



United States Department of Agriculture  
Natural Resources Conservation Service



**VOLUNTARY PUBLIC ACCESS AND HABITAT  
INCENTIVE PROGRAM**  
**Programmatic Environmental Assessment**  
June 2015



**Cover Photos:** All photos courtesy of USDA NRCS.

Top left: A wetland area and conservation buffer makes excellent wildlife and wildlife photography along Bear Creek in central IA.

Top right: A pronghorn antelope on Pawnee Grassland, CO.

Right middle: Fly fisherman on the South Fork of the Holston River, VA.

Right bottom: Bird watching in warm season grassland habitat in Litchfield County, CT.

Bottom left: Habitat for ducks and geese on a restored wetland in Van Buren County, IA.

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## 1.0 INTRODUCTION

The Voluntary Public Access and Habitat Incentive Program (VPA-HIP) is a competitive grants program that is available to State and Tribal governments. The program was first authorized under the Food, Conservation, and Energy Act of 2008 (2008 Farm Bill) and was reauthorized as a result of amendments made by the Agricultural Act of 2014. Regulations at 7 CFR part 1455 govern implementation of the VPA-HIP. The primary objective of the VPA-HIP is to support State and Tribal programs that encourage owners and operators of privately held farm, ranch, and forest land to voluntarily make that land available for access by the public for hunting, fishing, and other wildlife-dependent recreation.

The National Environmental Policy Act of 1969 (NEPA) requires that Federal agencies prepare Environmental Impact Statements (EIS) for major Federal actions significantly affecting the quality of the human environment. The Council on Environmental Quality (CEQ) has defined "major Federal action" to include activities over which Federal agencies have control. When a proposed Federal action is not likely to result in significant impacts requiring an EIS, but the activity has not been categorically excluded from NEPA, an agency can prepare an Environmental Assessment (EA) to assist them in determining whether there is a need for an EIS.

NRCS expects most actions carried out with VPA-HIP funds to fall within one or more of the following existing categorical exclusions:

- Planting appropriate herbaceous and woody vegetation, which does not include noxious weeds or invasive plants, on disturbed sites to restore and maintain the sites ecological functions and services
- Restoring an ecosystem, fish and wildlife habitat, biotic community, or population of living resources to a determinable pre-impact condition
- Undertaking minor agricultural practices to maintain and restore ecological conditions in floodplains after a natural disaster or on lands impacted by human alteration (e.g., mowing, haying, grazing, fencing, off-stream watering facilities, and invasive species control that are undertaken when fish and wildlife are not breeding, nesting, rearing young, or during other sensitive timeframes)
- Implementing soil control measures on existing agricultural lands, such as grade stabilization structures (pipe drops), sediment basins, terraces, grassed waterways, filter strips, riparian forest buffer, and critical area planting

While NRCS expects most VPA-HIP actions to be categorically excluded from the need to prepare an EIS, some actions may not follow NRCS Conservation Practice Standards (CPSs) and therefore may not qualify for a categorical exclusion. Therefore, NRCS has decided to prepare this Programmatic EA to review the effects of activities that are likely to occur on the ground when NRCS awards future VPA-HIP grant funds.

CEQ has indicated that because an EA is a concise document, the purpose of which is to determine the need for an EIS, it should not contain long descriptions or detailed data which the agency may have gathered. Rather, it should contain a brief discussion of the need for the proposal, alternatives to the proposal, the environmental impacts of the proposed action and alternatives, and a list of agencies and persons consulted.

## **2.0 BACKGROUND**

### **2.1 Overview of VPA-HIP implementation to date**

Under VPA-HIP, State and Tribal governments apply for grants to fund programs administered by those governments to encourage owners and operators of privately held farm, ranch, and forest land to voluntarily make their land available for access by the public for wildlife-dependent recreation, including hunting, fishing, nature viewing, photography, and bird watching. VPA-HIP was originally administered by the U.S. Department of Agriculture (USDA) Farm Service Agency (FSA) and during that time FSA awarded VPA-HIP “partial” grants to 27 State and Tribal governments with the intent of providing additional funds in subsequent years. However, Congress eliminated funding for VPA-HIP before those additional awards were made. Before implementing the partial grants, FSA worked with grantees to prepare Programmatic EAs for each State or Tribal government grant and each EA resulted in a Finding of No Significant Impact (FONSI).

In fiscal year (FY) 2014, Congress again authorized VPA-HIP funding and the Secretary of Agriculture transferred administration of VPA-HIP to NRCS. The same year, NRCS accepted proposals for VPA-HIP grants. Considerable interest from State wildlife agencies resulted in proposals from 25 State agencies and 2 Tribal governments requesting a total of \$62 million.

Of the \$40 million authorized for the VPA-HIP, NRCS awarded approximately \$20 million in 2014 to 9 State wildlife agencies and 1 Tribal nation, and adopted the Programmatic EAs previously prepared by FSA for these programs, supplementing the Programmatic EAs as necessary to address new habitat improvements that were proposed. For each one, NRCS provided public notice and accepted public comments for 30 days. Only one comment was received, and it was in support of the program. NRCS then published notices that it had made FONSI for each EA and made the documents available to the public.

In FY 2015, NRCS proposed to award an additional \$20 million in VPA-HIP grants. Based on its experience with the program, NRCS prepared this national Programmatic EA to aid its decision about whether an EIS is required and also to provide analysis of the effects likely to occur from each future VPA-HIP grant. A draft EA and FONSI was made available to the public for 30 days. Brief comments were received from one State, expressing no concerns about the analysis or the effects of the program.

### **3.0 PURPOSE AND NEED FOR ACTION**

NRCS needs to issue additional VPA-HIP grants to meet the need to expand State and Tribal government voluntary public access and habitat improvement programs as authorized by Congress. The purpose of VPA-HIP is to increase public access to private lands for wildlife-dependent recreation. Approximately 70 percent of land in the United States is privately owned. Much of that land provides wildlife habitat and could provide fishing, hunting, wildlife viewing, and other related recreational opportunities. Many of the growing population of hunters, anglers, and nature enthusiasts have limited recreational access to open lands. Even some public lands are inaccessible due to adjacent private lands. Many private landowners have traditionally been reluctant to allow public use of their land due to liability, maintenance, vandalism, and other concerns.

Recognizing these limitations, a number of State and Tribal governments created public access programs to encourage private landowners to allow recreational uses of their land and to assist them in improving their wildlife habitat. These programs provide financial incentives in the form

of direct payments and liability protection as well as technical and sometimes financial assistance for habitat improvement and management. The programs are under constant threat of being curtailed, however, due to inadequate financial and human resources for program implementation available to State and Tribal governments. Inadequate resources have also prevented the creation of new public access programs. VPA-HIP provides State and Tribal governments with a portion of the financial resources they need to maintain or expand existing and create new public access programs. These programs meet the needs of both landowners and recreational users and maintain economic and conservation benefits to rural communities.

## **4.0 ALTERNATIVES**

### **4.1 Alternative 1: No Action – No additional VPA-HIP grants would be awarded**

Under the No Action alternative, NRCS would not award any more VPA-HIP grants and the remaining \$20 million available for VPA-HIP implementation would not be used.

### **4.2 Alternative 2: Proposed Action – Award Additional VPA-HIP Grants**

The Proposed Action alternative is to award additional VPA-HIP grants as authorized by the 2008 Farm Bill, as amended. Under this alternative, NRCS will provide an opportunity for State and Tribal governments to apply for grants to encourage owners and operators of privately held farm, ranch, and forest land to voluntarily make that land available for access by the public for hunting, fishing, and other wildlife-dependent recreation and to improve and manage fish and wildlife habitat on their land under programs administered by State or Tribal governments.

Grants will be awarded through a competitive process. In submitting applications for a grant under the program, a State or Tribal Government must include discussion of: (1) the benefits that the State or Tribal government intends to achieve by encouraging public access to private farm, ranch, and forest land for wildlife-related recreational activities; (2) the benefits to the natural resources and wildlife and wildlife habitat; and (3) the methods that will be used to achieve those benefits.

State and Tribal governments may propose to use VPA-HIP grant funding to expand existing public access programs, create new public access programs, and provide incentives to improve habitat on enrolled public access program lands. In approving applications and awarding grants under the program, NRCS will give priority to States and Tribal governments that propose to—

- Maximize participation by offering a public access program likely to meet with widespread acceptance among landowners.
- Make special efforts to reach out to historically underserved landowners.
- Ensure that land enrolled under the State or Tribal government program has appropriate wildlife habitat that benefits a variety of species.
- Strengthen wildlife habitat improvement efforts on land enrolled in a special Conservation Reserve Enhancement Program or other USDA conservation programs by providing incentives to increase wildlife-dependent recreational access on that land.
- Agree to follow NRCS CPS for VPA-HIP habitat improvement activities.
- Use additional Federal, State, or Tribal government, or private resources in carrying out the program.
- Make special efforts to inform the public about the locations of existing and new lands for which public access is available.

State and Tribal governments typically use VPA-HIP funds, combined with other resources to—

- Pay landowners directly to allow public access, through lease payments, easement purchases, or other methods.
- Pay salary costs for staff who work with private landowners to implement the program.
- Pay for habitat improvements and management activities.
- Develop outreach materials, such as Web sites and brochures, to inform the public where access to private lands for wildlife-dependent recreation is allowed.

Grantees will be notified that proposals for projects with potentially adverse impacts to natural resources will either be modified in order to achieve acceptable and beneficial levels of environmental impact or not selected for funding if they cannot be modified.

## **5.0 EFFECTS OF ALTERNATIVES**

### **5.1 Affected Environment**

VPA-HIP public access programs are implemented on private working lands used for the production of food, fiber, and forest resources. Land uses include—

- Cropland.—used primarily for the production of annual or perennial field, forage, food, fiber, horticultural, orchard, vineyard, or energy crops.
- Pasture.—composed of forage species and used primarily for the production of livestock.
- Rangeland.—on which the vegetation is predominantly grasses, grass-like plants, forbs or shrubs managed as a natural ecosystem, usually to produce livestock.
- Forestland.—on which the vegetation is predominantly tree cover managed for production of wood products or other forest products.

In many cases, native plant communities have been disturbed or eliminated by the above economically-focused land uses, and private working lands often have existing infrastructure, such as roads and fences constructed to facilitate these economic uses that themselves have environmental effects.

### **5.2 Approach to Impact Analysis**

This analysis concentrates on the environmental impacts of habitat improvement and management activities likely to be implemented under the No Action and Proposed Action alternatives. This Programmatic EA analyzes potential environmental impacts at a broad scale, identifying the qualitative effects that are a reasonably foreseeable result of each alternative. These qualitative assessments are based on a review of the best-available scientific studies and methodological approaches, as well as professional judgment.

### **5.3 Environmental Effects of Alternatives**

The discussion of the No Action alternative below describes the effects of State and Tribal public access programs that would continue without funding from VPA-HIP. The discussion of the Proposed Action, under which additional VPA-HIP grants would be awarded according to the requirements of the 2008 Farm Bill, as amended, focuses on the likely differences in impacts to the quality of the human environment resulting primarily from habitat improvement and management

activities compared to the No Action alternative.

**Summary of Environmental Consequences**

It is expected that there would be both positive and minor negative impacts associated with implementation of the proposed action. A summary of the potential impacts is given in table 1 below.

**Table 1 – Summary of Environmental Consequences**

Resource	Proposed Action	No Action Alternative
Soils	Funding will be available to relocate, repair, and maintain roads and trails to control or reduce erosion. Positive impacts to localized topography and soils are expected to result from implementation of the proposed action. Minor and temporary increases in erosion could occur in locations where relocation and repair activities are implemented.	More soil erosion is expected as compared to the proposed action because funding would not be available to relocate, repair, or maintain roads that are causing soil erosion.
Water Resources	Long-term positive impacts to surface and groundwater quality are expected where projects are undertaken to improve aquatic wildlife habitat and reduce soil erosion. Temporary, minor increases in sediment discharges to existing wetlands and surface water may result in locations where runoff occurs during ground-disturbing activities associated with the installation of conservation practices.	Greater degradation of surface and groundwater and wetlands is expected as compared to the proposed action because funding would not be available for aquatic habitat improvement or erosion-reducing practices.
Air Quality	No impacts to attainment status or violations of State Implementation Plan standards would result from the proposed action. However, localized temporary minor impacts to air quality may result from ground-disturbing activities and the use of agricultural equipment during the installation of conservation practices.	Continued release of particulate matter from under-maintained roads and trails.
Biological Resources	The proposed action is expected to contribute to vegetation and wildlife diversity. Positive impacts to threatened and endangered species, species of concern, and their habitats are expected. Some minor and temporary disturbance to wildlife could occur during installation of conservation practices. Adverse impacts will be minimized by avoiding installation during critical life history periods. Though there is potential for spread of invasive species due to increased pedestrian traffic, many of these areas are already disturbed and invasive species control measures are expected to be an important component of habitat improvement activities.	Greater degradation of terrestrial and aquatic habitats and potential for occurrence of invasive species is expected as compared to the proposed action.

Resource	Proposed Action	No Action Alternative
Historic Properties, Cultural and Tribal Resources	NRCS will conduct site-specific reviews of habitat improvement projects with the potential to affect properties that are listed or eligible for listing in the National Register of Historic Places in consultation with the State Historic Preservation Officer, concerned federally recognized American Indian Tribes, Tribal Historic Preservation Officers, and/or Native Hawaiian Organizations, and will work with grant recipients to ensure that any adverse effects to these resources are avoided, minimized, or mitigated.	NRCS would have no control over adverse effects that may occur from continued implementation of existing State and Tribal public access programs. States and Tribes would continue to use their own procedures, if any, for the identification and protection of historic properties and cultural and Tribal resources.
Recreation	Positive long-term effects on recreational opportunities are expected. Public access will be provided on private land areas previously unavailable for public recreational use and public lands previously blocked from public access by surrounding private lands. The proposed conservation practices are expected to increase habitat for game and nongame species. Water quality improvements would result in better recreational fishing and other water-related recreation.	No change from current land-based recreational opportunities is expected; however, to the extent water quality continues to degrade, game fish and aquatic species or other water-related recreation may be negatively affected.
Environmental Justice	Projects that include outreach specifically to historically underserved landowners and communities will receive higher priority for funding. This will help ensure no persons or populations are excluded from participation in or denied the benefits of VPA-HIP. No disproportionately high or adverse impacts to minority or low-income populations would occur.	NRCS would have no control over continued implementation of existing State and Tribal public access programs. States and Tribes would continue to use their own procedures, if any, to ensure no persons or populations are subjected to discrimination under these programs because of race, color, or national origin.

### 5.3.1 Alternative 1: No Action – No additional VPA-HIP grants would be awarded

The No Action alternative assumes no additional VPA-HIP grants would be awarded. As a result, it is unlikely that State and Tribal public access programs would continue to expand; rather, they likely would see reduced financial and human resources support based on competing demands for limited State and Tribal government funds. Less-supported and smaller programs result in smaller contributions to local economies from public spending on outdoor recreation and equipment that would be expected from better-supported programs. Also there would be no additional public access income opportunities for landowners. Less-supported programs also reduce the opportunities to foster conservation of natural resources by both the landowners who are assisted in managing wildlife habitat and recreational users who have increased opportunities to appreciate the fish and wildlife supported on private lands. Under this alternative, economic benefits to rural communities associated with increased spending on wildlife-dependent recreation and payments to landowners would not occur, and the existing programs may be further diminished due to lack of incentives for participating landowners. Public access to private lands for wildlife-dependent recreation would continue to be insufficient to meet the demand.

Environmental effects from existing public access programs would continue. Potential environmental impacts from the access provided by these programs includes increased soil erosion associated with improperly maintained or degraded roads and trails and increased pedestrian or vehicular traffic. Soil dislodged from roads and trails could end up as sediment in water bodies or particulate matter in the air. Increased traffic can also lead to the spread of invasive weeds along travel corridors. Increased human presence on the land results in more potential disturbance to fish and wildlife. Fish and wildlife populations could be impacted by additional angling and hunting pressure. These impacts are expected to be minor and localized, and the amount, timing, location, and type (vehicular or pedestrian) of access is controlled by State or Tribal governments and the private landowners who participate in their public access programs. In addition, State and Tribal governments have the authority to regulate impacts to sport fish and game through regulations and licensing.

To the extent these programs include habitat management and improvement activities, effects are likely to be similar to those described in 5.3.2 below. The main difference between the alternatives is that under Alternative 1 these effects would occur on fewer acres of land than under Alternative 2.

### **5.3.2 Alternative 2: Proposed Action – Award Additional VPA-HIP grants**

Under the Proposed Action alternative additional VPA-HIP grants would be awarded so effects are likely to be similar to those resulting from previous VPA-HIP grants. By the end of FY 2011, after FSA had made about \$28 million in VPA-HIP grant funds available, approximately 2,790 landowners opened 1.6 million acres of private land to public access. The first round of funding under the NRCS-administered VPA-HIP occurred in FY 2014, through which State agencies proposed opening to public access, more than 2 million additional acres of private and public lands previously unavailable. NRCS expects this trend would continue and approximately another 2 million acres would be opened to public recreation under the proposed action.

Environmental impacts from the increased public access provided by these programs would be the same as those described for the No Action alternative and would be expanded to additional lands. However, the additional habitat improvement and management activities likely to be funded under this alternative will enable VPA-HIP recipients to reduce any existing soil, water, and air impacts as described in table 1. Funds used for habitat improvement and management will also ensure appropriate habitat exists on enrolled acres and will provide greater incentives to individuals interested in enrolling their lands in public access programs. In addition, because of the emphasis placed on outreach to socially disadvantaged and historically underserved landowners, NRCS expects there will be an increase in both the enrollment and use of private lands for recreation by a larger population of users.

State or Tribal fish and wildlife agency biologists or other qualified biologists will assess the habitat improvement and management needs of each property. These personnel will determine what type of restoration or habitat improvement is possible based on existing land use, historical land cover, and soil types. Habitat improvement and management plans will generally promote native species and describe the management necessary to maintain a high level of biodiversity.

Impacts of habitat improvements implemented under NRCS CPSs are considered in network effects diagrams that illustrate the direct, indirect, and cumulative effects of NRCS CPSs (see appendix A) and are also considered in the Conservation Practice Physical Effects (CPPE) assessments and Conservation Effects Assessment Project (CEAP) studies described in appendix B.

As shown in the network effects diagrams, when an individual conservation practice may result in increased risk to the condition of another resource, additional conservation practices or mitigation measures are planned to avoid creating new resource concerns. Appendix C describes the development of NRCS CPSs.

VPA-HIP regulations do not require habitat improvement and management activities to follow NRCS CPSs; however, because priority will be given to proposals where recipients agree to follow the NRCS CPSs, and past requests for VPA-HIP funds have greatly exceeded the amount available, NRCS expects almost all habitat improvement and management activities will follow its CPSs.

Based on past experience with VPA-HIP grants, NRCS anticipates the conservation practices in table 2 will be those most often implemented with VPA-HIP funds.

**Table 2: NRCS Conservation Practice Standards Likely to be utilized under VPA-HIP**

<b>Practice Standard Name</b>	<b>Code</b>	<b>Applicability</b>
Access Control	472	Exclusion of people, vehicles, equipment, etc., from an area.
Access Road	560	Improvement of existing travel ways to ensure safe passage by public users while addressing resource concerns (e.g., soil erosion and aquatic habitat.)
Brush Management	314	Control of undesirable woody vegetation.
Conservation Cover	327	Establishment of permanent, desirable vegetation.
Conservation Crop Rotation	328	Sequence of crops to provide greatest benefit to game species.
Cover Crop	340	Establishment of annual vegetation following harvest of crop.
Critical Area Planting	342	Establishment of permanent vegetation on highly erosive sites.
Early Successional Habitat Development and Management	647	Creation, maintenance and/or enhancement of early successional species of plants to produce desired habitat for target species.
Fence	382	Facilitates the control of movement of animals and people, including vehicles.
Field Border	386	Creation of permanent vegetated buffers around agricultural fields in order to meet a habitat need or address an identified resource concern.
Filter Strip	393	Provides food and cover in intensively cropped landscapes and removes contaminants from runoff to improve water quality for aquatic species.
Fire Break	394	Installation or maintenance of an area free from combustible fuel to facilitate a prescribed fire.
Forest Stand Improvement	666	Manipulation of species composition, stand structure, and stocking to meet a desired habitat description.
Forest Trails and Landings	655	Used to provide temporary access for management purposes.
Grade Stabilization Structure	410	Control the grade in natural or constructed channels to reduce erosion and improve water quality as needed to protect aquatic or riparian habitat.
Grassed Waterway	412	Utilize within cropland to carry flow of surface water.

<b>Practice Standard Name</b>	<b>Code</b>	<b>Applicability</b>
Heavy Use Area Protection	561	Provides a stable, noneroding surface for areas frequently used by animals, people, or vehicles. Can protect or improve water quality.
Herbaceous Weed Control	315	Control undesirable herbaceous vegetation.
Prescribed Burning	338	Implementation of controlled burning in order to create desired habitat by manipulating vegetation, controlling level of fuel accumulation, etc.
Range Planting	550	Provide or improve forage, browse, or cover for wildlife.
Recreation Area Improvement	562	Establish or create appropriate vegetation to increase the attractiveness and usefulness of recreation areas and protect the soil and plant resources.
Recreation Land Grading and Shaping	566	Reshape the surface of the land to establish or improve effective use of the land area for recreation and minimize onsite and offsite damage to resources from recreational land use.
Restoration and Management of Rare or Declining Habitats	643	Restore, conserve, and manage unique or diminishing native terrestrial and aquatic ecosystems to their original or usable and functioning condition and provide and maintain habitat for associated fish and wildlife.
Riparian Forest Buffer	391	Provide areas of woody vegetation adjacent to watercourse or water bodies to improve habitat for aquatic and riparian fish and wildlife.
Riparian Herbaceous Cover	390	Grasses and forbs established or managed as the dominant vegetation in the transitional zone between upland and aquatic habitats.
Stream Crossing	578	Provide a stabilized area across a stream as a travel way for people or vehicles while reducing erosion and improving water quality.
Stream Habitat Improvement and Management	395	Maintain, improve or restore physical, chemical and biological functions of a stream, and its associated riparian zone, to improve habitat for desired aquatic species.
Streambank and Shoreline Protection	580	Vegetative or structural treatments that stabilize eroding streambanks to improve the stream corridor for fish and wildlife habitat, aesthetics, and recreation.
Structures for Wildlife	649	Provide nesting or similar structures where vegetation fails to meet the short-term habitat needs of a species, or modify existing structures to reduce hazards to wildlife, such as marking fences or adding escape ramps to water troughs.
Trails and Walkways	575	Provide paths with vegetated, earthen, or paved surface for pedestrian recreational access while protecting ecologically sensitive sites.
Tree and Shrub Establishment	612	Establishment of desirable trees or shrubs to meet a specific habitat need.
Tree/Shrub Site Preparation	490	Preparing a site by chemical, mechanical, or other means prior to planting.
Upland Wildlife Habitat Management	645	Used to treat identified habitat concerns in uplands to enable movement, or provide shelter, cover, food in proper amounts, etc., for desired species.

Practice Standard Name	Code	Applicability
Wetland Wildlife Habitat Management	644	Used to treat identified habitat concerns in wetlands to enable movement, or provide shelter, cover, food in proper amounts, etc., for desired species.

It is possible not all grantees will follow NRCS CPSs. In such cases, NRCS expects those agencies to make habitat improvements based on their own established best management practices which have been demonstrated to achieve the desired wildlife habitat improvements without resulting in significant adverse effects. Because of this, NRCS expects the effects of those best management practices will be similar to those of the NRCS CPS.

Habitat improvement and management activities funded with VPA-HIP will have site-specific environmental evaluations conducted and management plans developed by qualified State or Tribal agency personnel or by other qualified individuals. This process helps to ensure that all potential impacts to natural resources are identified and appropriate alternatives and practices are available to the participating landowners. The evaluation will also be conducted to review each site-specific habitat improvement project to ensure there are no extraordinary circumstances that could result in significant adverse impacts to the quality of the human environment and to ensure all projects are carried out in compliance with Federal, State, Tribal and local environmental requirements. These requirements include, but are not limited to, the Endangered Species Act (ESA), the National Historical Preservation Act (NHPA), and pertinent Executive orders such as those regarding environmental justice and consultation with federally recognized Tribes. Every effort shall be made to carry out grant activities in a manner that avoids adverse effects to natural, cultural, and historic resources.

The actions to be carried out with VPA-HIP funds are primarily for the purposes of facilitating public access and improving ecosystem health and wildlife habitat, and they will usually occur on land that already has been disturbed by cultivation, establishment of introduced species to increase livestock forage, and silviculture. As a result, the majority of the management activities conducted through the program will most likely be planned such that they improve the condition of affected resources and avoid adverse effects on protected resources such as migratory birds, species listed under the ESA, or properties eligible for listing under the NHPA. However, State or Tribal biologists or other qualified representatives will screen all habitat improvement projects for potential effects on State, Tribal, and federally listed threatened and endangered species. In the event an action may affect an ESA-listed species or designated critical habitat and consultation has not already been completed, NRCS will designate the State or Tribal fish and wildlife agency as its non-Federal representative to conduct informal ESA consultation, and the agency will incorporate into its plans any conservation measures that may result from that process. If NRCS has already conducted consultation for the activity to be conducted, grantees will be required to follow identified mitigation measures. In all cases, grantees must agree they will not fund actions adversely affecting ESA-protected species or designated critical habitat.

Habitat improvement and management activities have low potential for adverse impacts to archeological or cultural resources because they will be implemented primarily in previously disturbed areas as described above. In accordance with section 106 of the NHPA of 1966 (formerly 16 U.S.C. 470f, now 54 U.S.C. 306108), as implemented by the Advisory Council on Historic Preservation (ACHP) regulations found at 36 CFR part 800, NRCS will review any project or undertaking that has the potential to affect properties that are listed or eligible for listing

in the National Register of Historic Places (NRHP). This includes projects funded by NRCS through VPA-HIP. Such review is the responsibility of NRCS; the professional historic preservation staff of the State Conservationist where the grant recipient will implement habitat improvement and management activities will review the proposed action or undertaking, in consultation with the State Historic Preservation Officer, and concerned federally recognized American Indian Tribes, Tribal Historic Preservation Officers, or Native Hawaiian Organizations. NRCS will take action (including guiding the grant recipient in avoiding adverse effects) if an NRHP-eligible property could be adversely affected by the grantee's project. The ACHP section 106 procedures and NRCS' cultural resources procedures are illustrated in appendix D.

As a result of the NRCS requirement to minimize adverse effects of planned actions on the environment (see 7 CFR 650.3(4)) and the site-specific environmental evaluation process that will be used, NRCS anticipates that only minor, short-term adverse effects as described in the network effects diagrams in appendix A will occur as a result of using VPA-HIP funds to facilitate public access and to make wildlife habitat improvements as described in this document. In the long-term, wildlife habitat will be improved and other economic and social benefits will be obtained.

## **6.0 LIST OF PERSONS AND AGENCIES CONSULTED**

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### **Discipline Leads for Fish & Wildlife Network Effects Diagrams**

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## REFERENCES

Brinson, Mark M., and Diane S. Eckles. "U.S. Department of Agriculture conservation program and practice effects on wetland ecosystem services: a synthesis," *Ecological Society of America, Ecological Applications* 21: (3) Supplement, 2011, pp. S116–S127

<http://www.esajournals.org/doi/pdf/10.1890/09-0627.1>.

Comer, P., D. Diamond, S. Sowa, K. Goodin, D. Purcell, D. Butler, E. Cook, C. Hamilton, G. Hammerson, L. Master, T. Nigh, M. Ormes, D. True, and B. White. 2007. Using NatureServe Information to Assess Farm Bill Practice Effects on At-risk Species and Habitats. Report to the Natural Resource Conservation Service, Washington D.C. 53pp. plus appendices;

[http://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcs143\\_013579.pdf](http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs143_013579.pdf).

Fish and Wildlife Response to Farm Bill Conservation Practices, Technical Review 07-1, September 2007; Edited by Jonathan B. Haufler, Ecosystem Management Research Institute; The Wildlife Society, 5410 Grosvenor Lane, Suite 200, Bethesda, Maryland 20814;

[http://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcs143\\_013370.pdf](http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs143_013370.pdf).

- Agricultural Buffers and Wildlife Conservation: A Summary About Linear Practices by William R. Clark and Kathleen F. Reeder
- Effects of Cropland Conservation Practices on Fish and Wildlife Habitat by Stephen J. Brady
- Effects of Conservation Practices on Aquatic Habitats and Fauna by and Scott S. Knight and Katheryn L. Boyer
- Grassland Establishment for Wildlife Conservation by D. Todd Jones-Farrand, Douglas Johnson, Loren W. Burger, Jr., and Mark R. Ryan

Southwick Associates. "Assessing the Economic Benefit of the Voluntary Public Access and Habitat Incentive Program (VPA-HIP): 2011". Produced for the Association of Fish & Wildlife Agencies under Federal Aid in Wildlife Restoration grant #DC M-76-R.

USDA NRCS, Conservation Benefits of Rangeland Practices: Assessment, Recommendations, and Knowledge Gaps, Briske, D.D., editor. (2011), Executive Summary: The next Generation of Conservation Practice Standards, pages 12 and 14,

[http://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb1045792.pdf](http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1045792.pdf).

U.S. Department of Agriculture. 2004. Cultural Resources Procedures Handbook. Natural Resources Conservation Service, Washington, D.C. <http://directives.sc.egov.usda.gov/>.

U.S. Department of Agriculture. 2007. General Manual, American Indians and Alaska Natives. Natural Resources Conservation Service, Washington, D.C. <http://directives.sc.egov.usda.gov/>.

U.S. Department of Agriculture. 2010. General Manual, Cultural Resources (Archaeology and Historic Preservation). Natural Resources Conservation Service, Washington, D.C. <http://directives.sc.egov.usda.gov/>.

U.S. Department of Agriculture. 2014. National Planning Procedures Handbook. Natural Resources Conservation Service, Washington, D.C. <http://directives.sc.egov.usda.gov/>.

U.S. Department of Agriculture. 2013. Summary Report: 2010 National Resources Inventory, Natural Resources Conservation Service, Washington, D.C., and Center for Survey Statistics

and Methodology, Iowa State University, Ames, Iowa,  
[http://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb1167354.pdf](http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1167354.pdf).

Department of Agriculture, RCA Appraisal: Soil and Water Resources Conservation Act  
Appraisal 2011, July 2011,  
[http://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb1044939.pdf](http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1044939.pdf).

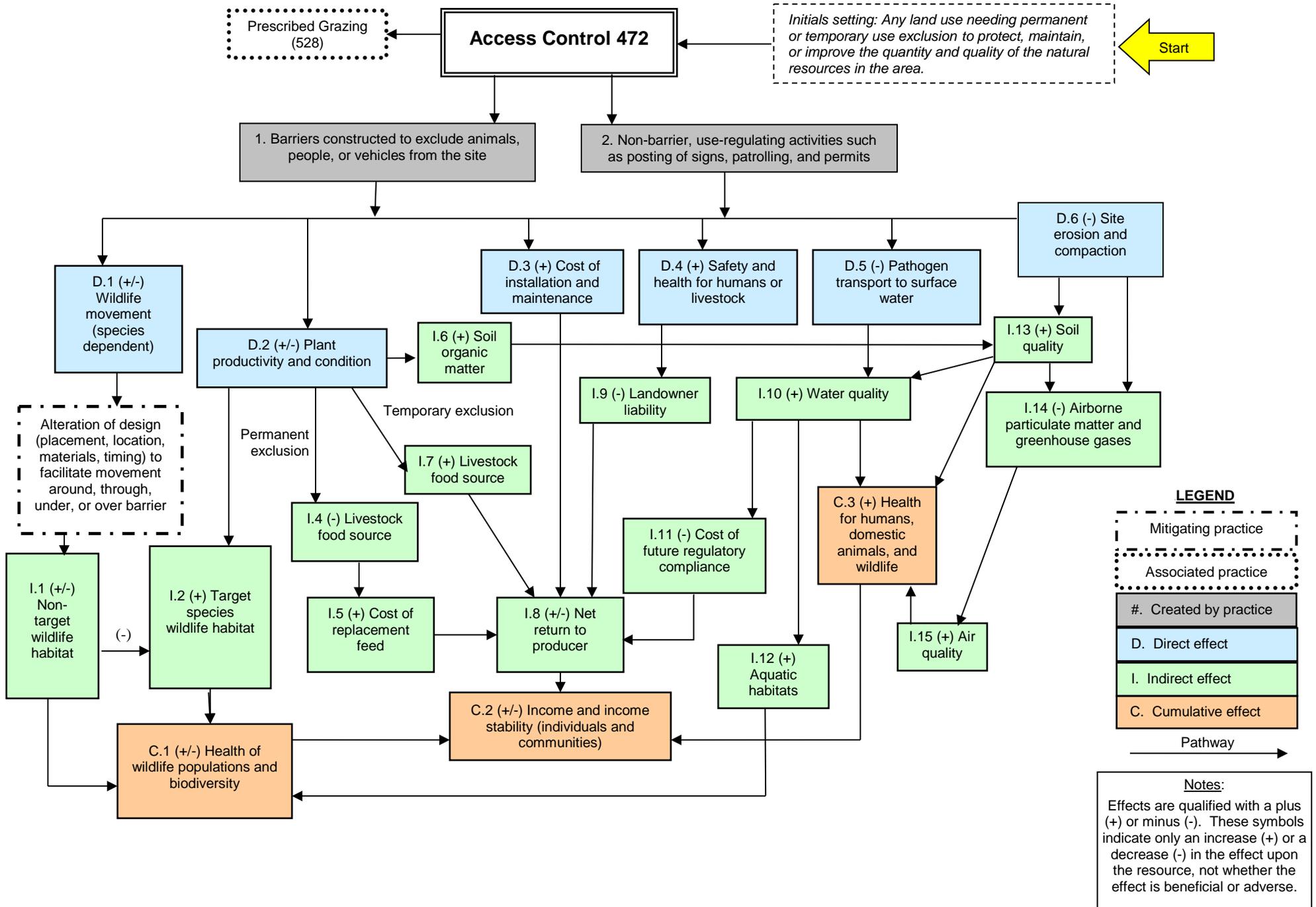
## APPENDICES

## **Appendix A**

### **Network Effects Diagrams for Habitat Improvement and Management Practices Potentially utilized under VPA-HIP**

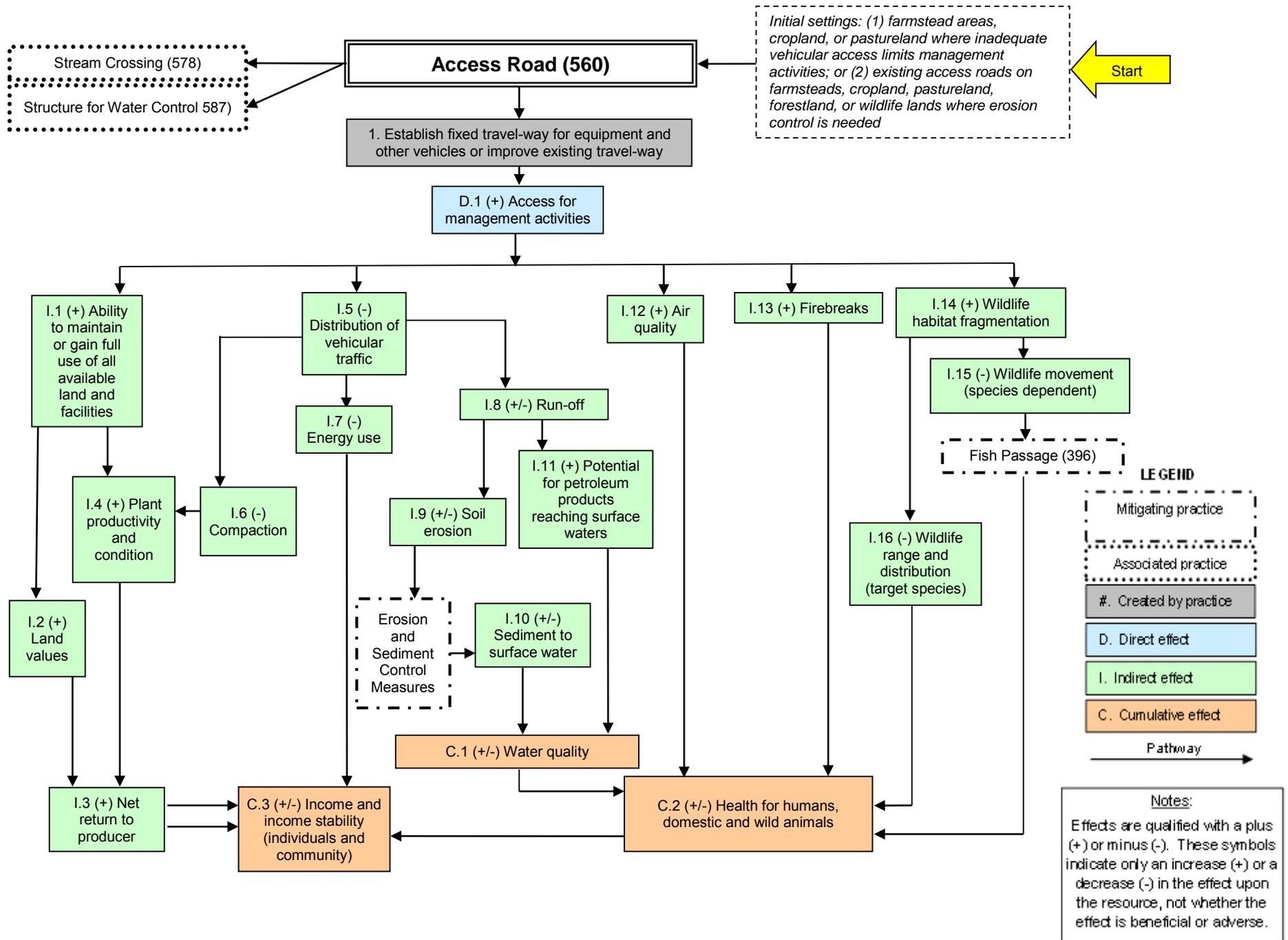
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March 2014



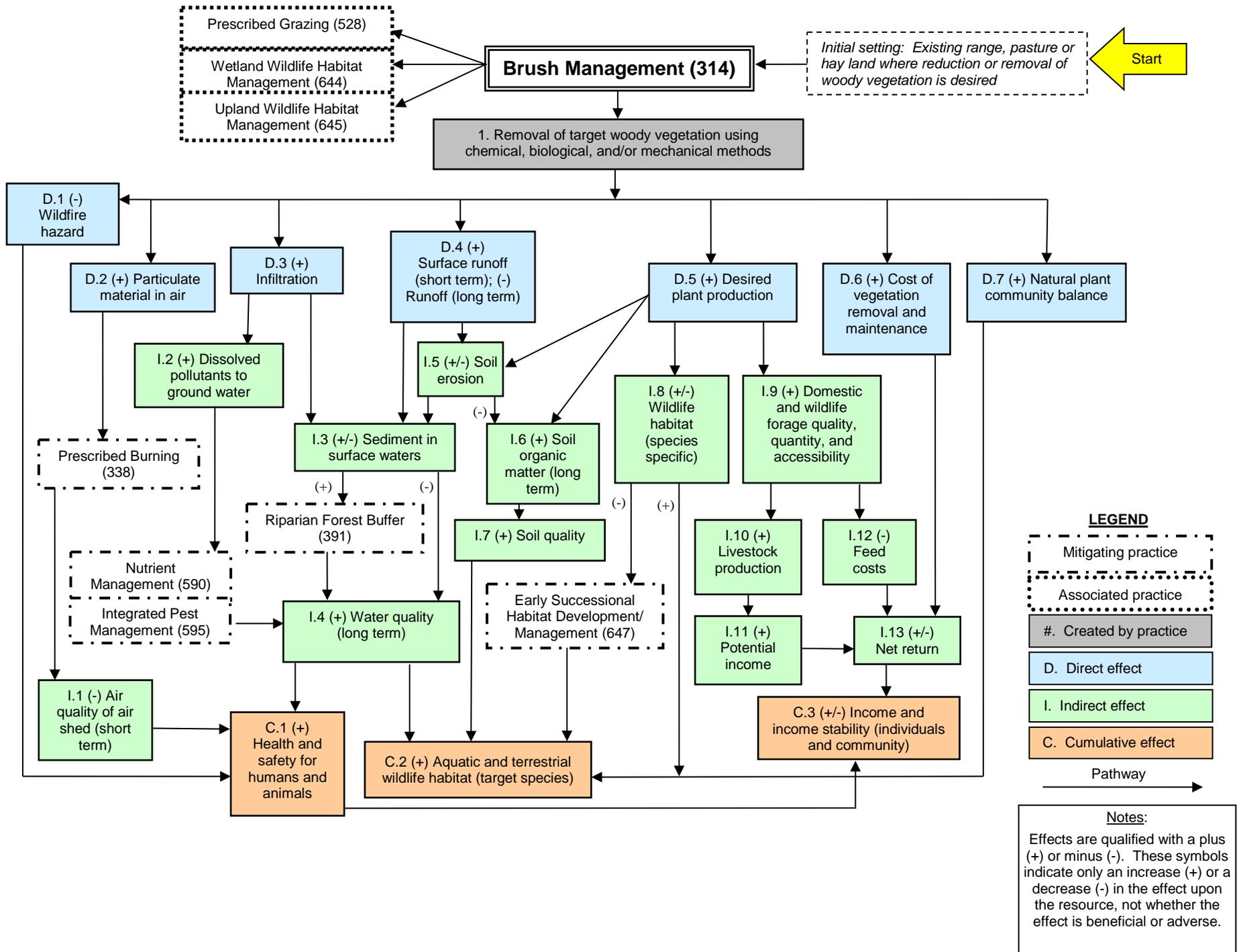
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September 2014



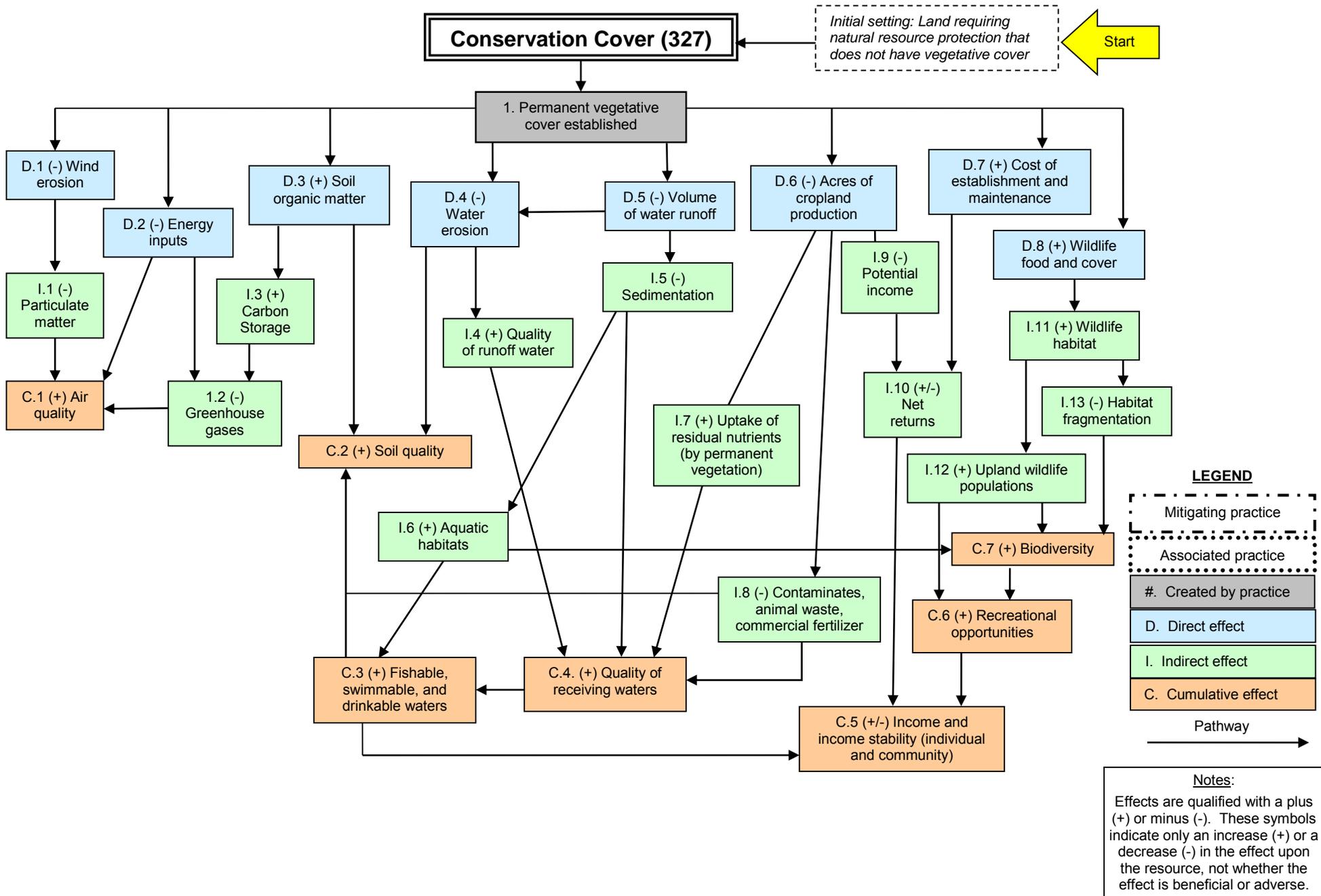
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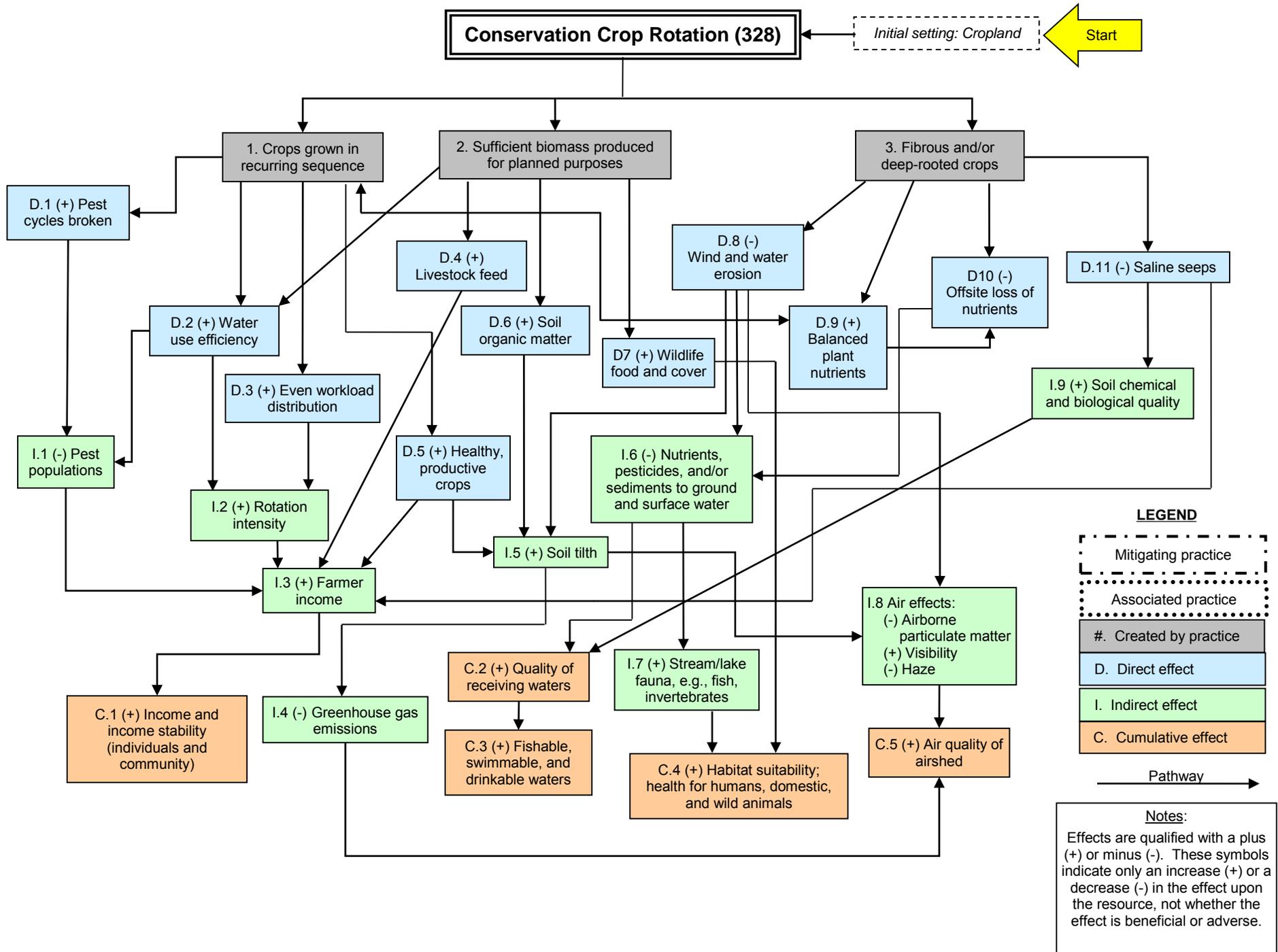
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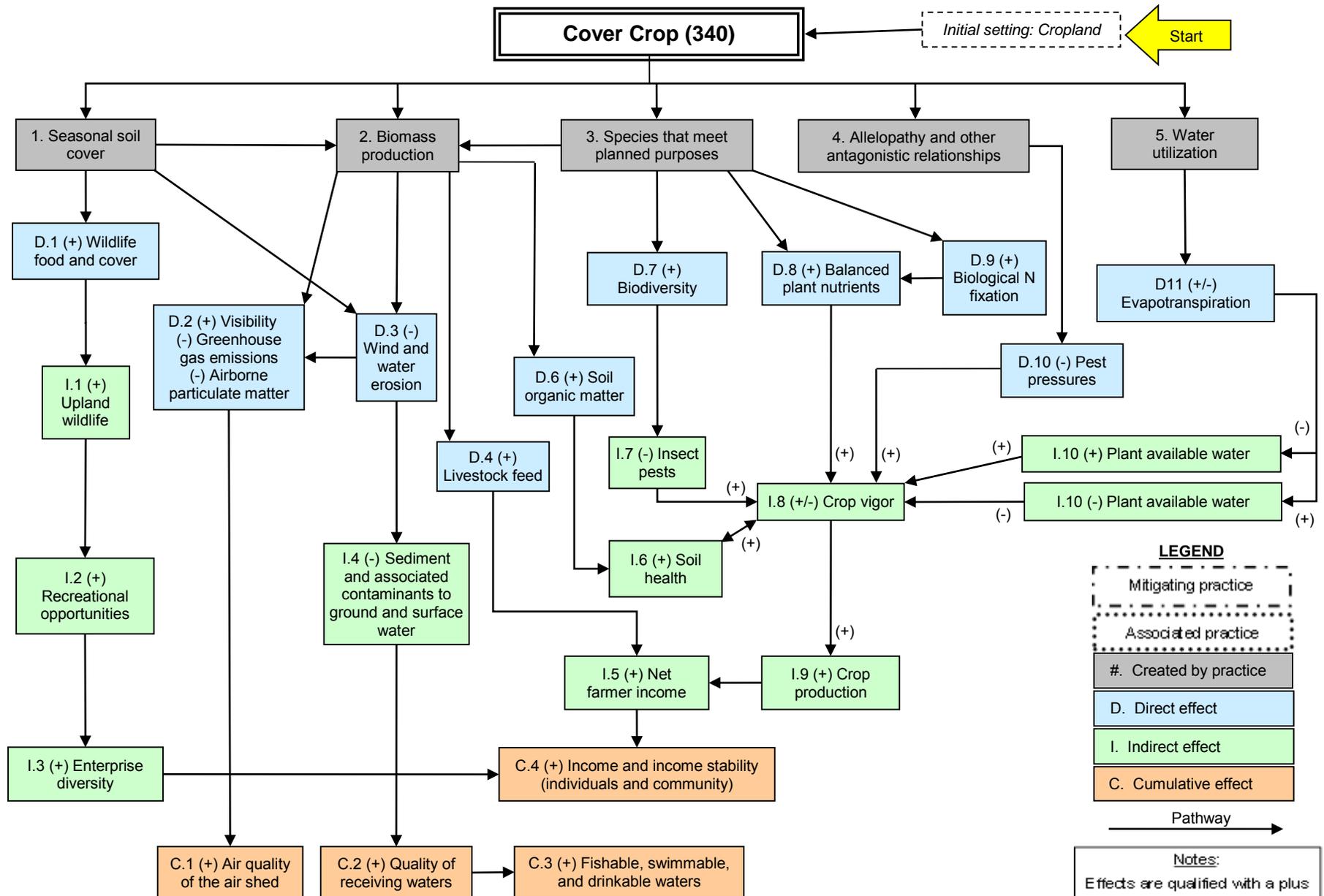
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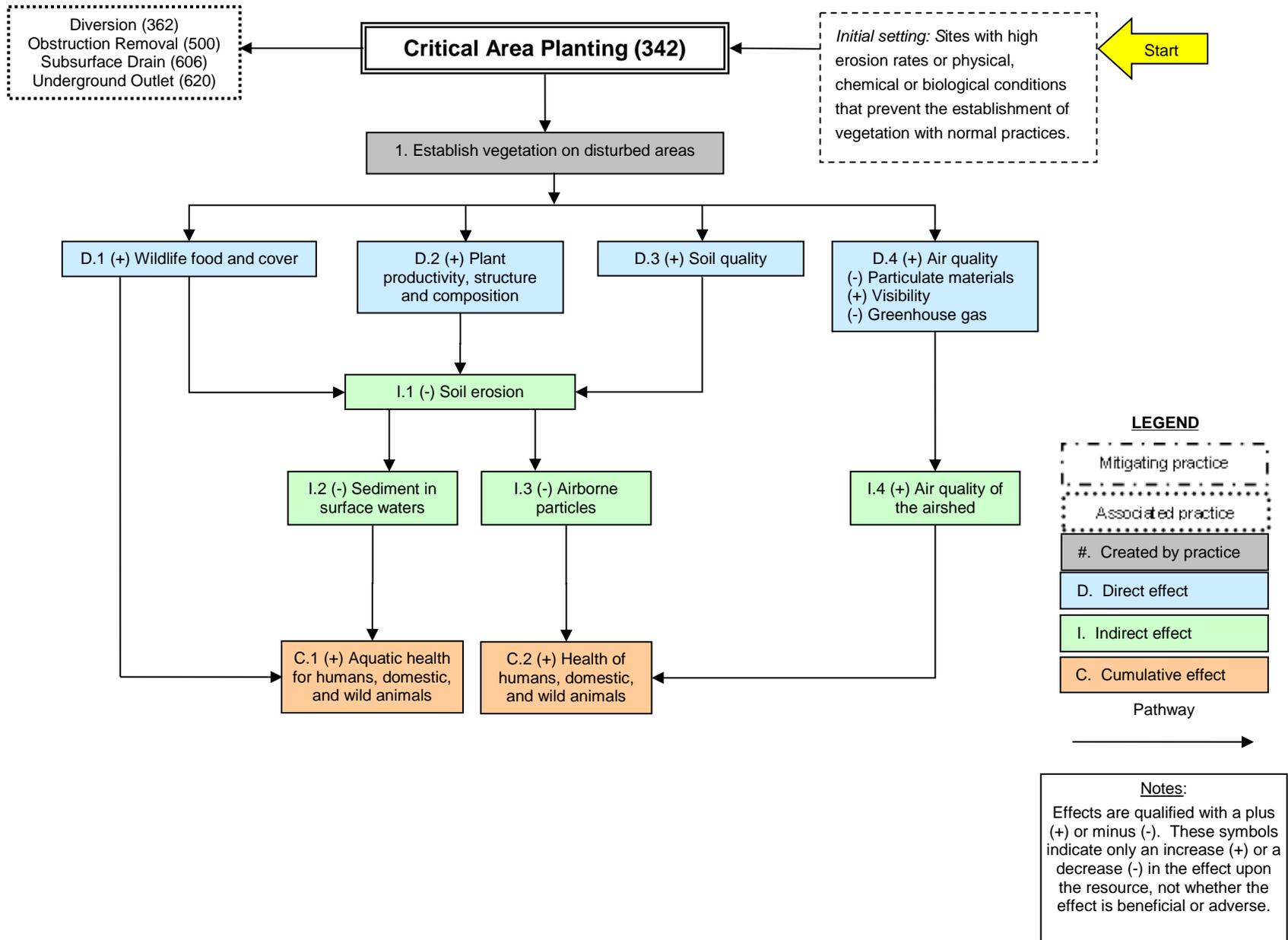
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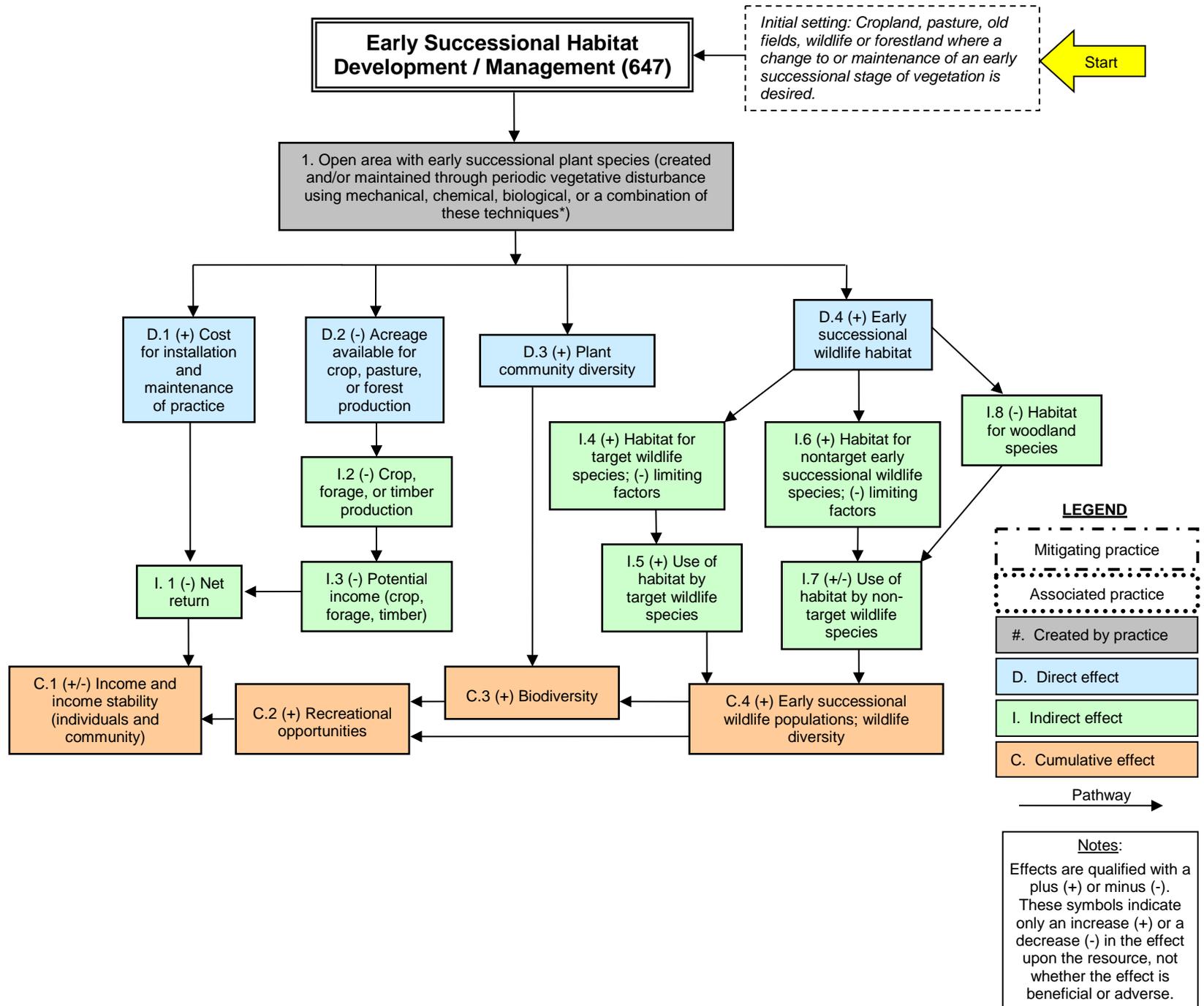
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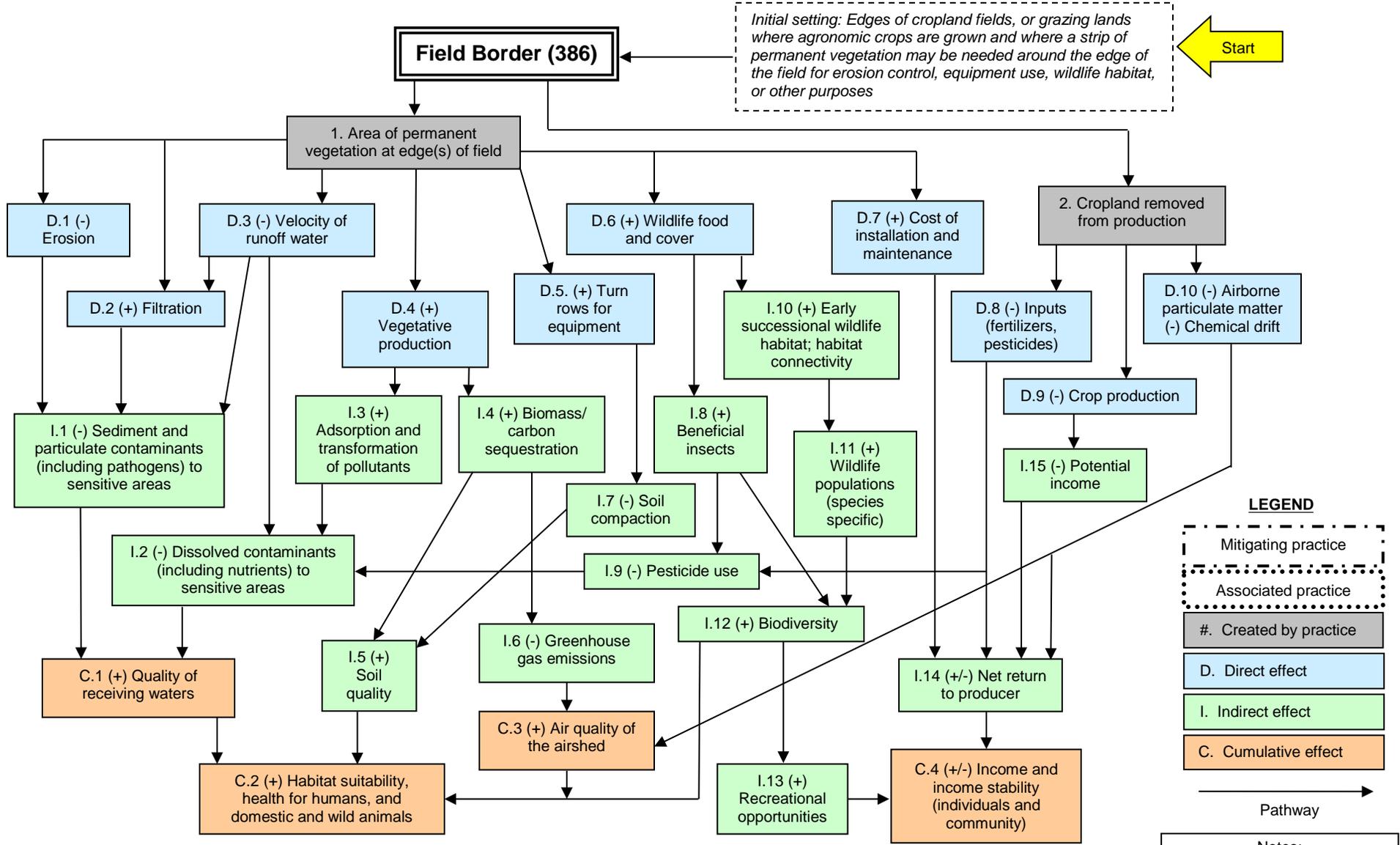
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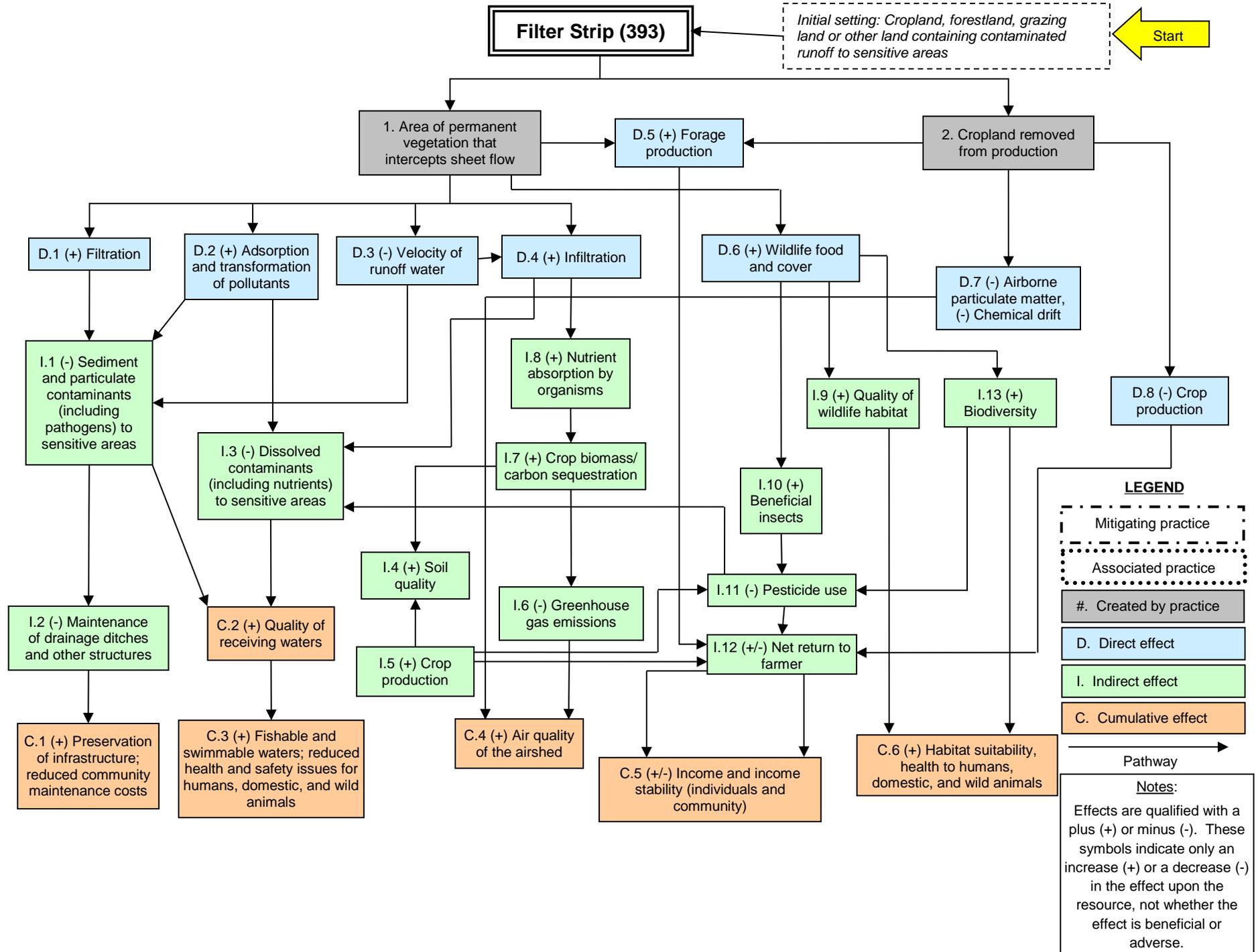
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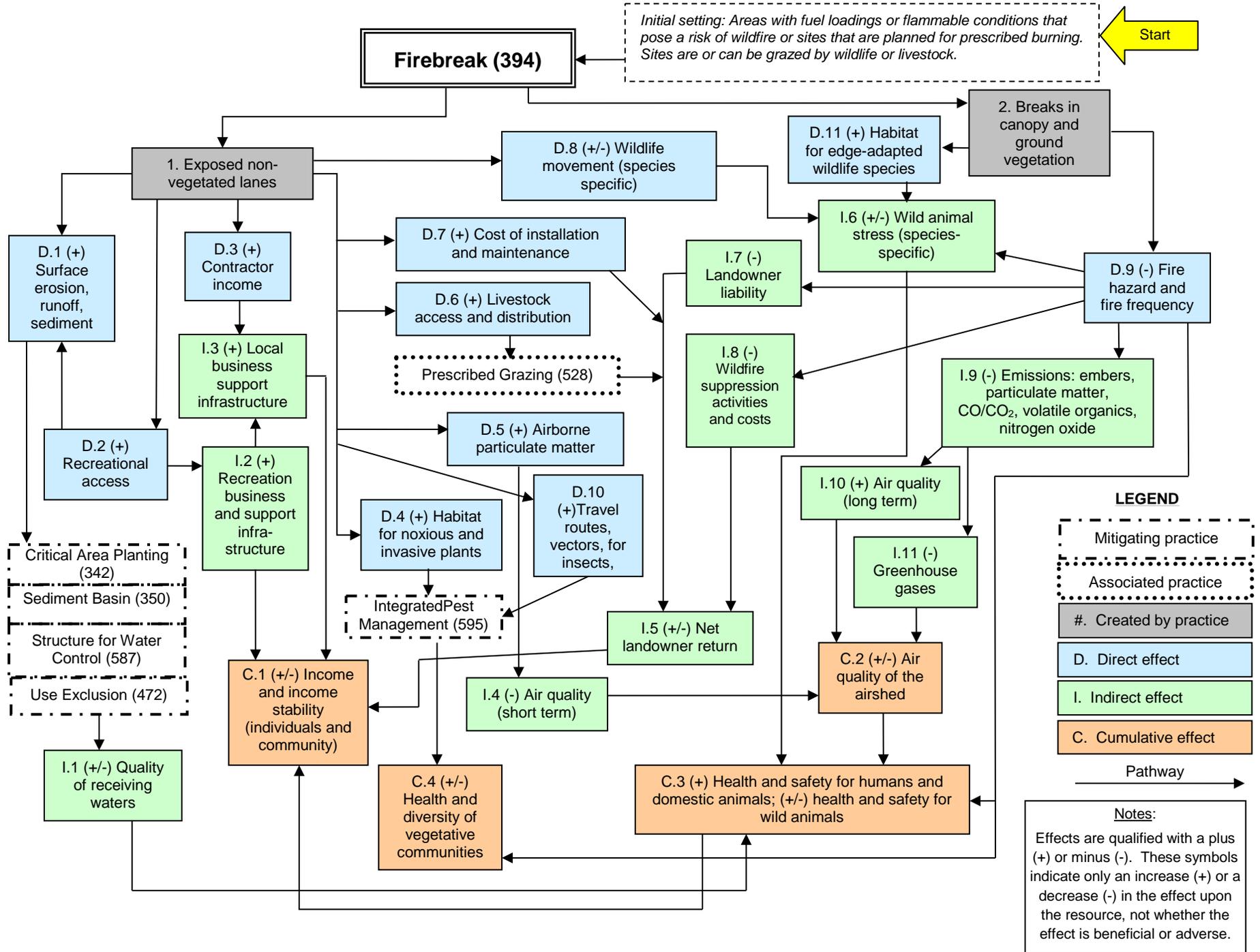
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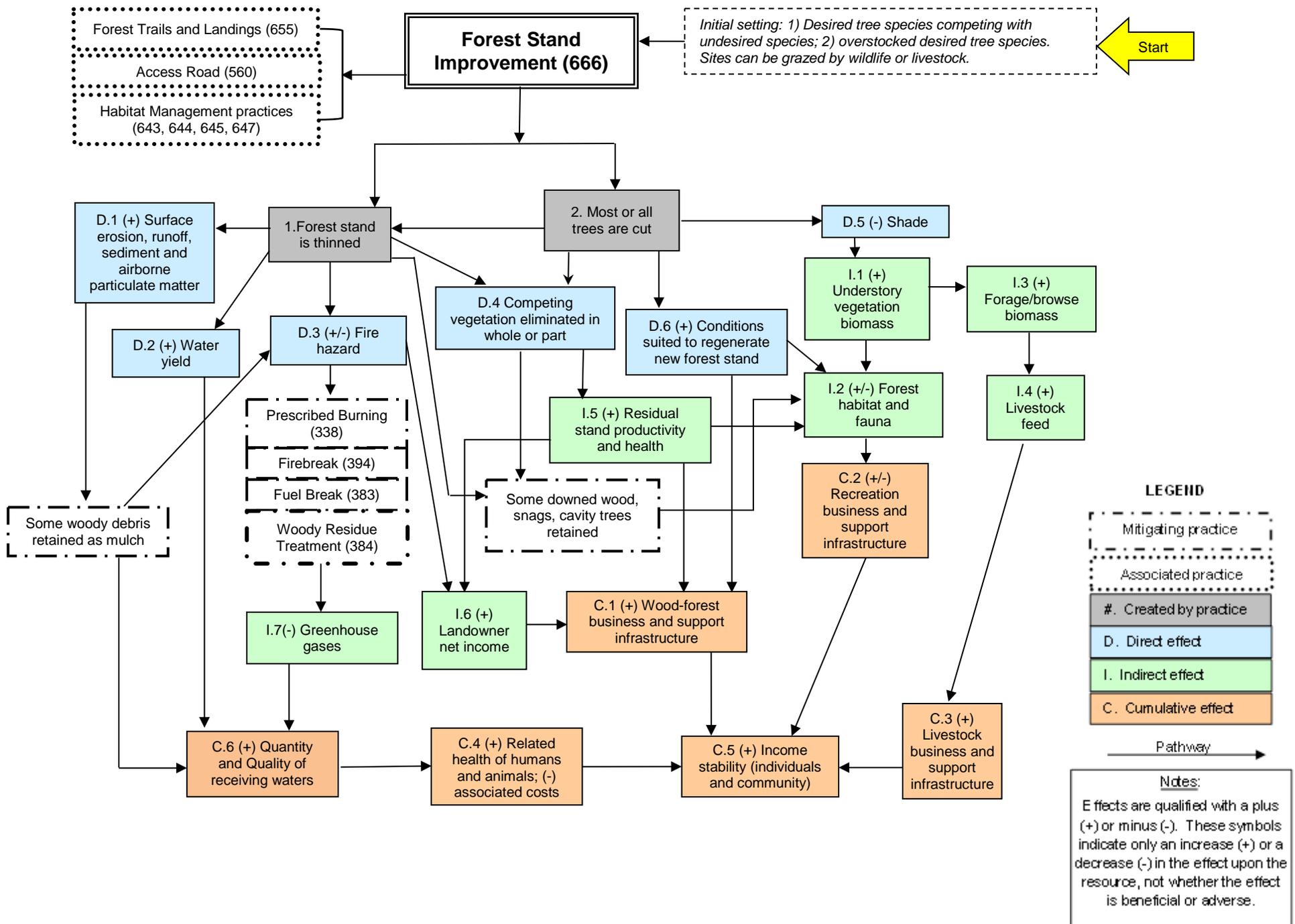
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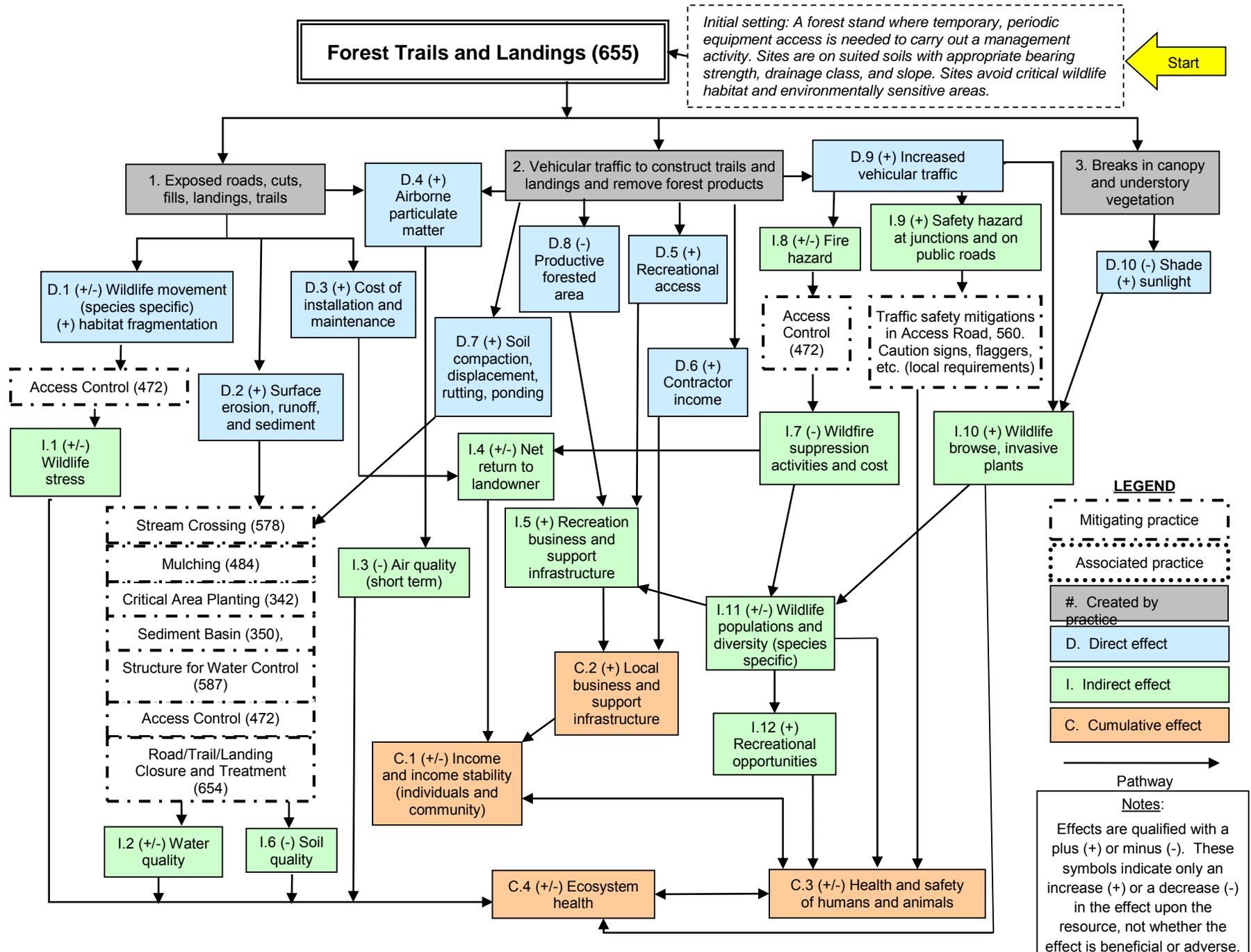
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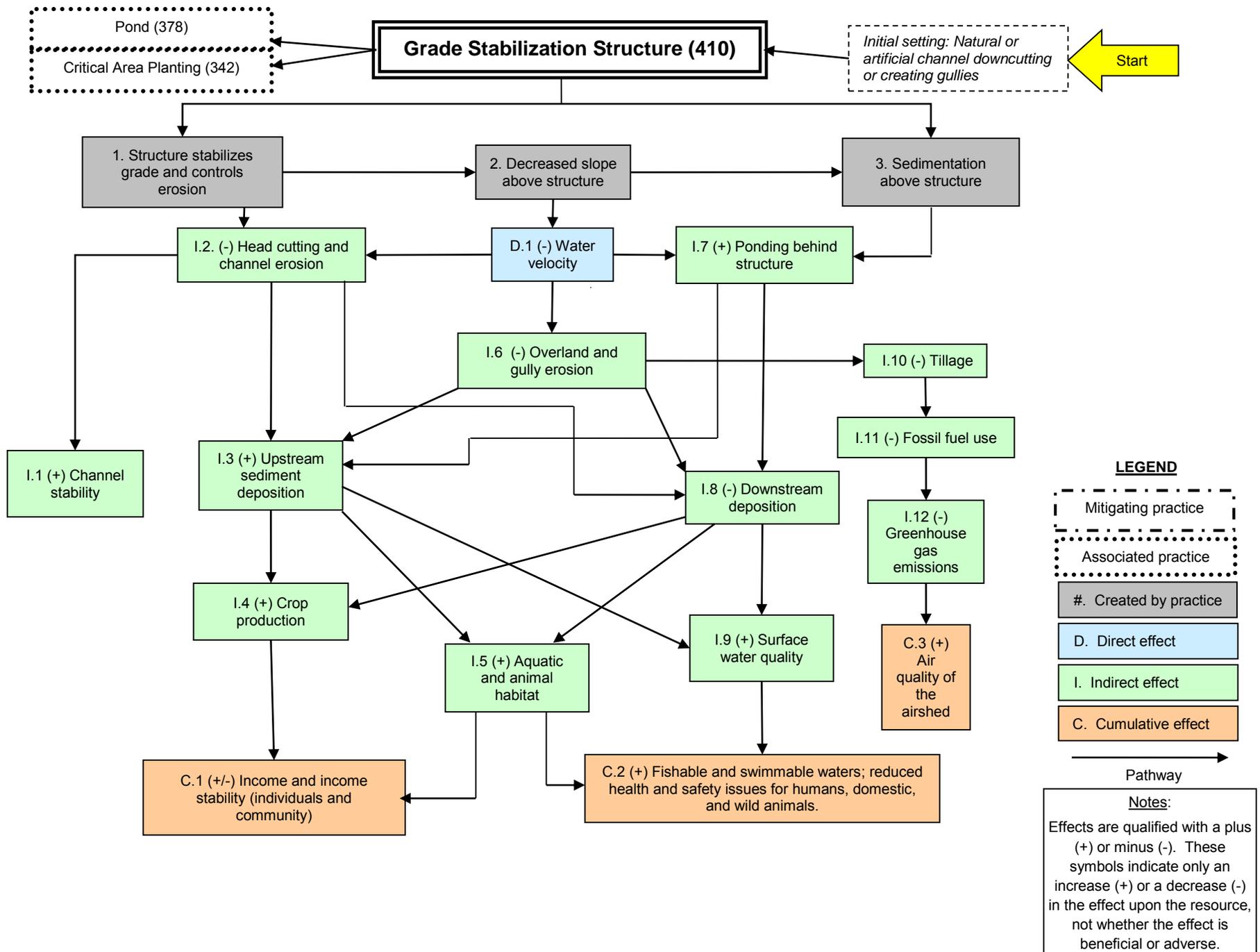
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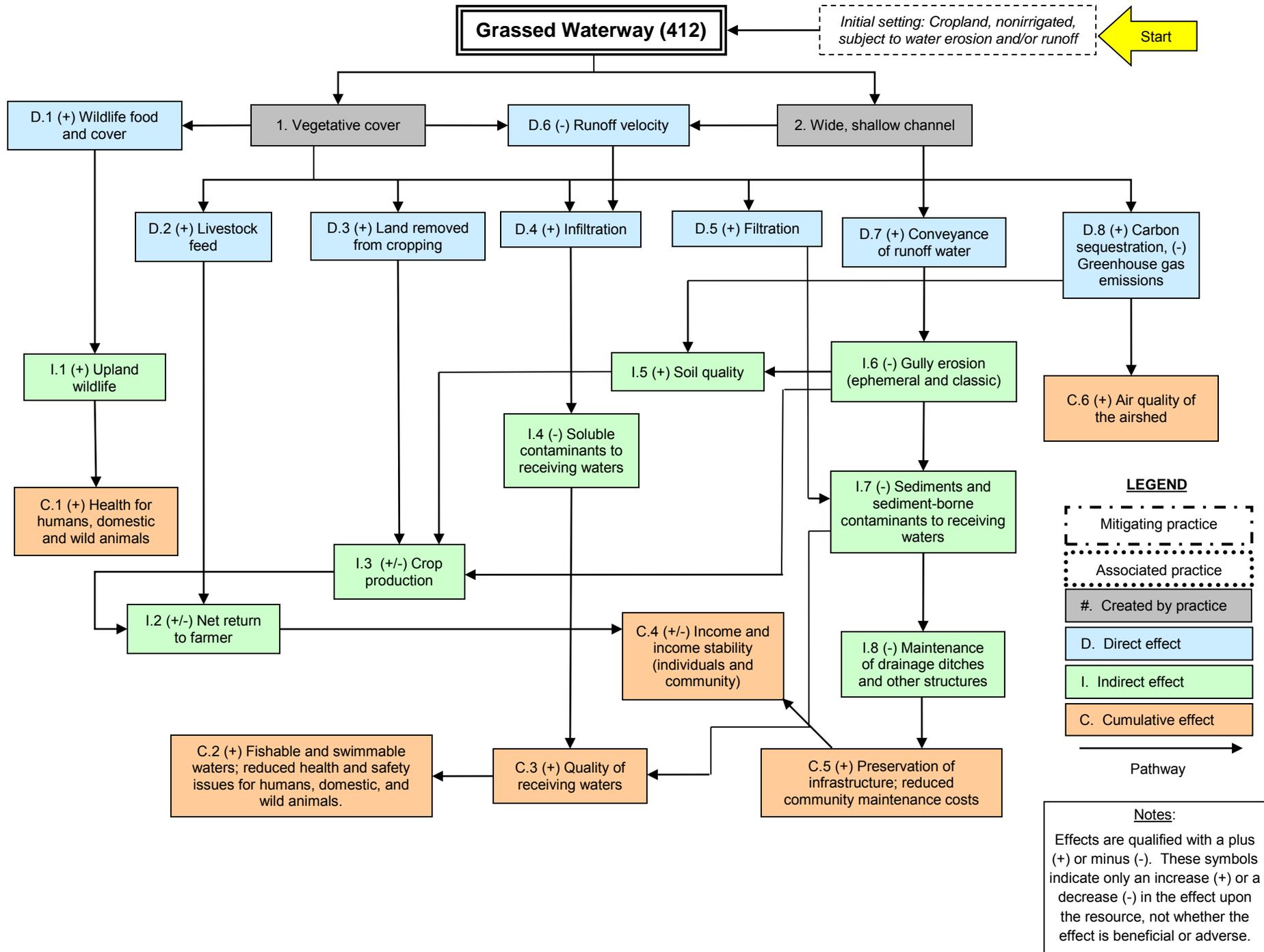
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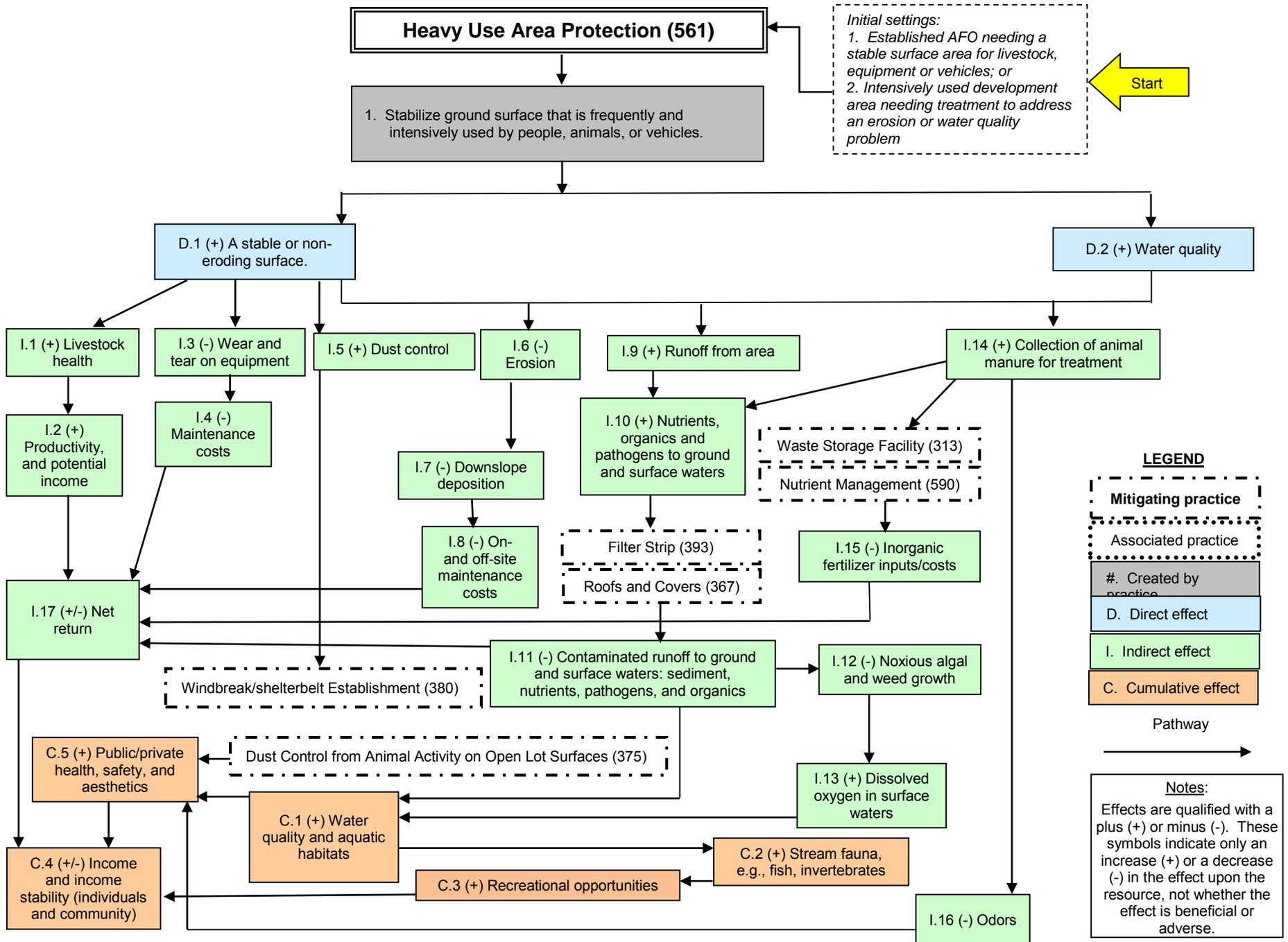
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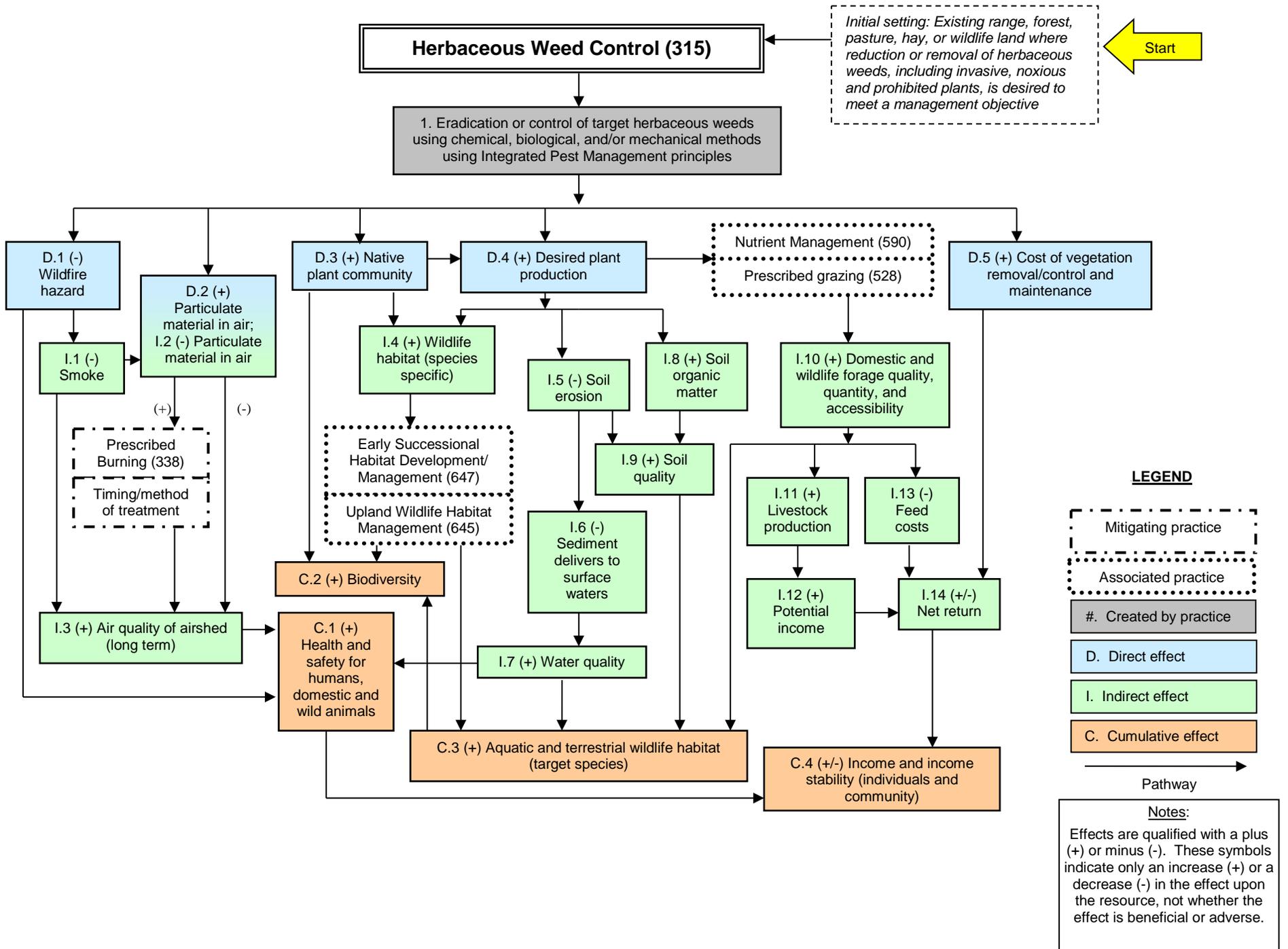
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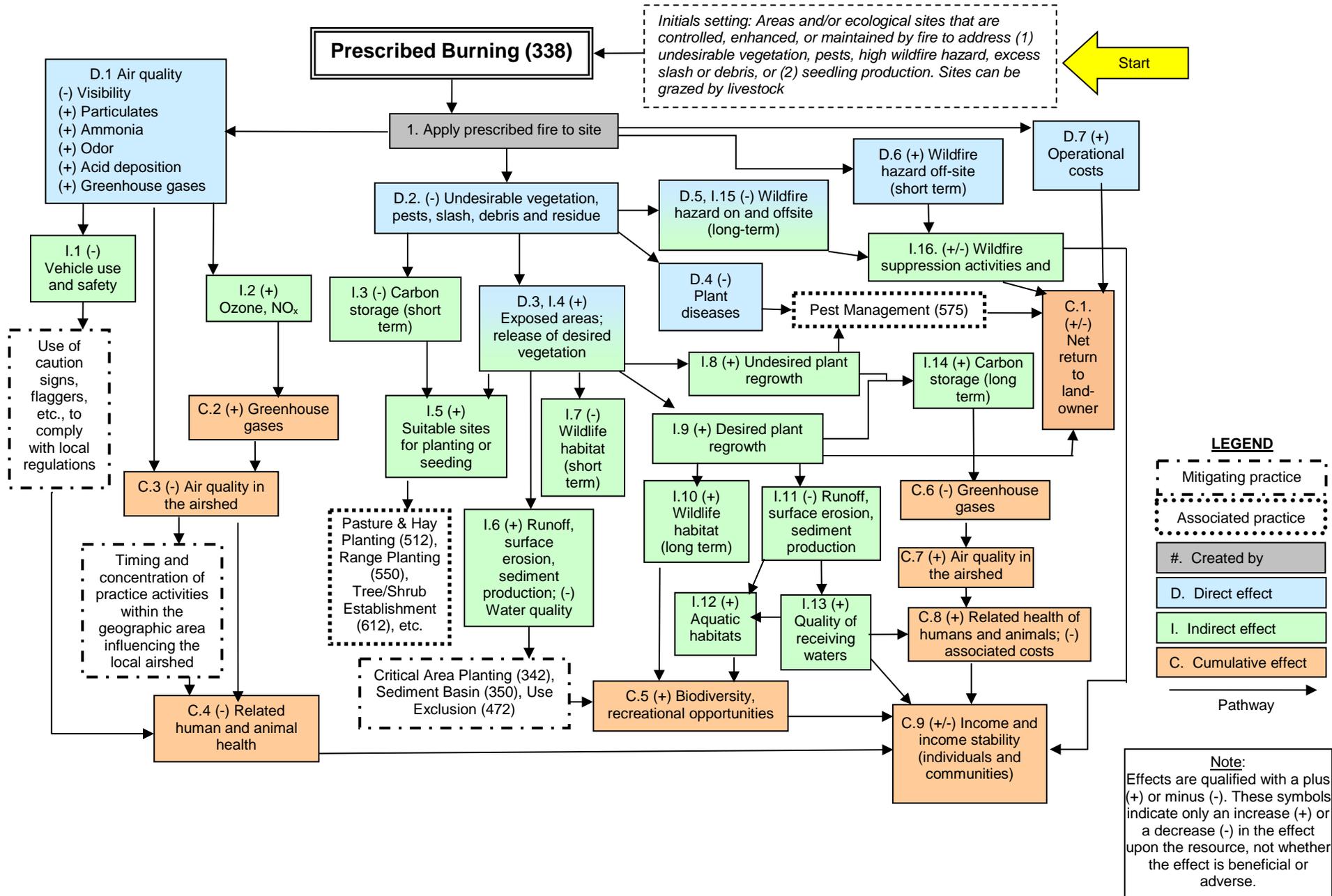
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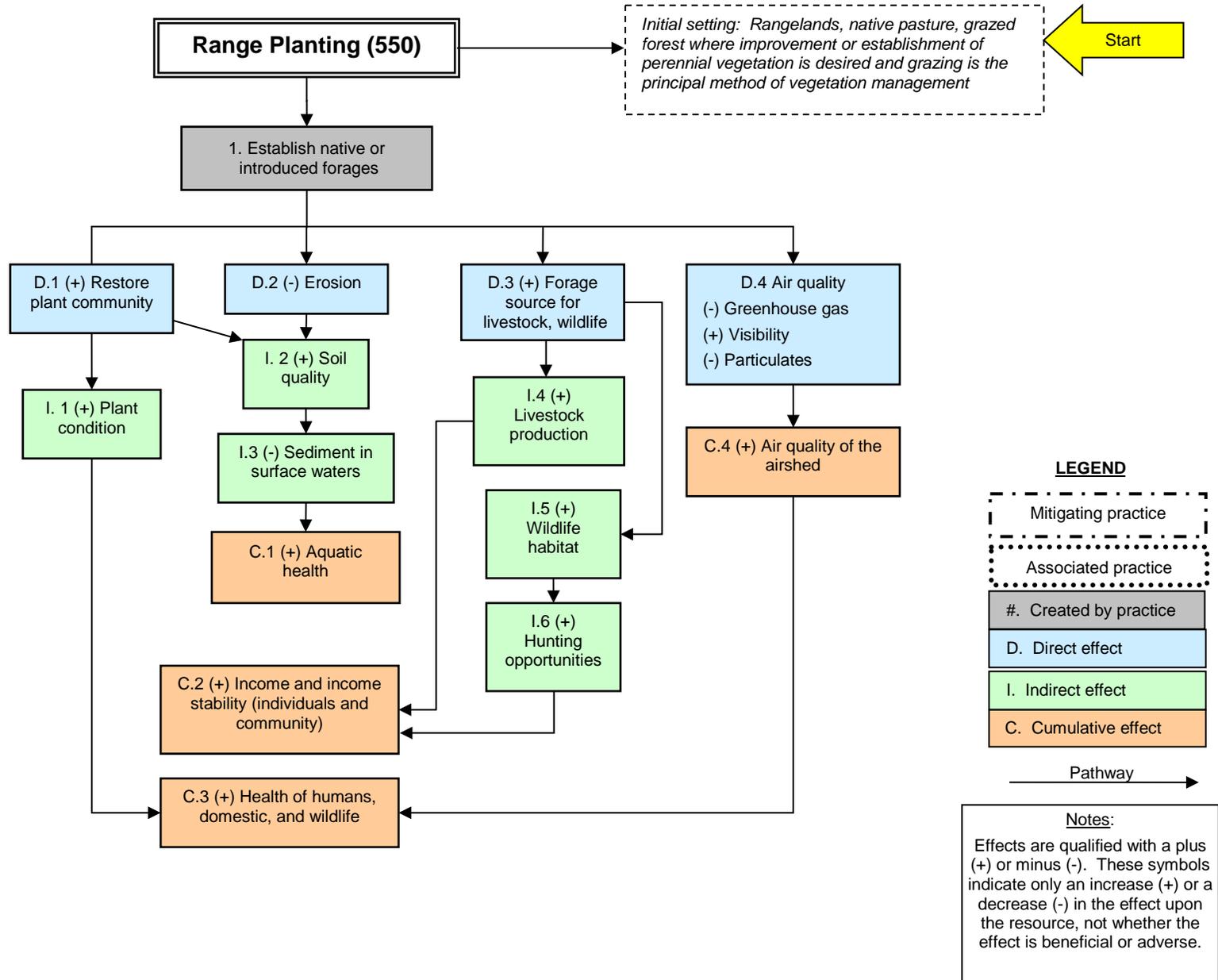
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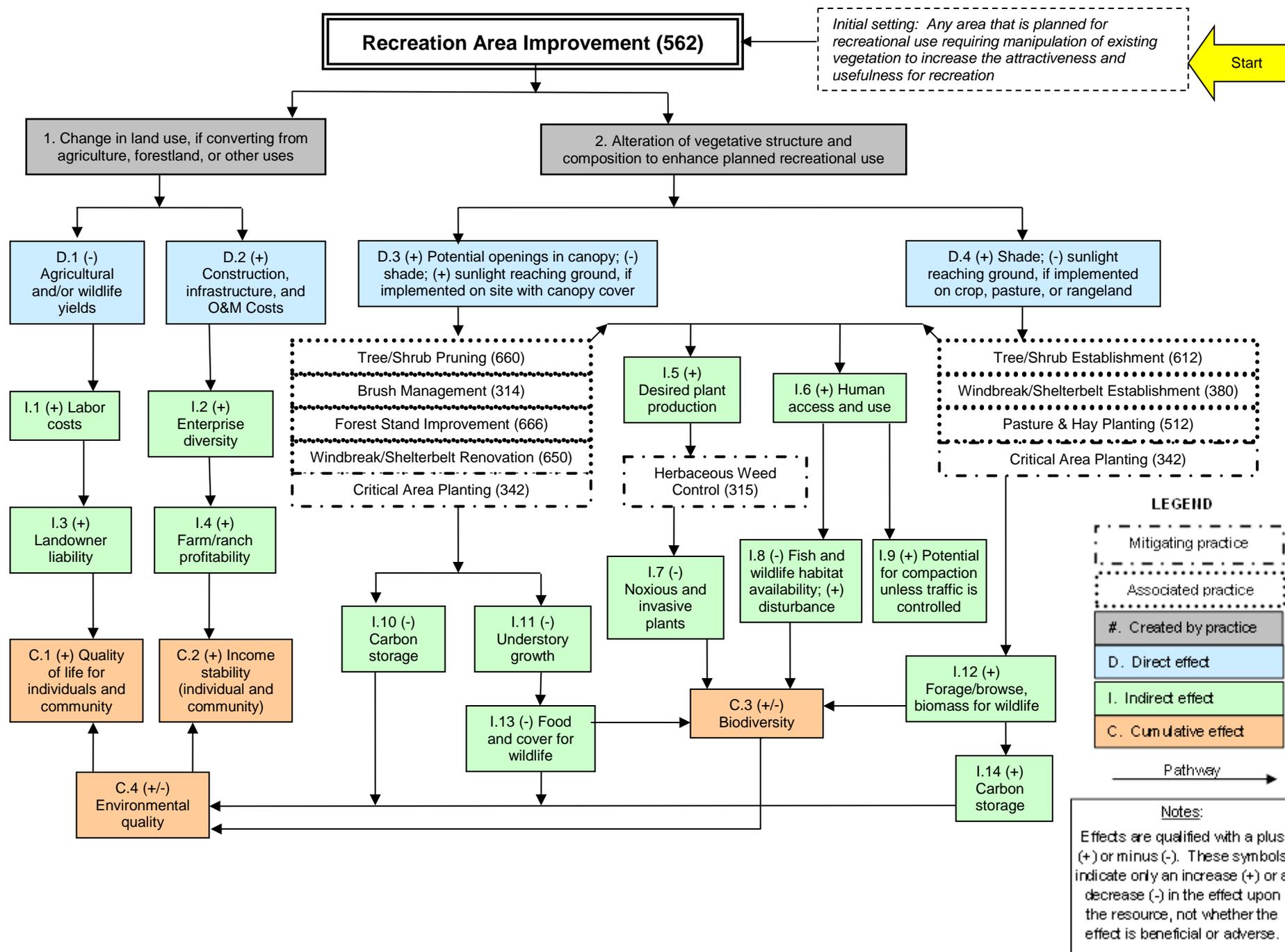
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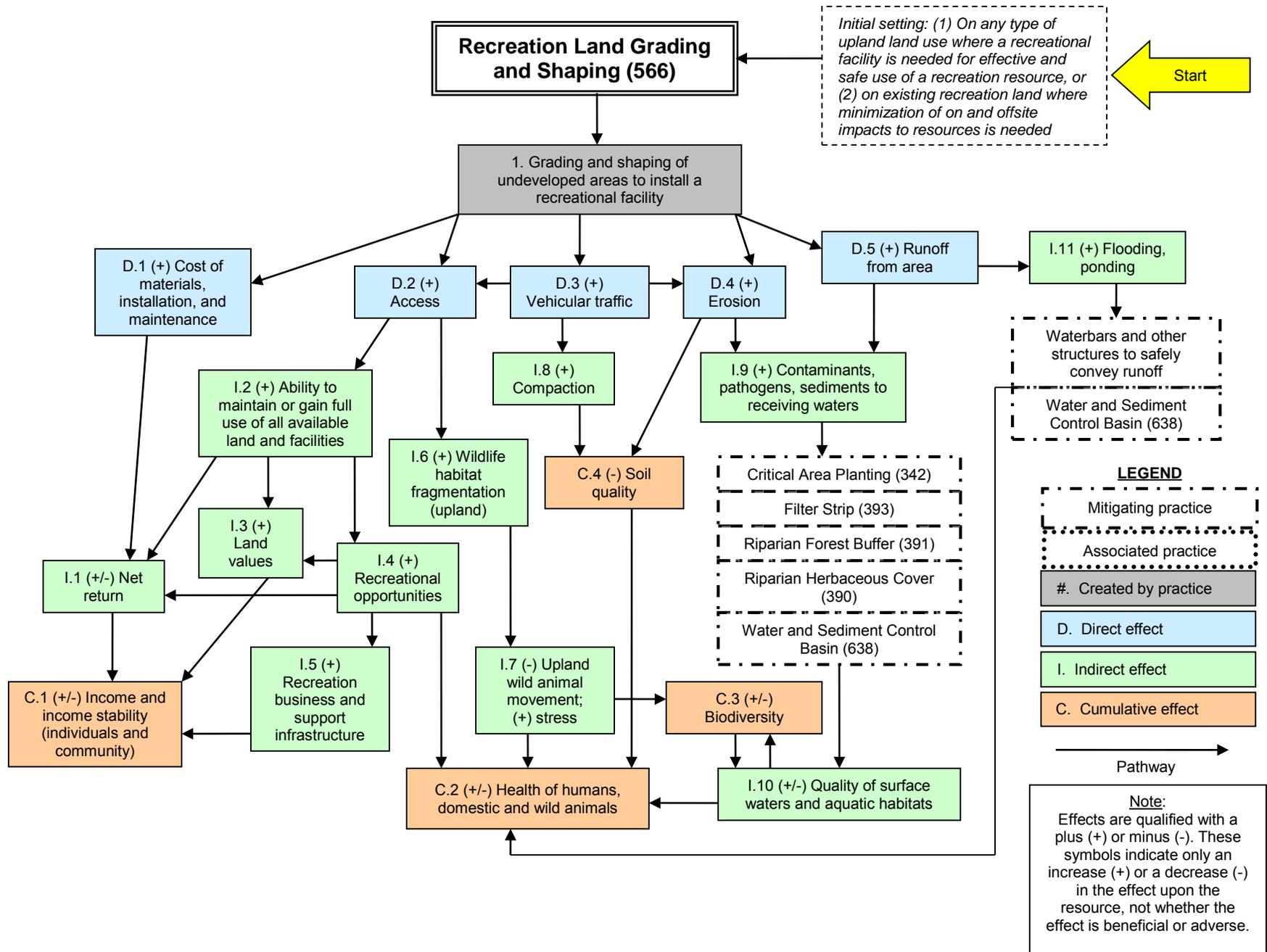
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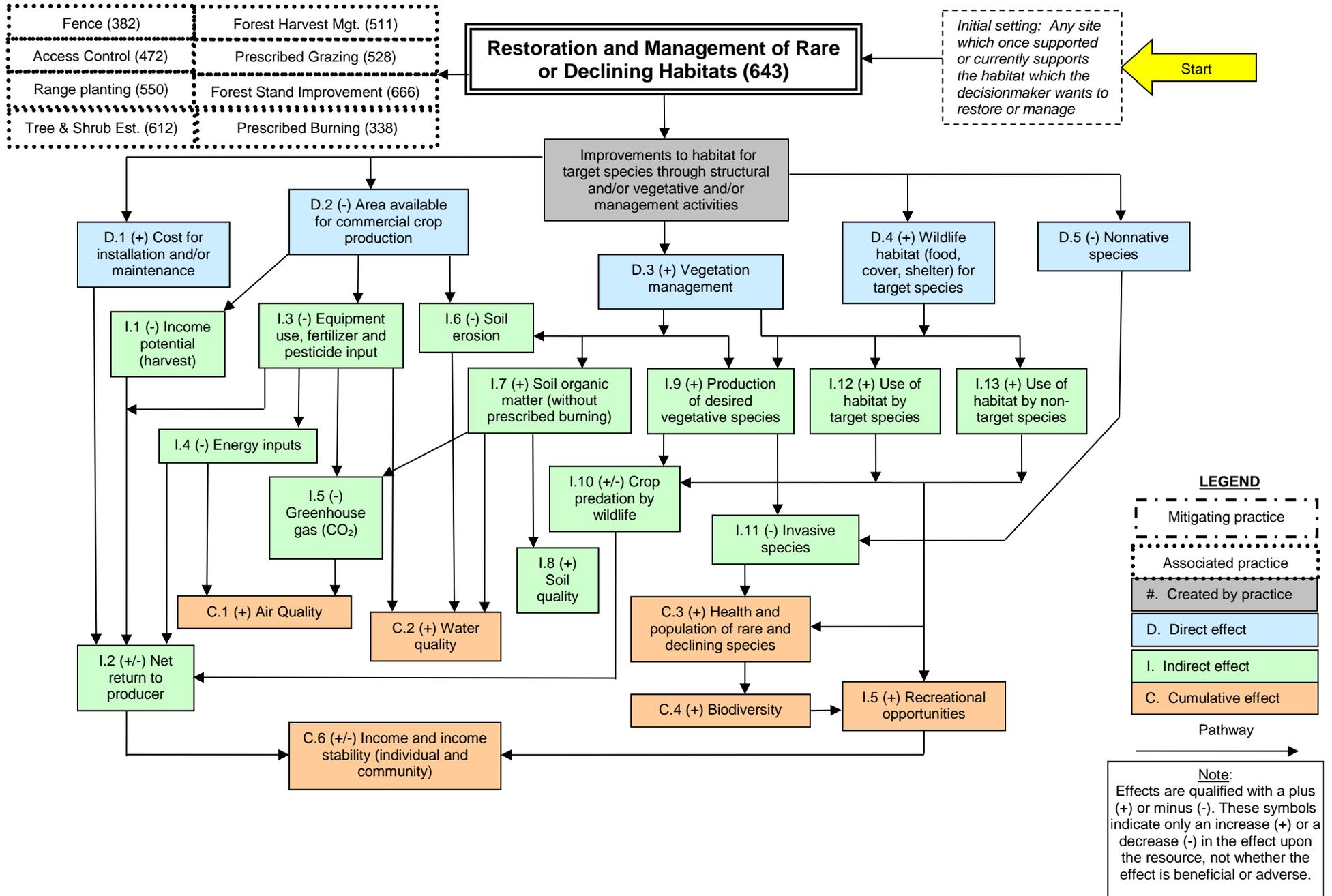
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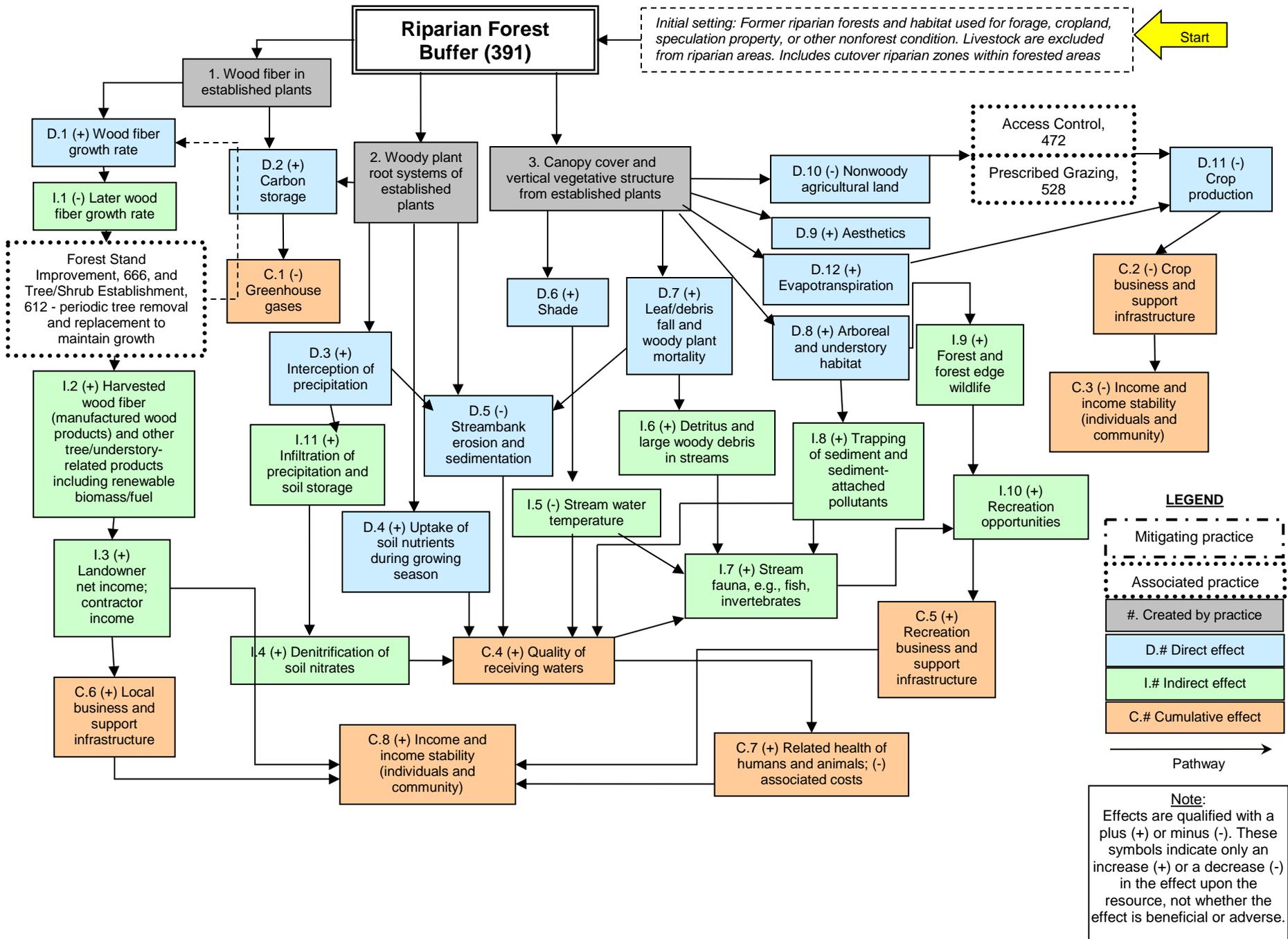
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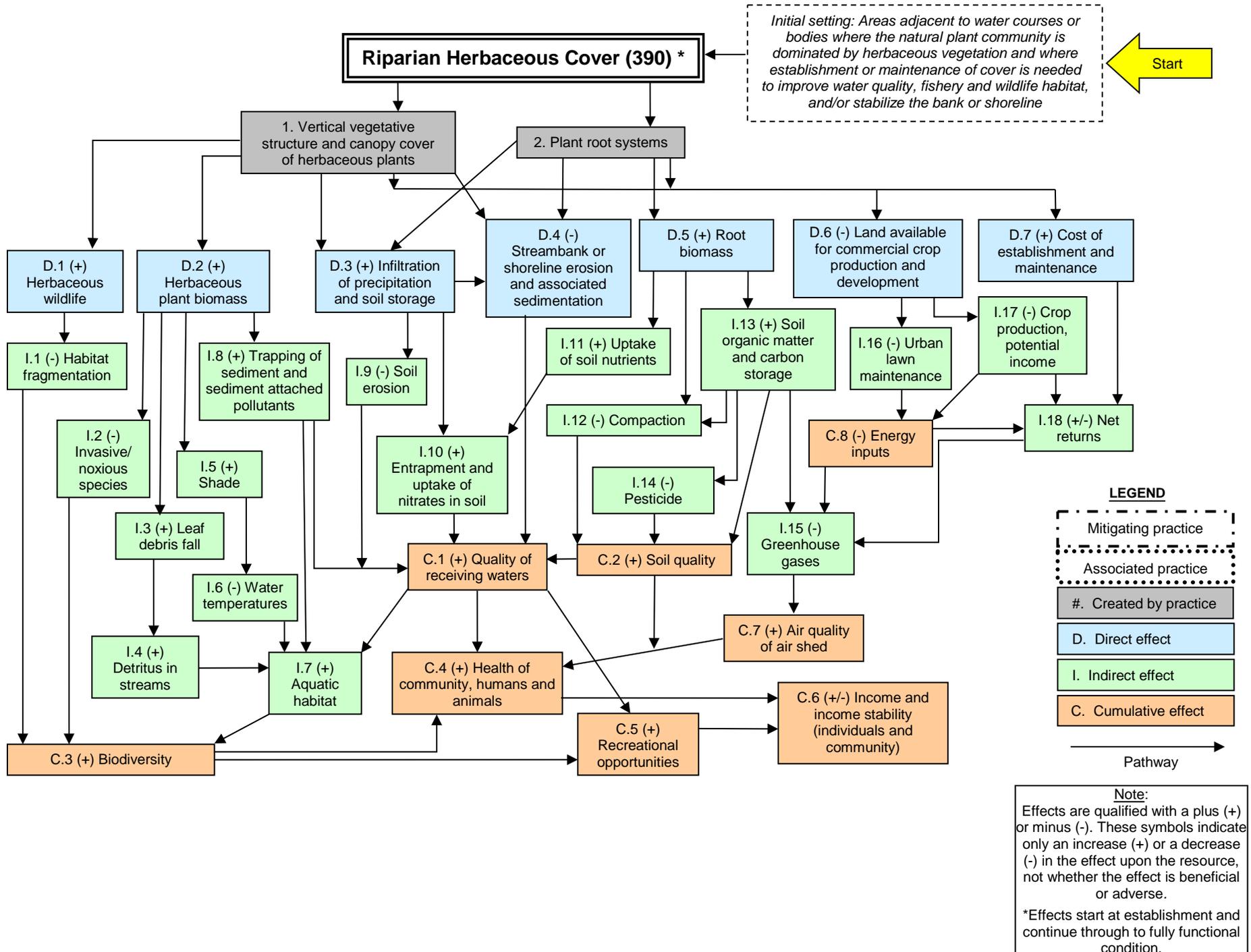
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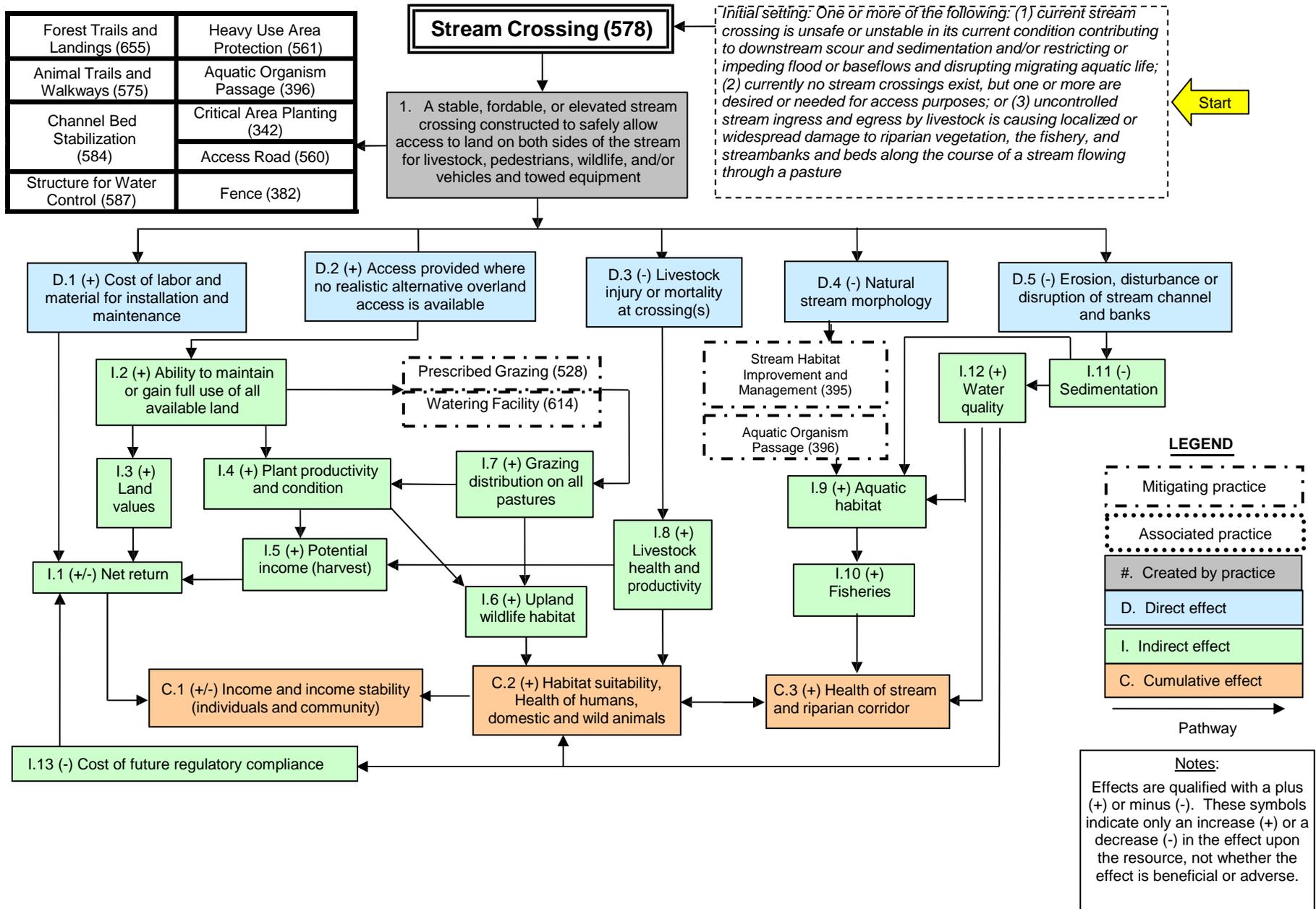
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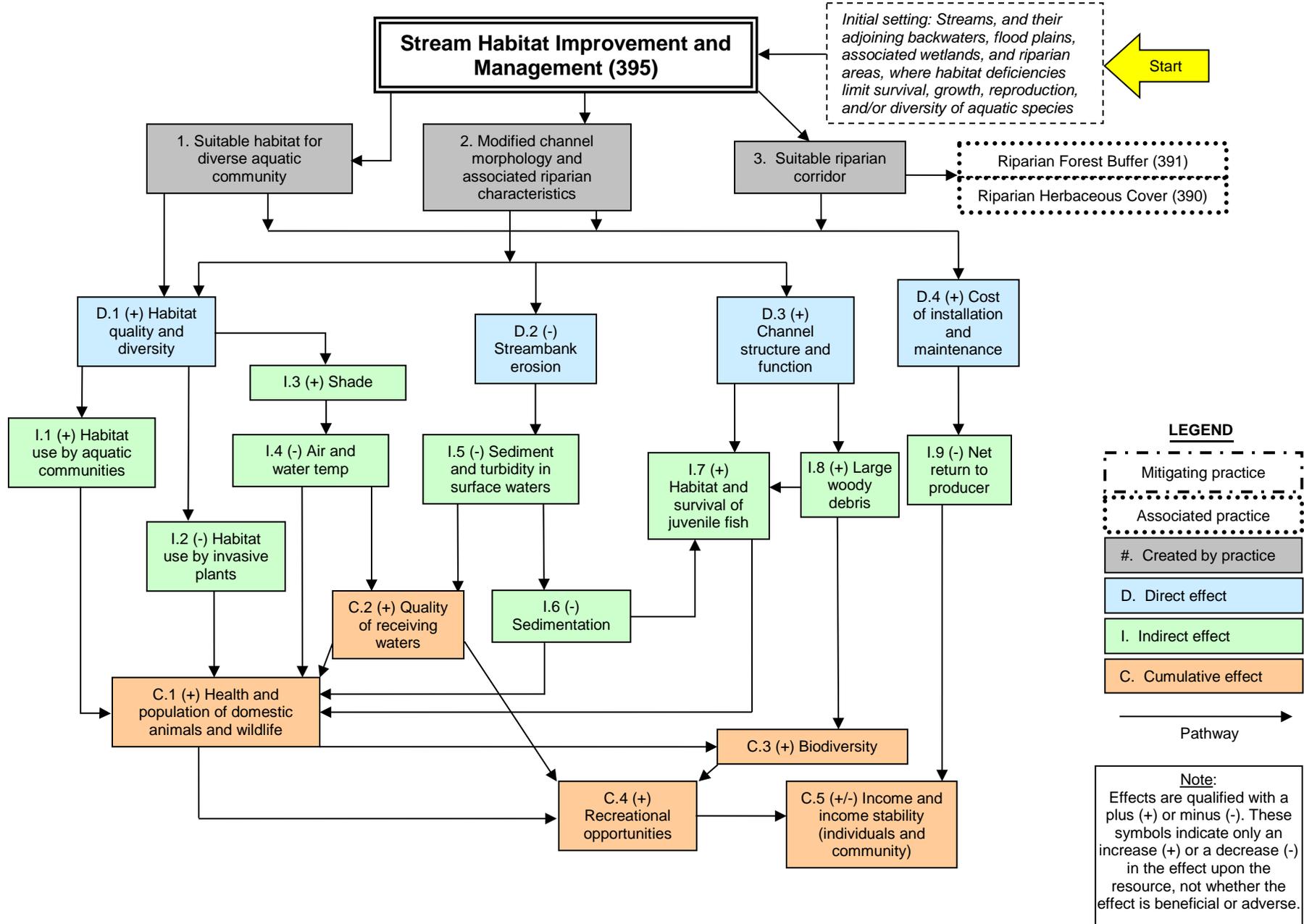
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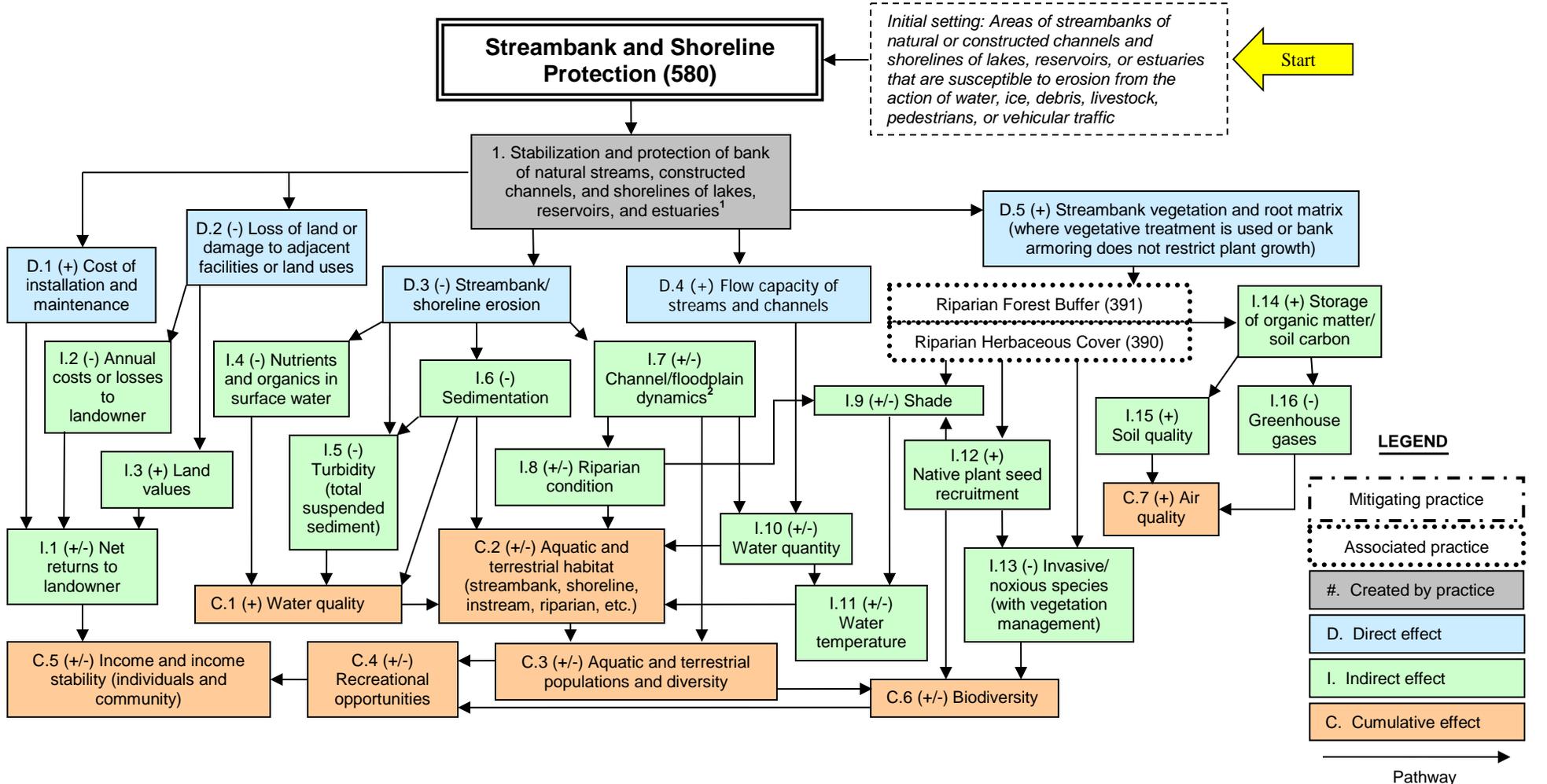
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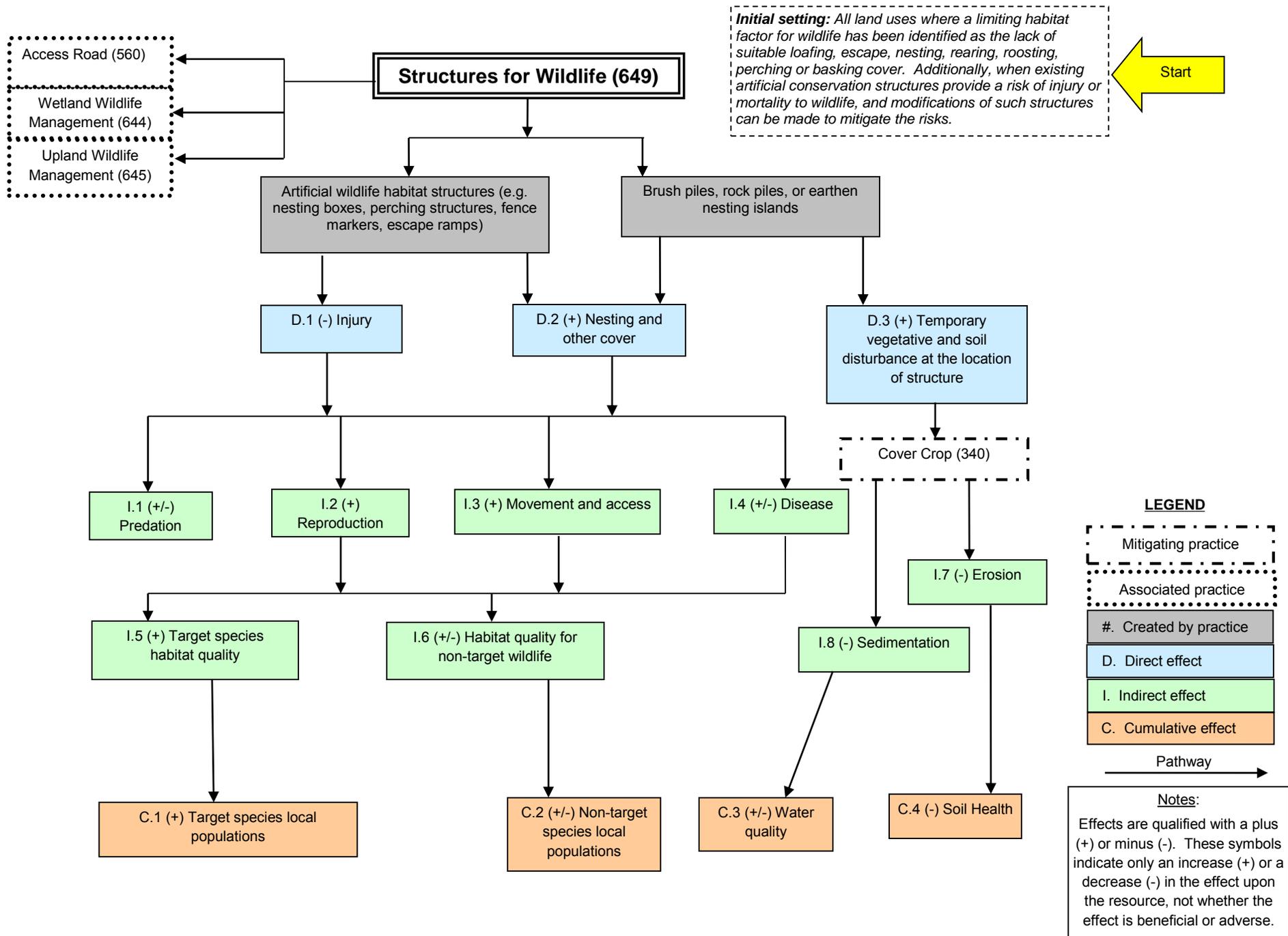


**Notes:**  
 Effects are qualified with a plus (+) or minus (-). These symbols indicate only an increase (+) or a decrease (-) in the effect upon the resource, not whether the effect is beneficial or adverse. **Projects involving long lengths of bank or shoreline, structural controls, substantial earth moving and/or fill, or sensitive waters may need to be evaluated in a site-specific EA or EIS.**

<sup>1</sup> Additional information about potential protection measures and their impacts is available in the EIS for the Emergency Watershed Protection (EWP) Program.  
<sup>2</sup> Conventional bank armoring (e.g., rip rap, gabions) may result in decreased (-) channel/flood plain dynamics, and associated impacts, while other less intrusive methods (e.g., stream bars, stone toes with sloped, vegetated banks) may result in increased (+) channel/flood plain dynamics.

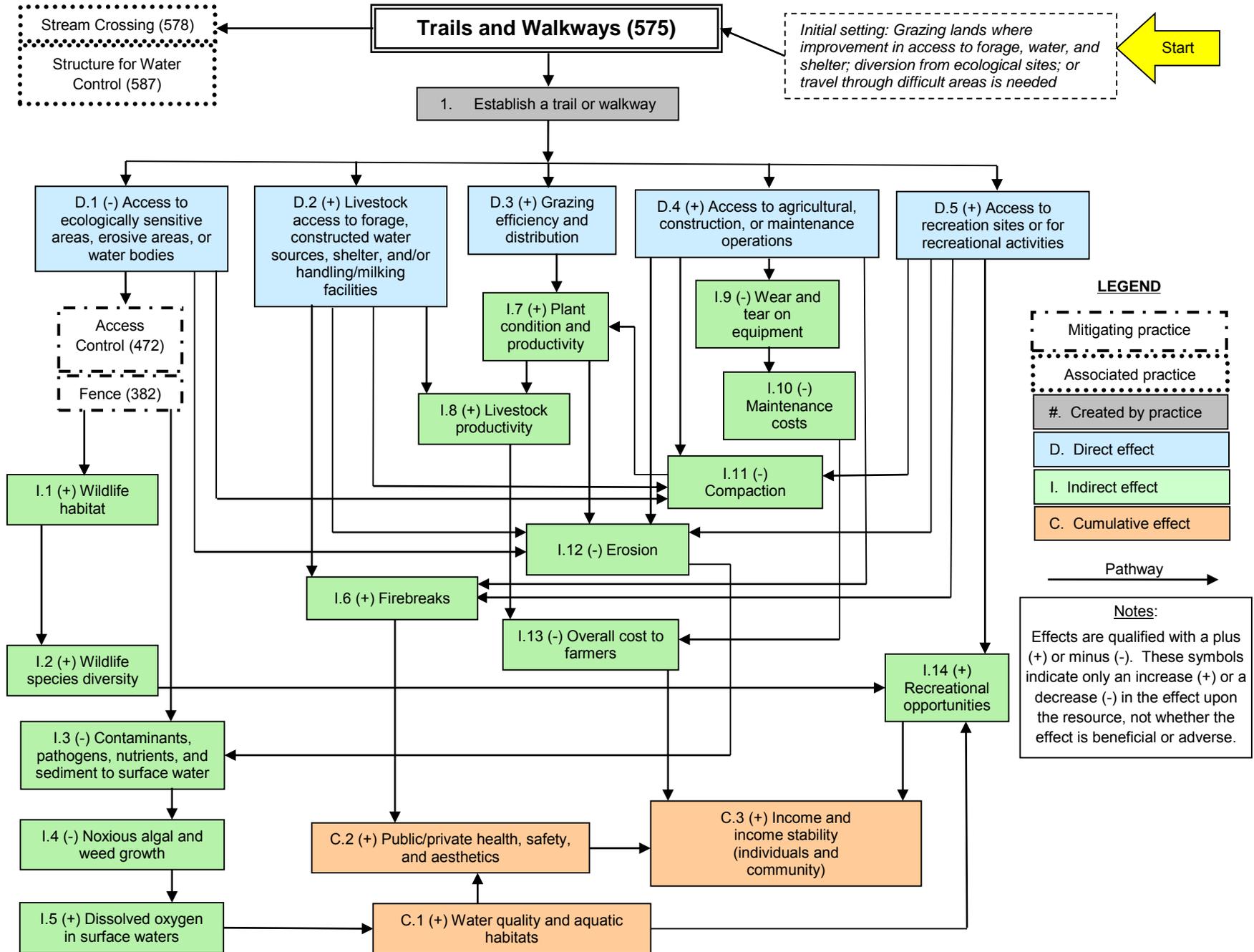
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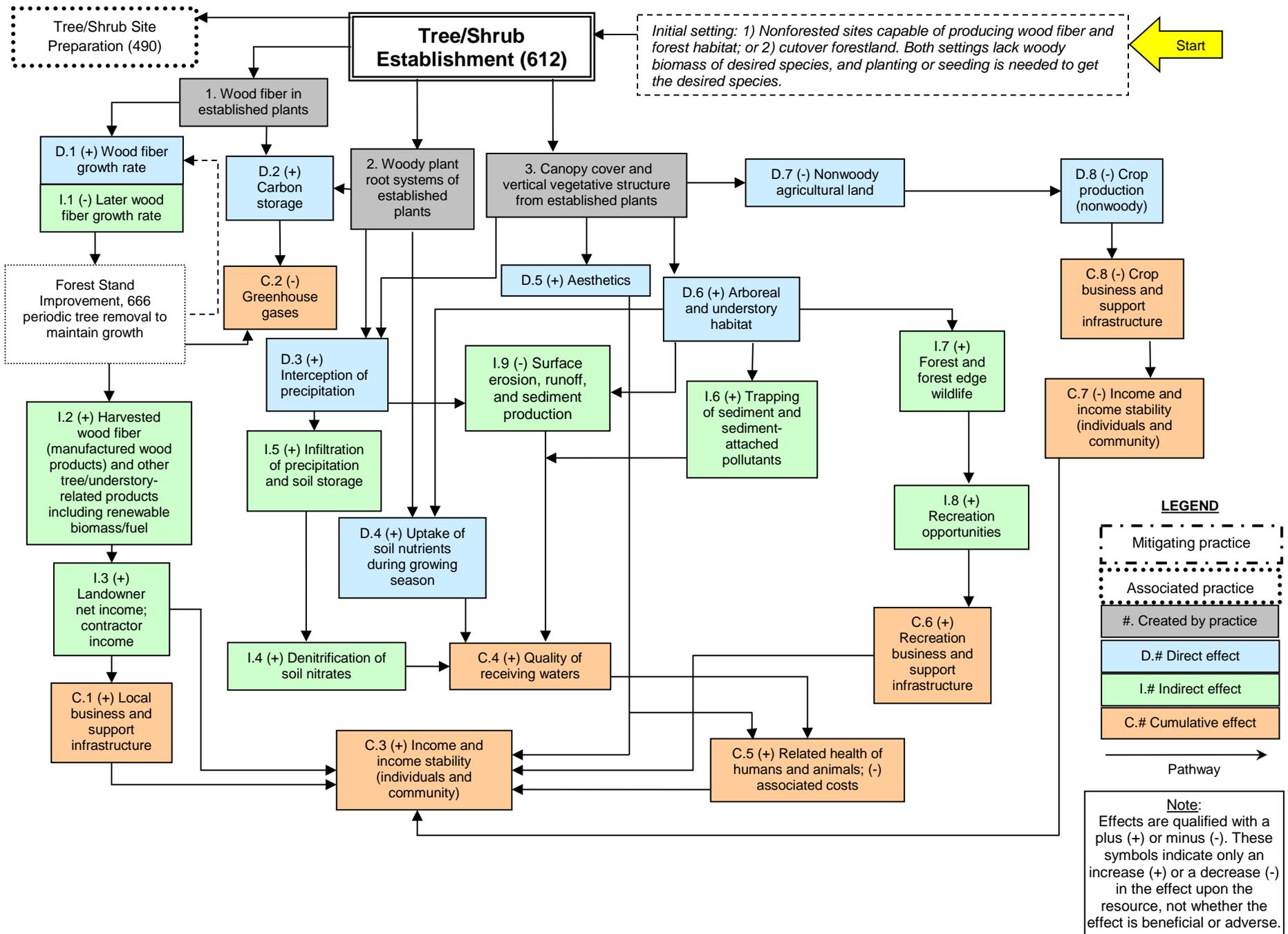
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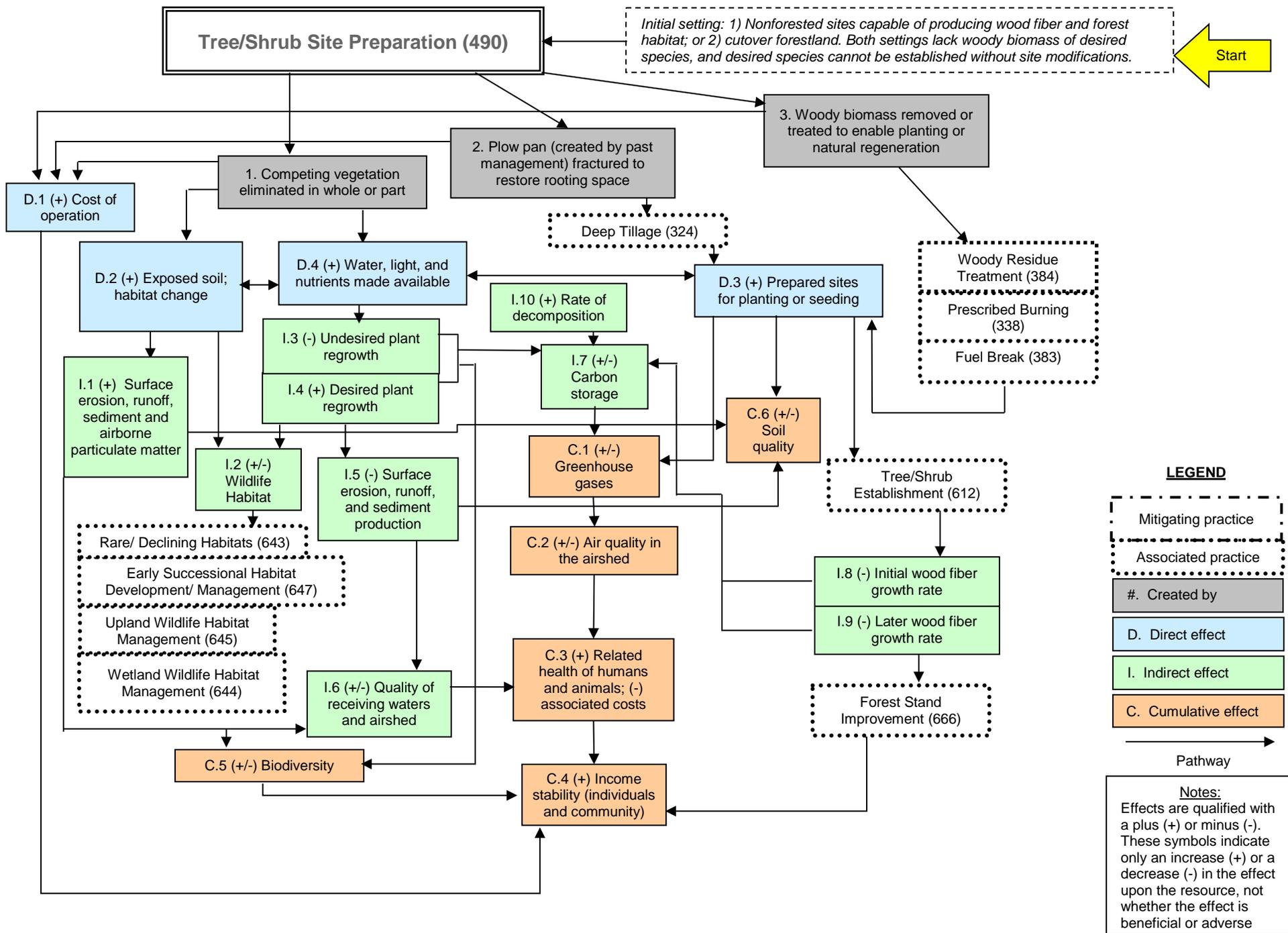
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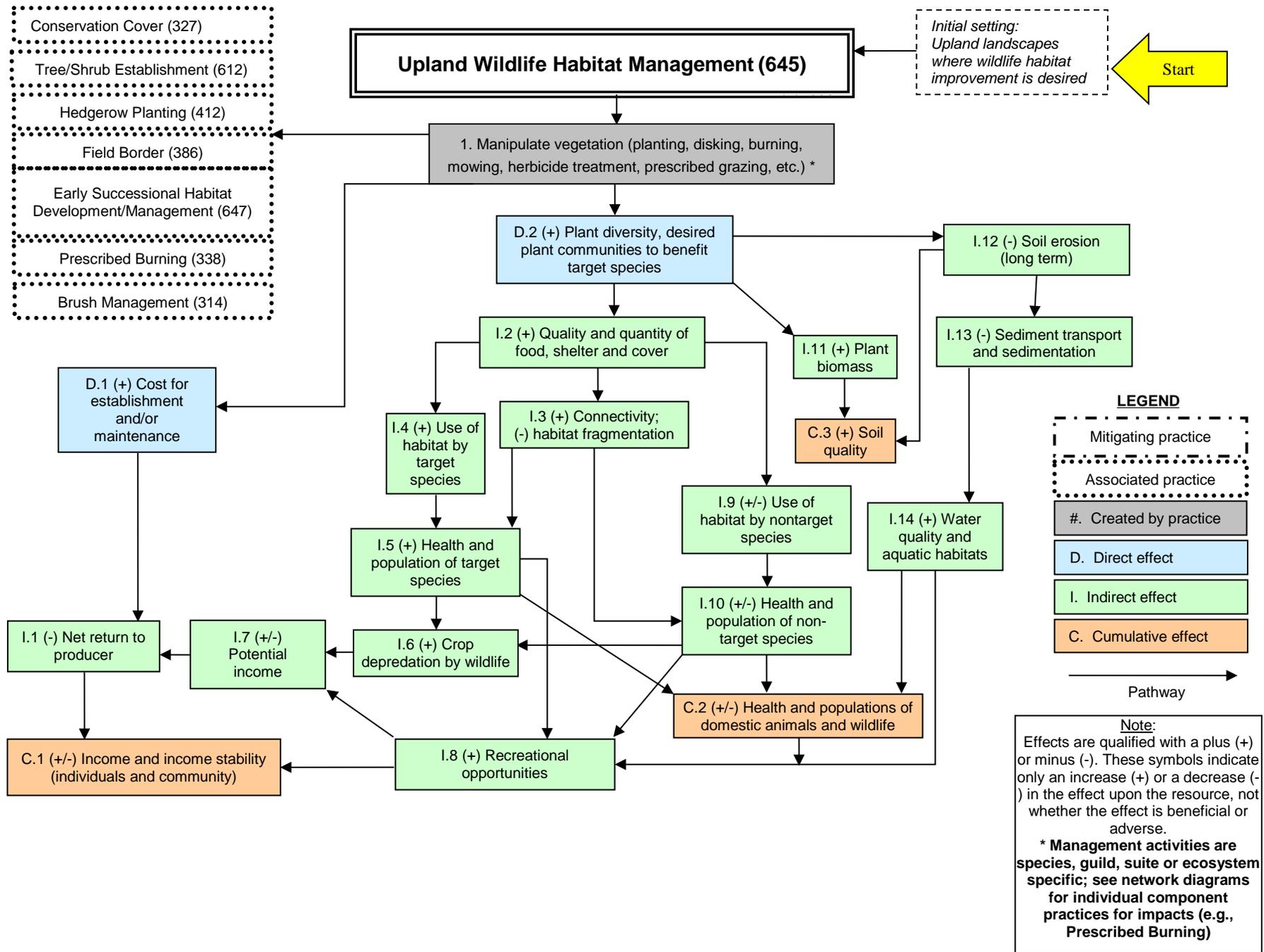
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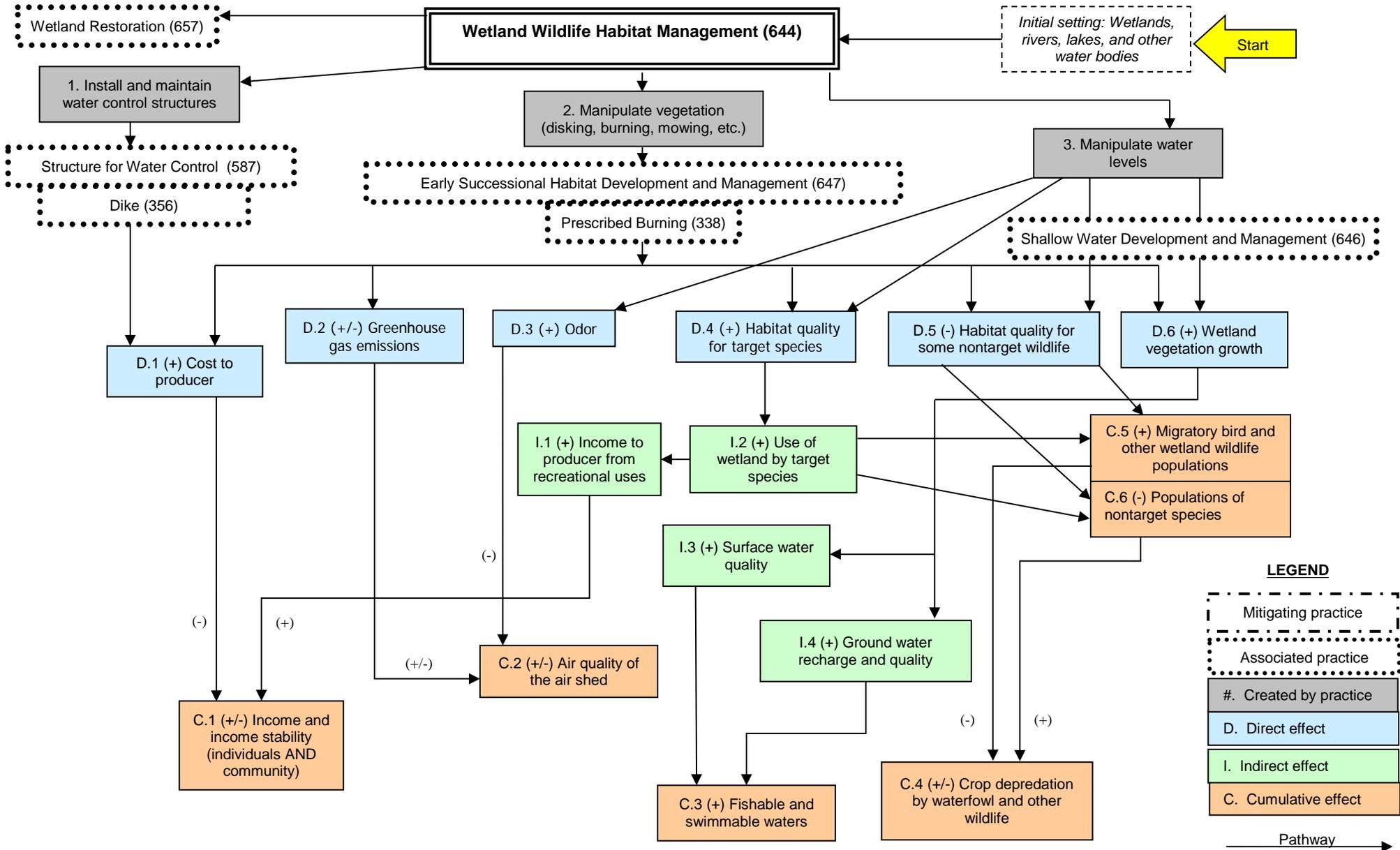
# NRCS CONSERVATION PRACTICE EFFECTS - NETWORK DIAGRAM

March 2014



# NRCS CONSERVATION PRACTICE EFFECTS - NETWORK DIAGRAM

March 2014



## LEGEND

- Mitigating practice
- Associated practice
- #. Created by practice
- D. Direct effect
- I. Indirect effect
- C. Cumulative effect

→ Pathway →

**Note:**  
Effects are qualified with a plus (+) or minus (-). These symbols indicate only an increase (+) or a decrease (-) in the effect upon the resource, not whether the effect is beneficial or adverse.

## Appendix B

### NRCS Methodologies to Estimate Environmental Effects of Conservation Practices

NRCS uses three main mechanisms to evaluate conservation effects of implementing conservation practices under its Conservation Practice Standards (CPS). They are: network effects diagrams, Conservation Practice Physical Effects (CPPE) documents, and the Conservation Effects Assessment Project (CEAP). Each is discussed below.

#### Conservation Network Effects Diagrams

To assist in the analysis of environmental impacts of its conservation practices, NRCS has developed network effects diagrams depicting the chain of natural resource effects resulting from the application of each conservation practice. Each of the diagrams first identifies the typical setting to which the practice is applied. This includes identification of the predominating land use and the environmental resource concerns that trigger use of the conservation practice. The diagrams then identify conservation practices typically used to mitigate or address the resource concerns. A network effects diagram for each of the NRCS CPSs is included in appendix A and can be viewed on the National Handbook of Conservation Practices Web site in the last column: [http://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/technical/cp/ncps/?cid=nrcs143\\_026849](http://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/technical/cp/ncps/?cid=nrcs143_026849).

Following identification of the conservation practice, the diagrams identify the physical activities that are carried out to implement the practice. From there, the diagrams depict the occurrence of the direct, indirect, and cumulative effects of the practice. Effects are qualified with a plus or a minus which qualitatively denotes an increase (“+”) or decrease (“-“) in the effect. Pluses and minuses do not equate to good and bad or positive and negative. Impacts are characterized in this manner due to the fact that site-specific conditions can influence the degree or intensity of the potential environmental impact. Only the general effects that are considered the most important from a national perspective are illustrated.

Additional information on the process used to develop the network effects diagrams is available in the NRCS Watershed Science Institute Report CED-WSSI-2002-2, “Analyzing Effects of Conservation Practices – A Prototypical Method for Complying with National Environmental Policy Act (NEPA) Requirements for Farm Bill Implementation.” This document is included in the NRCS National Environmental Compliance Handbook and is available at <http://directives.sc.egov.usda.gov/RollupViewer.aspx?hid=29769>.

#### Conservation Practice Physical Effects

The CPPE documents, found in the Field Office Technical Guide – Section V, and the National Handbook of Conservation Practices display in subjective terms the physical effects conservation practices have on natural resources. Technical specialists document in the CPPE the practice effects based on their experience and available technical information.

When creating the CPPE, the question is presented, “When this practice is installed according to NRCS CPSs, and fully functional, what effect will it have on the various resource concerns?” The answer is in the form of a rating that represents the practice’s effect on the resource concern, and the magnitude of the effect.

The following terms define “Effect” values:

- No effect.—Conservation practice being evaluated has no discernible effect on the resource concern identified
- Worsening.—Conservation practice further deteriorates the condition of the resource

- Improvement.—Conservation practice improves the condition of the resource

The following terms express the magnitude of the effects:

- Slight.—Some effect (positive or negative) of the practice on the resource, but not enough to influence the decision to select the practice to solve the problem
- Moderate.—Measurable effect (positive or negative) of the practice on the resource
- Substantial.—Extensive measurable effect (positive or negative) of the practice on the resource

National technical specialists with responsibility for a given conservation practice establish CPPE values for each conservation practice. The effects listed in the national CPPE represent general conditions nationwide. For example: The national agronomist has determined that generally the implementation of CPS Code 329, Residue and Tillage Management, No Till, will extensively reduce the sheet and rill erosion problem because of increased surface cover and decreased soil disturbance. Therefore, a value is entered as “Moderate to Substantial Improvement” to the Soil Erosion – Sheet and Rill Erosion resource concern. However, the implementation of CPS Code 329 may cause a slight increase in soluble nitrate nitrogen infiltration depending on the time and method of application, rainfall, nutrient form, organic matter, soil texture, and depth to water table, and therefore, a value is entered as “Slight Worsening” to the Water Quality Degradation – Nutrients in Groundwater resource concern.

Since data on the CPPE are national in scope, State-level offices are encouraged to review and localize the information as necessary to reflect those effects expected to occur under local conditions. Each State will review and, if needed, edit the values in the national CPPE based on local knowledge and experience to reflect typical conditions in their State. States use an interdisciplinary group to refine existing entries to ensure proper consideration of all effects to all of the resource concerns. If a State modifies the national CPPE, the State will provide a description of the local conditions and a depiction of the typical practice installation to justify the change. A well-written description of the typical practice installation will aid the planner when it comes time to conduct site-specific analysis. Expanding on the example discussed below, assume the national agronomist determined that, in general, the implementation of CPS Code 345, Residue and Tillage Management, Reduced Till, results in a “Moderate to Substantial Reduction” in the Soil Erosion – Wind problem. However, a State agronomist observes that with the implementation of CPS Code 345, Residue and Tillage Management, Reduced Till, the reduction of wind erosion is extensive because the critical wind erosion period occurs when the soil is covered with residue or crop. The State agronomist will change the value to “Substantial Improvement” in the Soil Erosion – Wind resource concern, with a statement explaining the rationale for deeming the practice to have an Extensive rather than a Moderate to Substantial reduction in the wind erosion resource concern.

### **Conservation Effects Assessment Project**

In addition to developing the network effects diagrams described above, following enactment of the 2002 Farm Bill, NRCS initiated an extensive effort to assess environmental impacts from implemented conservation practices. The resultant CEAP uses literature reviews, modeling, farmer surveys, watershed assessments, and regional studies in collaboration with partners in universities, agencies, and conservation organizations to conduct this assessment. It relies, in part, on the statistical framework developed for the National Resources Inventories (NRIs). Since the early 1980s, the NRIs have provided statistically reliable nationwide information on status and trends in soil erosion and land use. Besides estimates of acres in cropland, pastureland, rangeland, and

forests, the surveys also classify land with prime farmland conditions and wetland characteristics.

Estimating the direct and indirect impacts of such practices is a complicated task. CEAP is the latest and most complex development toward that goal and is a continuing effort.

For specific details see the NRCS Web site on CEAP:

<http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/nra/ceap>.

## Appendix C

### Integration of Environmental Considerations into NRCS Conservation Practice Standards

NRCS conservation practice standards (CPS) are documented in the agency's Field Office Technical Guides (FOTG) and the National Handbook of Conservation Practices (NHCP). These CPSs are developed through a multidisciplinary science-based process, including the opportunity for public comment, in order to minimize and mitigate the risk of unintended consequences. NRCS CPSs are established at a national level, and set the minimum level of acceptable quality for planning, designing, installing, operating, and maintaining conservation practices. At a minimum, each CPS includes the definition and purposes of the practice, conditions in which the conservation practice applies, and the criteria supporting each purpose. (See NRCS CPSs at [http://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/technical/cp/ncps/?cid=nrcs143\\_026849](http://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/technical/cp/ncps/?cid=nrcs143_026849).)

When a CPS is developed or revised, NRCS publishes a notice in the Federal Register of the availability of the standard for review and comment for a period of not less than 30 days from the date of publication. CPSs from the NHCP and interim standards are used and implemented by States, as needed, and may be modified to include additional requirements to meet State or local needs. Because of wide variations in site conditions such as soils, climate, and topography, States can revise these national CPSs and develop specifications to add special provisions or provide additional details in the CPSs. State laws and local ordinances or regulations may also dictate more stringent criteria; in no case, however, can States use standards that are lower than national standards.

Standards for conservation practices are detailed in Section IV of the local FOTG (see [http://efotg.sc.egov.usda.gov/efotg\\_locator.aspx](http://efotg.sc.egov.usda.gov/efotg_locator.aspx) to access the FOTG for an NRCS office.) CPSs, planning criteria, and local resource data are maintained in the FOTG to provide detailed information for planners to plan and design practices in a manner consistent with local conditions and resource concerns. Commonly, suites of conservation practices are planned and installed together as part of a conservation management system designed to enhance soil, water and related natural resources for sustainable use. CPSs and State-specific conservation practice specifications include considerations that, when combined with the considerations identified during the environmental evaluation process, are designed to minimize potentially adverse impacts to affected resources.

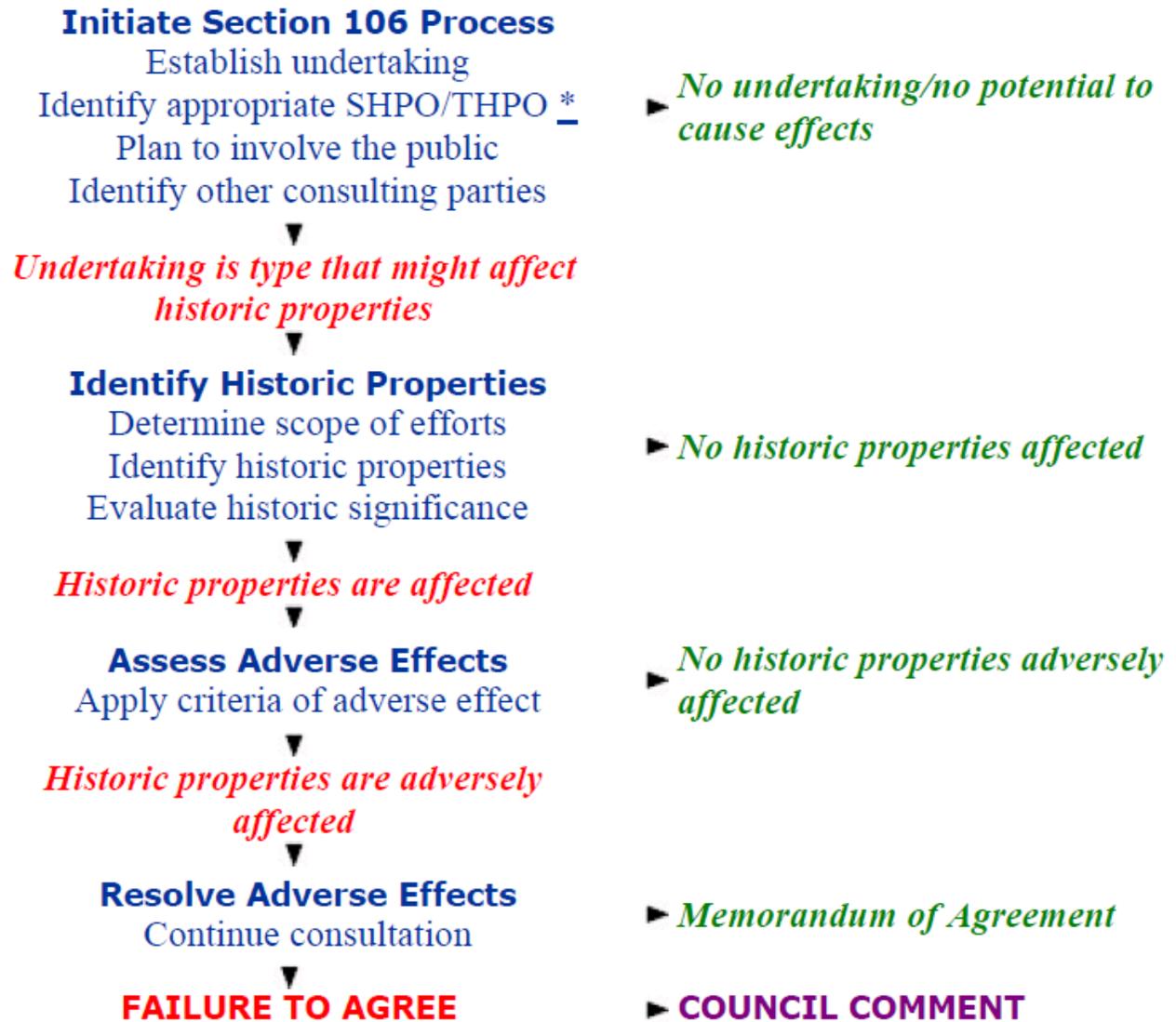
Typical effects of implementing conservation practices are summarized in each State's Conservation Practice Physical Effects, contained in section V of the FOTG. This collection of resource-based planning, design and implementation documents provides NRCS employees and other users with the necessary information, modified for local conditions, to develop alternative approaches to addressing natural resource problems.

## Appendix D

### NRCS Compliance with the National Historic Preservation Act

#### Advisory Council on Historic Preservation

#### Section 106 Regulations Flow Chart



Appendix D

