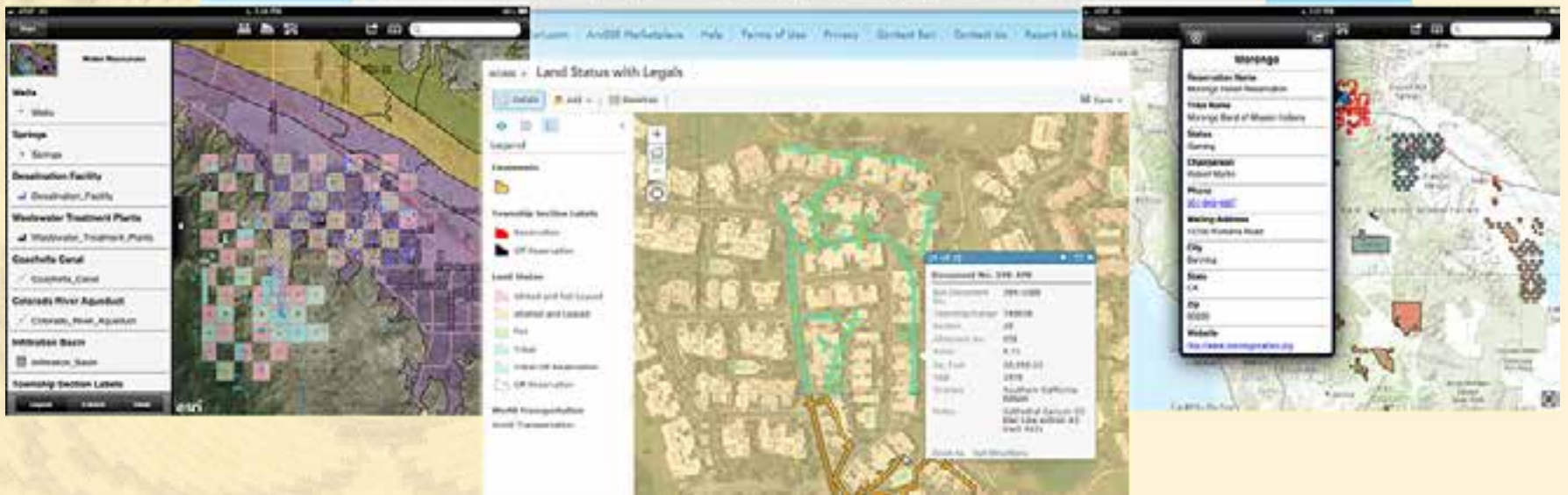
Search
Search Layer: Land Status
Search by Abatement
Example: 500
194
[Search] [Clear]

104E
Township Section: T4S R5E 20
Lot No: 104E
Actual Acres: 20.551
GIS Acres: 20.47
Status: Aborted and Leased
Document Link: [745 R5E 20](#)
MyWorked Land Status: [T4S R5E 20](#)
T4S R5E 20, 104E
Click here for documents
Zoom In

Document Link	Township Section	Abatement No.	Lot No.	Actual Acres	GIS Acres	Status
Click for Documents	T4S R5E 20	104E		20.551	20.07	Aborted and Leased
Click for Documents	T4S R5E 12	104E		10	10.47	Aborted and Not Leased
Click for Documents	T4S R4E 34	104A	122	2.79	2.71	Aborted and Not Leased
Click for Documents	T4S R5E 20	104C		7	6.53	Aborted and Not Leased
Click for Documents	T4S R4E 34	104B	171	4.36	1	Aborted and Not Leased
Click for Documents	T4S R5E 20	104E		49.576	11.43	Aborted and Leased
Click for Documents	T4S R5E 20	104B			16.15	Aborted and Leased
Click for Documents	T4S R5E 20	104C		22	23.48	Aborted and Leased




• Go to CSV... • Export to TXT... • Export... • Print

ArcGIS Online...allows us to share maps and data to our users when and where they need it



AGO Story Maps...provide a new way to share with the public what the Agua Caliente Indian Reservation has to offer

Indian Canyons Golf Resort - South Course

A story map   

Set in Palm Springs' "Canyon" district and surrounded on three sides by the San Jacinto mountains, you can count on a pleasant, wind-free round of golf.



Indian Canyons Golf Resort

Indian Canyons Golf Resort has been a jewel of Palm Springs and the Coachella Valley since 1961. Once a private club named Canyon Country Club, this 36-hole facility was a favorite haunt of Hollywood celebrities.



Hole 1, Par 4



Hole 2, Par 3



Hole 3, Par 5



Hole 4, Par 3



Hole 5, Par 4



Hole 6, Par 4



Hole 7, Par 3



Hole 8, Par 4



How our approach has changed over the years



Give a man a fish... and you feed him for a day.

GIS maps and data on demand



Teach a man to fish... and you feed him for a lifetime.

Out-of-the-box desktop GIS with training

...Turns out it's **REALLY HARD** to fish.



A stocked pond... can make anyone a pro.

Comprehensive data sources & powerful tools
to make them meaningful

The road ahead...

success through a clear mission and a set of goals

Agua Caliente's GIS Mission:

Leverage the power of geographical data to expand the impact of shared information and critical thinking; and improve business processes and systems and inform decisions.

- ✓ Data Development and Data Standards
- ✓ Complex Spatial Analysis
- ✓ Application Development and Business Process Integration
- ✓ Promote GIS Capabilities and Educate Decision Makers
- ✓ Training and Technical Support
- ✓ Available and Accessible Systems
- ✓ External Partner Coordination

Questions?

