

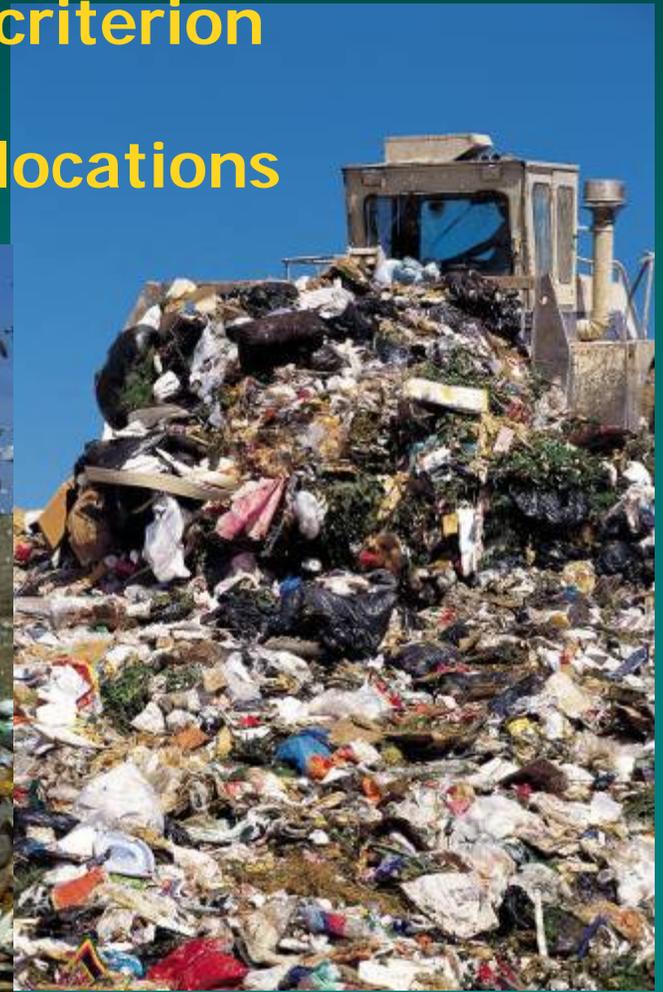
Where is the best place for a landfill?



• Set the criteria

• Create map for each criterion

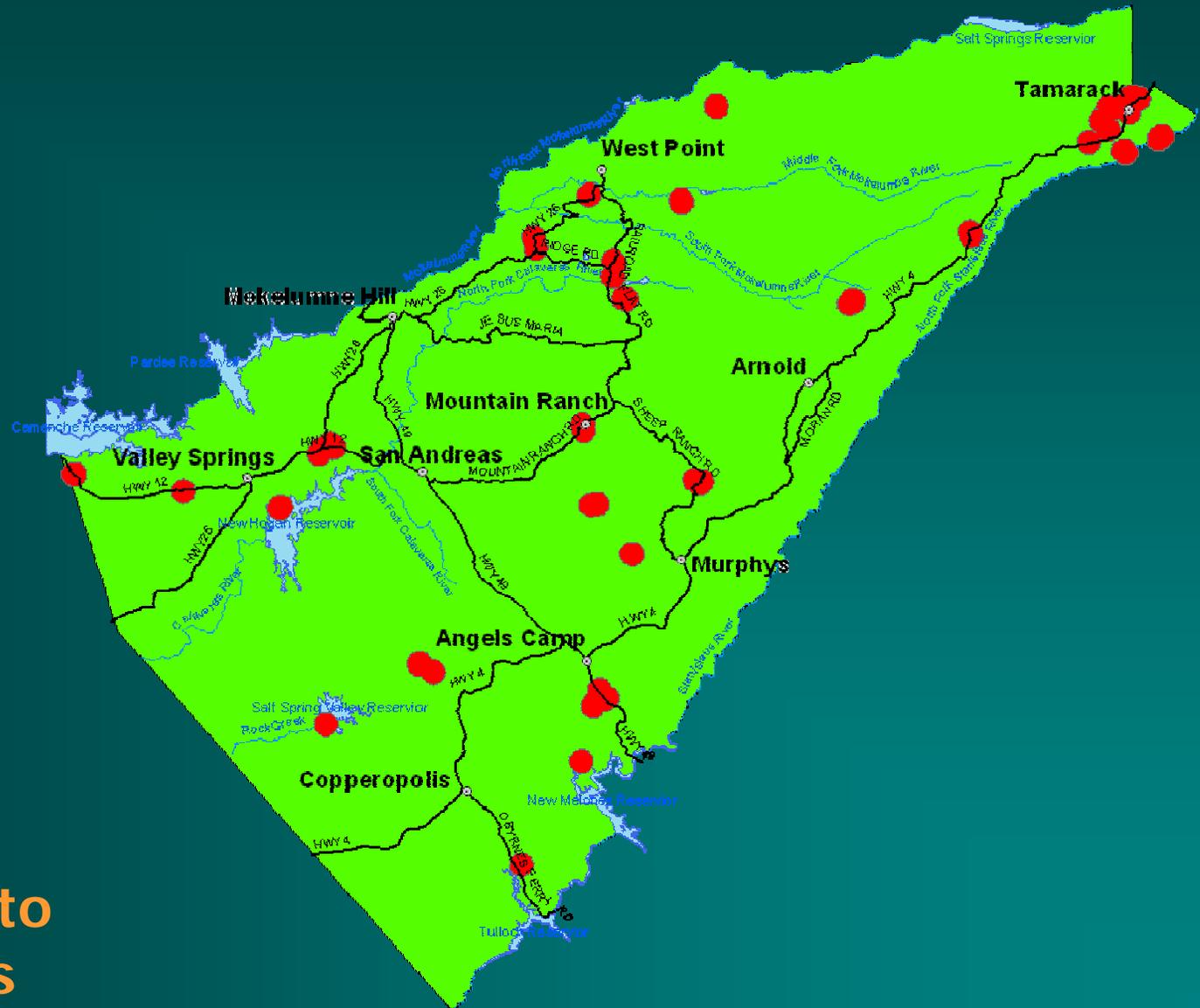
• Overlay maps and analyze locations



Criteria for possible landfill locations

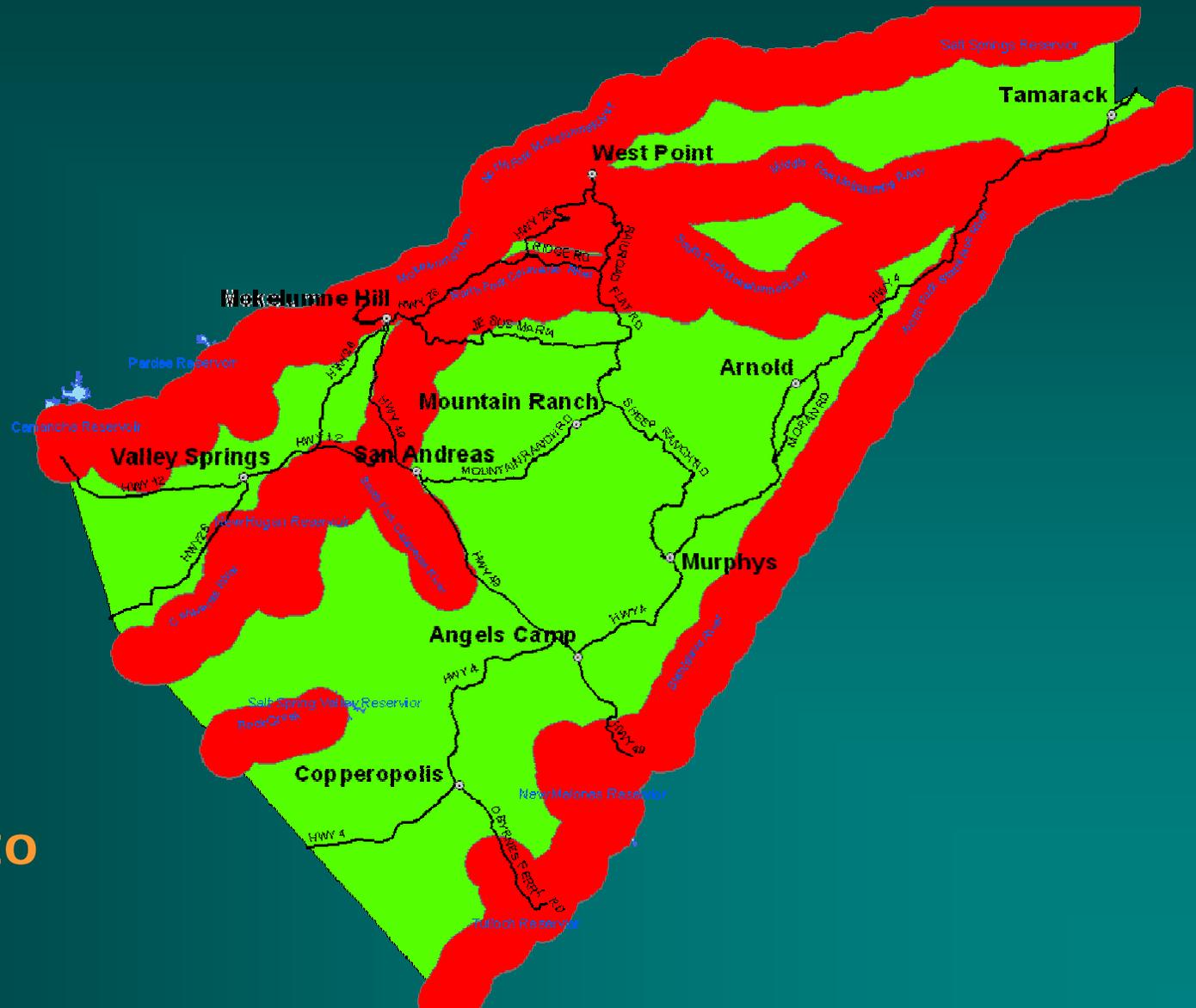
- **Min. 3000' to public wells**
- **Min 4000' off flood planes**
- **Min. 7000' to designated creeks**
- **Population less than 100 people/sqmi**
- **Min. 1000' to nearest parcel with dwelling**
- **Min. 12 miles to existing transfer stations**
- **Max. 20 miles to 4 of the 6 transfer stations**
- **Max. 2 miles from any 2-lane road**

Maps for possible landfill locations



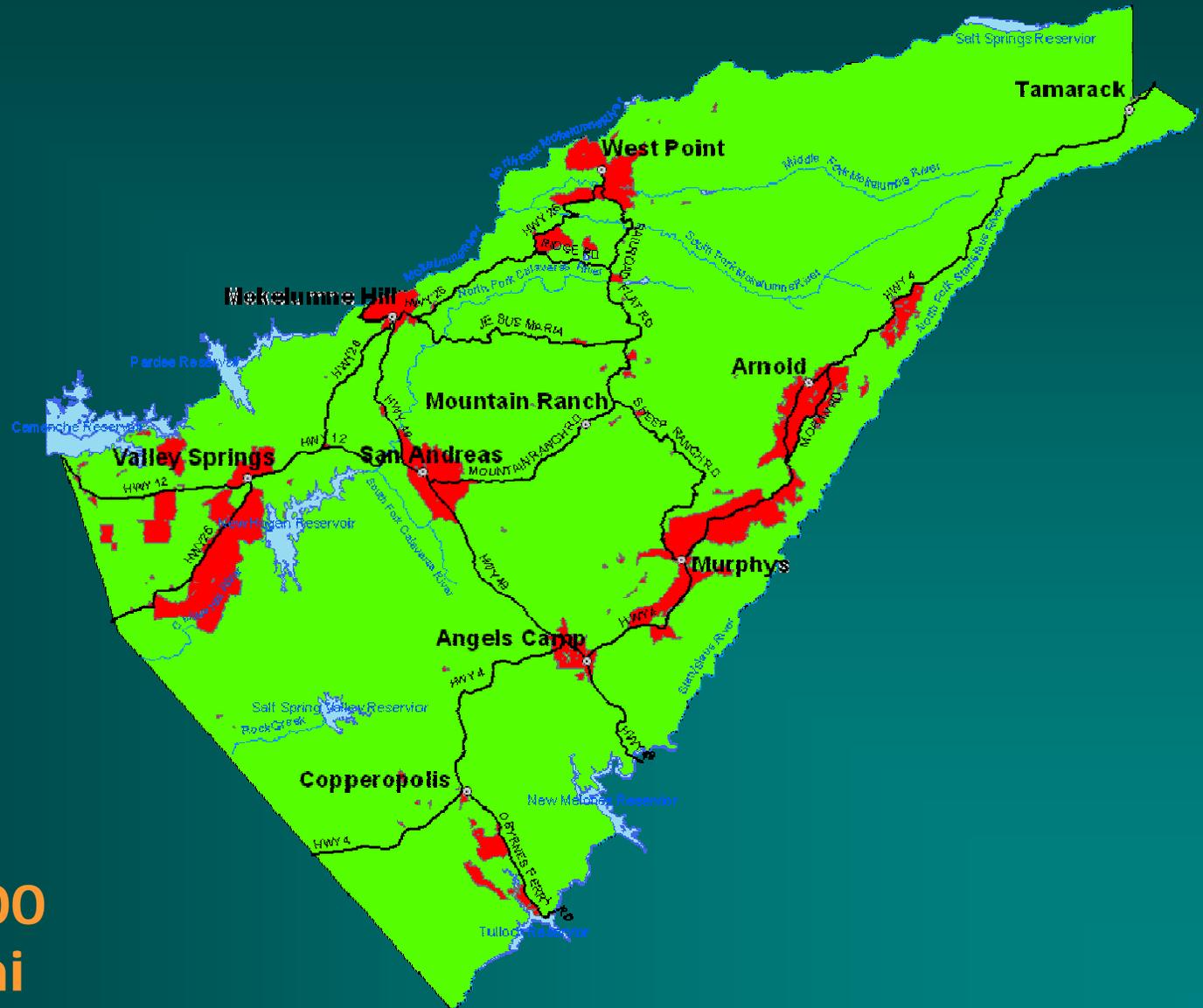
- Min. 3000' to public wells

Maps for possible landfill locations



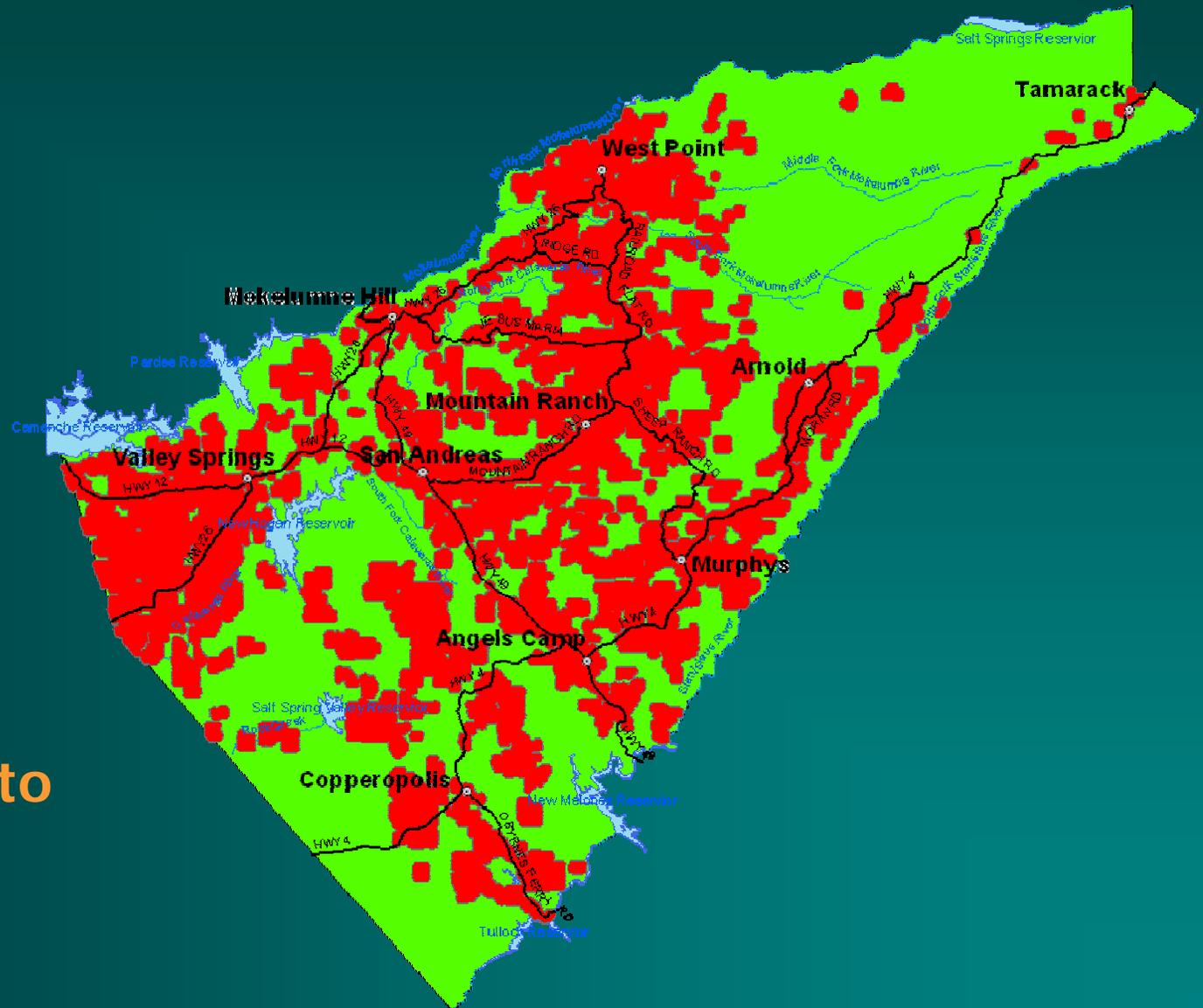
- Min. 7000' to designated creeks

Maps for possible landfill locations



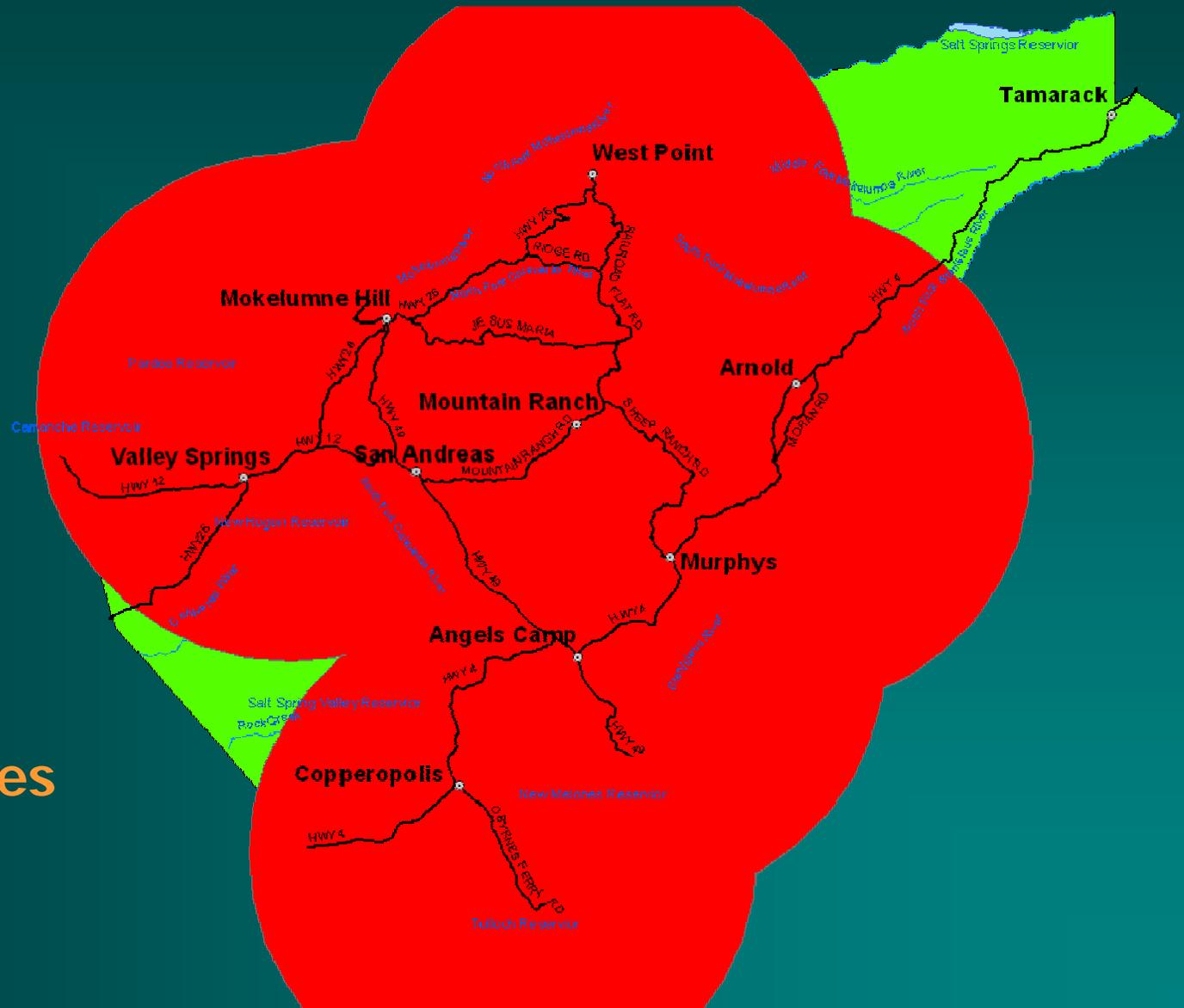
- Population less than 100 people/sqmi

Maps for possible landfill locations



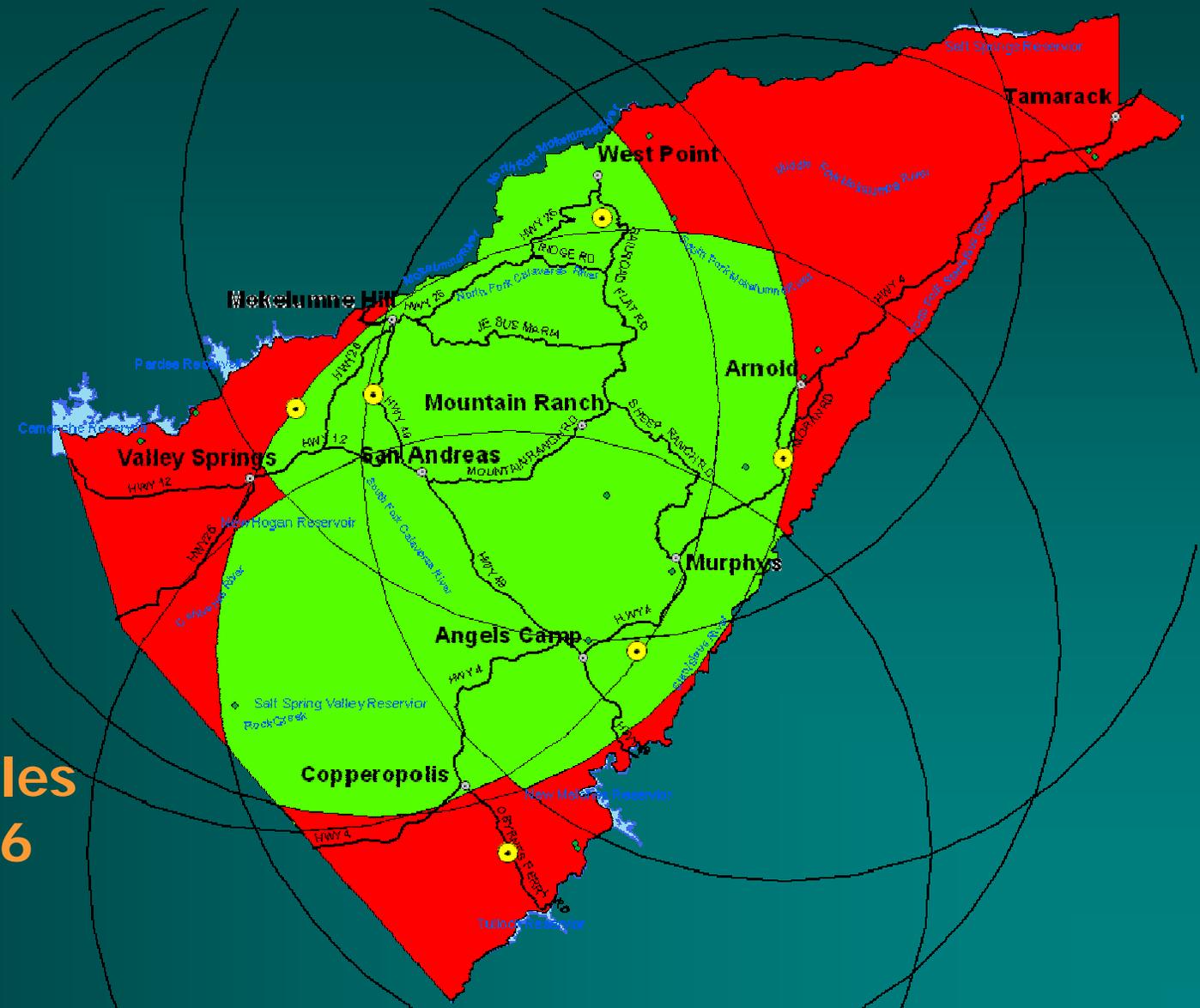
- Min. 1000' to nearest parcel with dwelling

Maps for possible landfill locations



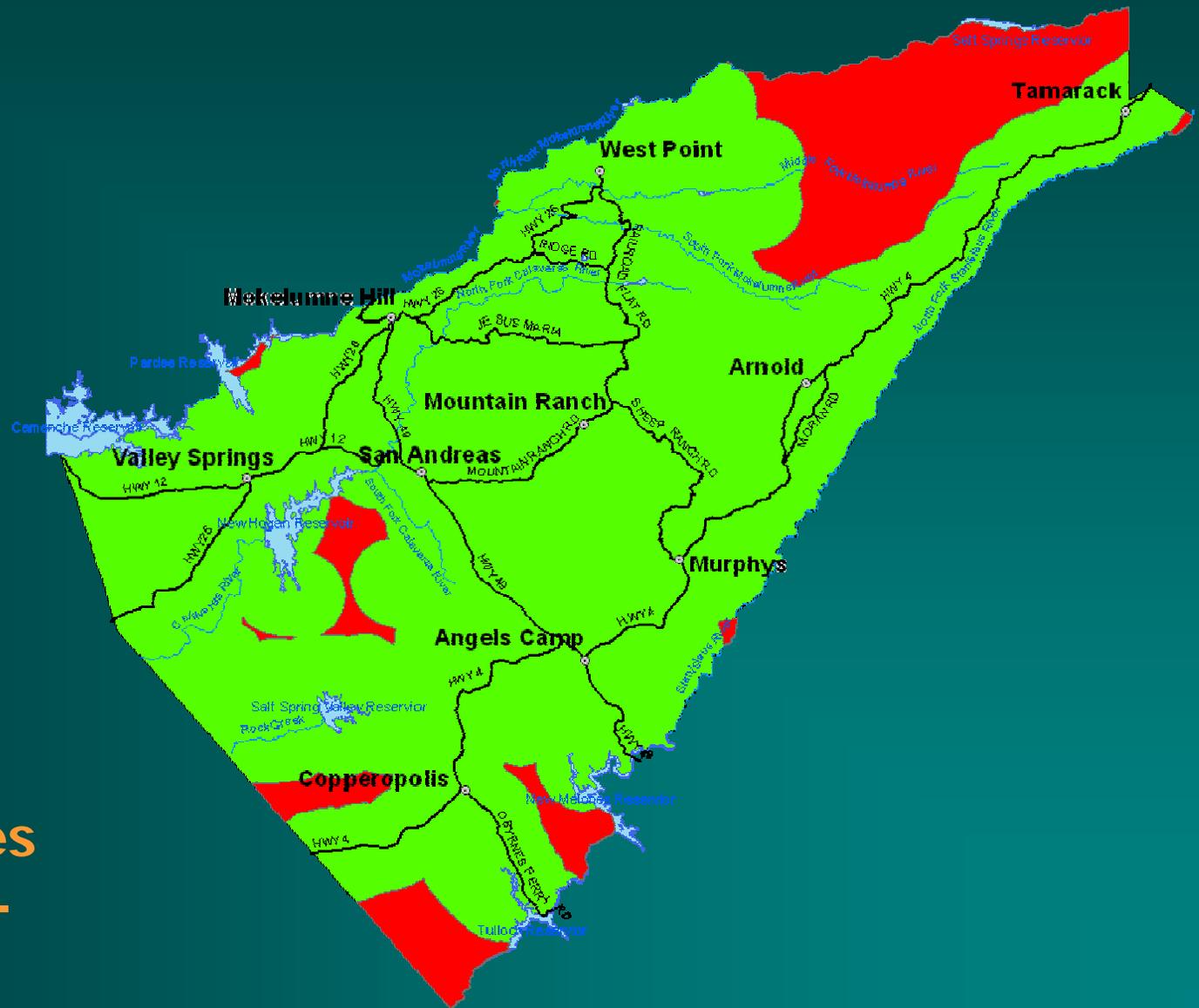
- Min. 12 miles to existing transfer stations

Maps for possible landfill locations



- Max. 20 miles to 4 of the 6 transfer stations

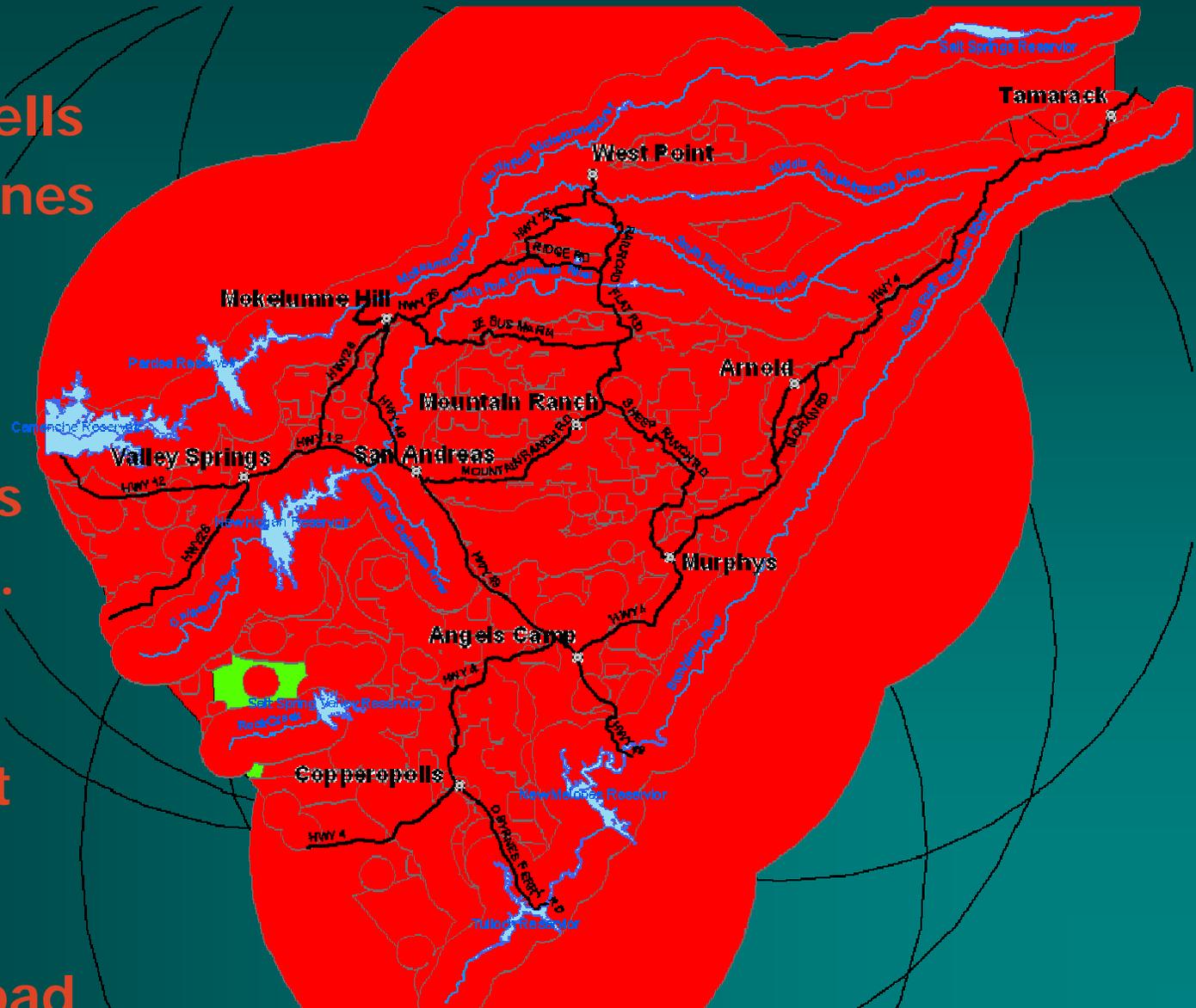
Maps for possible landfill locations



- Max. 2 miles from any 2-lane road

Maps for possible landfill locations

- public wells
- flood planes
- creeks
- people/
sqmi
- dwellings
- min. dist.
transfer
stations
- max. dist
transfer
stations
- 2-lane road



Maps for possible landfill locations



- The actual place of our new landfill

Analyze possible landfill locations

Make the changes visible to the public

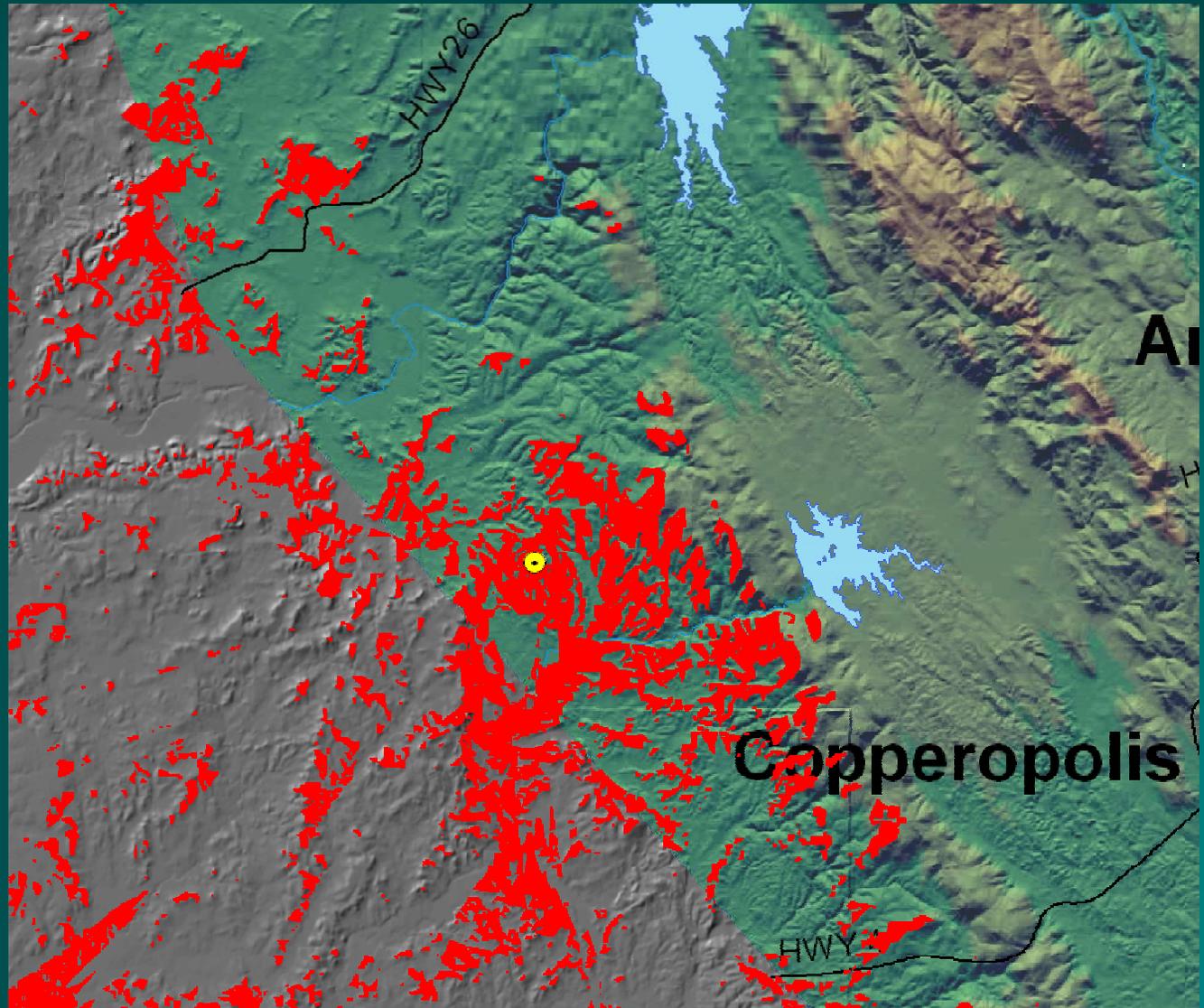
- Landfill in its original state
- Phase 1
- Phase 2
- Phase 3



Analyze possible landfill locations

"Visibility" is one of the biggest concerns

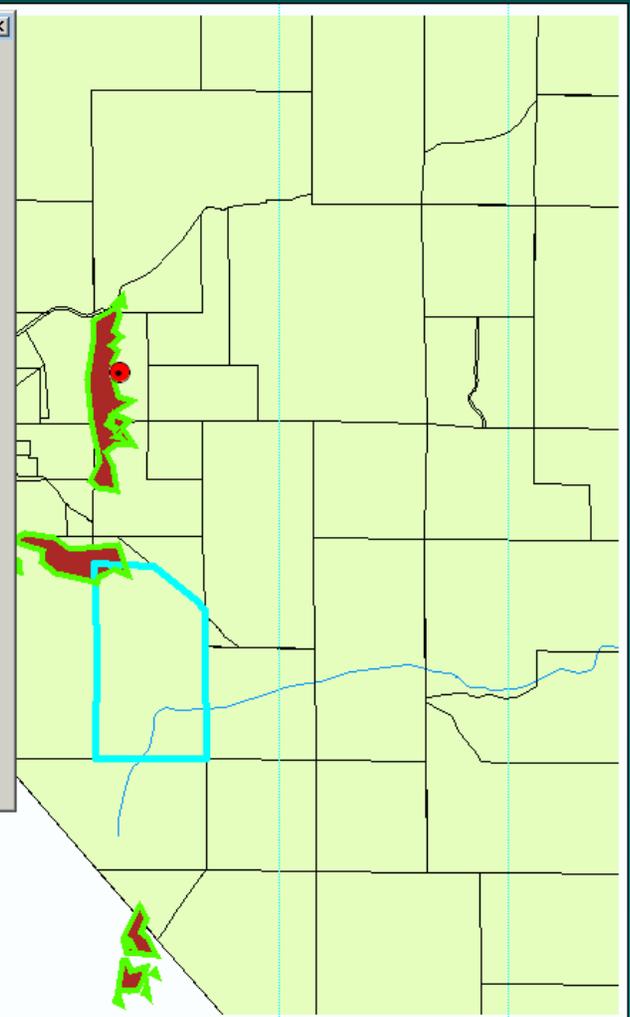
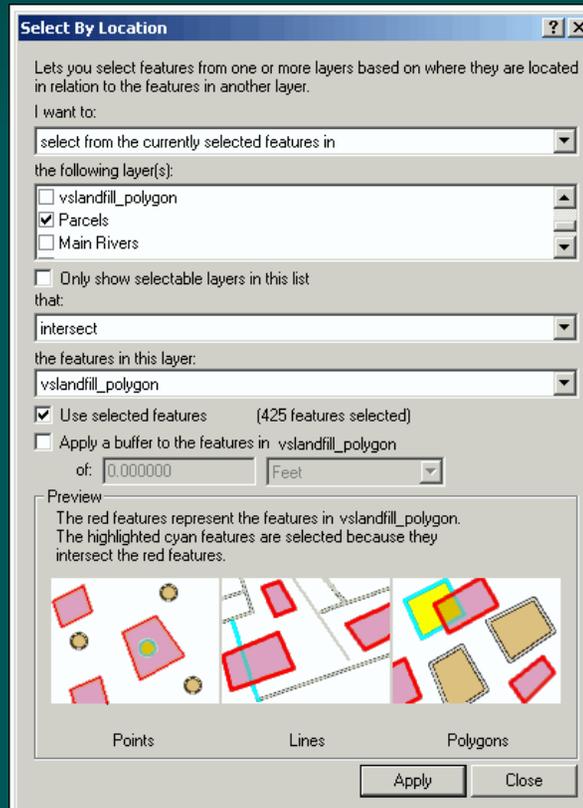
Use the "3D extension" to determine from where the landfill can be seen



Analyze possible landfill locations

Who will be able to see the landfill from his/her dwelling?

- From Parcels: select parcels with "Structure Value" > \$5,000.
- Convert ViewShed from Raster to Feature
- From ViewShed: select areas with view on landfill
- From selected parcels select those that touch any selected area in ViewShed.



Analyze possible landfill locations

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- From Parcels: select parcels with "Structure Value" > \$5,000.
- Convert ViewShed from Raster to Feature and select areas with view on landfill
- From selected parcels select those that touch any selected area in ViewShed (241).
- Select those that are within 1 mile of the Landfill (23).

The screenshot shows the 'Select By Location' dialog box in ArcGIS. The 'I want to:' dropdown is set to 'select from the currently selected features in'. The 'the following layer(s):' list includes 'Main Towns', 'Main Roads', and 'geogrid'. The 'are within a distance of' dropdown is set to 'viewpoints'. The 'the features in this layer:' dropdown is set to 'viewpoints'. The 'Use selected features' checkbox is checked, and 'Apply a buffer to the features in' is also checked, with a distance of '3 Miles'. The 'Preview' section shows three small maps: 'Points', 'Lines', and 'Polygons'. The 'Selected Attributes of Parcels' table is visible at the bottom right.

FID	Shape*	OBJECTID	BOOK	PAGE	PARCEL	APN
32616	Polygon	36031	50	029	016	5002901
32618	Polygon	36033	50	030	019	5003001
32619	Polygon	36034	50	029	023	5002902

Where is the best place for a landfill?

Software requirements...

Tools applied...

- Buffer ArcView
- Clip ArcView
- Union ArcView
- View Shed 3D-Analyst
- 3D visualization 3D-Analyst
- Select (attribute/location) ArcView
- Convert ArcView

