

# County Surveyor

## Custodian of County's GIS/LMIS Program

Review the following Maps & Applications for compliance with state & local laws

- Records of Survey
- Parcel Maps
- Subdivision Maps
- Corner Records
- Lot Line Adjustments
- Addressing Coordinator
  
- Assessor's Maps
- Certificates of Compliances
  - BOS Policy – Parcel Eligibility Review

# Assessor's Maps

- What does the assessor's map represent?
- What parcels may be sold from assessor's map?
- What is an administrative parcel?

GOVERNMENT CODE - SECTION 27557-27559

- **27557.** The surveyor shall plat, trace, blueprint, or otherwise *make all county, road, district, and other maps* and, **at the request of the Assessor**, make all assessor's block-books for the county.

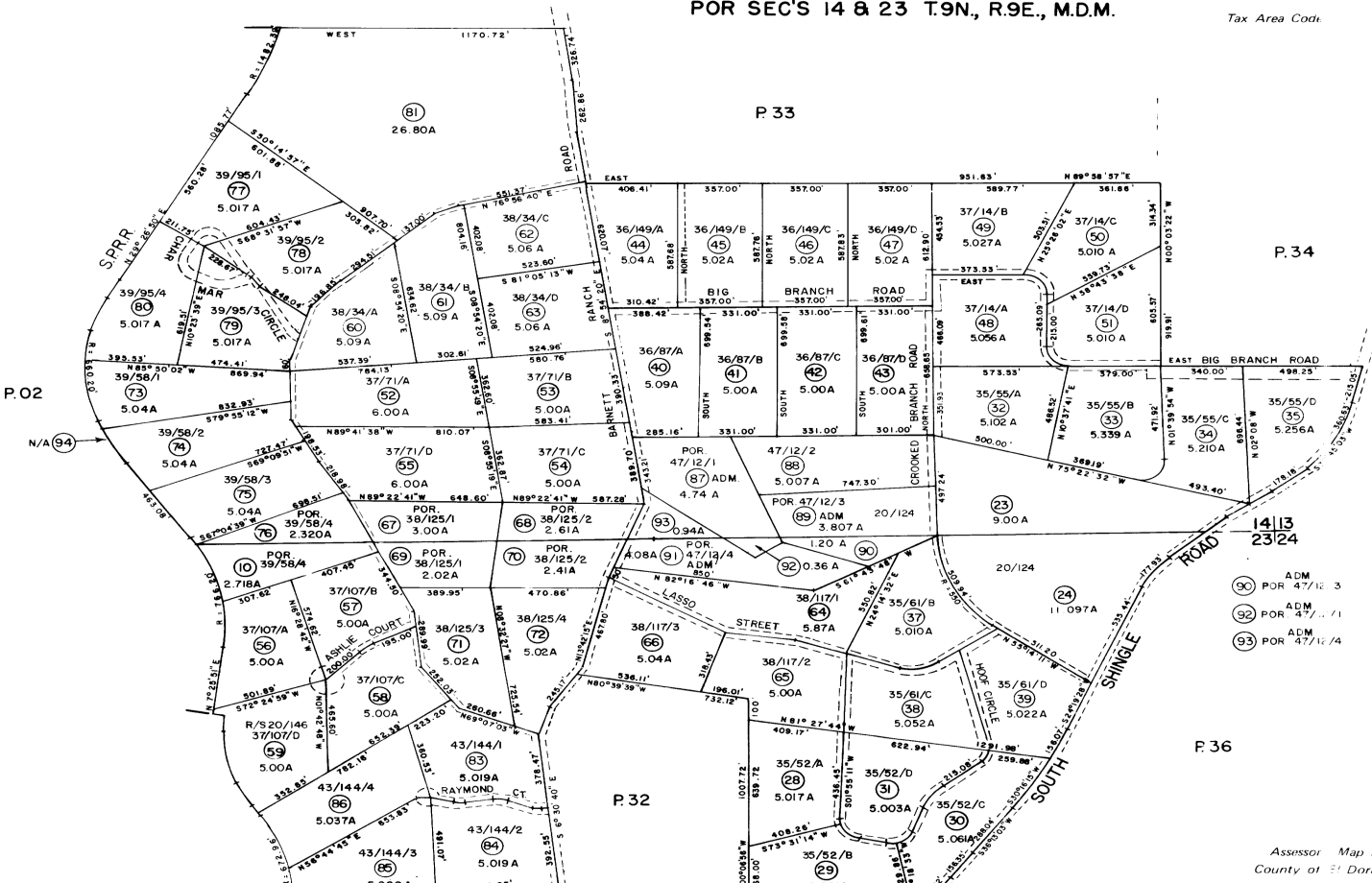
# Section 27559

- In the preparation of assessors' maps and block-books the surveyor shall make all investigations and surveys necessary to provide complete and accurate maps.

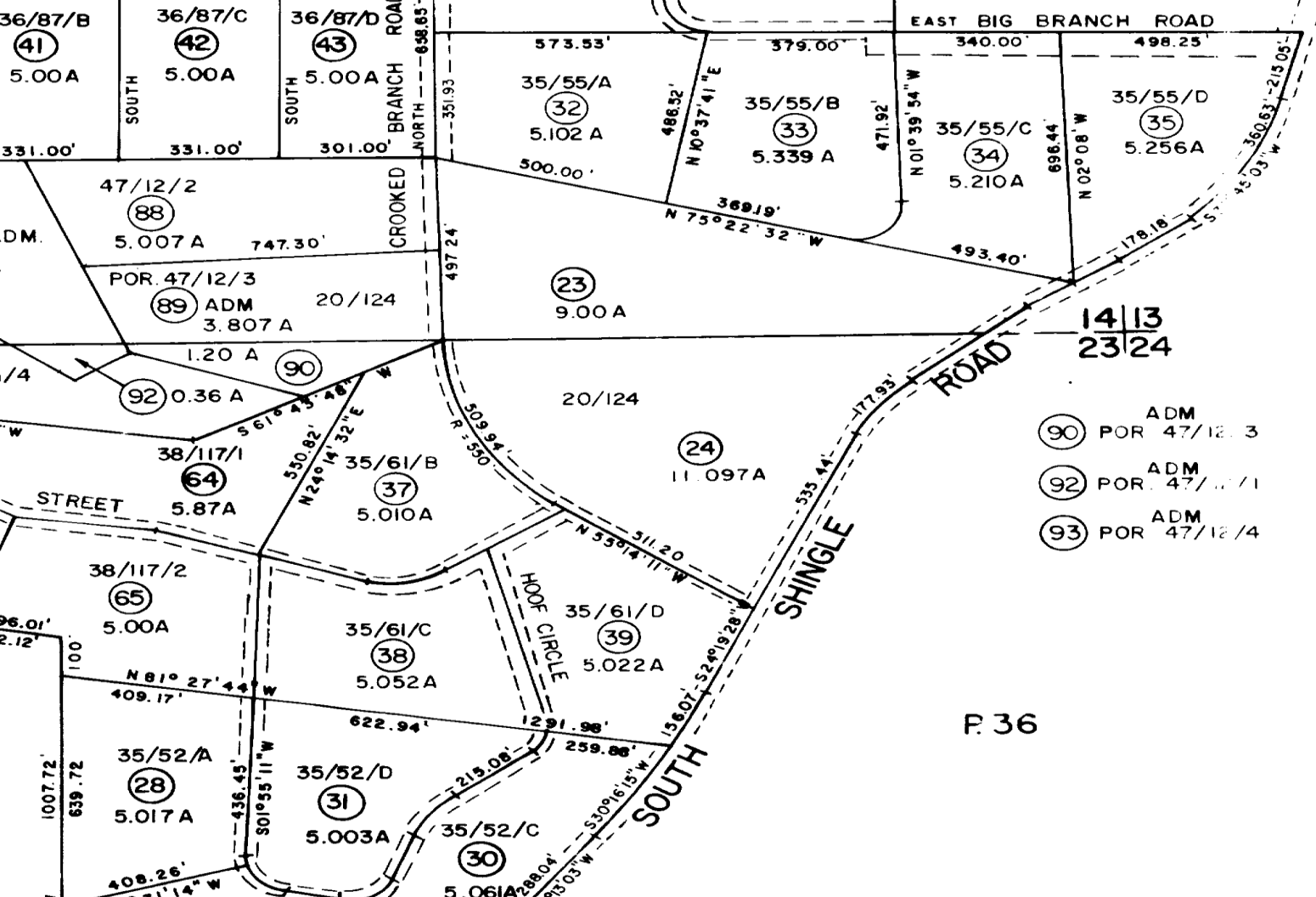
POR SEC'S 14 & 23 T.9N., R.9E., M.D.M.

Tax Area Code

109:31



- 90 ADM
- 91 POR 47/12/3
- 92 ADM
- 93 POR 47/11/1
- 94 ADM
- 95 POR 47/11/4



- ADM
- 90 POR 47/12/3
- ADM
- 92 POR 47/11/1
- ADM
- 93 POR 47/12/4

P. 36

# Real Life



# Certificate of Compliance

- Duty transferred to Surveyor 1991
- What is a certificate of compliance?
- Why might you need one?
- Gift deed / 40 ac parcels / 5 or more < 72
- Why you probably don't need a CoC
- Is this parcel eligible for development?
- [Lets see:](#)



Effect Date: November 26, 2002

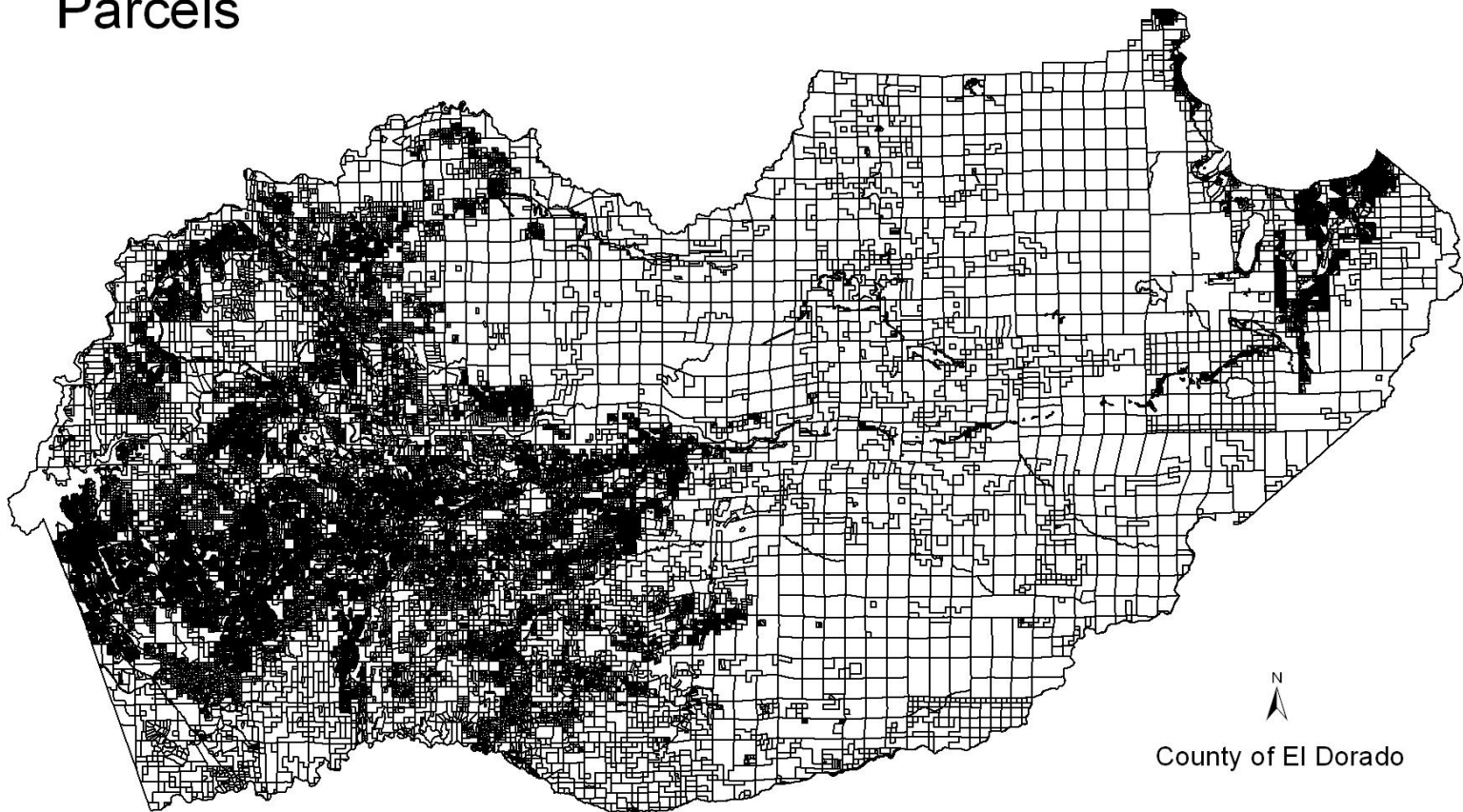
### Board of Supervisor's Policy Direction to Staff

The following parcels are considered eligible parcels for development, and may be issued a permit or grant of approval for development, unless a finding can be made that development of such parcel is contrary to the Public Health or the Public Safety.

1. All parcels or lots created or adjusted by a parcel map or final map.
2. All parcels or tracts of land that were created and have been subsequently altered through the County's adopted lot line adjustment process.
3. All parcels created prior to March 4<sup>th</sup> 1972.
4. Any parcel, including resultant parcels, created by gift deed or grant deed with zero transfer tax on or before October 10<sup>th</sup> 1983, where fewer than five parcels were created by the same subdivider.
5. Any parcel created on or prior to January 6<sup>th</sup> 1992, where fewer than five parcels were created by the same subdivider which resulted in parcels of not less than 40 acres in size or not less than a quarter of a quarter section provided the following two conditions are satisfied:
  1. The parcel was consistent with the general plan land use designation at the time the parcel was created; and
  2. The applicant shall provide proof of access in the form of a recorded easement or court judgement as shown on a guarantee provided by a title company. Said easement shall accommodate an 18-foot wide road.
6. Any parcel, including resultant parcels, that have had any permit or grant of approval is entitled to additional permits. (66499.34 Subdivision Map Act)

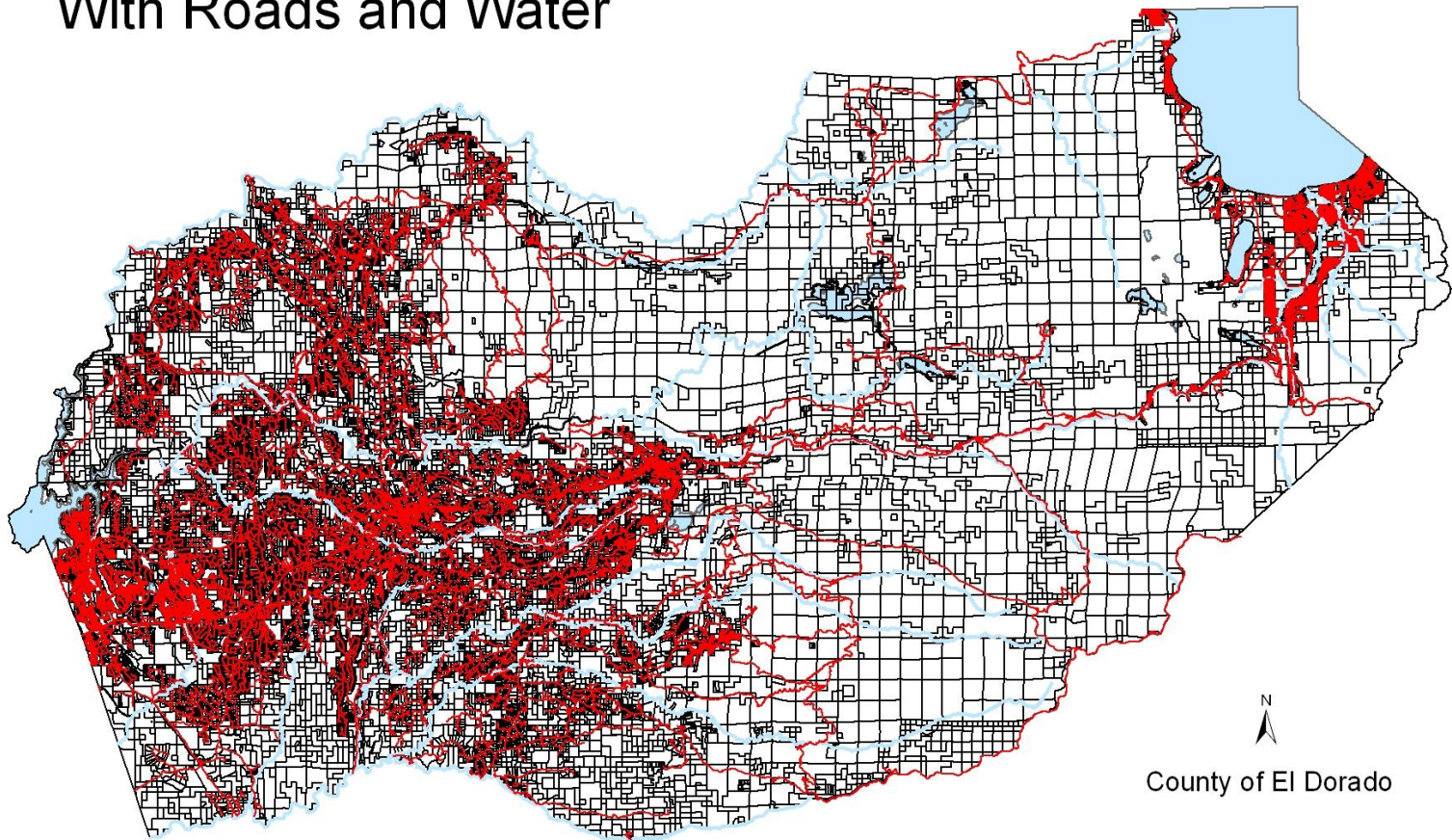
# GIS/LMIS Program

# Parcels



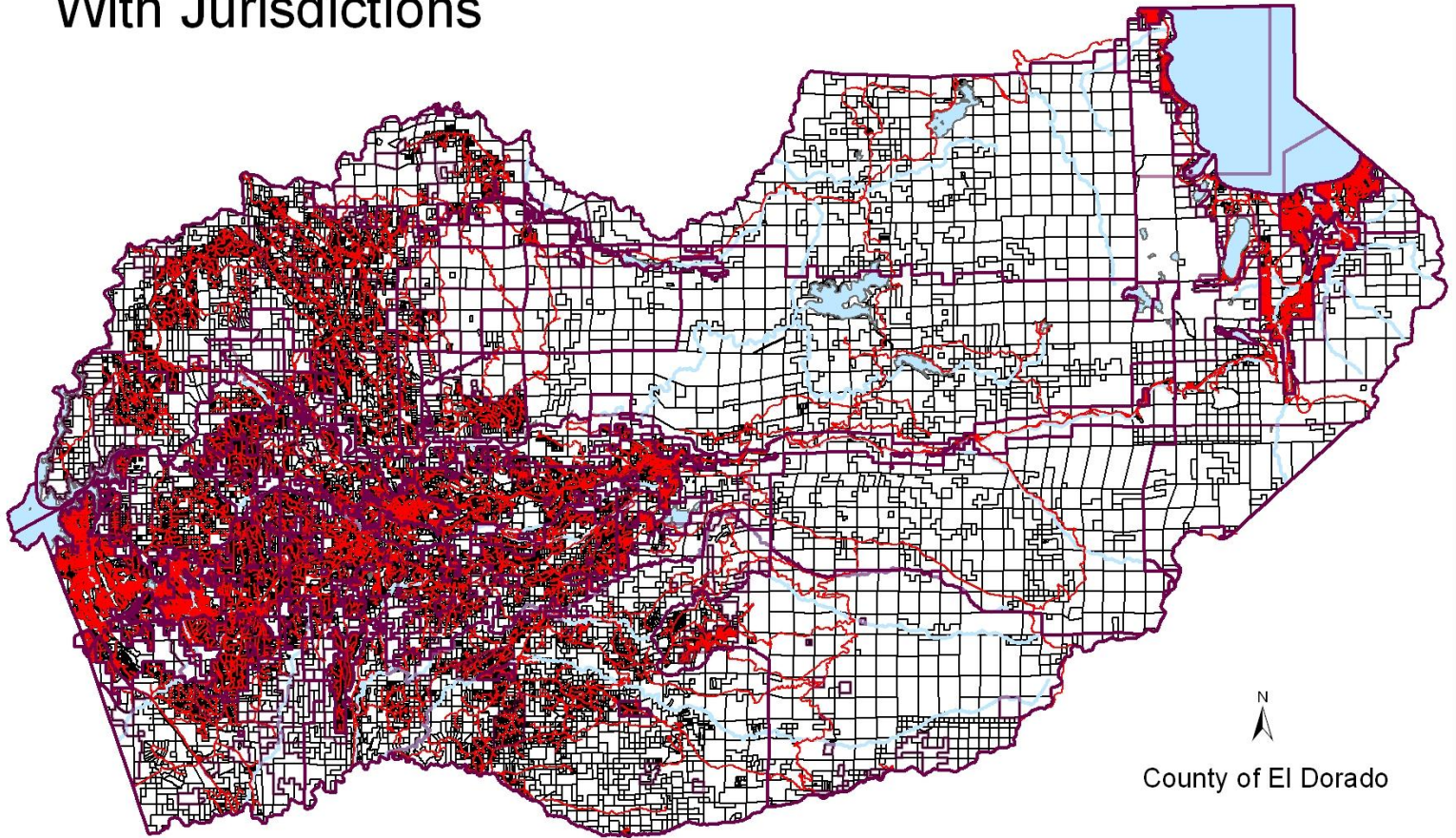
County of El Dorado

# With Roads and Water



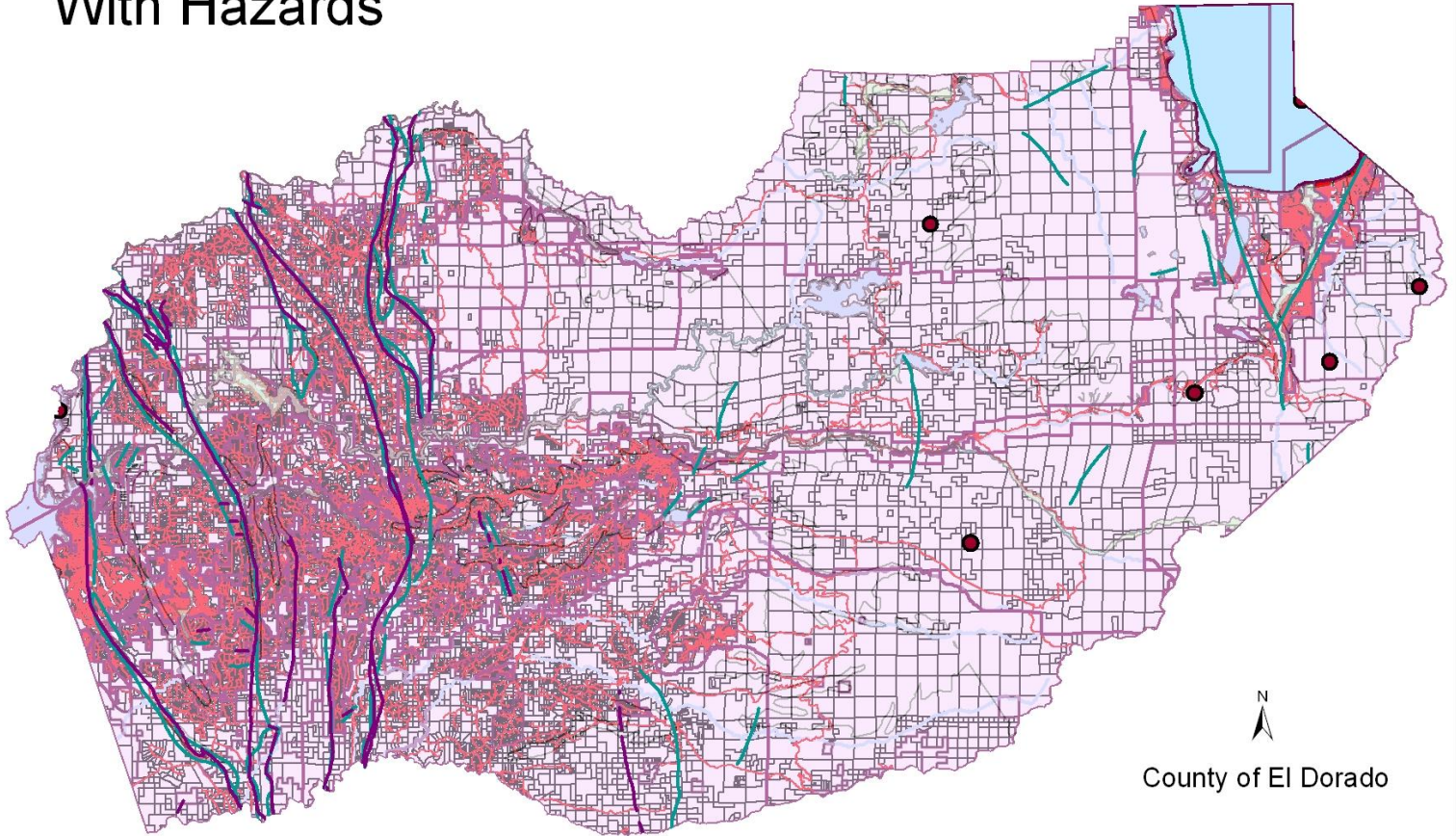
County of El Dorado

# With Jurisdictions

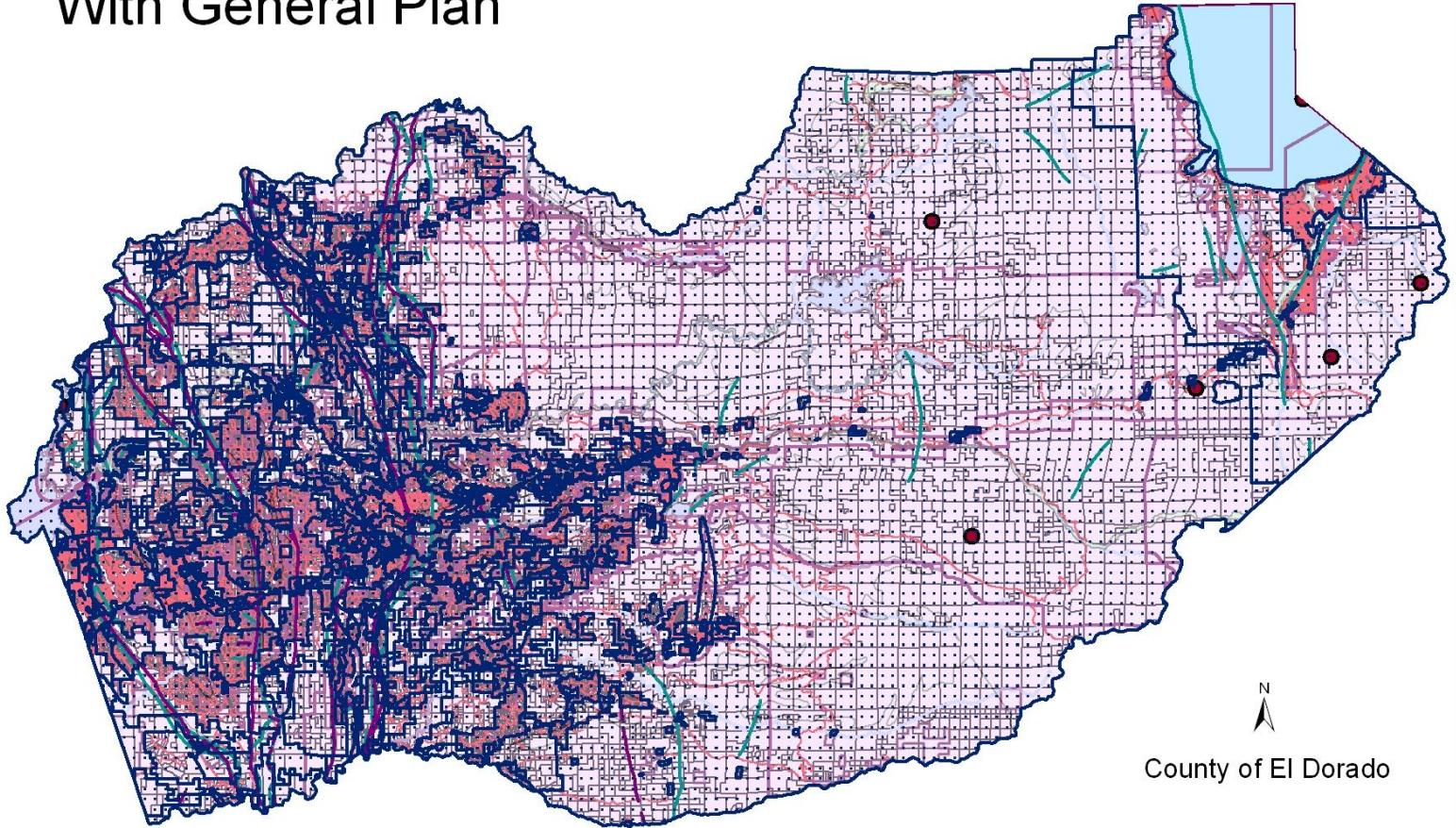


County of El Dorado

# With Hazards



# With General Plan



# LMIS is doing MORE with LESS

- LMIS/GIS is serving 220% **MORE** County clients.
- LMIS/GIS is serving 691% **MORE** External clients.
- LMIS/GIS is serving 22% **MORE** LMIS mainframe users.
- LMIS/GIS is managing 16% **MORE** parcel constraint layers.
- LMIS/GIS is managing 220% **MORE** parcel constraint records.
- LMIS/GIS is managing 11% **MORE** External clients.
  
- Though LMIS is now **MORE** complex, has **MORE** clients, has **MORE** value it is being done with:
  - 17% **LESS** staff
  - And costs the county \$220,000 **LESS** than 2004.
  - And costs the client departments 31% **LESS** than five years ago.



# **BOS Presentation**

## **December 2004**

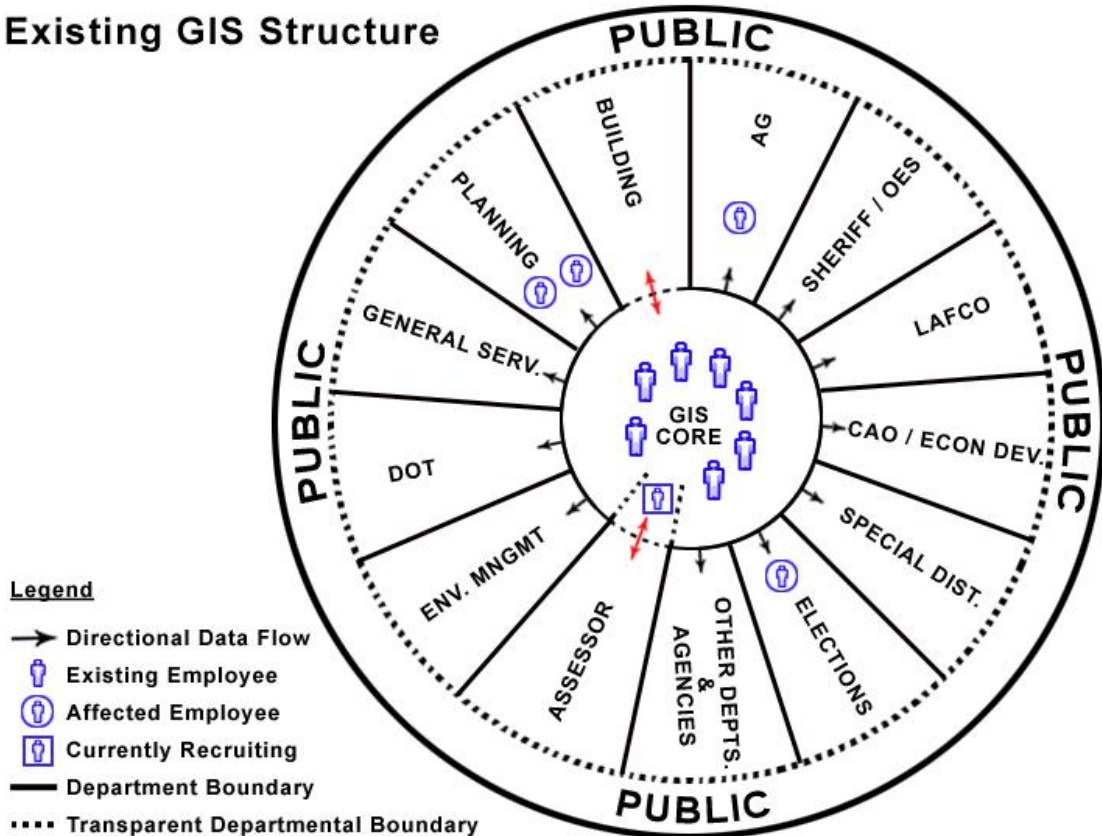
### **“BOARD OF SUPERVISORS ADOPTED GOALS FOR 2004**

*Provide the best possible service to El Dorado County residents, businesses, and visitors through the following activities:*

Complete reorganization and **consolidation** of county departments to provide cost-effective and responsive services and to facilitate cooperation and coordination to improve overall services. “

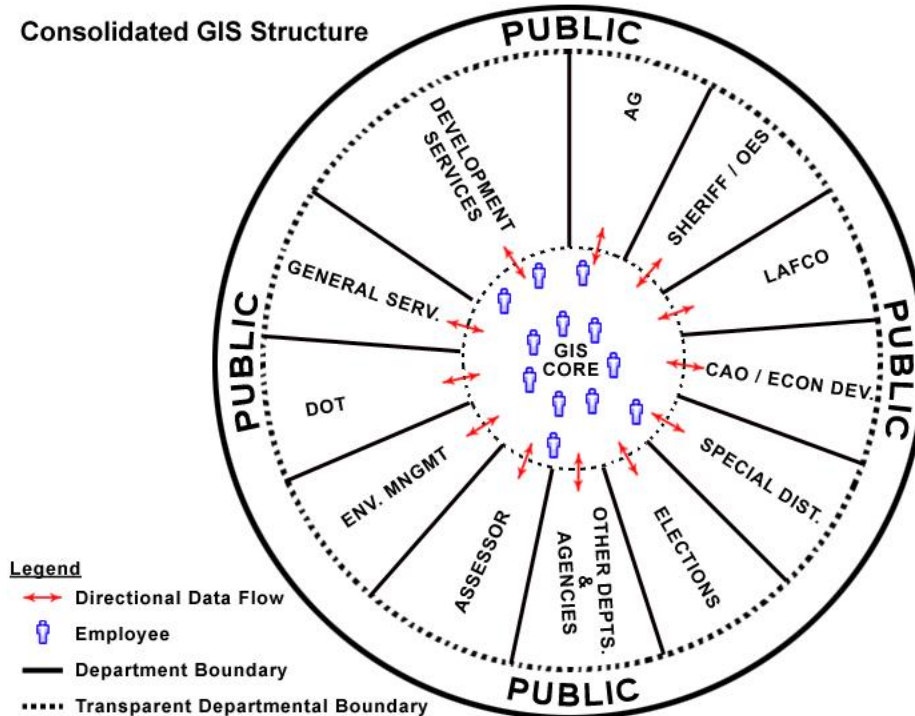
# BOS Presentation December 2004

## Existing GIS Structure



# BOS Presentation December 2004

Consolidated GIS Structure



# **BOS Presentation**

**December 2004**

## **Reasons for Consolidation**

- Maintenance of information is more efficient.
- Information is shared across departmental and functional boundaries.
- Consistent answers from different departments.
- Responsibility for the accuracy, currency, and security of County data is clear.
- Departments have back-up personnel.
- Time spent researching, acquiring, and managing similar software, hardware, peripherals, and datasets is managed more effectively.
- One stop shop for land based information.
- Public safety is no longer compromised by lack of integration.

# County

## Land Management Information System

### January 2009

**LMIS** – Surveyor's Office

**Parcel database:** In 2004 our parcel constraint database contained 2000 constraint types and 300,000 records.

Today it contains 2400 constraint types and over 1 million records. Here's a sample:

[Parcel review](#)

**Permit system:** In 2004, 1000 permit types. Today they are nearly 1235 types. A gain of 235. [Permit selection](#)

**Project Tracking:** Project status applications on the Internet. Numerous query options, all written by LMIS staff. [Project Status](#)

**GIS:** Nearly all parcel constraints are map based.

**Other:** Parcel spatial database, transportation feature spatial database, jurisdiction spatial database. [Residential checklist](#)

**Clients:** approx. 64 County dept., 1028 non-County.

# Key Issues: COSTS

## July 2009



TOTAL FEES



LMIS CLIENTS

- LMIS is a revenue source for County and other agencies.
- LMIS is a community asset.
- Net County cost applied/abatement funding has decreased by 31% since 2004.
- Surveyor's NCC have increased due to these decreases.
- The consolidation added 5 staff to the LMIS group.
- Three staff positions remain performing the work of the original five.
- The staffing trend over the last 10 years still shows a gain of 3 FTEs, all due to the consolidation.
- One position of the three is fully funded by the Assessor's office and that position replaced a Supr. Cadastral Drafter, again no increase in FTEs to the County.
- So, GIS positions County wide have actually decreased from 12 to 10.

# County GIS

## Intra-departmental Support

### July 2004 – July 2009

<b>Cost Applied Charges/Abatements</b>	<b>Jul-04</b>	<b>Jul-09</b>	<b>\$ change</b>	<b>%change</b>
Dev. Services GIS staff costs	\$178,879	\$150,000	-\$28,879	-16%
Dev. Services LMIS permit system support	\$68,503	\$0	-\$68,503	-100%
Dev. Services LMIS access	\$12,265	\$0	-\$12,265	-100%
<b>Dev. Services Total</b>	<b>\$259,647</b>	<b>\$150,000</b>	<b>-\$109,647</b>	<b>-42%</b>
<b>Ag. Department</b> (half-year)	<b>\$50,296</b>	<b>\$12,000</b>	<b>-\$38,296</b>	<b>-76%</b>
<b>Assessor Office</b> (Supr. Cadastral Drafter + prorated GIS staff)	<b>\$107,000</b>	<b>\$107,000</b>	<b>-\$0</b>	<b>0%</b>
<b>Sheriff /OES</b>	<b>\$0</b>	<b>\$10,000</b>	<b>\$10,000</b>	<b>0%</b>
<b>Environmental Management</b>	<b>\$7,400</b>	<b>\$8,000</b>	<b>\$600</b>	<b>8%</b>
<b>Elections Department</b> (half-year)	<b>\$32,000</b>	<b>\$0</b>	<b>-\$32,000</b>	<b>-100%</b>
<b>Department of Transportation</b>	<b>\$14,000</b>	<b>\$100,000</b>	<b>\$86,000</b>	<b>614%</b>
<b>IT charges for LMIS app dev</b>	<b>\$0</b>	<b>-\$62,000</b>	<b>-\$62,000</b>	<b>0%</b>
<b>Total</b>	<b>\$470,343</b>	<b>\$325,000</b>	<b>-\$145,343</b>	<b>-31%</b>

# County GIS

## July 2004 – July 2009

<b>Measurement</b>	<b>Jul-04</b>	<b>Jul-09</b>	<b>\$change</b>	<b>%change</b>
<b>County GIS staff</b>	<b>12</b>	<b>10</b>	<b>-2</b>	<b>-17%</b>
<b>County GIS staff costs (present value)</b>	<b>\$1,315,000</b>	<b>\$1,115,000</b>	<b>-\$200,000</b>	<b>-15%</b>
<b>Cost Applied Charges/Abatements</b>	<b>\$470,343</b>	<b>\$254,483</b>	<b>-\$215,860</b>	<b>-31%</b>
<b>GIS clients County Depts/Org.</b>	<b>20</b>	<b>64</b>	<b>44</b>	<b>220%</b>
<b>GIS clients external organizations.</b>	<b>130</b>	<b>1,028</b>	<b>898</b>	<b>691%</b>
<b>Parcel constraint types.</b>	<b>2,098</b>	<b>2,434</b>	<b>336</b>	<b>16%</b>
<b>Parcel constraint records.</b>	<b>301,355</b>	<b>1,084,310</b>	<b>782,955</b>	<b>260%</b>
<b>Permit types.</b>	<b>1,009</b>	<b>1,125</b>	<b>116</b>	<b>11%</b>
<b>LMIS users (total active and inactive)</b>	<b>798</b>	<b>971</b>	<b>173</b>	<b>22%</b>

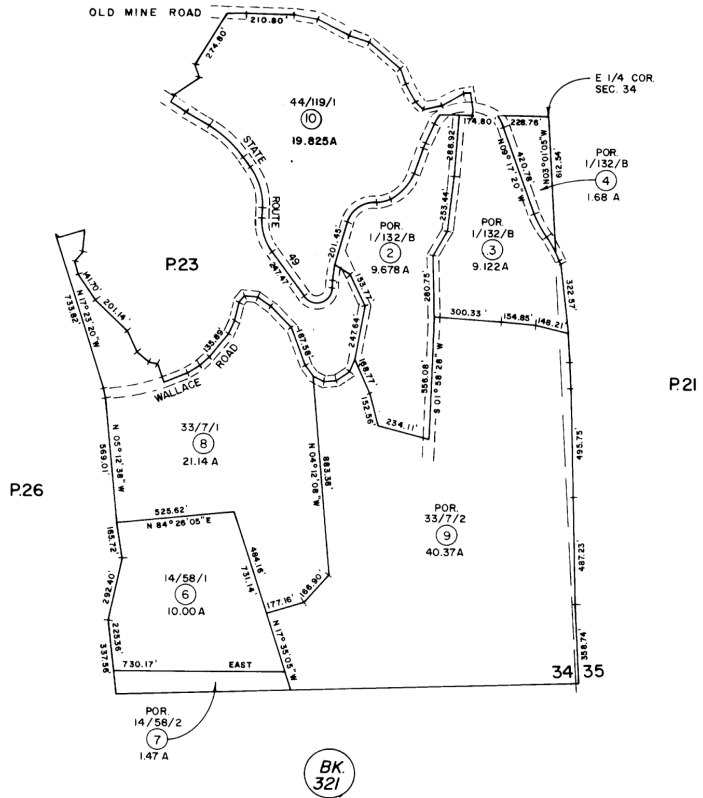


# Summary

## MORE with LESS

- LMIS/GIS is serving 220% **MORE** County clients.
- LMIS/GIS is serving 691% **MORE** External clients.
- LMIS/GIS is serving 22% **MORE** LMIS mainframe users.
- LMIS/GIS is managing 16% **MORE** parcel constraint layers.
- LMIS/GIS is managing 220% **MORE** parcel constraint records.
- LMIS/GIS is managing 11% **MORE** External clients.
  
- Though LMIS is now **MORE** complex, has **MORE** clients, has **MORE** value it is being done with:
  - 17% **LESS** staff
  - And costs the county \$220,000 **LESS** than 2004.
  - And costs the client departments 31% **LESS** than five years ago.

End









33-7

33-7

33-7

33-7

**BASIS OF BEARING:**

The basis of bearing of this survey is identical with the easterly line of Section 34, T. 11 N., R. 10 E., which is N 01° 05' W as said line is shown on P.M. 5-78 an is established from found monuments shown here on.

**PARCEL MAP**

PORTION OF SECTION 2, T. 10N., R. 10E., M.D.M. AND PORTIONS OF SECTIONS 34 AND 35, T. 11N., R. 10E., M.D.M. BEING PARCEL C OF P.M. 5-78 COUNTY OF EL DORADO, STATE OF CALIFORNIA JULY, 1984 SCALE 1" = 200'

ROSE'S ENGINEERING-GEOLGY AND SURVEYING INC. L.S. 3646 E.G.242 R.C.E. 1928 sheet 1 of 1

**SURVEYOR'S CERTIFICATE:**

This map was prepared by me or under my direction and is based upon a field survey in conformance with the requirements of the Subdivision Map Act and local ordinance at the request of Doyle M. Gaverdon on April 21, 1984. I hereby state that this parcel map substantially conforms to the approved or approved tentative map, if any.

All monuments are of the character and occupy the positions indicated and are sufficient to enable this survey to be retraced.



*Merwin F. Rose*  
Merwin F. Rose L.S. 3646

**COUNTY SURVEYOR'S CERTIFICATE:**

This map conforms with the requirements of the Subdivision Map Act and local ordinances.

Dated: July 12<sup>th</sup>, 1984.

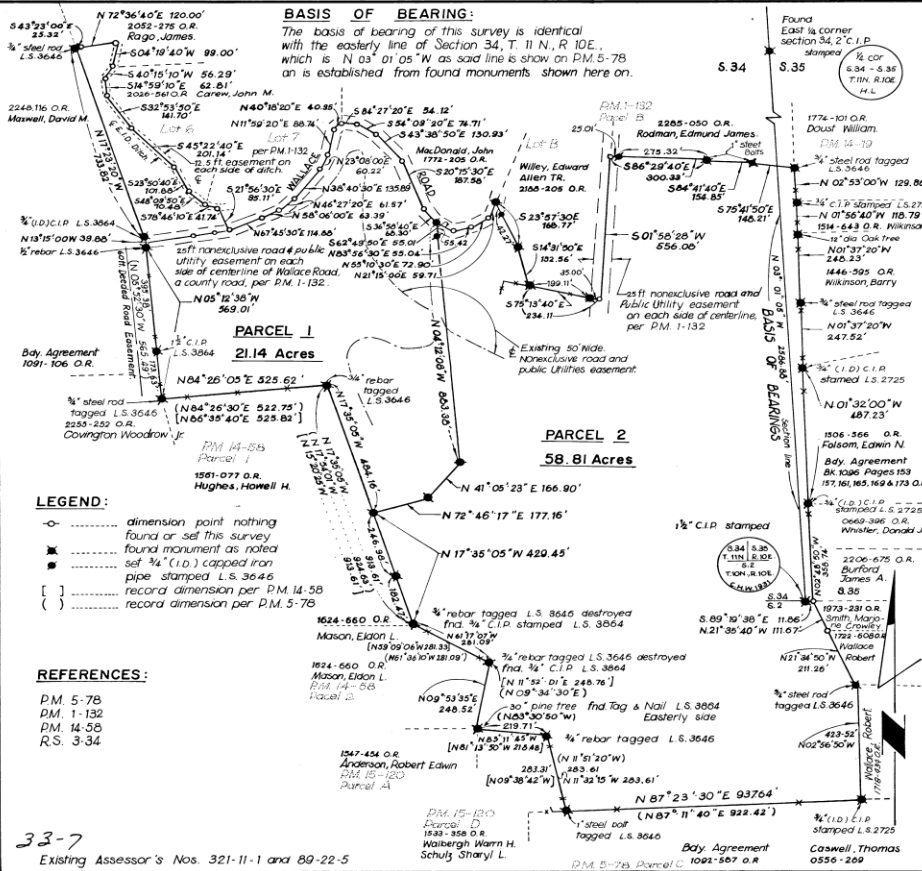


*Jack V. Ryeon*  
Jack V. Ryeon L.S. 4181  
County Surveyor  
County of El Dorado

**COUNTY RECORDER'S CERTIFICATE:**

Filed this 7<sup>th</sup> day of July 1984 at 2:52 PM in Book 33 of Parcel Maps, of Page 7 of the Request of DOROTHY M. GAVENDON  
Dorothy Carr  
DOROTHY CARR  
County Recorder  
County of El Dorado  
By: *Maya J. Stroh*  
Deputy

Tentative Map p. 62-90 Approved 12/12/83



**LEGEND:**

- ..... dimension point nothing found or set this survey
- ..... found monument as noted
- ◆ ..... set 1/4" (I.D.) capped iron pipe stamped L.S. 3646
- [ ] ..... record dimension per P.M. 14-58
- ( ) ..... record dimension per P.M. 5-78

**REFERENCES:**

- P.M. 5-78
- P.M. 1-132
- P.M. 14-58
- R.S. 3-34

33-7

Existing Assessor's Nos. 321-11-1 and 89-22-5

Bay Agreement 1001-567 O.R.

P.M. 5-78 Parcel C

# County

## Land Management Information System

October 1994

*LMIS group and GIS staff moves to Surveyor's Office*

***Parcel database:*** owner and address database tables.

***Project Tracking:*** recently completed serves just Planning Services.

***Permit system:*** being built.

***GIS:*** parcel base, school, water, and fire districts.

***Clients:*** approx. 18 County dept., 28 non-County.

*Allocated GIS positions in the Surveyor's Office*

**7 FTE**



# County

## Land Management Information System

July 2004

**LMIS** – *Surveyor's Office*

**Parcel database:** *owner, address, and assessed use database tables.*

**Permit system:** *integrated with parcel database; processes all building, grading, and encroachment permits; fees, approvals, and inspections.*

**GIS:** *parcel base, road network, major water features, and jurisdictions.*

**Clients:** *approx. 20 County dept., 130 non-County.*

*GIS positions in the Surveyor's Office*

**7 FTE**

# Other GIS

## July 2004

***Planning Data*** – *Planning Dept.*

***Parcel Data Info. System:*** *redundant copy of parcel data from LMIS linked to General Plan related attributes.*

***Project Tracking:*** *original part of LMIS, processes land subdivisions and uses LMIS parcel database.*

***Planning GIS:*** *supports development of General Plan layers based entirely on LMIS parcel base.*

*GIS positions in the Planning Dept.*

**2\*FTE**

\* *One GIS Analyst, One Survey Tech. (re-classed to GIS Analyst)*

# Other GIS

## July 2004

***Agricultural*** – Agriculture Department.

***Ag. Commission Projects:*** setback relief, variance, and Special use requests.

***Agricultural GIS:*** supports mapping of crop boundaries, noxious weed infestation, soils, vegetation, ag districts, viticultural boundaries, and project display maps.

*GIS positions in the Agriculture Dept.*

**1 FTE**

# Other GIS

## July 2004

**Elections** – Recorder Clerk/Elections Department.

**Election parcel data:** address data, parcel data, Tax Rate Area. Uses LMIS parcel and addressing data as foundation for election database and LMIS parcel GIS base for precinct mapping.

**Election GIS:** supports precinct mapping, TRA validation, LAFCO support, annexations and detachments, maps for campaigns, and re-districting.

*GIS positions in the Recorder Clerk/Elections*

**1 FTE**

# GIS Opportunity

## July 2004

**“Pursue implementation of electronic drafting and mapping.”** – *Assessor’s Office budget key issue for FY 2004/2005.*

***Assessor Plat Production: entirely manual: 4,000+ Assessor plats.***

*Supv Cadastral Drafter positions in Assessor’s Office 1 FTE*

# County GIS Staffing July 2004

<b>LMIS in Surveyor's Office:</b>	<b>7</b>
<b>Planning GIS and Survey Tech:</b>	<b>2</b>
<b>Agriculture Dept. GIS:</b>	<b>1</b>
<b>Election Dept. GIS:</b>	<b>1</b>
<b>Assessor Supv. Cadastral Drafter:</b>	<b>1</b>

***Total County GIS / Mapping Positions July 2004: 12***

# County GIS Costs

## July 2004

(present day value)

Department	Staff	Staff %	Staff Cost	Cost %
<b>LMIS/GIS staff in Surveyor's Office:</b>	<b>7</b>	<b>58%</b>	<b>\$785,000</b>	<b>60%</b>
<b>Planning GIS and Survey Tech:</b>	<b>2</b>	<b>17%</b>	<b>\$220,000</b>	<b>17%</b>
<b>Agriculture Dept. GIS:</b>	<b>1</b>	<b>8%</b>	<b>\$110,000</b>	<b>8%</b>
<b>Election Dept. GIS:</b>	<b>1</b>	<b>8%</b>	<b>\$110,000</b>	<b>8%</b>
<b>Assessor Sr. Drafting position:</b>	<b>1</b>	<b>8%</b>	<b>\$90,000</b>	<b>7%</b>
<b>Total</b>	<b>12</b>		<b>\$1,315,000</b>	

# **BOS Presentation**

## **December 2004**

### **Approvals and Direction:**

- 1) Approve the attached FY04/05 budget revisions for the affected departments
- 2) Approve the attached personnel allocations for the affected departments
- 3) Direct the County Administrative Officer to implement GIS staff consolidation effective January 1<sup>st</sup> 2005
- 4) Direct that all land applications or databases prior to development be reviewed and approved by the Surveyor for compatibility with the County's GIS program.
- 5) Direct that all GIS hardware and software prior to purchase shall be reviewed and approved by the Surveyor for compatibility with the County's GIS program.



# County GIS Staffing After BOS Approved Consolidation

<b>LMIS in Surveyor's Office:</b>	<b>11</b>
<b>Planning GIS:</b>	<b>0</b>
<b>Planning Survey Tech:</b>	<b>0</b>
<b>Agriculture Dept. GIS:</b>	<b>0</b>
<b>Election Dept. GIS:</b>	<b>0</b>
<b>Assessor Supv. Cadastral Drafter:</b>	<b>1</b>

- ***Total County LMIS/GIS Mapping Positions January 2005: 12***

## Effect on Surveyor's Office January 2005

- County GIS staff stays 12.
- LMIS/GIS staff increases by 57%.
- GIS management stays at one.
- Recruitment starts for Assessor GIS support.
- Census, SACOG, Transportation Commission support.
- General Plan map layer development, maintenance, and implementation.
- Servers, data, databases, and applications require maintenance but,
- Consolidation and elimination of server, data, databases, and applications must also begin.
- Project Tracking software has not been maintained, doesn't support current business needs.
- Multiple versions (some personally owned, others obsolete) of operating systems, databases, GIS, and licenses.
- Costs transferred to Surveyor equate to nearly \$500,000 per year.
- No transfer of training, licensing, software, or hardware dollars.

# County GIS Staffing July 2009

<b>LMIS in Surveyor's Office:</b>	<b>10</b>
<b>Planning GIS:</b>	<b>0</b>
<b>Planning Survey Tech:</b>	<b>0</b>
<b>Agriculture Dept. GIS:</b>	<b>0</b>
<b>Election Dept. GIS:</b>	<b>0</b>
<b>Assessor Supv. Cadastral Drafter:</b>	<b>0</b>

- ***Total County GIS Positions July 2009: 10***

# County GIS Costs

## January 2009

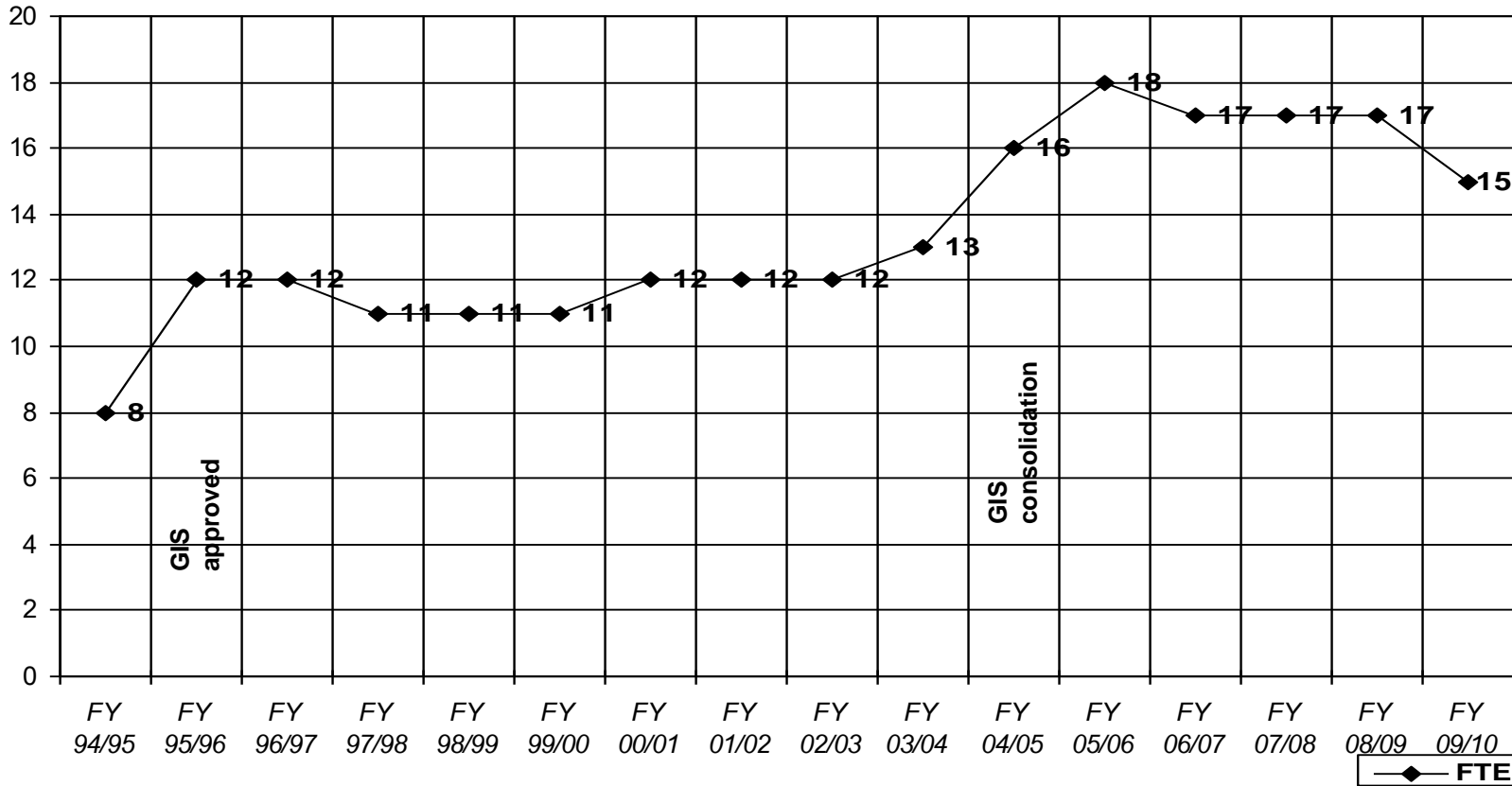
<b>Department</b>	<b>Staff</b>	<b>Staff %</b>	<b>Staff Cost</b> <small>present value</small>
<b>LMIS in Surveyor's Office:</b>	<b>10</b>	<b>100%</b>	<b>\$1,115,000</b>
<b>Planning GIS and Survey Tech:</b>	<b>0</b>	<b>0%</b>	<b>\$0</b>
<b>Agriculture Dept. GIS:</b>	<b>0</b>	<b>0%</b>	<b>\$0</b>
<b>Election Dept. GIS:</b>	<b>0</b>	<b>0%</b>	<b>\$0</b>
<b>Assessor Sr. Drafting position:</b>	<b>0</b>	<b>0%</b>	<b>\$0</b>
<b>Total</b>	<b>10</b>		<b>\$1,115,000</b>

# Key Issues: Staffing

## July 2009

- Total County GIS positions has decreased from 12 to 10.
- The Board transferred with 100% funding, 4 staff.
- Only two of those staff remain in the Surveyor's office.
- The Surveyor's office continues to do the work for the other 2 staff with substantially lower cost applied and abatement level.
- The Board's consolidation decision has resulted in an annual savings of nearly \$200,000.

# Surveyor's Office Staffing Levels FY 94/95 to FY 09/10

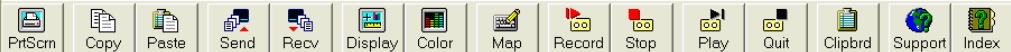


# Key Issues: Workload

## July 2009

- Three times as many County organizations served.
- External clients have increased seven fold.
- Mainframe LMIS clients has increased by 20%.
- New applications, business requirements, rule changes, and fee schedules have been put in place.
- Data required to support the new applications, requirements, rule changes, and fee are constantly changing and needs constant maintenance. Workload:
- The Surveyor's office continues to do the work of the 2 eliminated staff.





T98 D

PARCEL REVIEW - LMIS

06/10/09

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PARCEL: 118 130 36 1 SITUS:

CASE	CATG	ST	COMMISSION	REMARK
ASB	REV		Asbestos Review Area	Asbestos review area
BLDG	EDH		BUILDING DEPT/EDH	EL DORADO HILLS PERMIT OFFICE
BS1	CFD		BUCKEYE UNION SCHOOL DISTRICT	BLACKSTONE CFD
CSD	EDH		EDH CSD	COMMUNITY SERVICES DISTRICT
DOT	EDH		STATE TIM FEE-EL DORADO HILLS	DOT STATE EDH
ECOP	MIT2		RARE PLANT PRESERVES	MITIGATION AREA 2
EDHB	ARCH		EL DORADO HILLS BUSINESS PARK	ARCHITECTURAL REVIEW
EID	WARN		EID RECYCLED WATER REVIEW REQ	EL DORADO IRRIGATION DISTRICT
EMPL	CAP		Employment Capacity Review	Employment Capacity Review
FEE	TIM		PARTIAL EDH TIM PREPAYMENT	NEED CERT OF ASSGNMT FROM WV
FIRE	MOD		FIRE REGULATION REVIEW	MODERATE HAZARD GI004281
H2OS	STRM		Conservation Water Resources	Int Stream Setback 50 ft
H2OW	WETL		Conservation Water Resources	Wetlands Setback 50 Ft.
RIF	H50S		EL DORADO HILLS AREA RIF	ROAD IMPACT FEE - SOUTH
SAFE	FEE		PUBLIC SAFETY IMPACT FEE	SAFETY FEE SEE MAP#GI003991
SDES	CATC		SEISMIC DESIGN CATEGORY	SEISMIC DSGN CATG C M#4593_CD
TIMS	ZN8S		HWY 50 T.I.M.	T.I.M ZONE 8 SOUTH

\*\* BEGINNING OF REVIEW LIST \*\*

LMC198A

F1=HELP 2=CLR 3=QUIT 7/8=SCROLL S7/8=PREV/NEXT F9=T99 F10=T07 11=L10 12=EXIT