Nevada Division of Forestry

Forest Resource Assessment Project

Presented to Forest Health Monitoring Conference

February 25th, 2009

State-wide Forest Resource Assessment (FRAP)

- Mandated by 2008 Farm Bill
- Required to be done by 2010-with updates every 5 years
- Required for future funding from the US Forest Service
- Creates a closer working relationship with NRCS

State-wide Forest Resource Assessment (FRAP)

- A geographic information system (GIS) analysis of spatial data to identify areas of concern-build upon the Spatial Analysis Project (SAP)
- GIS analysis is the first step in the state-wide assessment process
- Analysis of present and expected future forest conditions and threats

State-wide Forest Resource Assessment (FRAP)

- Identify forest related threats, benefits and services consistent with the State and Private Forestry redesign themes
- Delineate priority rural and urban forest landscape areas
- Work with neighboring States to identify any multi-state areas that could be a regional priority

Guidance from U.S. Forest Service

- Core Data layer themes
  - Development Risk
  - Forest Fragmentation
  - Wildfire Risk
  - Forest Health Risk
  - Fish and Wildlife Habitat
  - Water Quality and Supply
  - Economical Potential
  - Green Infrastructure

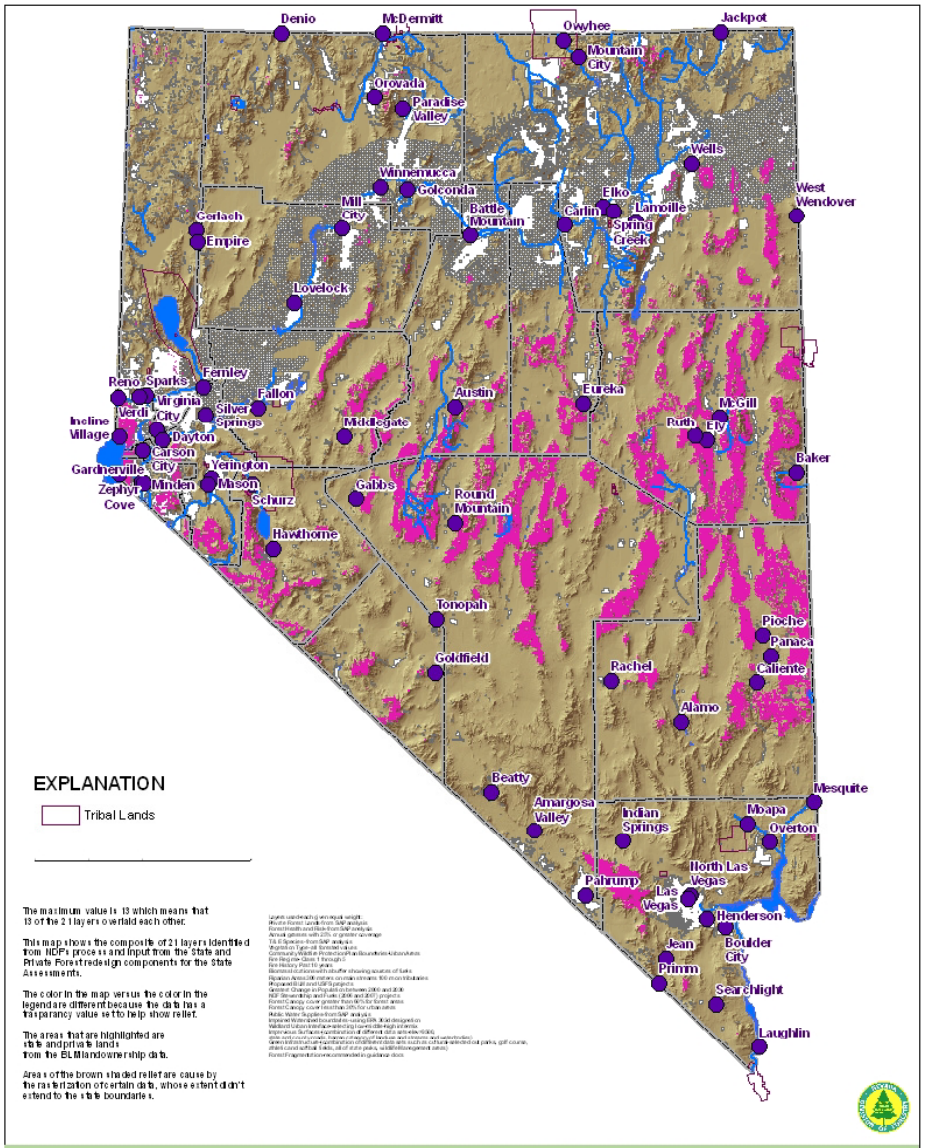
USFS requests and NDF layers

- USFS Data layers
  - Development Risk
  - Forest Fragmentation
  - Wildfire Risk
  - Forest Health Risk
  - Fish and Wildlife Habitat
  - Water Quality and Supply
  - Economical Potential
  - Green Infrastructure

- NDF Layers
  - Future population growth
  - Forest Fragmentaion (SAP)
  - Landfire Fire regime data
  - Forest Health Data (SAP)
  - T & E Species (SAP)
  - EPA 303d Watersheds
  - Biomass layer
  - Green Infrastructure

Processing of GIS Data

- Used the All Risk layer that was required in the Spatial Analysis Project (SAP)
- Simple data set. During the initial GIS analysis all layers were weighted equally



FRAP GIS COMPOSITE ANALYSIS

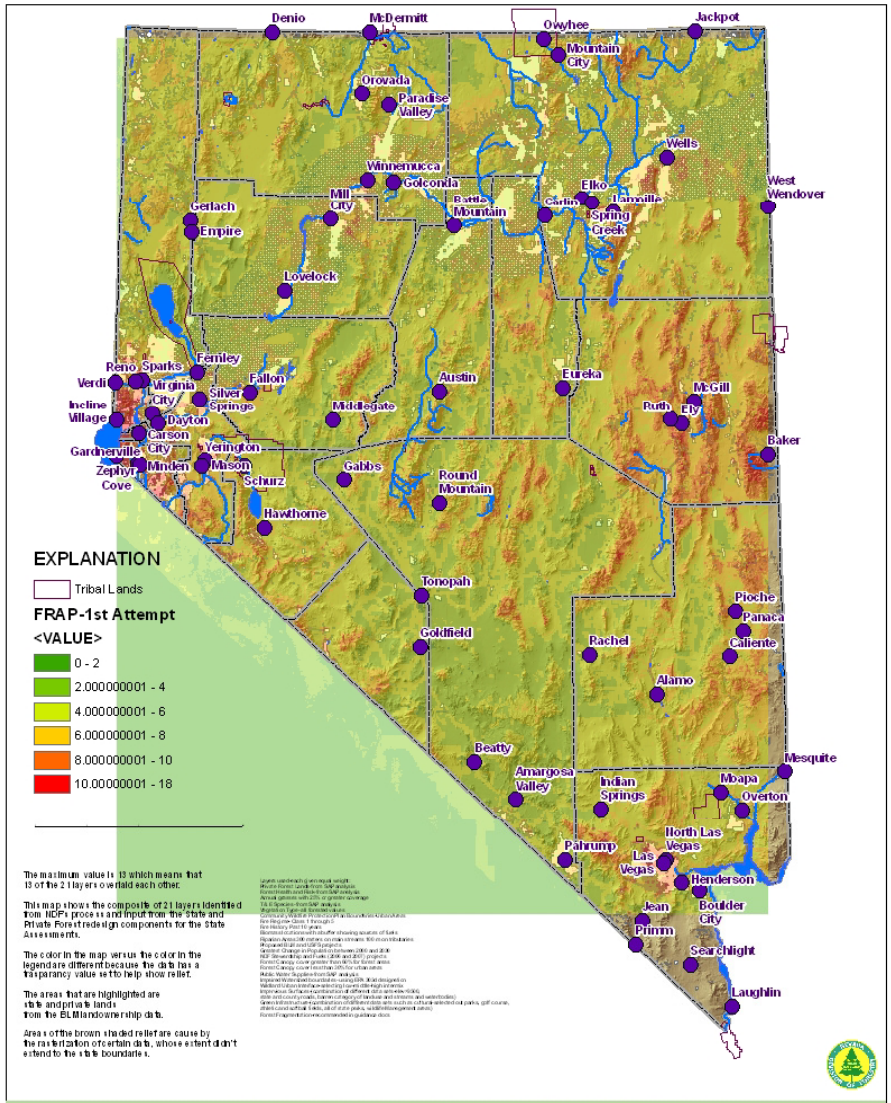
Planning Process

- NDF identified over 60 different Geographic Information System (GIS) data sets that could be used
- Data sets used for Stewardship Spatial Analysis Plan (SAP) were also used for this assessment.
- NDF Resource and Fire program staff (8) identified the top twenty data sets that related to their projects or projects within each program. The results of the poll identified 26 data sets.

Analysis Results-1st Attempt

- The 26 data sets for the first analysis was given an equal weight. The results showed a maximum value was 18, which means 18 datasets of the 26 used overlaid each other.

- The results were plotted and discussed within NDF. The group decided to eliminate several data sets and to break other data sets up into different data sets.

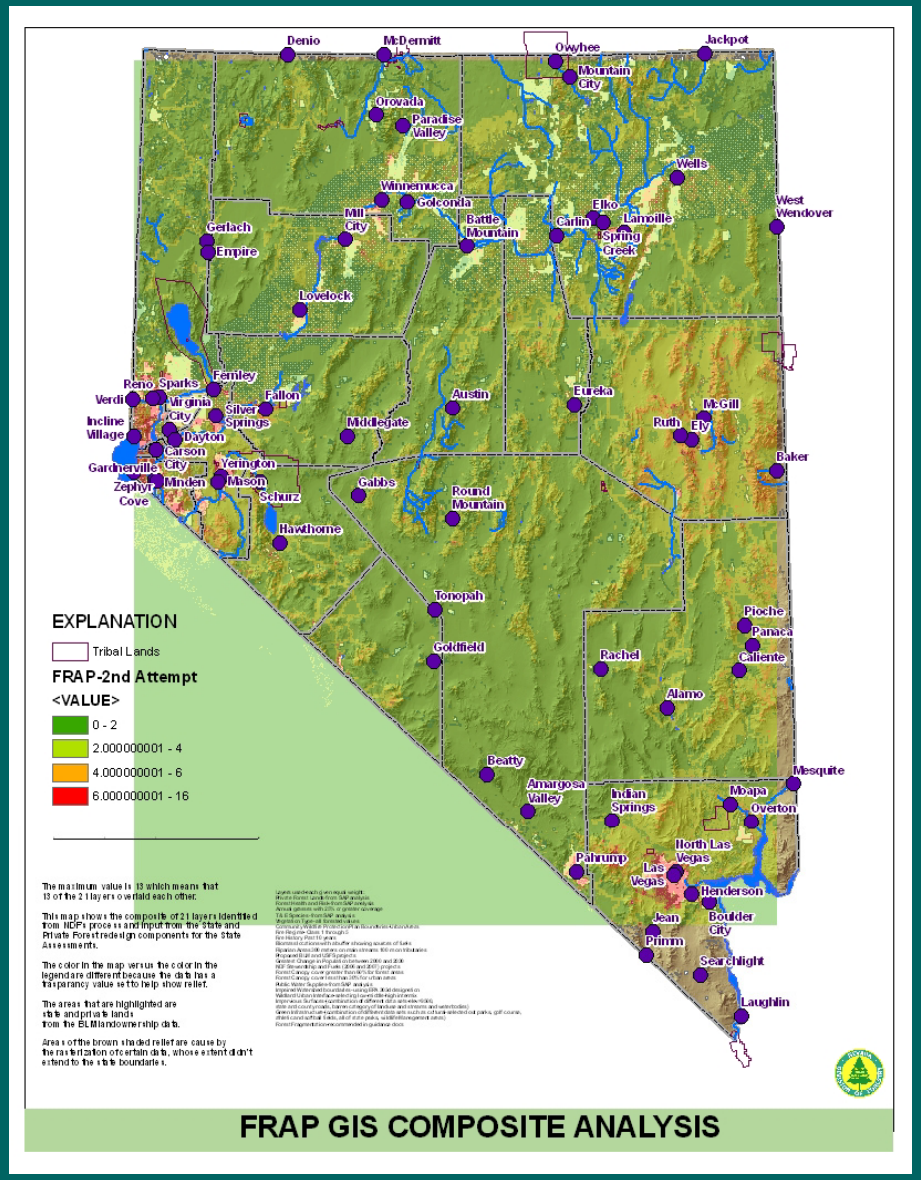


FRAP GIS COMPOSITE ANALYSIS

Analysis Results-2nd Attempt

- NDF did another analysis with 27 data sets with the same parameters used in the first analysis. The results favored the urban areas much more than any of the forests in Nevada

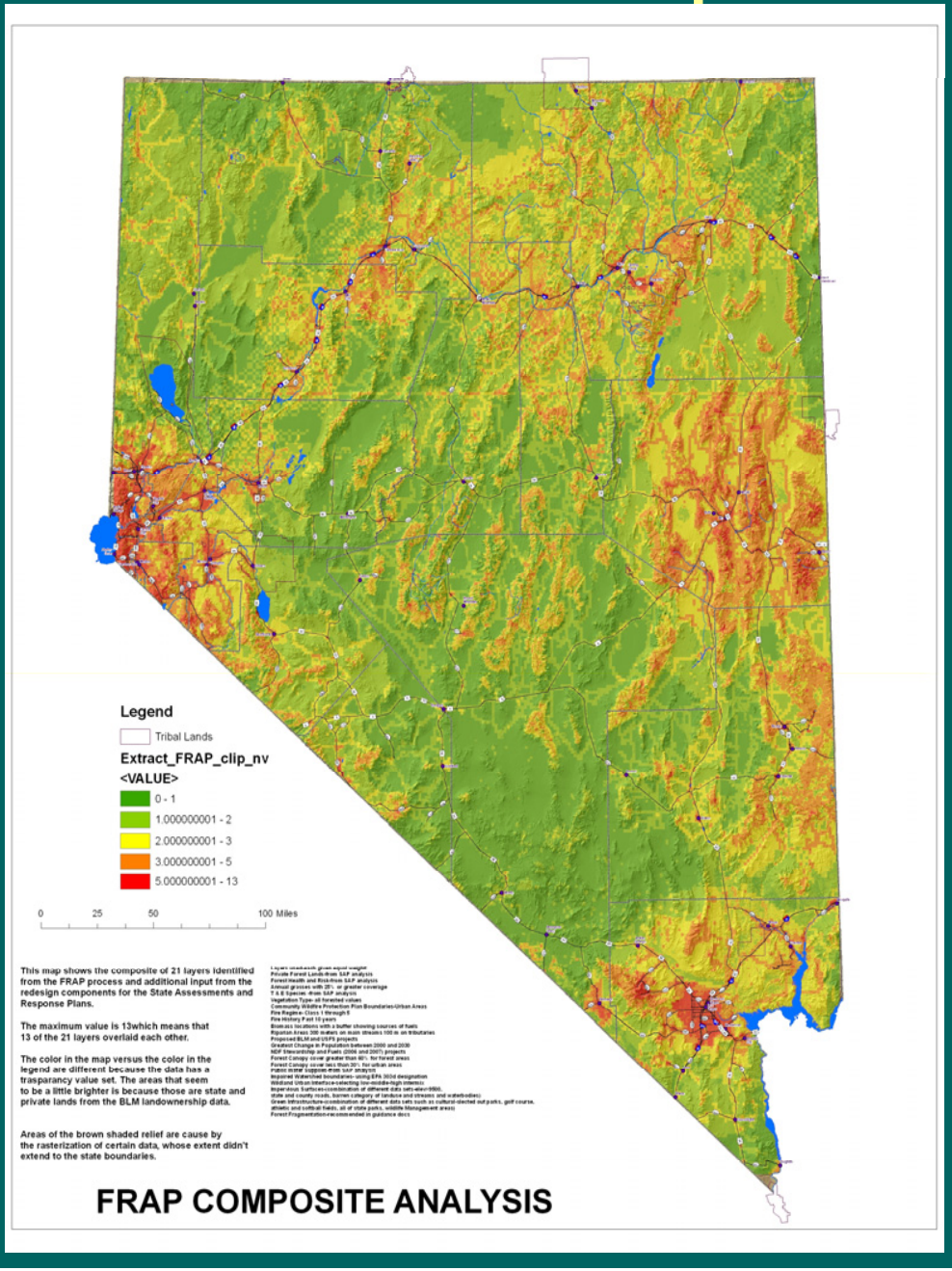
- It was determined that 5 data sets were urban in nature; these data sets were removed and the data sets were reduced to 21



Analysis Results-3rd Attempt

- A third analysis was done using the same parameters from the first 2 analysis. The maximum value of any cell was 13, which means out of 21 layers 13 of them laid on top of the others.

- The group decided it was a great starting point for discussions and input for the review process.



Findings

- The results validated that current NDF projects are in the places that work needs to be done
- The areas of interest are around the Reno and Las Vegas areas
- Surprises- Around the smaller communities through out the state
- Areas of expected growth came up as a high value

Phase 2 – Input

- Start the review process with cooperators and partner agencies for input and comments
- Review any additional assessments that have been completed or are in draft status
- Web Survey to general public input

Stakeholders Input

Presented our intital findings

- Nevada Shade Tree Council
- Nevada Forest Stewardship Committee Nevada Association of Conservation Districts
- NRCS National Forestry Group
- Nevada Cattleman's Association
- Nevada Inter-Agency Tribal Environmental Managers meeting
- Web Survey from January 21 to February 18

Public Review- Nevada Shade Tree Council (Urban Forestry)

Suggestions

- Biomass data- discuss with other state agencies about the data that they might have
- Needed clarification on the definition of green infrastructure- the participants thought that using the urban boundary would encompass everything urban- golf courses, athletic fields, parks and street trees
- Consider addressing urban issues – such as recreational use (hiking) vs. ATV's in assessment

Public Review Forest Stewardship Committee (Service Forestry)

Suggestions

- Make sure look to other agencies for information, such as NDOW, NRCS, US Fish and Wildlife
- Add the noxious weed layer from Natural Heritage
- Use more current vegetation data such as SWReGAP land cover data

Public Review Conservation Districts and Cattlemans Association

(Resource Agencies and Private Land Owners)

Comments-Suggestions

- The use of a Soil data layer-but select certain soil types that would be the most beneficial for growing
- Question raised about the Forest Service and their expansion- Response was that we may be influencing them more than the USFS influencing others

Public Review Inter-Tribal Environmental Managers Meeting

(Tribal Input)

Comments-Suggestions

- Meet with NDF to address conservation issues and to open a dialog between the tribes and NDF
- Possibilities about using NDF's nursery and seed bank to help repopulate forests or to help mitigate the expansion of non native vegetation

Public Review- Web Survey

Results

- Top 3 issues or forested lands in the state- Fire, Fuels Reduction and Forest Health
- In the more detailed questions, Conservation of Forests, Fire, Fuels Reduction and Forest Health was rated as extremely important
- Confusion between NDF and the USFS
- Biomass, alternative energy and carbon sequestration was important but not rated as high as other issues

Public Review- Web Survey

Comments Related to Forest Health

- Proper Forest management to control the outbreak of disease and insects
- Some comments where to let nature take its course- minimal intervention
- Many comments that feel there is a link between climate change and any outbreak

Public Review- Web Survey

Comments Related to Forest Health (cont)

- Many said if we don’t deal with it, we will loses forests, plants and wildlife
- Comments that could have higher fire suppression costs if not actively managed
- Integrate as part of a complete forest management plan and forest ecology documents

Peer Reviews of GIS analysis

GIS Analysis Poster sent to:

-BLM State office and Ely office

-USFS Carson Ranger District

-Nevada NRCS Office

-USFS Humboldt Toiyabe Office-

comments:

- using a fire regime condition class,
- add noxious weeds
- how will fire history be shown, ignition point, polygon or density/occurrence

Phase 3- Update NDF

- Meet with NDF program staff and management to brief them on the input process, the web survey and other state assessments and what we can do improve our assessment
- Update the Forest Stewardship Committee at their next meeting on March 25th

Final Phase

- Redo any GIS analysis based on input from the review process
- If needed weight and rank the layers that go into the final GIS analysis
- Written report addressing issues related to priority forest landscapes in Nevada
- Use Department of Conservation and Natural Resource report in 2002 as a starting point

GIS Analysis-Round 4+

- Layers to incorporate or replace for the final analysis
  - Use Stewardship Potential data set instead of stewardship projects-from SAP
  - Incorporate a new vegetation layer
  - Any additional layers mentioned during the review process, such as Noxious Weeds and Soils
  - Any additional layers that are mentioned in the final guidance documents
  - Assign weights to all the layers

Written Report Guidelines

State–Wide Forest Resource Strategy should address:

- Long term strategies for addressing priorities identified in the FRAP analysis
- Describe how NDF proposes to invest federal funding, along with other resources, to address state, regional and national forest management plans
- Include a long-term timeline for project and program implementation

Written Report Guidelines

- Identify partner and stakeholder involvement
- Identify strategies for monitoring outcomes
- Describe how proposed activities will accomplish National, State and Private forestry redesign objectives and respond to specified performance measures and indicators

Written Report Format

- Report will consist of:
  - Executive Summary section highlighting findings and recommendations
  - Study areas (Ecoregion). This will address specific issues, and current and planned projects in each ecoregion of the state
  - Appendix - which includes all surveys and methodologies

Feedback

Any Questions, Comments or Input to the Assessment is welcome and needed

Email any questions or comments to
jwatermo@forestry.nv.gov
775-684-2530

Thank you