Description of the Route Evaluation Tree Process©

USGS Travel Management Workshop

Fort Collins, Colorado
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The Route Evaluation Tree Process© (Advanced Resource Solutions, Inc.) and its associated software/database is a tool designed to assist land management agency planners and resource specialists with the systematic neutral collection and compilation of data necessary for the thorough evaluation, analysis and/or designation of both motorized and non-motorized routes. It builds upon the history of past efforts of route designation, assists with addressing various issues and concerns raised by both private and public entities (e.g. planning policy, sensitive resource protection, commercial access needs, recreational access preferences) and helps to assess compliance with numerous state and federal statutory requirements (e.g. NEPA, ESA, NHPA, Presidential Executive Orders & Proclamations, Agency Organic Acts, Mining and Grazing Acts) that need to be considered in this type of planning. Additionally, the Route Evaluation Tree Process© helps to build into the land use planning process a means by which to achieve desired outcomes that are specifically tailored to the needs and issues unique to a planning area. The Route Tree Evaluation Process© is not a replacement for NEPA process, documents, or analysis, but rather is a tool designed to assist with the systematic collection of sensitive resource and route-use information that can then be subsequently used to evaluate and designate routes in a NEPA-compliant manner.

In order to address the many facets of route evaluation and transportation planning the Route Evaluation Tree Process© is divided into a number of smaller finite tasks or steps, which allows for the fine-tuning of the collection information needed to successfully evaluate and designate routes. The process is illustrated on the attached Route Evaluation Tree Process© for Travel Management Planning (see Attachment 1).

The actual use of the Route Evaluation Tree©[1] (Evaluation Tree©) (see Attachment 2), is only one sub-step (#17) amongst the 25 identified in the Route Evaluation Process©. Specifically, the Route Evaluation Tree software systematically guides the "evaluator" through a series of questions and associated project-specific drop-down menus that assist with addressing compliance with a variety of pertinent statutory requirements that principally address the need to protect identified sensitive resources, as well as commercial/administrative access needs and public recreational access issues. The questions and menus allow both for narrowly focused route-by-route, as well as landscape scale assessment (the latter of which allows for better consideration of broader network, collective and/or cumulative effects). Specific steps in the

[1] The process has previously been referred to as the "Route Evaluation/Designation Decision Tree Process" or "Decision Tree". A "decision tree" is a technique or tool for assisting in the decision making process by leading one through a series of yes/no questions based upon input received (flowchart). A "decision" in the context of NEPA has a more legalistic meaning specifically relating to the NEPA process. The name "Decision Tree" was used to indicate it was created in a style, however to avoid the potential for misunderstanding of the meaning of the word "decision", it has been removed from the title of the process.

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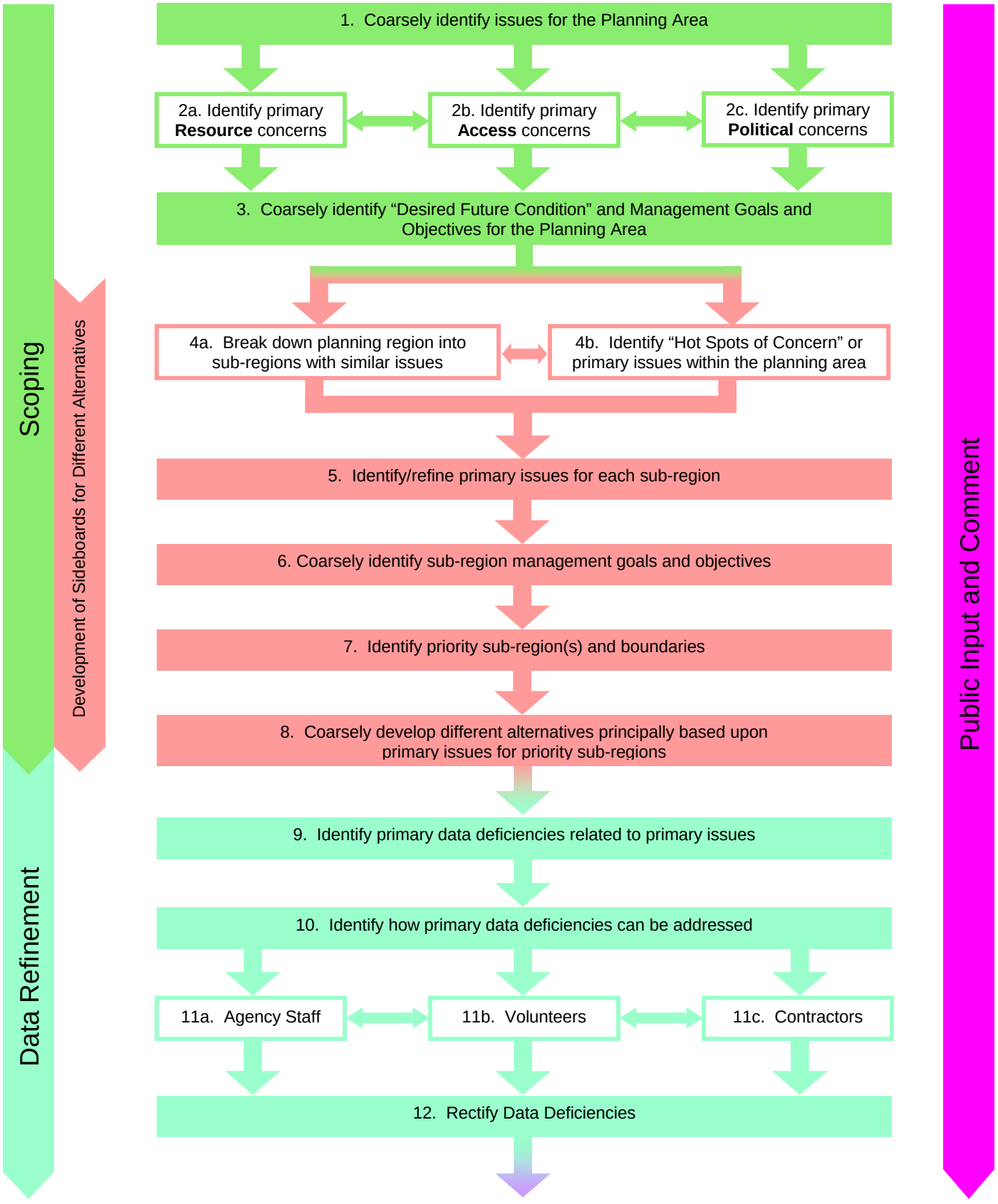
process also allow for the identification and/or delineation of planning areas/units at a number of geographic scales (e.g. Travel Management Areas, sub- regions, watersheds, etc.) thereby allowing the fine tuning of management guidelines and goals at various geographic scales tailored to specific project needs or issues. Additionally, the process provides for the development of project- specific menu choices that allow for the systematic consideration and selection of measures designed to eliminate, minimize or mitigate resource impacts. The result of this process is the creation of different route network options or alternatives that utilize different thresholds of acceptable impact to address the various identified issues. Lastly, the Route Evaluation Tree software compiles all the data collected during the evaluation into a database that can be queried and if desired, integrated with other Access databases (e.g. GIS). Whether used as a stand alone database or integrated with other databases, this information can be utilized to assist in making decisions within the environmental impact analysis process required by the National Environmental Policy Act (NEPA) and/or can be utilized to assist with other planning activities (e.g. grazing, mining, oil & gas permits, timber plans, etc.).

The Route Evaluation Tree Process © has been or is being successfully used by a number of BLM Field Offices and USDA National Forests in the western United States. It is or has been utilized in numerous EIS- and EA- level documents, including BLM Resource Management Plans and Travel Management Plans, and USFS Motorized Travel Plans. Several of these planning efforts include National Monuments. The process has been carefully honed through this experience to meet or exceed the needs of the BLM Planning Handbook and the new USFS rule concerning OHVs and travel management and is continually being refined in response to feedback from both the public and agency staff. The process is not confined exclusively to motorized planning and has been and is being used to evaluate non-motorized access needs as well on a number of projects.

In summary, the Route Evaluation Tree Process is appreciated by agency planners, NEPA specialists, resource specialists and managers as a tool that is primarily helpful for its ability to prompt staff in the systematic collection of a variety of sensitive resource, recreational and commercial data that is necessary both for statutory compliance and to meet concerns raised by the public. It does this in a manner that collects the data neutrally and then stores it in a standardized and easily retrievable format, which is both presentable to the public in a number of easily understood formats, and readily linked to GIS, ACCESS and EXCEL databases. In order to reduce redundancy of effort, the process was specifically designed to build upon and enhance preexisting agency databases. When the process is performed properly, the database that is created not only consists of that information which is necessary for the proper evaluation and designation of routes, but when linked with GIS databases will assist agency staff both in the creation of a range of route network options/alternatives, and in the analysis of specific environmental impacts and cumulative effects as part of their NEPA documentation.

Attachment 1

Route Evaluation Process©
for Travel Management Planning



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Route Evaluation Process©
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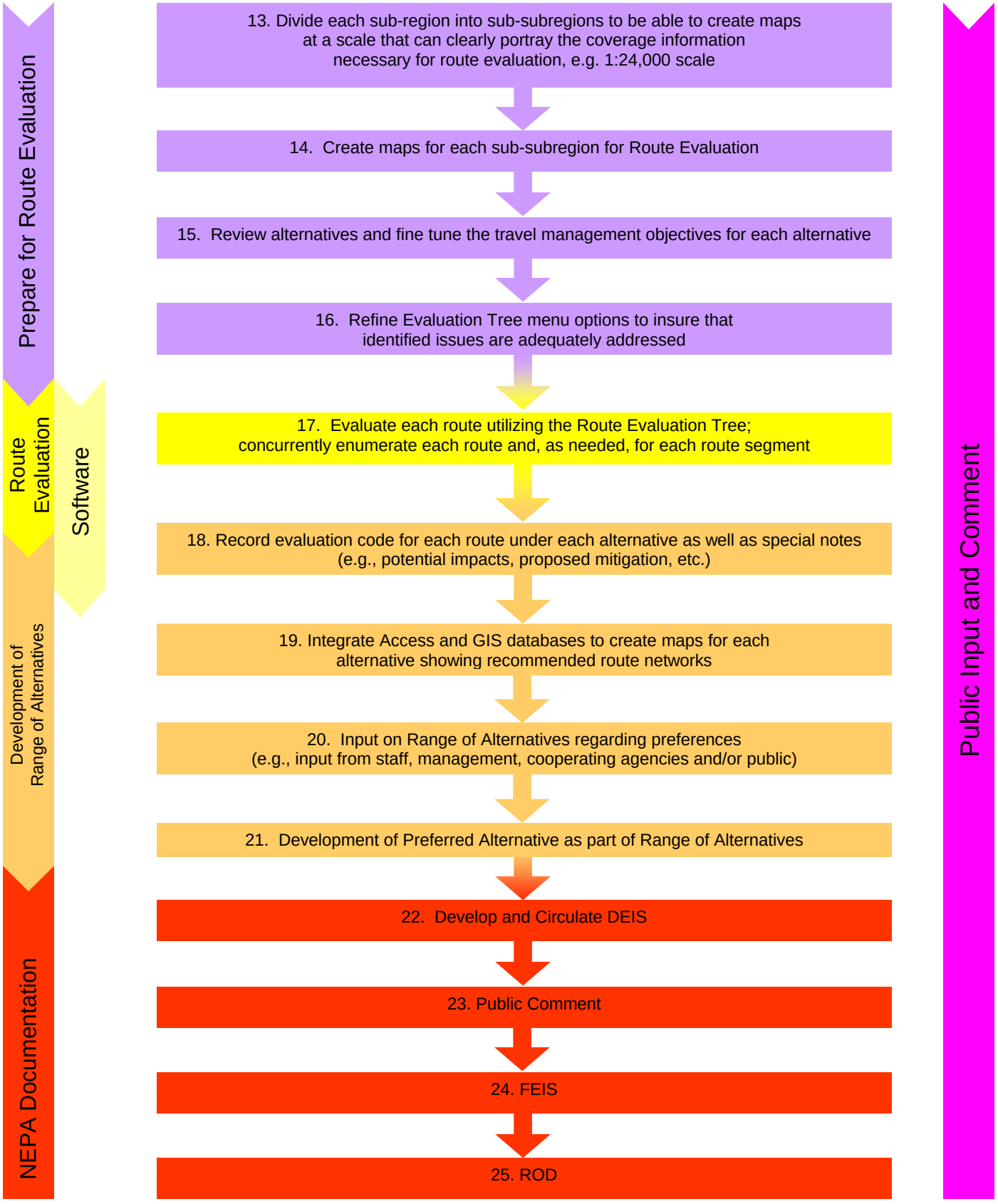

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Attachment 2

Route Evaluation Tree©

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Recommended Route Designations

Close
01

Close: A route that is recommended for permanent closure to all use. Physical closure may include restoring the route to the degree possible to blend with surrounding landscape, as well as installation of physical barriers and signing at the original departure point, if necessary.

Mitigate/Limit: A route that is recommended for limited use by certain parties or entities with valid, vested, or implied rights of access, or to certain vehicle types, seasons of use, etc., following mitigation action(s) aimed at avoiding, minimizing or mitigating certain estimated impacts identified during the route evaluation process.

Limit
05

Limit: A route that is recommended for limited use by certain parties or entities with valid, vested, or implied rights of access, or to certain vehicle types, seasons of use, etc.

Mitigate/Open: A route that is recommended open for all uses, following mitigation action(s) aimed at avoiding, minimizing or mitigating certain estimated impacts identified during the route evaluation process.

Open
02

Open: A route that is recommended open for all uses.

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Route Evaluation Tree©

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A. Is the route an officially recognized right-of-way or an officially recognized County or State route?

C. Does the route provide commercial, private property, or administrative access (e.g. via prescriptive or vested rights, RS 2477)?
- Is the route a regional route that serves more than one planning sub-region?
- Is the route a principal means of connectivity within a sub-region?
- Officially recognized as part of a Federal planning document and is subject to maintenance?

B. Might the continued use of this route impact State or Federal special status species or their habitat or cultural or any other specially protected resources or objects identified by Agency planning documents, plan amendments or any other special area designations (e.g. National Monuments)?

F. Might the continued use of this route impact State or Federal special status species or their habitat or cultural or any other specially protected resources or objects identified by Agency planning documents, plan amendments or any other special area designations (e.g. National Monuments)?

G. Might the continued use of this route impact State or Federal special status species or their habitat or cultural or any other specially protected resources or objects identified by Agency planning documents, plan amendments or any other special area designations (e.g. National Monuments)?

D. Can the impacts to the above sensitive resources be avoided, minimized, or mitigated?

E. Would route closure or some other form of mitigation address cumulative effects on various other resources not specifically identified above as sensitive or specially protected?

H. Can the impacts to the above sensitive resources be avoided, minimized, or mitigated?

I. Would route closure or some other form of mitigation address cumulative effects on various other resources not specifically identified above as sensitive or specially protected?

J. Can the impacts to the above sensitive resources be avoided, minimized, or mitigated?

K. Would route closure or some other form of mitigation address cumulative effects on various other resources not specifically identified above as sensitive or specially protected?

L. Does this route contribute to recreational opportunities, route network connectivity, public safety, or other public use access opportunities enumerated in agency Organic laws?

M. Does this route contribute to recreational opportunities, route network connectivity, public safety, or other public use access opportunities enumerated in agency Organic laws?

N. Does this route contribute to recreational opportunities, route network connectivity, public safety, or other public use access opportunities enumerated in agency Organic laws?

O. Does this route contribute to recreational opportunities, route network connectivity, public safety, or other public use access opportunities enumerated in agency Organic laws?

P. Does this route contribute to recreational opportunities, route network connectivity, public safety, or other public use access opportunities enumerated in agency Organic laws?

Q. Does this route contribute to recreational opportunities, route network connectivity, public safety, or other public use access opportunities enumerated in agency Organic laws?

R. Does this route contribute to recreational opportunities, route network connectivity, public safety, or other public use access opportunities enumerated in agency Organic laws?

S. Does this route contribute to recreational opportunities, route network connectivity, public safety, or other public use access opportunities enumerated in agency Organic laws?

T. Does this route contribute to recreational opportunities, route network connectivity, public safety, or other public use access opportunities enumerated in agency Organic laws?

U. Does this route contribute to recreational opportunities, route network connectivity, public safety, or other public use access opportunities enumerated in agency Organic laws?

V. Does this route contribute to recreational opportunities, route network connectivity, public safety, or other public use access opportunities enumerated in agency Organic laws?

W. Does this route contribute to recreational opportunities, route network connectivity, public safety, or other public use access opportunities enumerated in agency Organic laws?

X. Can the commercial, private-property and public uses of this route be adequately met by another route(s) that minimizes impacts to the sensitive resources identified above or that minimizes cumulative effects on various other resources?

Z. Can the commercial, private-property and public uses of this route be adequately met by another route(s) that minimizes impacts to the sensitive resources identified above or that minimizes cumulative effects on various other resources?

BB. Can the commercial, private-property and public uses of this route be adequately met by another route(s) that minimizes cumulative effects on various resources not specifically identified above as sensitive or specially protected?

DD. Can the commercial, private-property and public uses of this route be adequately met by another route(s) that minimizes impacts to the sensitive resources identified above or that minimizes cumulative effects on various other resources?

FF. Can the commercial, private-property and public uses of this route be adequately met by another route(s) that minimizes impacts to the sensitive resources identified above or that minimizes cumulative effects on various other resources?

HH. Can the commercial, private-property and public uses of this route be adequately met by another route(s) that minimizes cumulative effects on various resources not specifically identified above as sensitive or specially protected?

JJ. Can the public uses of this route be adequately met by another route(s) that minimizes impacts to the sensitive resources identified above or that minimizes cumulative effects on various other resources?

KK. Can the public uses of this route be adequately met by another route(s) that minimizes impacts to the sensitive resources identified above or that minimizes cumulative effects on various other resources?

LL. Can the public uses of this route be adequately met by another route(s) that minimizes cumulative effects on various resources not specifically identified above as sensitive or specially protected?

Y. Can the commercial or private-property uses of this route be adequately met by another route(s) that minimizes impacts to the sensitive resources identified above or that minimizes cumulative effects on various other resources?

AA. Can the commercial or private-property uses of this route be adequately met by another route(s) that minimizes impacts to the sensitive resources identified above or that minimizes cumulative effects on various other resources?

CC. Can the commercial or private-property uses of this route be adequately met by another route(s) that minimizes cumulative effects on various resources not specifically identified above as sensitive or specially protected?

EE. Can the commercial or private-property uses of this route be adequately met by another route(s) that minimizes impacts to the sensitive resources identified above or that minimizes cumulative effects on various other resources?

GG. Can the commercial or private-property uses of this route be adequately met by another route(s) that minimizes impacts to the sensitive resources identified above or that minimizes cumulative effects on various other resources?

II. Can the commercial or private-property uses of this route be adequately met by another route(s) that minimizes cumulative effects on various resources not specifically identified above as sensitive or specially protected?

Open 01
Open 02
Open 03
Limit 06 / Open 07
Limit 28 / Open 15

Close 01 / Mitigate/Limit 01 / Limit 01 / Mitigate/Open 01 / Close 02 / Limit 02 / Open 04
Close 03 / Limit 03 / Close 04 / Limit 04 / Open 05
Close 05 / Mitigate/Limit 03 / Limit 05 / Mitigate/Open 02 / Close 06 / Limit 06 / Open 06
Close 07 / Mitigate/Limit 05 / Limit 07 / Mitigate/Open 03 / Close 08 / Limit 08 / Open 07
Close 09 / Limit 09 / Close 10 / Limit 10 / Open 08
Close 11 / Mitigate/Limit 07 / Limit 11 / Mitigate/Open 04 / Close 12 / Limit 12 / Open 09
Close 13 / Mitigate/Limit 09 / Limit 13 / Mitigate/Open 05 / Close 14 / Close 31
Close 15 / Limit 14 / Close 16 / Open 10 / Close 32
Close 17 / Mitigate/Limit 10 / Limit 15 / Mitigate/Open 06 / Close 18 / Open 11 / Close 33
Close 34 / Open 16 / Limit 29
Close 19 / Mitigate/Limit 11 / Limit 16 / Close 20 / Open 12 / Mitigate/Limit 12 / Limit 17 / Mitigate/Open 07
Close 21 / Limit 18 / Close 22 / Open 13 / Limit 19
Close 23 / Mitigate/Limit 13 / Limit 20 / Close 24 / Limit 21 / Mitigate/Limit 14
Close 25 / Mitigate/Limit 15 / Limit 22 / Close 26 / Limit 23 / Mitigate/Limit 16
Close 27 / Limit 24 / Close 28 / Open 14 / Limit 25
Close 29 / Mitigate/Limit 17 / Limit 26 / Close 30 / Limit 27 / Mitigate/Limit 18