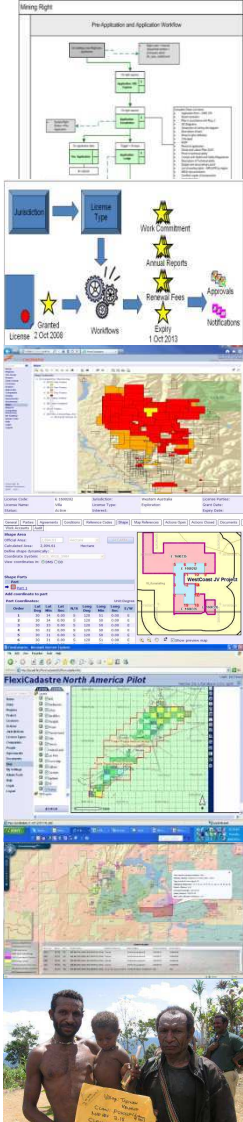




Effective Maps



Toby Mills
Technical Director

spatial dimension
AN MS GROUP BUSINESS

Effective Maps

- Good Maps:
 - ★ Highlight important data
 - ★ Provide useful context
 - ★ Fast
 - ★ Intuitive

Effective Maps

- Poor Maps:
 - ❌ Overwhelm with unimportant data
 - ❌ Slow
 - ❌ Unintuitive

Effective Maps

- 3 Types of Information:
 - ★ Important
 - ⊘ Unimportant
 - Context

Effective Maps

- Purpose of map?
 - Which information is important?
 - Which information is context?
- Not too much context!
- Intuitive symbology (corporate and/or global standards)

Effective Maps

Example:

• Purpose of map: '**Display Global Land Holding**'

★ Important:

- Footprint of ALL licenses
- 'Active' vs. 'Application'
- 'Exploration' vs. 'Mining' rights

⊘ Unimportant:

- Individual License codes
- Individual License boundaries
- Expired Licenses

● Context:

- Country & State/Province borders
- General Project locations

Effective Maps

Example:

• Purpose of map: '***Display Available Banked work for Ontario***'

★ Important:

- Footprint of licenses
- Individual License Codes
- License Types
- Total available work per License

⊘ Unimportant:

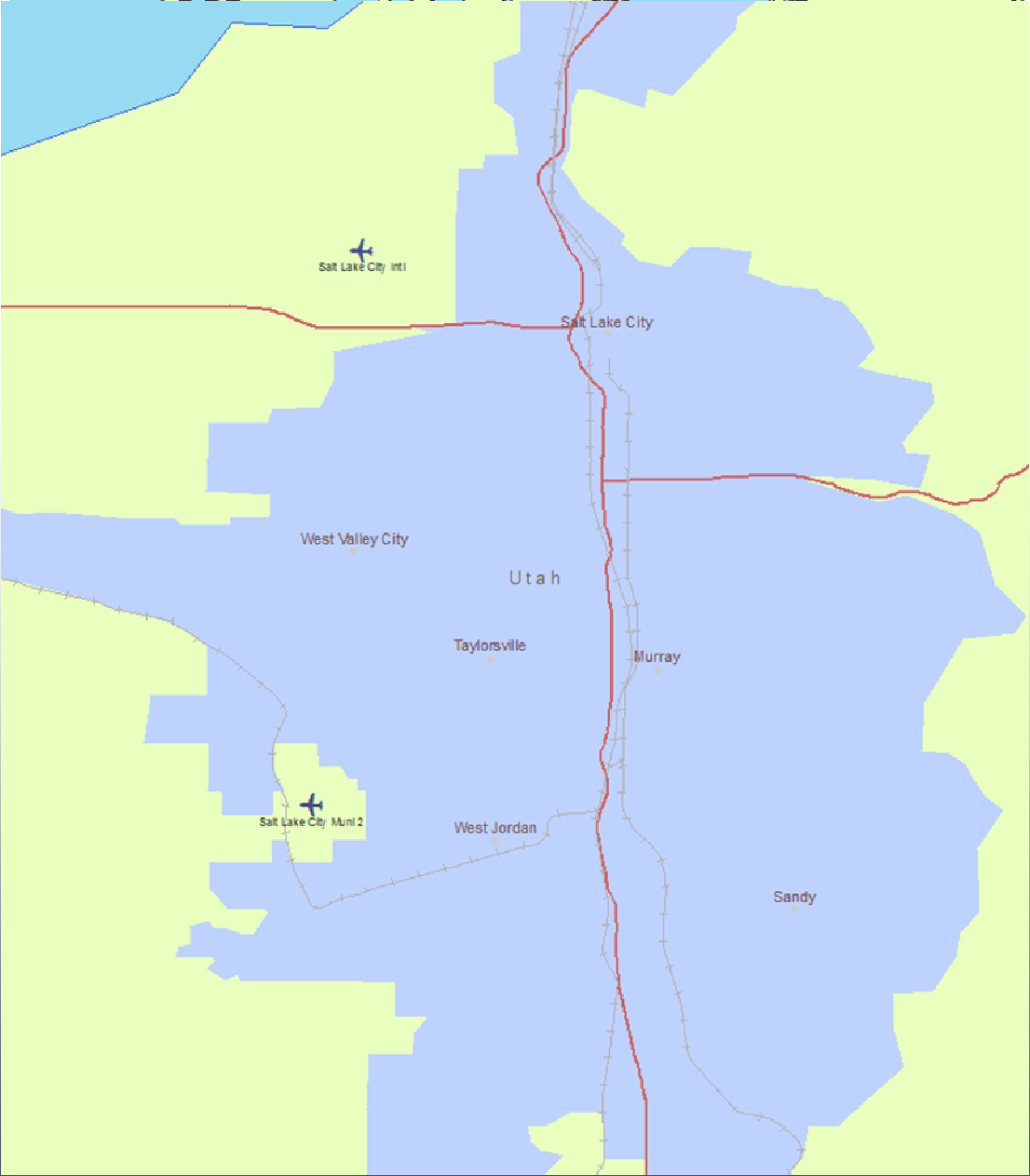
- Licenses outside of Ontario

● Context:

- Province borders
- Project borders

Effective Maps

- **How much detail to display**
- Scale-dependant
- Show Capital Cities when viewing a continent
- Show rural villages when zoomed to claims
- Labels also scale-dependant
- Label countries when viewing a continent
- Do not label countries when viewing licenses



Effective Maps: Symbology

- **What symbology to use?**
- Keep it simple.
- Complex symbology slows maps
- Hatching should highlight exceptions rather than be standard

Effective Maps: Symbology

- **What symbology to use?**
- Use transparency to allow better context
- Use symbology to indicate inside/outside of polygons

Effective Maps: Symbology

- **What symbology to use?**
- Use intuitive colours:
 - Blue: Application
 - Green: Active
 - Orange: Approaching Expiry
 - Red: Expired
- Be sensitive to visually impaired/colour blind

Effective Maps: Symbology

- **What symbology to use?**
- Use paler colours for context
- Use brighter colours & bold labels for important information
- Use short labels when zoomed out

Effective Maps

Poor



Good



Effective Maps

Poor

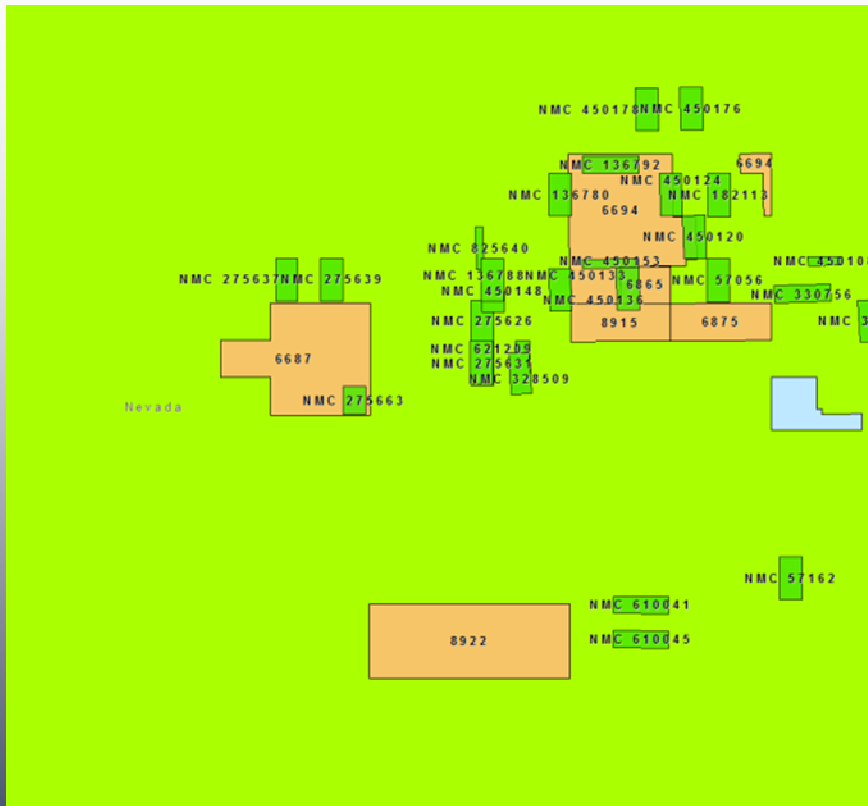


Good

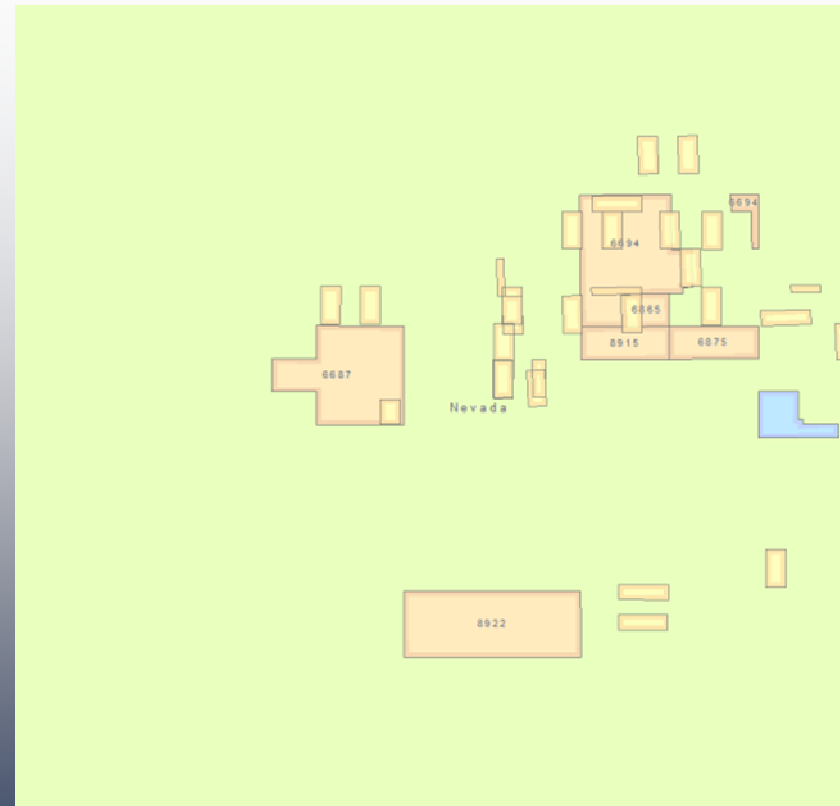


Effective Maps

Poor

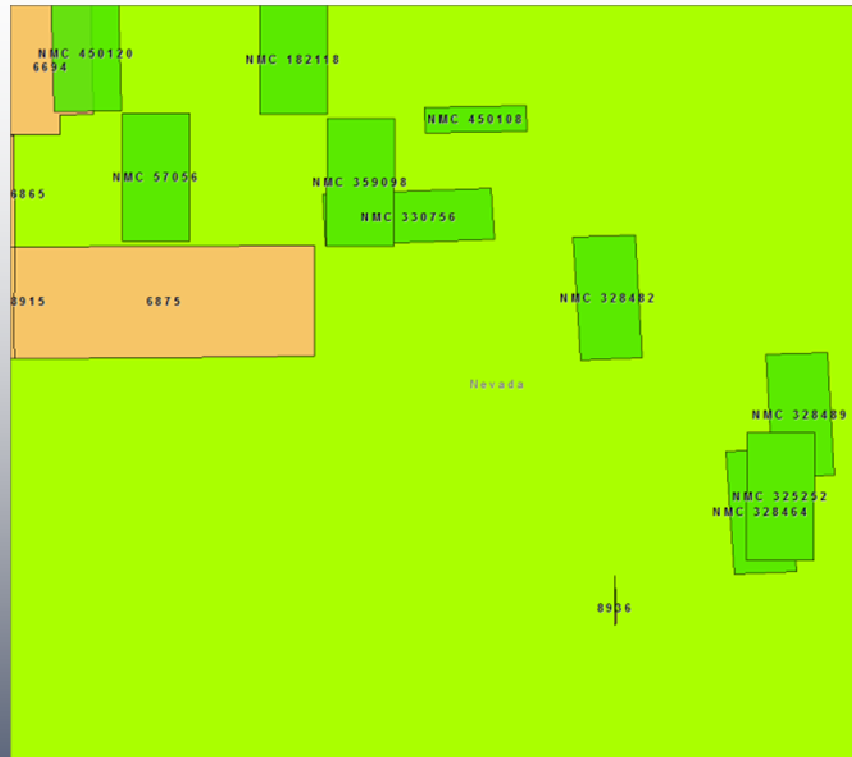


Good



Effective Maps

Poor

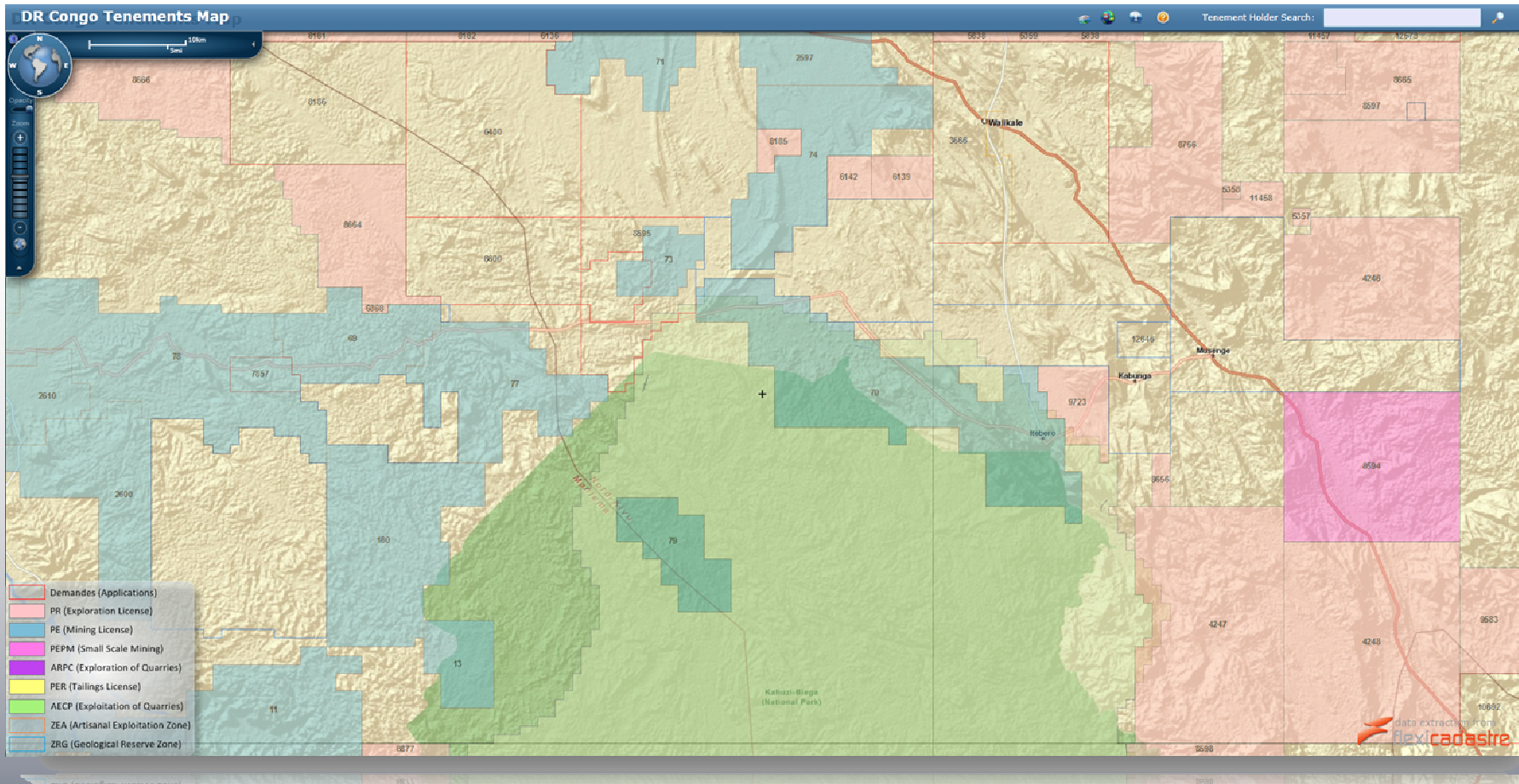


Good



Effective Maps: Context

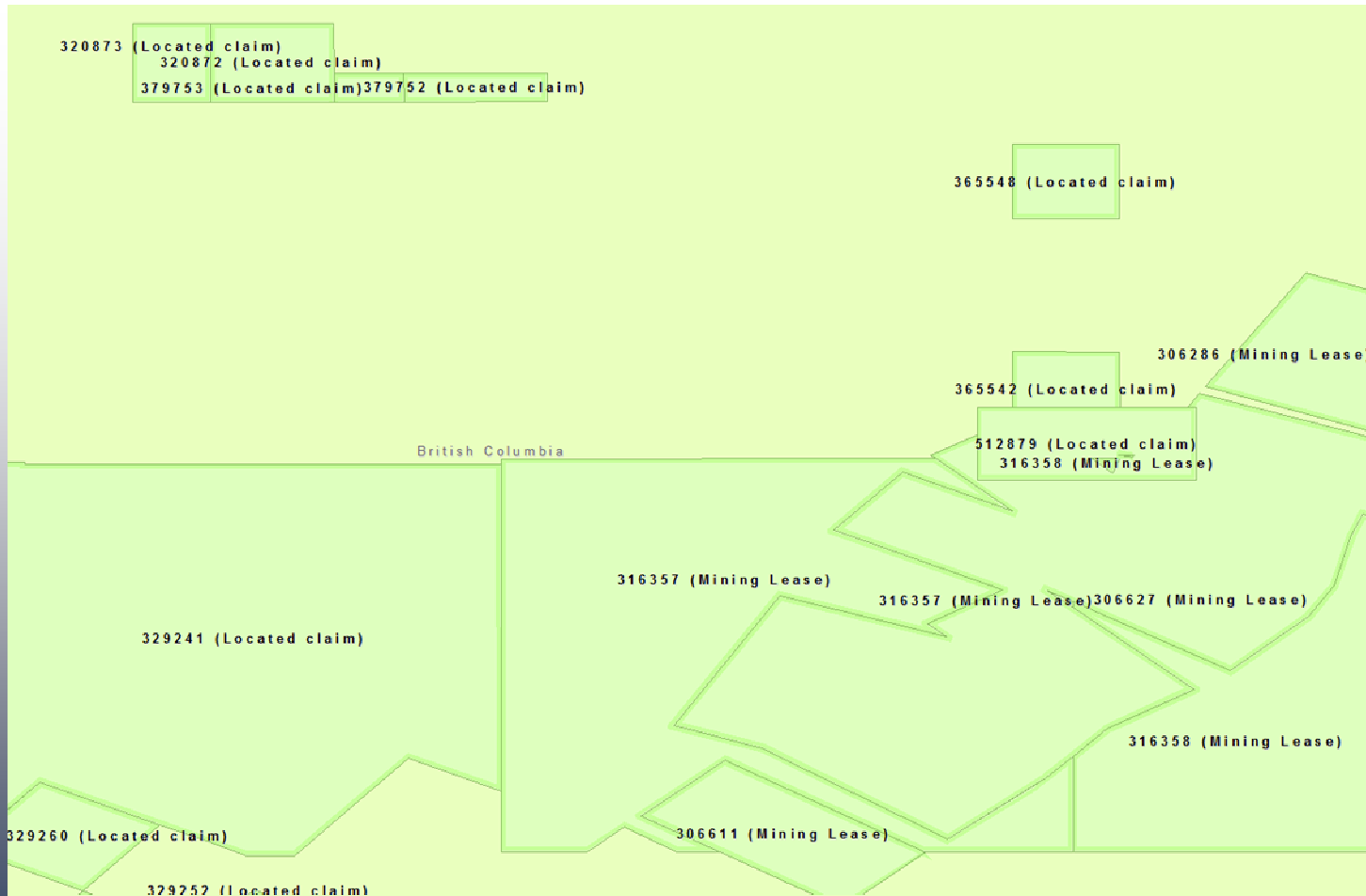
- Too much context detracts from important information
- Cache context data into a single (fused) cache
- Use online services (ArcGIS Online, Bing or Google Maps)



Effective Maps: Labels

- **How to label features?**
- Scale dependant
 - Font
 - Content
- Example:
 - ‘SAR 54318’
 - ‘SAR 54318 (Big Joe 1)’
 - **‘SAR 54318 (Big Joe 1)**
Exploration Permit’

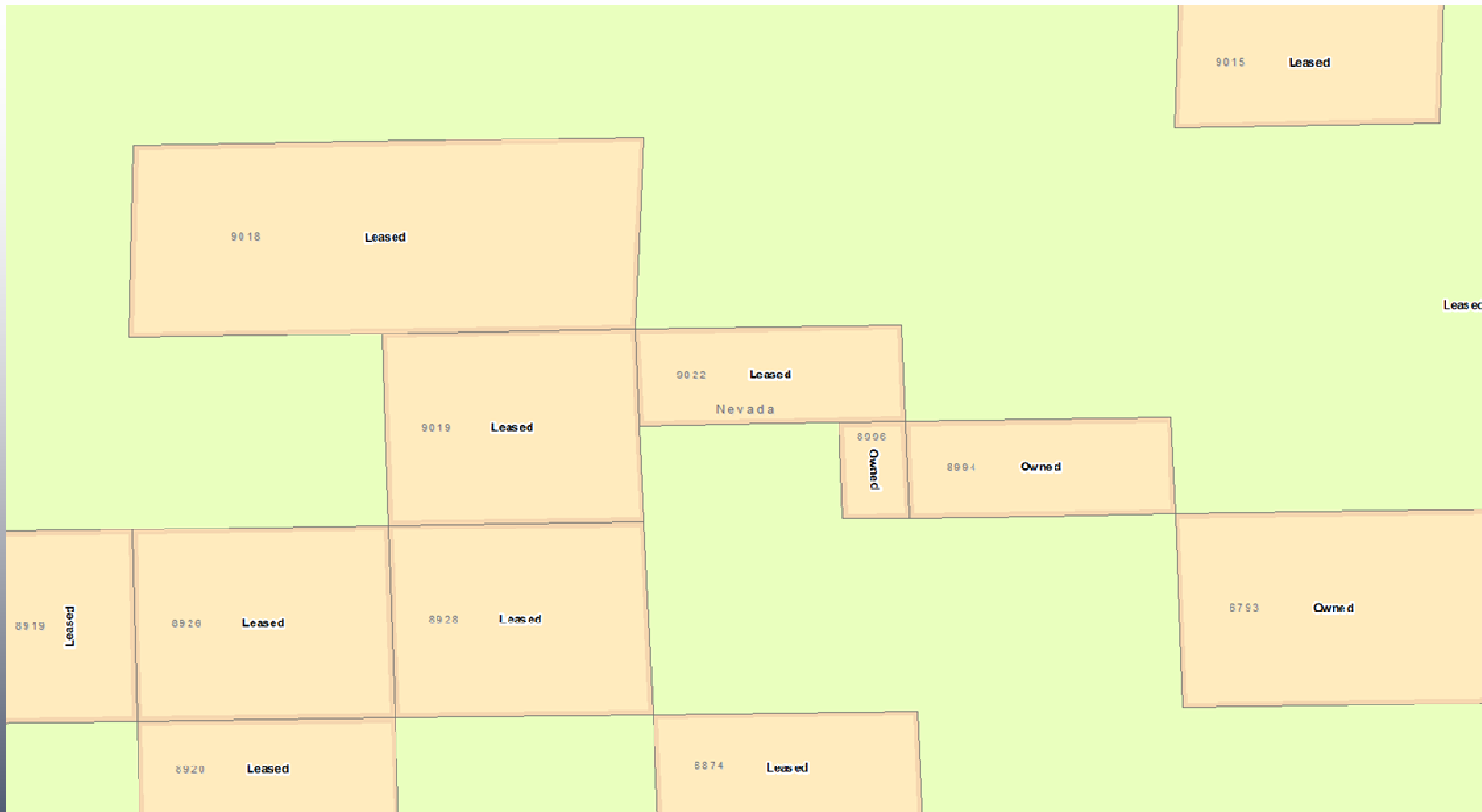
Effective Maps



Effective Maps: Labels

- **How to label features?**
- Extra layers provide optional labels for user to choose from
- Layer: *License Applications*
 - Layer: *Labels – Application Status*
 - Layer: *Labels – Application License Type*
- Layer: *Active Licenses*
 - Layer: *Labels – Expiry Dates*
 - Layer: *Labels - Owners*

Effective Maps



Effective Maps

- Definition Queries exclude Unimportant information

- Examples:

Status Group = “Active”

Population \geq 5,000,000

Action Type = “Application for Enlargement”

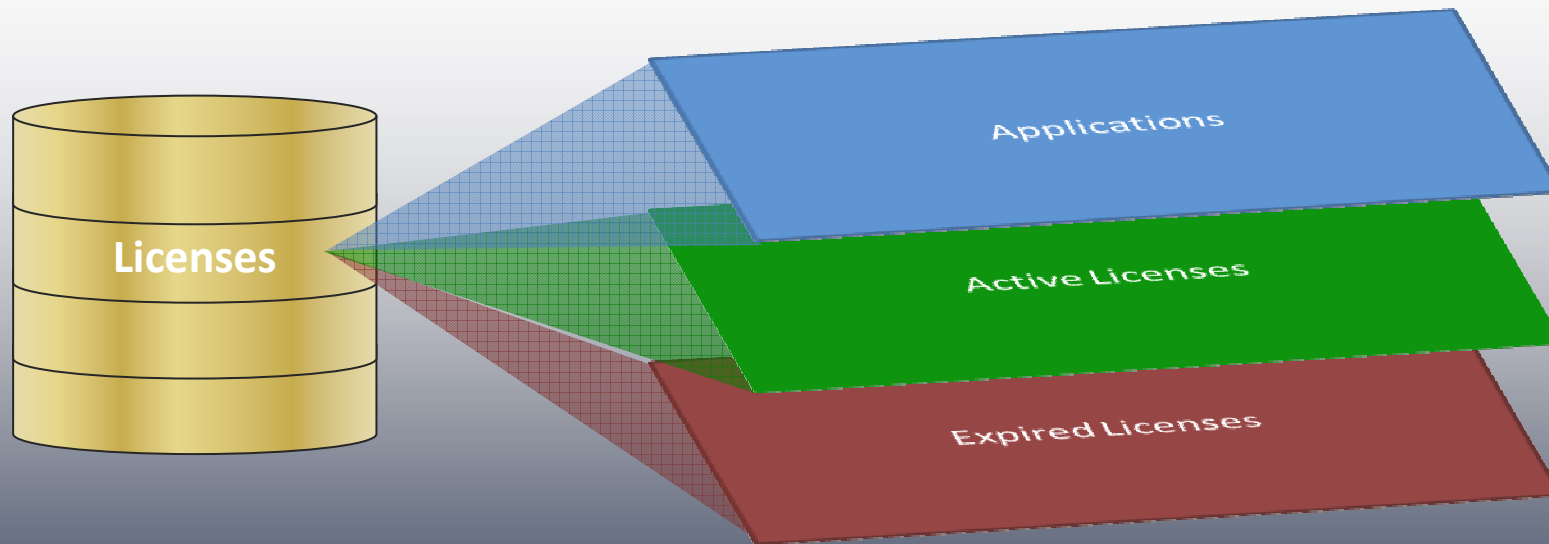
Expiry Date \leq DATEADD("dd",30,GETDATE())

Effective Maps

- Scale-dependant Symbols
- Scale-dependant Labels
- Attribute-dependant Labels
 - Population > 5,000,000: **BOLD CAPS**
 - Population < 5,000,000: Normal
 - Population <1,000,000: <no label>

Effective Maps

Single Feature Class as multiple layers



Effective Maps

- Single Feature Class as multiple layers
- Allows user to turn on/off separately
- Allows independent labelling

Effective Maps

- Use JOINS to incorporate data not directly available from the Feature Class
- Examples:
 - Join data from Payment Actions to highlight Licenses with overdue payments
 - Join data from Work Accounts to label Total available work on licenses
 - Join data from Agreements to highlight licenses that are subject to one or more agreements
- Note: Joins & complex queries can reduce the performance of your map

Effective Maps

demo

Effective Maps

Thank You

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