

## Appendix F: Route Evaluation Criteria

### Travel Management

Lake Havasu Field Office completed its route inventory in 2004 and updated with additional routes identified through the DRMP/DEIS 2006 comment process. The Approved RMP has one 11x17 map representing the existing route inventory and an index for the travel management units or route inventory maps (see Maps 30 and 32 in the Approved RMP). Six travel management units/route inventory maps are printed at the 62.5K scale and are on the CD included with this Approved RMP: Bullhead, Lake Havasu, Cactus Plain, Alamo, Bouse, and Wenden.

AZ BLM has adapted the Route Evaluation Tree, designed by a California contractor (first used in the West Mohave Plan), for designating routes and developing its travel management networks. The Tree applies a standard analytical method to existing routes to determine whether they would be retained, closed, or rerouted. Commercial, recreation, and resource data are compiled for each route for this process. Most of BLM's roads and trails are user defined. The Tree process would allow each Field Office to eventually develop sustainable travel networks. Adjoining Forests and Arizona State Lands are evaluating the Tree method to determine if they would apply it to their respective land units.

### Proposed Route Evaluation Criteria

When using the Evaluation Tree BLM would analyze following detailed variables or criteria for each route and there by determine the value of said route in open, limited, or closed status. Additional criteria may be added through working with the public and BLM staff to complete the Travel Management Plan. The criteria would be noted in a database for each route. All routes would be analyzed during the route evaluation process, which would consider all uses and resources within the area. No use or resource would automatically predetermine a route decision.

#### COMMERCIAL, ADMINISTRATIVE, PRIVATE PROPERTY (CAPP) Issues:

- Administrative Uses, such as:
  - Aggregate Borrow Pit
  - Compliance/Enforcement Monitoring
  - Fire Suppression
  - Monitoring Site
  - Predator Control
  - Resource Treatment
  - Training Area/Facility (e.g., Search and Rescue)
  - Weather Station
  - Weed Abatement
  - Wildlife Agency Facility
  - Wildlife Agency Monitoring
  - Wildlife Catchments
  - Wildlife Water / Guzzler
- Commercial Ranching Facility, such as:
  - Allotment Boundary Fence Line
  - Base Waters
  - Cattleguard

- Corral
- Fence Line (not allotment boundary)
- Gate
- Pipeline
- Ranch HQ
- Ranch Shack
- Salt Lick
- Spring Development
- Springs
- Tank, Trough
- Trailing Route
- Water Catchments
- Well
- Windmill
- Military Facility
- Mining
- Officially Recognized in Federal Planning Document and Maintained
- Connectivity
- Private Property
- Tourism
- Utilities, such as
  - Communication Site
  - Electrical Transmission / Powerline
  - Gas Pipeline
  - Irrigation Canal
  - Other
  - Telephone
  - Water Pipeline
  - Wind Energy

Similarly, under the Special Resources section, some categories may be broken down into greater detail while others may not.

**RESOURCE ISSUES:**

- Known Cultural Site / Area / Polygon
- Area of Critical Environmental Concern (ACEC)
- T&E Species, Special Status Species, Sensitive Species, such as:
  - Bighorn Sheep
  - Desert Tortoise
  - Ironwood
  - [Apply specifics for Planning Area wildlife and plants]
- Within WHA
- Within identified Wildlife Movement Corridor
- Wilderness characteristics of an area.
- Within SRMA
- Within Wilderness or Wilderness Study Area
- Within potential Wild & Scenic River Area.
- Sensitive Habitat
  - Riparian Habitat
  - Soils
  - Water
  - Air

## PUBLIC USES ISSUES

- 4x4 (Standard Stock 4x4)
- Astronomy / Night Sky Concerns
- ATV Use
- Birding
- Boating/Access
- Camping –
  - Developed
  - Primitive/Dispersed
  - Primitive/Extended Stay
  - Vehicle Based
- Commercial Recreation Permit
- Cultural/Historical Sightseeing
- Dog Trials
- Dual Sport Touring
- Equestrian
- Fishing
- Geocaching
- Golf Carts (Modified)
- Hiking
- Hill-Climbing
- Hunting
- Long Term Visitor Area (LTVA)
- Motorcycle Trials
- Motorcycle Use
- Mountain Biking
- Mountain, Rock Climbing
- OHV
- Parking Area
- Permitted Equestrian
- Permitted Motorcycle / ATV
- Permitted Mountain Bike
- Public Safety
- Public Use Site Access / Interpretative Panel
- River and Stream Access / Put In-Out
- Rockhounding
- Shooting
- Special Recreation Permit
- Staging Area(s)
- SUV Touring
- Technical 4 WD
- Technical, Site Specific (Extreme/Rock Crawling Within a Specified Area, Not a Trail)
- Technical, Trail (Extreme/Rock Crawling Within Trails)
- Trailheads
- Train Spotting
- Vistas, Sightseeing, Photography
- Wilderness Access
- Wildlife Watching

### Route Evaluation Decision Tree® Main Features Include:

1. Logical, standardized, balanced, and repeatable approach to route designation.
2. Systematic questions to assess compliance with a variety of pertinent statutory requirements including:
  - Valid existing rights and other vested rights or permitted uses.
  - Degree of impact or degradation (including permanent impairment) to specially protected resources, such as species protected by the Federal Endangered Species Act (ESA) and cultural, historic, and scientific objects protected by the Historic Preservation and Antiquities Acts (e.g., Monument Proclamations, Section 106) and wilderness values as protected by the Wilderness Act.
  - Implementation of the Federal Land Policy & Management Act (FLPMA) and its charge to balance the public’s need/desire for access to federal lands with resource protection through a philosophy of management for “multiple use.” Such consideration includes recognizing the value of providing a range of recreational opportunities and treating those opportunities in accordance with FLPMA as a resource worthy of protection.
3. Systematic consideration of access opportunities and resource protection needs on both a narrowly focused route-by-route assessment, as well as a broad-based cumulative assessment of the total network’s effect.
4. Systematic consideration of mitigation and/or limited designation as a means by which to ameliorate resource impacts. Designation options include a range from open to closed and a number of intermediate actions as a means by which to balance access needs and resource protection.
5. Systematic recording of data allowing for future retrieval and review/updating of decision information as needed (i.e., “decision pathways” are numerically coded).
6. Systematic ability to assess a route’s final recommended designation status based upon the management goals of each individual alternative.

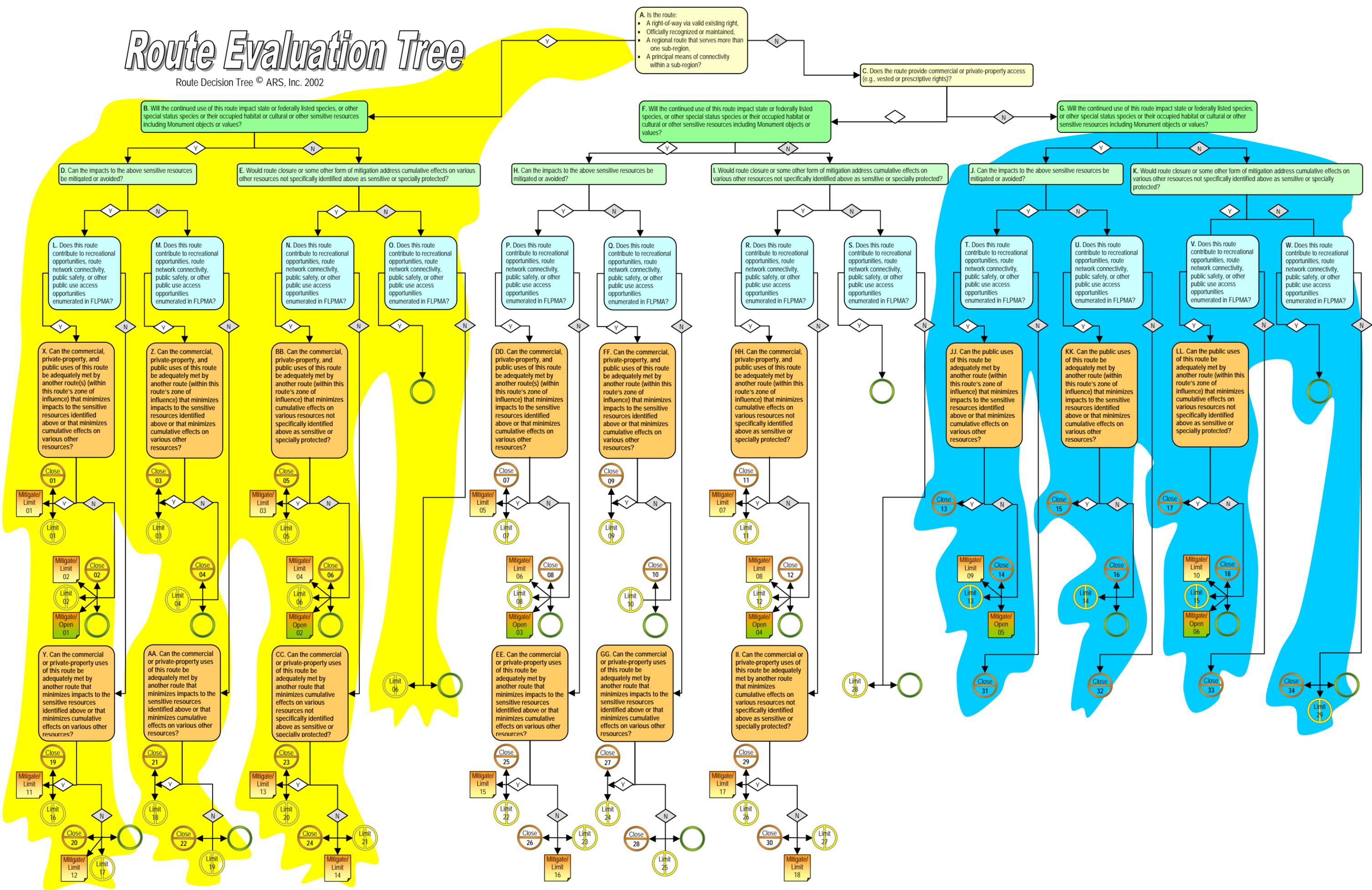
### How does the Decision Tree® Work?

1. The region or management area in which the route is located is thoroughly evaluated. Resource protection, recreation, and commercial access concerns pertinent to route designation are identified. The patterns of these identified uses and concerns, as well as their trends, are also noted. Other related issues such as law enforcement, route maintenance, and user conflicts are further identified.
2. The desired future condition and management goals of each proposed alternative are identified and reviewed.
3. Each route is systematically numbered. This both allows for tracking the designation process and enables the public to make comment on specific routes.
4. Each route is then systematically assessed by sequentially answering the questions in the Decision Tree. This is done for each alternative. Specifically, the questions are assessed and answered in the context of the regional concerns identified in Step #1 and the management goals identified in Step #2 for each of the alternatives.
5. The determination of the final designation for each route under each alternative is dictated by addressing the management goals for that alternative.
6. The specific answers to each question for each route are recorded by the final coded answer.
7. Detailed information that may have been critical to the answer of any question(s) or in the determination of the final outcome is recorded as part or the individual route designation decision record.



# Route Evaluation Tree

Route Decision Tree © ARS, Inc. 2002



## Off-Highway Vehicle Mitigation - Examples

### Nature of the conflict with routes and use of routes

**Conflict** –is underlined, under each identified issue: *Resource, Social, NLCS*

**Typical mitigation measures**—are specified best practices that respond to identified conflict

-Typical mitigation is in order of possible implementation, not all measures may be used and not all may be listed.

-Mitigation actions taken should be triggered as a result of monitoring and reaching identified thresholds.

-Monitoring should be done before; during and after mitigation measures are implemented to identify trends.

### Resource issues:

#### The physical location of a route is degrading riparian condition

1. Relocate the route to avoid the area
2. Harden or raise the route above water level if route is necessary and unable to be relocated
3. Close the route if no suitable mitigation is possible and make a plan for reclamation

#### Human use associated with a route is degrading riparian condition

1. Place information signs to request positive behavior (ie use only when dry etc)
2. Harden and/or raise the route above water level or place barriers to keep vehicle and people on routes
3. Relocate the route to allow riparian condition to improve
4. Close the route if no suitable mitigation is possible and make a plan for reclamation

#### Human use associated with a route is degrading desired plant communities

1. Place signs to encourage vehicles and people to stay on routes
2. Conduct public outreach regarding noxious weeds and conserving vegetation
3. Fence the area or place barriers to manage people
4. Develop a program to improve desired plant community
5. Close the route and make a plan for reclamation

#### Human use associated with a route is degrading water quality

1. Review the situation to determine the source of degradation and monitor to determine severity
2. Place water control measures on the route
3. Take reasonable measure to further harden/stabilize the route
4. Reroute the route
5. Close the route if no suitable mitigation is possible

Human use on a route is determined to degrade a particular habitat

1. Request certain behavior from route users through signs and other information
2. Place limitations of use on the route (time/season of use, type of use, number of users, behavioral requirements)
3. Reroute the route
4. Replace habitat to offset problems caused by human use, some methods could be:
  - a. Augment food/water sources
  - b. Place barriers along route to protect specific habitat features
  - c. Relocate or expand reproduction sites to be away from the route
5. Close route if no suitable mitigation is possible, make plan for reclamation

Human use associated with a route is determined to degrade a Special Status Species' habitat

1. Review management plans for the species and follow recommendations

Design mitigation plans to address:

- 1) Temporary conditions
  - 2) Seasonal conditions
  - 3) Year round conditions
2. Develop specific mitigation measures based on the site if species management plan is insufficient
  3. Close route if no suitable mitigation is possible, make a plan for reclamation

Human use associated with a route is determined to degrade Sonoran Desert Tortoise habitat

1. Physically relocate habitat disturbances and/or schedule permitted activities to occur during dormant periods  
(Maintaining No-Net Loss habitat policy)
2. Engineer Tortoise fences and underpasses for Tortoise benefit
3. Acquire replacement habitat lands and funding for tortoise benefiting activities
4. Close unauthorized routes and make a plan for reclamation

Human use associated with a route is determined to degrade a Threatened and Endangered Species (T&E species)

1. Initiate consultation with Fish and Wildlife Service
2. Review recovery plan, implement mitigations as defined in plan
3. Close route if no suitable mitigation is possible, make a plan for reclamation

Dust caused on or near a route violates county, state or federal regulations

1. Determine a short term solution
  - a. Monitor situation and determine severity of the problem
  - b. Close the route or area temporarily to stop dust generation
  - c. Stabilize the route using a county approved method
  - d. Place signs requesting a certain behavior (ie no wheel spin, reduce speed)

2. Determine a long term solution
  - a. Change formal maintenance interval on route consistent with use level
  - b. Develop a localized outreach program
  - c. Implement new technology as part of an area wide plan
  - d. Close route if suitable dust control is not possible, make plan for reclamation

Human use associated with a route is causing unnatural erosion rates

1. Review the route to determine cause and monitor to determine severity
2. Place water control measures on the route
3. Take reasonable measure to further harden or stabilize the route
4. Reroute the route
5. Close the route if no suitable mitigation is possible

**Social Issues:**

Speed differential causes conflict between recreationists and/or local residents

1. Place signs to raise awareness of lawful uses of the area.
2. Monitor situation on the ground and request law enforcement support if necessary
3. Conduct public outreach in an attempt change behavior
4. Review terrain and improve sight distances if possible
5. Redesign traffic flow by separating uses or limit by type or time of use

Sound level causes conflict between recreationists and/or local residents

1. Place signs to raise awareness of sound issues
2. Monitor situation on the ground and request law enforcement support if necessary
3. Conduct public outreach in an attempt change behavior
4. Implement "Quiet Time" of use restrictions
5. Reroute traffic to minimize conflict
6. Place sound reducing barriers if applicable
7. Close route if no suitable mitigation is possible

A route causes unacceptable changes to the desired Recreation Opportunity Spectrum (ROS) setting (ex. unplanned OHV play areas, large party sites, dump sites, resource theft)

1. Investigate the cause and implement signage and law enforcement as necessary
2. Design mitigation plans to address:
  1. Short term conditions
    - a. Implement new signing and public outreach to explain desired setting
    - b. Implement temporary use restrictions (ex. No overnight camping)
    - c. Issue emergency closure order, address conditions during closure
  2. Long term conditions
    - a. Implement better signing and mapping protocols for this area
    - b. If no suitable mitigation is possible, amend RMP to close the area
  3. Close areas near the route contributing to the unacceptable changes such as unplanned

OHV play areas, large party sites, dumping sites, resource theft etc

A proposed route is out of compliance with the Visual Resource Management (VRM) class of the area

1. Evaluate the potential for and implement a method to make the route less noticeable such as landscaping.
2. If no suitable mitigation is possible, construction would not be allowed

A route causes unacceptable impacts to cultural or archeological resources

1. Stabilize the resource and begin data recovery
2. Fence one or both sides of the route to keep vehicles from pulling off the route onto a site
3. Interpret the resource to gain public support for protection
4. Work with AZ Site Stewards program for monitoring, increase law enforcement presence
5. Reroute the route to avoid further disturbance of the site
6. Close the route if no mitigation is possible, make a plan for reclamation

Human use on a route causes unacceptable impacts to designated wilderness (ex. vehicle trespass)

1. Improve signage along wilderness boundary
2. Implement short sections of fence in problem areas
3. Use technology to gather information for more detailed action
4. Use volunteers and law enforcement to improve compliance along boundaries
5. Place time of use limits on the route to encourage lawful use (ie daytime use only)
6. Close the route if no mitigation is possible

Human use on a route outside wilderness causes unacceptable impacts to designated wilderness (ex. vehicle trespass)

1. Improve signage along wilderness boundary
2. Secure funding and resources to rehabilitate areas attracting trespass
3. Implement short sections of fence in problem areas
4. Use technology such as remote cameras and infrared counters to gather data for more detailed action
5. Engage volunteers and law enforcement to improve compliance along boundaries
6. Place time of use limits on the route to encourage lawful use (ie special event use only)
7. Close the route if no mitigation is possible, make a plan for reclamation