

Presentation Agenda

- Introduction
- Review Overall Route Evaluation Tree
 Process
- Review Route Evaluation Software

Lunch

Group Exercise: Evaluate Routes
 Group Discussion

Route Evaluation Background

- Introductory comments
 - Staff/other assistance
 - Why Advanced Resource Solution is here
 - Spirit of conference: *To learn, explore and discuss possible tools that can assist in this arena of planning*

Route Evaluation Background

- Experiences that led to the development of the Evaluation Tree:
 - Public meetings and projects since 1993
 - Need to address variety of public concerns
 - Concern about the lack of data-based decisionmaking
 - Lack of a systematic route data collection tool

Some Reasons to Evaluate and Designate Routes

- Required by Agency Planning Guidance
- Assist with Statutory Compliance
- Minimize resource impacts
- Minimize user conflicts
- Assist with general <u>management</u>, <u>budgetary</u>, <u>law enforcement</u> and <u>maintenance</u> concerns
- Develop a "better network" of routes that maximizes the protection of natural and cultural resources while still providing to the extent practical multiple use via a variety of routes

Why use a software/database evaluation tool for this type of planning?

- Readily useable documentation vs. unused "dust-gathering" documents
- Administrative record basis for decisions
- Dynamic database useful for tracking, implementation & follow up, and future uses

Primary Issues

- Involve the public to the extent possible (FACA)
- Look beyond natural resources constraints
- Include good recreational and commercial uses data
- Good ground-truthed maps
- Clearer links between closures and resource concerns
- Route evaluation process that is systematic
- Evaluate each route individually, as well as all routes collectively (i.e. <u>cumulative landscape perspective</u>)
- Route by route data management

Route Evaluation Primary Concerns

Some Sensitive Resource Concerns:

- Protection of natural and cultural resources
- Need reliable, recent biological data, especially T, E and S
- Agency projects designed to recover T and E species
- How to control & address "user-created" routes
- Number and level of impacts, as well as intensity and type of use
- Habitat fragmentation, route density and properly functioning habitat
- Cultural/Historic Resources Protection (Section 106)
- Route proliferation, compliance, route redundancy
- Cumulative effects and "landscape" perspective
- Visitor conflicts

Route Evaluation Primary Concerns

(continued)

Some Access Concerns:

<u>Commercial and Private Property Access</u>

- Ranching, impacts on local economies
- Oil and Gas, Mining
- Utilities

<u>Recreational Opportunity</u>

- <u>Variety</u> of Routes (e.g. motorized and non-motorized) (user conflicts)
- History of Use
- Safety
- Concentrating Use
- Intensity and Season
- Full Day's Recreation, feeder Routes
- <u>Recreational experience has value</u>
- Look beyond transportation, (e.g. looping opportunities)
- <u>Route "Network"</u>

Some Agency Staff Concerns

- Lack of <u>systematic neutral interdisciplinary</u> <u>public collaborative process for evaluating</u> each route individually, as well as collectively, based upon statutory requirements and issues raised by the public.
- Lack effective process for <u>integrating travel</u> <u>management planning</u>, interdisciplinary <u>environmental analysis</u> and scientific/resource data with <u>new technologies</u> (e.g. GIS, relational databases, GPS).

Some Pertinent Statutes / Sideboards

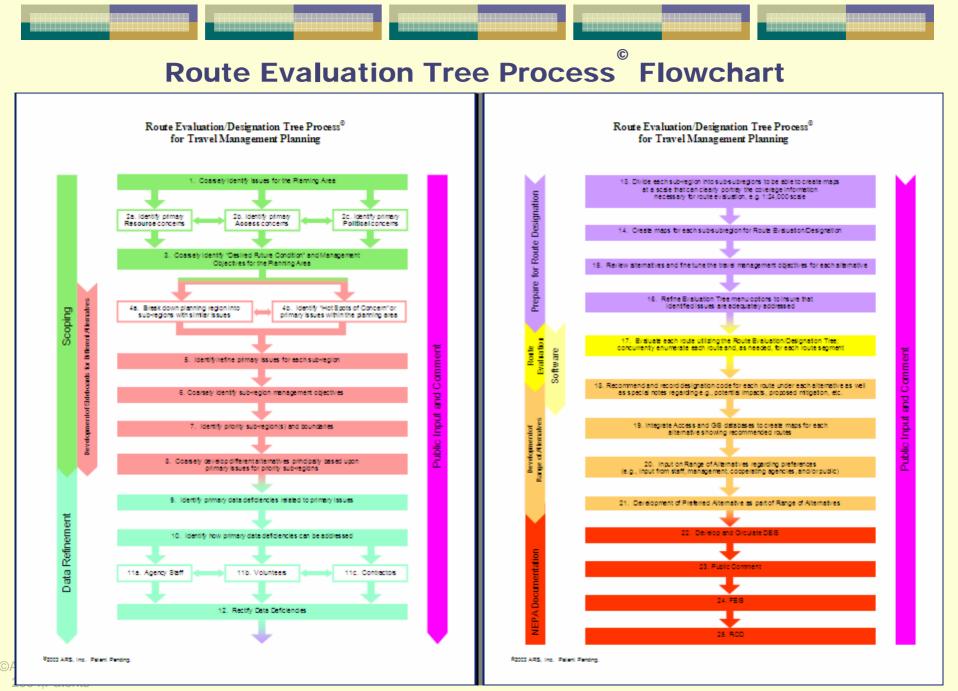
- NEPA
- ESA
- Historic Preservation and Antiquities Acts
- Agency Organic Acts (e.g. NFMA, FLPMA)
- Federal Mining and Grazing Acts
- CFRs, Presidential Executive Orders re: OHV Recreation Planning
- Other Directives (e.g. Monument Proclamations, Wild and Scenic Rivers Act)
- State Codes and Regulations (e.g. AZ Game and Fish)
- Public Land Health Standards
- Strycker's Bay: weighting

Route Evaluation Tree Process[©]

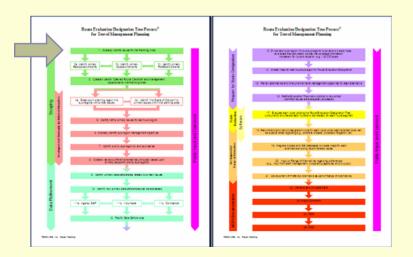
Phases of the Route Evaluation Tree Process[©]

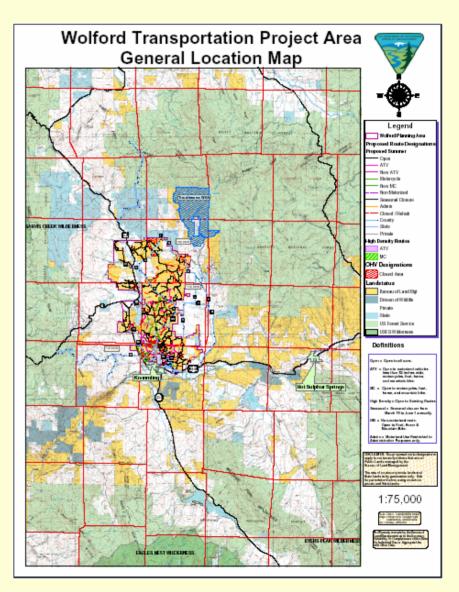
Three Major Phases of the Entire Process:

- Steps **Preceding** Use of Evaluation Tree[®]
- Use of Evaluation Tree[©]
- Steps **Post-** Evaluation Tree[®]
- Remember...use of the Evaluation Tree[®] for evaluating routes is only one step among many in the entire Route Evaluation Process[®] and planning process



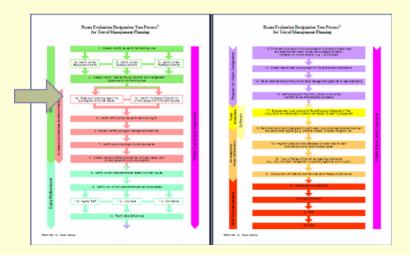
Identify and collect data regarding the entire planning area

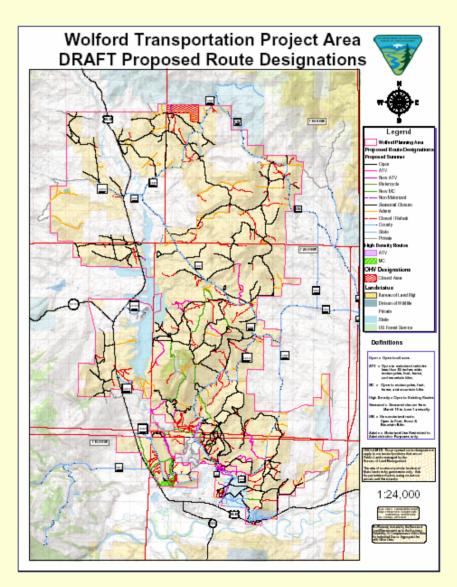




•Triage and prioritize issues that exist on both landscape and local scales

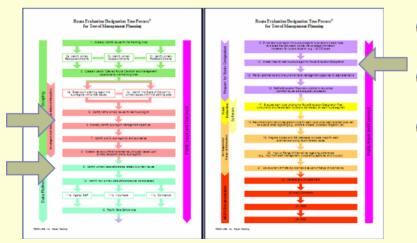
•Break down planning area into sub-regions with similar issues and tangible borders





Resource and Route Inventory

The steps before route evaluation involve extensive staff research and can typically take several months of preparation



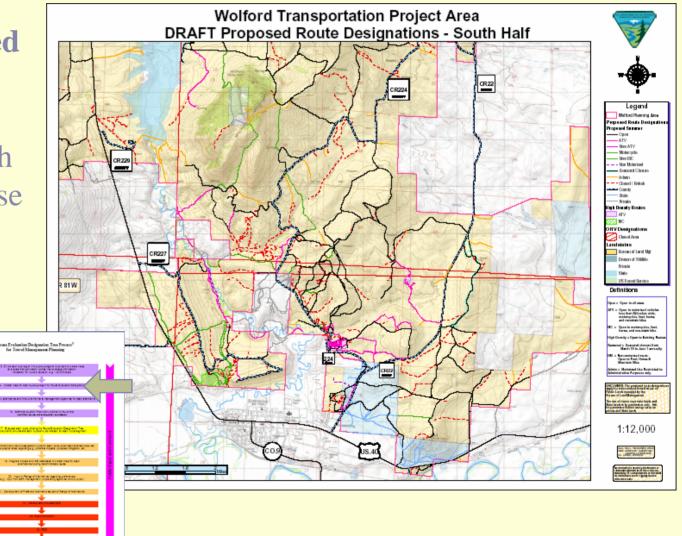
- Fine-tune and weight issues with agency interdisciplinary staff and the public
- Develop different network options criteria that address priority issues
- Capture and consolidate resource and route inventory data
- Identify primary data deficiencies
- Rectify data deficiencies
- Develop GIS data layers reflecting both the issues and the known inventory

Create maps that include data related to the issues identified and prioritized for each sub-subregion for use during route evaluation

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Fine-tune Route Evaluation Tree[©] software to insure that identified issues are addressed and the priority issues are clearly identified (e.g. MIS, T& E species)

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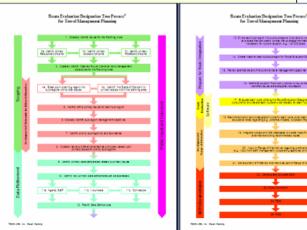
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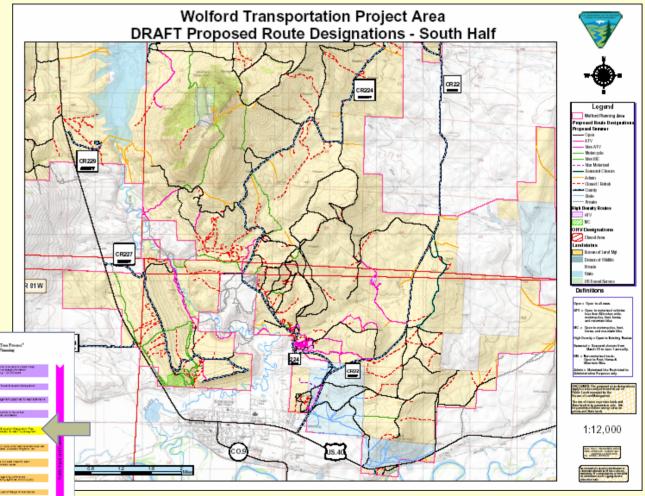
e.g. Access Uses: Administrative Uses **Commercial Ranching Facility Military Facility** Mining Officially Recognized in Federal Planning Document and Maintained **Private Property** Railroad State Lands

Utilities

Use of Evaluation Tree[©]

Carry out route evaluation with agency staff utilizing the Route Evaluation Tree Software[©]

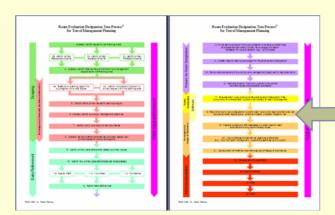




Steps Post-Evaluation Tree[©]

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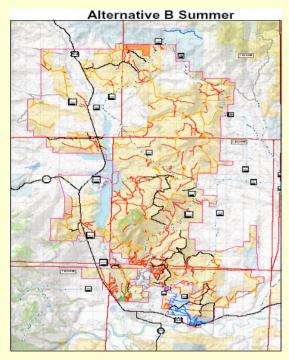
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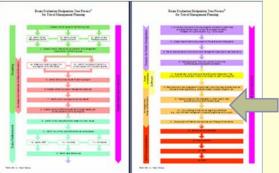
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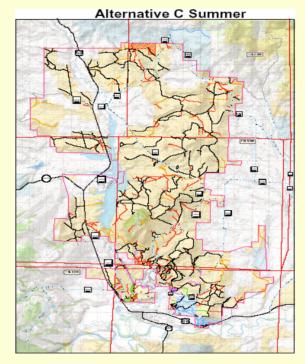
During the evaluation process, <u>each alternative</u> <u>identifies the proposed designation that</u> <u>conforms to its objectives</u>, (<u>including weighted</u> <u>issues</u>) and the proposed designations for each alternative are shown on the route report

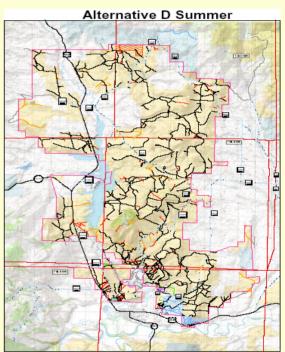
Steps Post-Evaluation Tree[©]

GIS Maps – Range of Alternatives





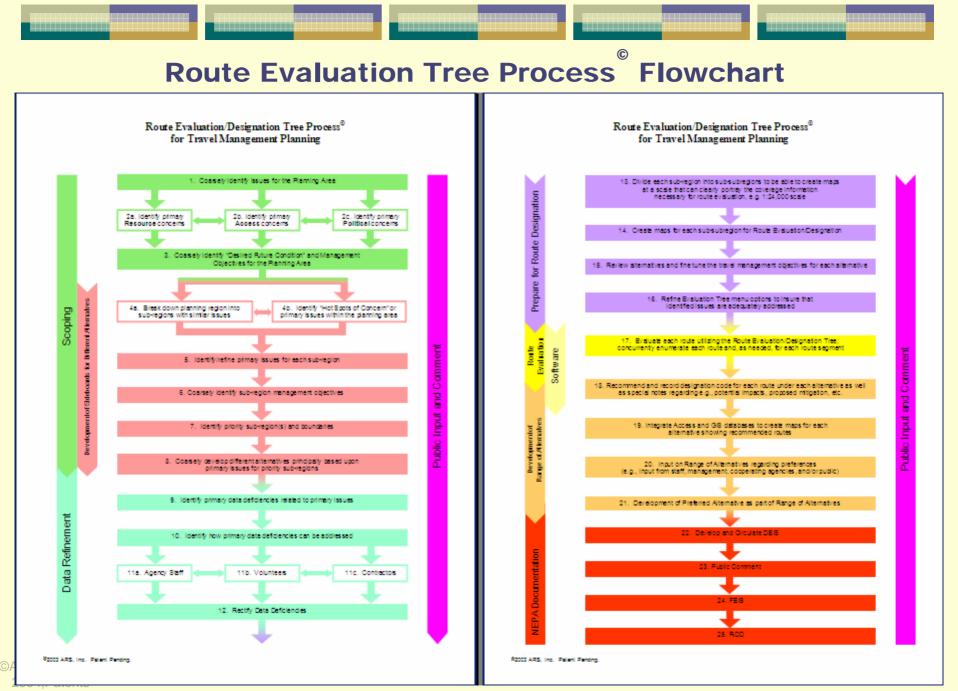


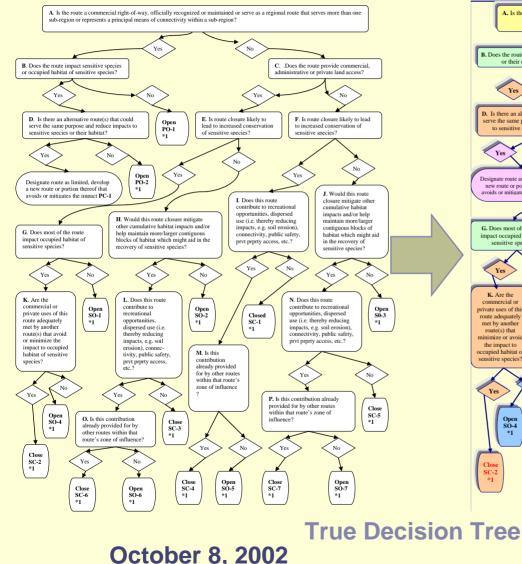


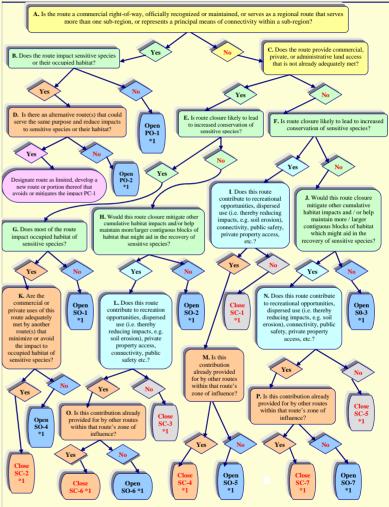
Each alternative may address or weight the identified issues differently. Often the differences between alternatives is based upon different thresholds of acceptable impact (e.g. different levels of route density). Integration of the Route Evaluation Tree Process Into the Travel Management Planning

Use of the actual Route Evaluation Tree is only one step amongst many in carrying out the Route Evaluation Tree Process[©]

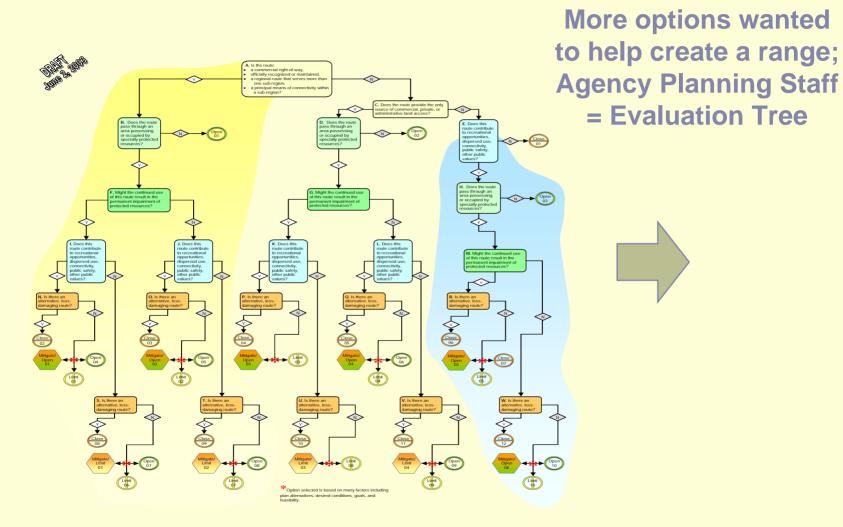
- In order to be <u>most</u> effective:
 - Need thorough preparation
 - Need staff involvement and managerial support



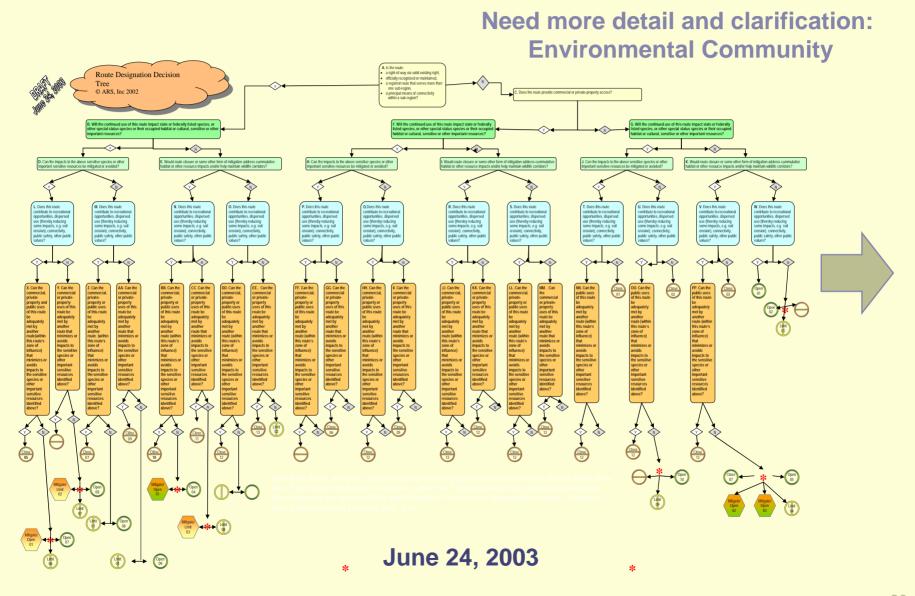


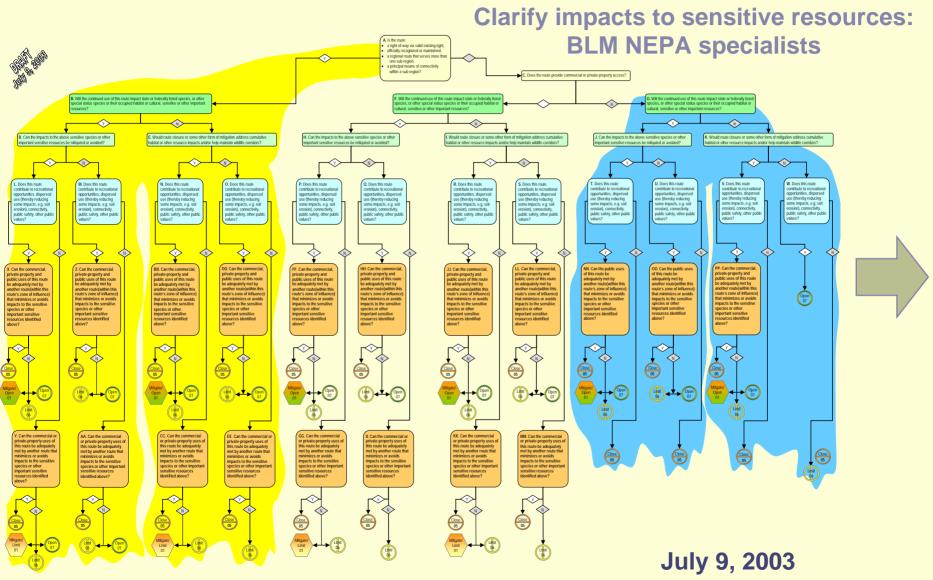


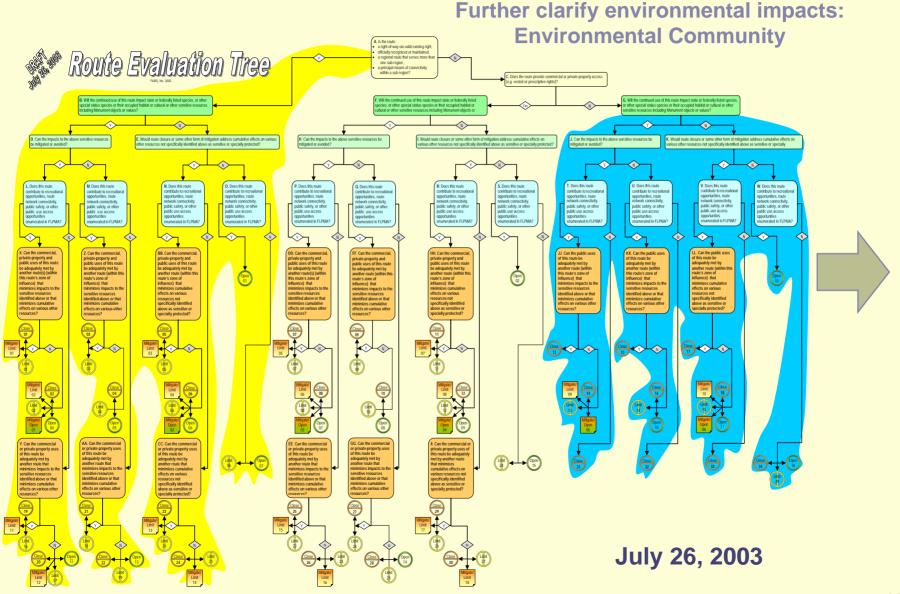
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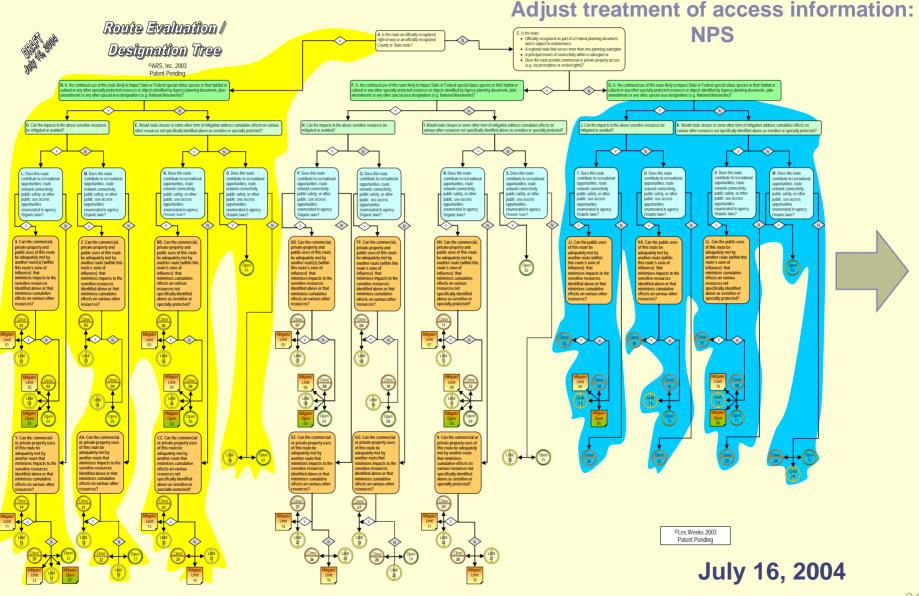


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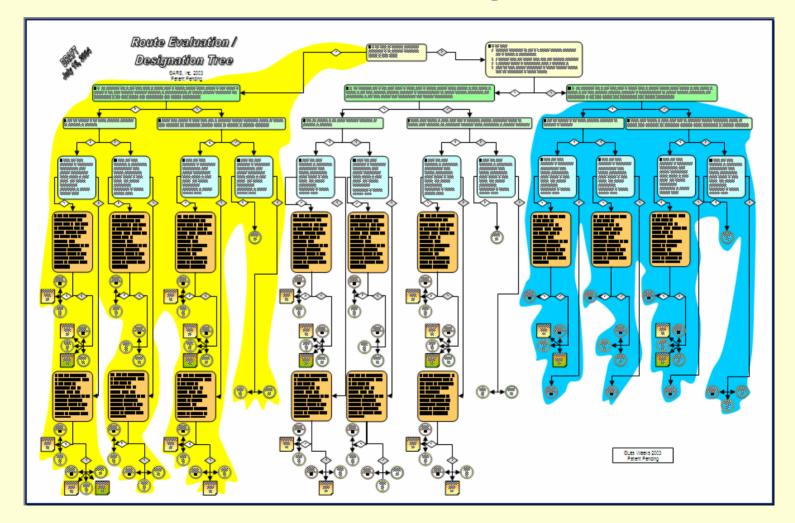




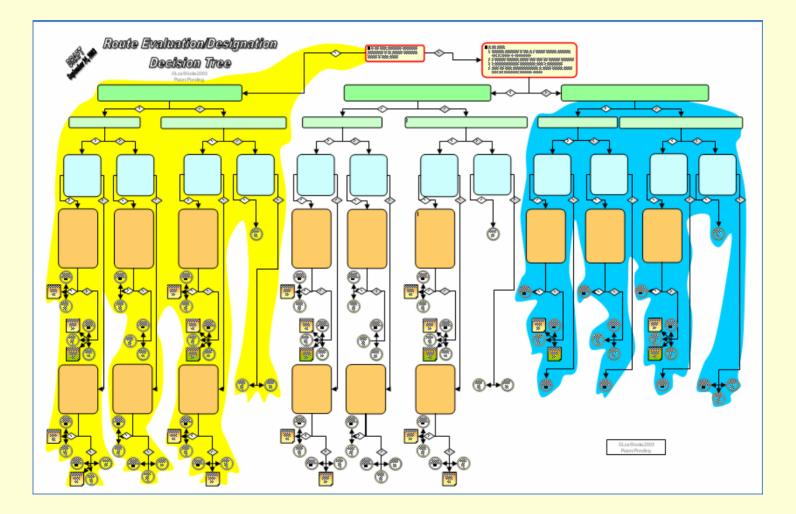




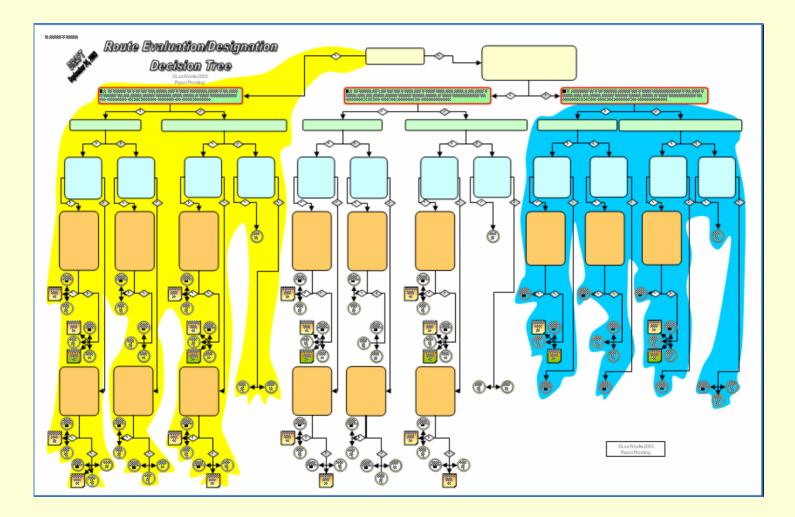
Fairly recent, but not latest version: Eliminate "Decision", "zone of influence", etc: Agencies, environmental community



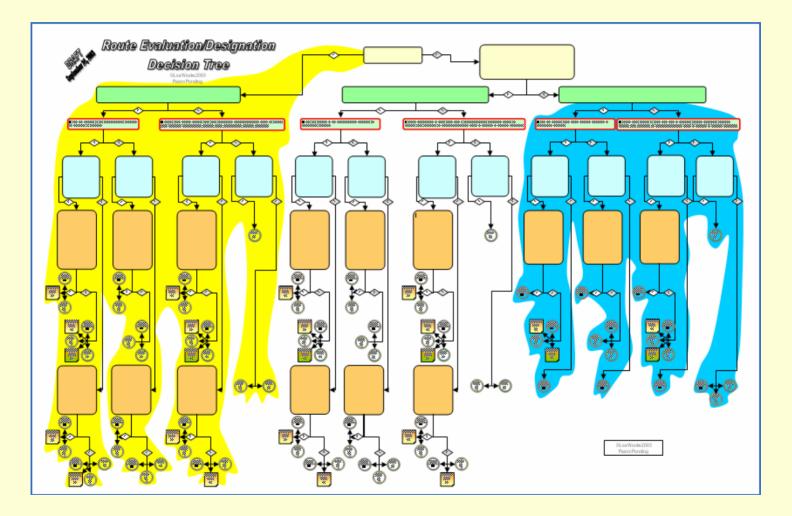
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Patents Pending: 2004 ARS, Inc.

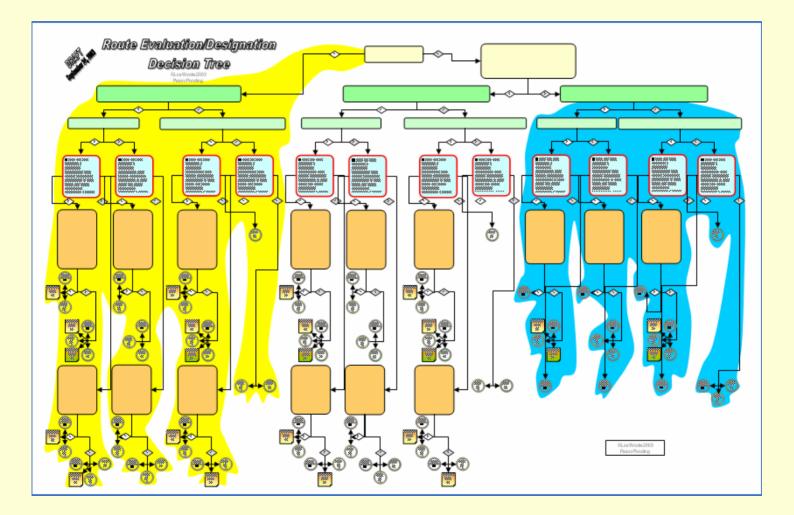


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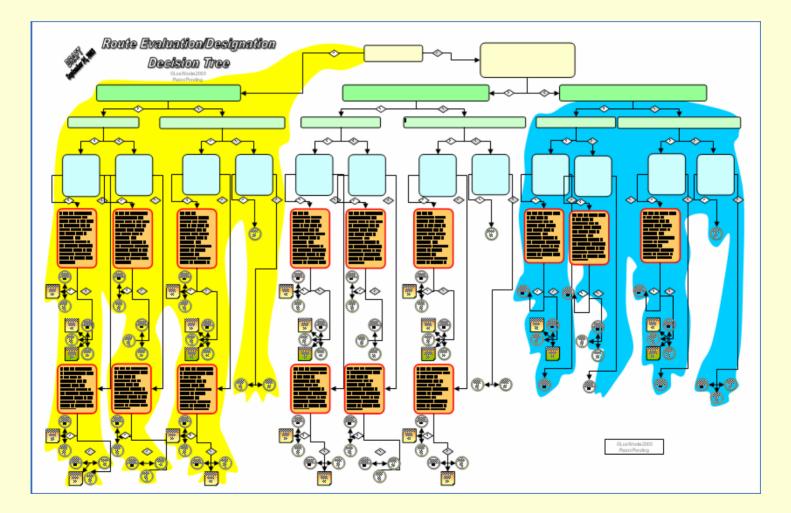
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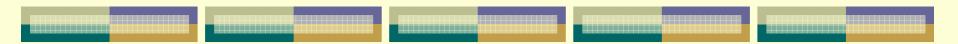


Patents Pending: 2004 ARS, Inc.

Route Evaluation Tree[©]



Patents Pending: 2004 ARS, Inc.



Conclusions

Overview of the Route Evaluation Tree Process[©]

- Effectiveness maximized by accurate and <u>best</u> available information
- Flowchart with sequential sets (or branches) of questions <u>standardized</u>, interdisciplinary and <u>systematic</u>
- "Focus" or topical questions trigger additional follow-up questions
- Scale: focused vs. landscape perspective- "zoom-in and "zoom out"
- Recommendations coded for future tracking and retrieval of information

Route Evaluation Tree Process[©] Work Products

- Individual route reports
- Access database of Evaluation Tree[®] responses- (dynamic)
- Contributes information for the creation of a Range of Alternatives and Proposed Alternative
- GIS Maps
- Readily queriable data to assist with impact analysis
- Documentation for an Administrative Record

Qualities of the Route Evaluation Tree Process[©]

- Planning <u>tool</u>
- **Systematic**, **trackable**, repeatable
- <u>Multidisciplinary</u>
- Emphasizes **<u>public collaboration</u>** (information and implementation)
- Individual route evaluation
- **Landscape** and route network evaluation
- <u>Neutral</u> collection of information
- Assists in preparing a range of alternatives
- **<u>Database</u>** creation (assist with cumulative effects and environmental impact analysis)
- <u>Assists</u> staff with preparing to address <u>statutory</u> requirements

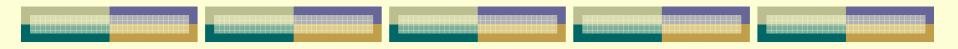
Feedback And Misconceptions

- Flawed because doesn't address wildlife, soils or water quality
- Closes too many routes"
- Closes too few routes"
- "Replaces the need to do NEPA"
- Computer makes final designation"
- Doesn't adequately address cumulative effects or look at a landscape perspective"
- Should stop evaluation of route once impacts are identified"
- "Doesn't weight certain factors over others"
- Should only look at officially-recognized routes and automatically close all unofficial routes"

What's Next?

- Break
- Explain software
- Review Example to be used with software:
 - Review subregion
 - Review range of alternatives
- Lunch
- Prepare to use software:
 - Break into three teams
 - "Game Plan" or strategize for a small area
- Break
- Use software to evaluate routes using three alternatives
- Discussion and Questions

Route Evaluation Tree Software[©]



Break

Review Example to be used with software:

- Review Planning Area at successively smaller geographic
- Review alternatives
 - Review suggested criteria

Relate to Route Evaluation Tree Process flowchart and "reality"

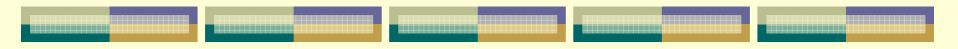


Lunch

Return prepared to actively participate!

Prepare to use software:

- Break into three groups
 - Based upon the number on your packet
- "Retreat" to separate conference rooms (this is usually not done, but because of noise and the size of the group we feel it is necessary)
- Discuss & "fine-tune" alternative
- Review routes and their characteristics
- Develop a "rough" strategy for route designation based upon your alternative's criteria
 - (recognizing that in this example (due to time constraints) that you don't yet have all the specific route data!)



Break

Use GIS & Route Evaluation Tree Software to evaluate routes

- Reconvene in large room, as three separate teams
- Review each route utilizing GIS
- Record data for each route utilizing RET software
- At the end of data collection for each route:
 - Teams have private discussions on how to designate route
 - Teams share their proposed designation with the entire group
 - Proposed designations are recorded in the software and on the corresponding map for each alternative

Discussion and Questions