

## Centralized National Risk Assessment for The United States of America

FSC-CNRA-USA V1-0 EN

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The Forest Stewardship Council<sup>®</sup> (FSC) is an independent, not for profit, nongovernment organization established to support environmentally appropriate, socially beneficial, and economically viable management of the world's forests.

FSC's vision is that the world's forests meet the social, ecological, and economic rights and needs of the present generation without compromising those of future generations.

### Contents

Risk assessments that have been finalized for the United States of America
Risk designations in finalized risk assessments for the United States of America $\dots$ 5
Risk assessments
Controlled wood category 1: Illegally harvested wood6
Overview6
Sources of legal timber in the United States of America
Risk assessment9
Recommended control measures 68
Controlled wood category 5: Wood from forests in which genetically modified trees are planted
Risk assessment 69
Recommended control measures71

# Risk assessments that have been finalized for the United States of America

	Controlled wood categories	Risk assessment completed?
1	Illegally harvested wood	YES
2	Wood harvested in violation of traditional and human rights	NO
3	Wood from forests where high conservation values are threatened by management activities	NO
4	Wood from forests being converted to plantations or non-forest use	NO
5	Wood from forests in which genetically modified trees are planted	YES

Indicator	Risk designation (including functional scale when relevant)		
	Controlled wood category 1: Illegally harvested wood		
1.1	Low risk		
1.2	Low risk		
1.3	Low risk		
1.4	Low risk		
1.5	Low risk		
1.6	Low risk		
1.7	Low risk		
1.8	Low risk		
1.9	Low risk		
1.10	Low risk		
1.11	Low risk		
1.12	Low risk		
1.13	Low risk		
1.14	N/A		
1.15	Low risk		
1.16	Low risk		
1.17	Low risk		
1.18	Low risk		
1.19	Low risk		
1.20	Low risk		
1.21	Low risk		
Controlled v	vood category 2: Wood harvested in violation of traditional and human rights		
2.1			
2.2			
2.3			
	wood category 3: Wood from forests where high conservation values are		
	by management activities		
3.0			
3.1			
3.2			
3.3			
3.4			
3.5			
3.6			
Controlled v	Controlled wood category 4: Wood from forests being converted to plantations or non-forest		
use			
4.1			
Controlled v	wood category 5: Wood from forests in which genetically modified trees are		
5.1	Low risk		
L			

# Risk designations in finalized risk assessments for the United States of America

### **Risk assessments**

### Controlled wood category 1: Illegally harvested wood

#### Overview

The property laws of the United States are largely an outgrowth of British common law (although the state of Louisiana has a French-based civil law system and the property laws in some south-western states bear influences of Mexican law). This means that trees growing on land are considered real property. Although rights over trees are severable from rights to the underlying land, usually the purchaser of land acquires ownership of the trees on the land.

According to the 2012 Statistical Abstract of the United States (Table 884, http://www.census.gov/compendia/statab/2012/tables/12s0884.pdf), as of 2007, the country had roughly 303 million hectares of forestland. About 174 million hectares were in private ownership. Government, mainly the federal government, owned about 128 million hectares of forest.

The U.S. Forest Service defines a forested area as "forest land" if it is at least 1 acre in size and at least 10 percent occupied by forest trees of any size or formerly having had such tree cover and not currently developed for non-forest use. (Examples of nonforest uses include areas for crops, improved pasture, residential areas, and other similar areas.) Forest land includes transition zones, such as areas between heavily forested and nonforested lands that are at least 10 percent stocked with forest trees, and forest areas adjacent to urban and built-up lands. The United States has about 751.2 million acres of forest land (U.S. Census Bureau, Statistical Abstract of the United States: 2012; 2007 data). Of that land, approximately 249.1 million acres (33.8 percent) are owned by the Federal Government. The remaining 487.6 million acres are owned by nonfederal entities, such as State or local governments, private citizens, or companies.

The majority of Federal forest land is managed as the national forest system (NFS). The NFS includes:

- · National Forests reserved from the U.S. public domain,
- · National Forests acquired through purchase, exchange, donation, or other means,
- National grasslands,
- Other lands, waters, or interests administered by the U.S. Forest Service (FS) or designated for administration through the FS as part of the system.

The NFS manages 155 national forests and 20 national grasslands and contains 193 million acres, (193/112) or 77 percent, of Federal forest lands. The NFS is contained in 44 States, Puerto Rico, and the Virgin Islands and employs 30,000 people. Of the remaining nonfederal forests, privately held commercial forest lands make up the largest portion, accounting for 347 million acres (71 percent). (National Forest Service)

Eastern forests cover about 384 million acres (1,550,000 km2) and are predominantly broadleaf (74%), with the exception of extensive coniferous forests and plantations in the southern coastal region. These are largely in private ownership (83%). By contrast, about 363 million acres (1,470,000 km2) of western

forests are predominantly coniferous (78%) and in public ownership (57%). Nearly ten million private individuals own about 422 million acres (1,710,000 km2) of forest and other wooded land.

Seven-Tenths of U.S. forest lands, or 514.2 million acres of the total 751.2 million acres of forest land, are classified as timberlands. Timberlands are defined as forest lands used for the production of commercial wood products. Commercial timberland can be used for repeated growing and harvesting.

Of the 514.2 million acres of timberland, Federal, State, and local governments own 112.7 million acres (22 percent) and non-industrial private entities own 401.5 million acres (78 percent). Private timberlands are mostly on small tracts of forest land. (U.S. Census Bureau, Statistical Abstract of the United States: 2012; 2007 data)

State and Private Forestry includes private landowners, state agencies, tribes, and community resource managers who help sustain the United States' urban and rural forests and to protect communities and the environment from wildland fires, insects, disease, and invasive plants.

There are some 31 other federal entities that interact directly with the U.S. Forest Service in planning and managing federal forest lands, and many others that have a more indirect linkage (Ellefson and Moulton 2000). In addition to the federal level, many agencies at the state level also have influence on how forests are administered. An estimated 1,453 state agencies (cabinet level, sub-cabinet level, and governing advisory bodies) were responsible for programs influencing the use, management and protection of nonfederal forests in 2000 (Ellefson et al., 2002).

Proliferation of state agencies responsible for forest governance in northern states of the USA state agencies affecting forest conditions are located in virtually all sectors (horizontally) and levels (vertically) of state government, with some states having an especially rich assortment of forestry affecting agencies.

Native American tribes are considered to be Sovereign Nations and accorded rights to independently manage their land and affairs. Out of a total of 556 federally recognized tribes, 48 have significant timberland resources in 21 of the hardwood-producing states. While some tribes have sawmill and other production facilities, they account for only a very small share of US hardwood production (estimated at less than 1%).

The list of sources provided in FSC-PRO-60-002a, section 3.3.3 has been reviewed in regards to the national legality risk assessment for the USA. The following sources have been used; World Bank "Worldwide Governance Indicators" and the Transparency International "Corruption Perceptions Index", and are referred to under "sources of Information" for each applicable sub-category. The remaining sources were found not to be relevant for the legality risk assessment for USA.

On a range from -2.5 to +2.5, USA has a score of 1.54 in relation to "Rule of law" and on control of corruption a score of 1.28 on the World Banks Worldwide Governance Indicators. According to Transparency International USA has a Corruption Perception Index of 73 (2013).

#### Sources of legal timber in the United States of America

Forest classification type	Permit/license type	Main license requirements (Forest management plan, harvest plan or similar?)	Clarification
Public lands	Timber sale contract	Harvest in accordance with contract, which conforms to the timber sale plans of the land management agency, which in turn conform to	The exact planning requirements vary by jurisdiction and managing agency.
		the agency's land management plans, and all in accord with governing statutes and regulations.*	Also, some jurisdictions and agencies have different requirements for minor and subsistence harvests. These may require permits or notice.
Private lands, in states with forest	Permission of landowner plus state	Harvest with permission of land owner; in accordance with forest practices laws and any	States with forest practice laws are mostly in the western US. Requirements vary.
practices laws	ctices laws permit or notice other laws that might apply (e.g., fire prevention);		In California, there must be a plan prepared by a licensed forester submitted and approved by the state.
			In Oregon, there is no plan or permit required, only a requirement for giving notice to the state.
Private lands, in	Permission of	Harvest with permission of landowner, in	Examples:
states without full forest practices acts but with some regulation	landowner, perhaps with state notice or a permit	accordance with any laws that might apply (e.g., fire prevention laws, seed tree laws, wetlands protection laws); sometimes after notice given to state.*	New Hampshire requires notice for tax purposes and sometimes the posting of a tax bond, requires a permit for activities in wetlands, has penalties for timber trespass and deceptive forestry practices, limits clear-cutting around highways, streams, and water bodies, and regulates the disposal of slash.
			Virginia has four basic legal requirements: don't cause water pollution, give the state notice before logging, leave seed trees in pine stands (or replant or submit to the state a conservation plan for such stands), and suppress fires.
Private lands, states	Permission of	No specific requirements; often voluntary best	Example:
with no special forest harvest legislation			Alabama has voluntary BMPs. The state collects severance taxes from sawmills and log yards, which can pass on the expense to loggers or landowners.

\*Harvests on all categories of land are subject to some federal regulations. For example, the Endangered Species Act prevents disturbance or harm to threatened or endangered species. The Clean Water Act regulates movement of soil (dredging and filling) in wetland areas.

Also, businesses are subject to tax, employment, workplace safety, and other laws. Safety laws in particular may be specific to logging.

#### **Risk assessment** Applicable laws and regulations, legal Authority, & Indicator Sources of Information **Risk designation and determination** legally required documents or records Legal rights to harvest Applicable laws and regulations Alberto Goetzl, S. C., Paul Ellefson, Low risk 1.1 Land P. U., Philip Guillery, T. F., & Gary tenure and Public lands are managed by associated agencies at either the Land records in the United States are highly Dodge, P. C. (2008). Assessment of manageme federal or state level. Most federally owned land available for reliable. Banks routinely issue mortgages based nt rights Lawful Harvesting & Sustainability commercial timber is managed by the US Forest Service (Dept. on them. Large property transactions routinely of US Hardwood Exports. Seneca of Agriculture). proceed when the records show clear title. Creek Associates, LLC The property clause of the US Constitution is in Article 4, Section [http://www.americanhardwood.org/f In its report to the Montreal Process Working ileadmin/docs/Seneca Creek Stud 3. The guarantees of due process and just compensation are in Group on the Conservation and Management of v/Seneca Creek Study -Temperate and Boreal Forests, in scoring an Amendments 5 and 14. Full Version.pdfl. indicator relating to land tenure, the US Generally, the federal statutes concerning federal lands are government concluded that, "All forest land codified in Title 16 (conservation) and Title 43 (public lands) of The websites of the various owners, public and private, exercise their forest the US Code (USC). The provisions concerning military agencies provide statistics on their tenure rights to achieve their forest land land ownership. reservations are in Title 10. management goals .... [A]although complex, clear Ross W. Gorte, Carol Hardy title is usually sufficient [to allow forest Many federal agency regulations concerning federal lands are in Title 36 (parks, forests, and public property) and Title 43 (Public Vincent, Laura A. Hanson & Marc management] in the United States. In cases lands: Interior) of the Code of Federal Regulations (CFR), R. Rosenblum (2012). Federal Land where disagreements about land rights occur. although other titles have applicable rules. For example, Ownership: Overview and Data courts provide a means to settle those conflicts." presidential "executive orders" reserving lands would be codified Report R42346. Congressional US Department of Agriculture. 2011. National in Title 3 of the CFR, and Title 50 contains rules of the Fish and **Research Service** Report on Sustainable Forests-2010, p 111. Wildlife Service. [fas.org/sgp/crs/misc/R42346.pdf]. Compliance with business and tax registration is The internal rules of procedure of agencies are not all codified in United States Department of probably high, but no figures seem readily Agriculture Forest Service (2011) available. Governments have strong incentive to the CFR. Important sources of information on US Forest Service National Report on Sustainable enforce registration, as it leads to tax revenue. procedures and standards are the Forest Service Manual and the Large businesses, occupying a good deal of Forests - 2010 FS-979. Forest Service Handbook. commercial or industrial space, are easy for Ihttp://www.fs.fed.us/research/susta The organization of state and local land management agencies in/national-report.php.1 compliance officials to find. With smaller varies, e.g. in Alabama, the state Forestry Commission manages businesses and businesses that cross over from a few thousand hectares of state forests. One state forest Onsrud, Harlan J. (1989) "The Land neighboring jurisdictions to do limited tasks, the Tenure System of the United includes a wildlife area managed in conjunction with the state's risk of non-compliance is slightly higher. States." Forum: Zeitschrift des Department of Conservation and Natural Resources. "There can be high confidence that rights of Bundes der Offentlich Bestellten For privately owned lands, state and local laws and institutions Vermessungsingenieure, Jan. 1989. timber ownership are well-established and largely govern tenure. State laws govern the sale or transfer of [http://www.spatial.maine.edu/~onsr respected. Approximately 92% of hardwood rights to land, the rights of property owners and occupants, and ud/pubs/landtenure07.pdnsrud]. produced in the US is sourced from private lands. the recording of interests and rights to land. Most states do not

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	have a "Torrens" system where title results from registration. Rather, land rights transfer from person to person based on the issuance of deeds, mortgages, and other granting instruments, and recording of these instruments provides possible purchasers with notice of claims to the land. Private companies called title insurers will search the records and issue limited guarantees stating that a particular seller has rights to convey. State (and in some cases federal) courts will resolve disputes over tenure rights. It is possible (but unusual) to gain rights to land through "adverse possession." If a person exercises a right to land in an open manner, hostile to the rights of the owner, continuously, for a period of time set in statute (typically whatever the state's statute of limitations is for trespass), that person gains rights to the land. These rights could be outright ownership or something less, such as an easement (sometimes called a prescriptive easement). This is why an inspection of the land, along with inspection of the land records, is necessary to verify title. Adverse possession applies only to privately owned lands; a person cannot claim adverse possession against the government. State laws also control business organization (e.g., incorporation or creation of other legal persons capable of holding property rights). Licensing to conduct business may be under state or local control or both, depending on the state and the kind of business. Some states require additional specific professional licenses or registration for those in the business of logging or those in the business of giving forest management advice. The federal government requires individuals and businesses earning income or paying employees to register for tax purposes. Governments at all levels hold the power of eminent domain (i.e., the power to acquire title to private lands without the owner's consent), but the U.S. Constitution requires that owners receive due process of law (governments must bring a lawsuit to acquire land if th		The vast majority of private landowners own small family forests that average less than 10 hectares in size. Numerous legal processes are available to landowners to resolve disputes involving proper title and/or the unauthorized taking or sale of timber property." Seneca Creek Report 2008, p ii. "Comparisons of international governance indicators, such as those compiled by the World Bank, strongly indicate that the US is perceived as a country with a high regard for the rule of law, an effective environmental, labor and public welfare regulatory environment, and a low level of corruption." Seneca Creek Report 2008, p iii. Of the World Bank Governance Indicators that measure government effectiveness, regulatory quality and rule of law, the US ranks in the top 10% of all countries. Indicators measuring the Rule of Law are perhaps the most relevant in terms of a risk assessment for illegal behavior in the U.S. The U.S. ranks just below the 92nd percentile amongst 212 countries, meaning that the rule of law is believed by independent observers around the world to be respected by its citizens and business enterprises" Seneca Creek Report 2008, p 43. Note that these three quotes only relate to hardwood. Based on the available information, the risk is assessed as low.

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	State and local laws govern the classification and management of lands held by state and local governments (about 18 million hectares of potential timberlands). Typically, state or local land management agencies, such as forestry commissions or parks departments, manage these lands.		
	The US Constitution gives the federal Congress power to "dispose of and make all needful Rules and Regulations respecting the Territory or other property of the United States." The Congress has delegated federal land management authority to several agencies (the next cell in this row lists the major ones). Each agency, and in some cases each individual park or reserve, is subject to statutes (written by Congress) and regulations (written by agencies) that govern management. In addition, Congress has established some "systems" with management restrictions (e.g., the Wilderness system, the Wild and Scenic Rivers system, the National Trails system). These systems include lands from multiple agencies, and in some cases non- federal lands. Congress has also given the President authority to designate lands as national monuments, to protect features of historic or scientific interest.		
	Legal Authority		
	Local governments keep land tenure records. In some states, the courts keep the records. In some, the recorder is an administrative office of a local government. Local or state governments handle business registration, and state governments handle creation of corporations and other legal persons. A business incorporated in one state but operating in several states may have to register as a "foreign" corporation and designate a local agent in each state.		
	In some states, businesses must also register with the state taxing authority.		
	The federal Internal Revenue Service issues employer identification numbers, required of most businesses, used for tracking tax-related payments and obligations. The Social Security Administration issues social security numbers to		

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	individuals, used for tracking individual income and tax payments.		
	The organization of state and local land management agencies varies. E.g. in Alabama, the state Forestry Commission manages a few thousand hectares of state forests. One state forest includes a wildlife area managed in conjunction with the state's Department of Conservation and Natural Resources. The Division of State Parks in that department manages the state parks.		
	<ul> <li>For federal lands, the five largest land management agencies in terms of total area managed are:</li> <li>The Bureau of Land Management, managing the "public lands" (100 million hectares, mostly not forested land, but including the commercially valuable forests of the O &amp; C lands in western Oregon)</li> <li>The US Forest Service, managing the national forests and grasslands and some special reserved lands; by far the largest seller of legal timber from federal lands (78 million hectares, including non-forest lands and lands reserved from commercial harvest)</li> <li>The US Fish and Wildlife Service, managing the national wildlife refuges (35 million hectares, with the largest of its holdings in Alaska)</li> <li>The National Park Service, managing national parks, monuments, historic sites, etc. (32 million hectares, also with the majority of its holdings in Alaska)</li> <li>The Department of Defense, managing military reservations (7 million hectares)</li> </ul>		
	<ul> <li>In addition, other agencies have notable rural land holdings, including:</li> <li>The Department of Energy, managing nuclear weapons production facilities and surrounding buffer zones</li> <li>The Bureau of Reclamation, managing lands under and adjacent to water development facilities such as dams</li> <li>The Tennessee Valley Authority, managing lands incidental to energy production, river development, and recreation in the mid-</li> </ul>		

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	South. The Bureau of Indian Affairs oversees about 23 million hectares of federal land held in trust for Native American tribes.		
	Legally required documents or records		
	The most reliable way to determine land ownership is through search of the local property records, coupled with physical survey and inspection of the property for signs of actively used easements or incursions. The tenure rights to land are typically conveyed through deeds and similar documents. The local governments record copies of these documents. In some cases, as with conservation easements, the documents will convey management rights but not possession or full ownership.		
	Local governments will also have records of who has been paying the property taxes for private lands, although the payer is not always the owner.		
	Private owners can convey management rights by lease or contract. In the case of long-term rights that might not be apparent from inspection of the land, a rights holder would be wise to record the document in the property records to provide notice to any potential land purchasers, but generally this is not a legal requirement.		
	State and federal ownership should be apparent from the land records, though it may be from the lack of records of any ownership transfer away from the government.		
	Federal, state, and local laws classify publically owned lands and designate management authority. The laws often identify the land through a legal description (metes and bounds, or by reference to a standard land survey), so these laws can be sources of ownership documentation. However, governments sometimes create reservations that include private "inholdings," and it is still possible on some federal lands to gain a private patent following discovery of a commercially valuable mineral deposit, so in the end the texts of the laws can't be relied upon completely as indicators of ownership. Managing agencies usually have		

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	accurate maps of their lands indicating boundaries and inholdings, and sometimes laws incorporate these maps by reference, but usually the maps do not carry legal weight.		
	Businesses will often have a business license from the local government. Businesses with offices in urban areas will often have a certificate of occupancy or occupation permit attesting to compliance with zoning laws, although that certificate may be held by the landlord if the business is renting office or industrial space.		
	Corporations and other legal persons may have a certificate of incorporation or other paperwork from the state attesting to their valid organization.		
	Most businesses must have an employer identification number issued by the federal Internal Revenue Service. Sole proprietors may have a social security number, issued by the federal Social Security Administration, instead.		
1.2	Applicable laws and regulations	Laws	Low risk
Concession licenses	For US Forest Service: FSH 2409.18, Ch. 50 § 53	FSH 2409.18, Chapter 50, Section	Most timber harvest in the United States occurs
	State lands have similar regulations based at the state level.	53 - http://www.fs.fed.us/forestmanagem ent/products/contracts.shtml 16 U.S. Code § 472a - Timber sales on National Forest System lands - http://www.law.cornell.edu/uscode/t ext/16/472a. 36 CFR Part 223, Subpart B - Timber Sale Contracts - http://www.law.cornell.edu/cfr/text/3 6/part-223/subpart-B.	sales ds - ode/t US are managed either at the state / local level, or by the US Forest Service or the Federal Bureau of Land Management (which conducts its own timber management and timber sales programs). In many cases a harvesting permit, which acts like a concession license is required. In the United States, the term "concession" is usually understood to mean transfer of a long-term
	One statutory authorization for Forest Service timber sales is 16 U.S. Code § 472a.		
	The basic regulations are in 36 CFR part 223, subpart B.		
	The internal procedures can be found in the Forest Service Manual. FSM 2400, covers timber resource management, including commercial timber sales (Chapter 2430) and timber sale contract administration (Chapter 2450).		
	The basic rules for Bureau of Land Management timber sales are 43 CFR Chapter II, subchapter E, parts 5000 to 5510.		
	The statutory provisions allowing forest management and timber sales on lands held by the Bureau of Indian Affairs are in 25 USC §§ 406, 407, and 466. The rules are in 25 CFR part 163.	Forest Service Manual FSM 2400 - http://www.fs.fed.us/cgi- bin/Directives/get_dirs/fsm?2400	That goes also for state and private ownership. A study of worldwide concession practices for the World Bank found that, "Few, if any, concession- type forest tenures remain in the United States."

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	legally required documents or recordsThe US Fish and Wildlife Service can issue a permit for timber harvest on national wildlife refuges if that is compatible with the refuge's purpose. See 50 CFR § 29.1. On refuges in Alaska, subsistence (i.e., non-commercial) harvests are allowable, and some require a special use permit from the refuge manager. 50 CFR § 36.15.The general authorization for sales of land interests for timber production or sales of forest products from military lands is 10 USC §2665. The Department of Defense and the individual services have regulations concerning timber sales.The federal government has laws that debar or suspend persons with a history of bad actions from participating in federal contracts, and the government maintains lists of such persons. The Forest Service's rules for debarment because of actions relating to timber sales are in 36 CFR part 223, subpart C. Other agencies can debar persons for violations of their laws, and these listings may have government-wide effect, stopping new contracts and grants. The US General Services Administration keeps a government-wide list of debarred persons, the Excluded Parties List System. A new website, sam.gov, provides access.On private lands, the general laws for contracts and property transactions govern most transfers of rights to manage and harvest timber.Private lands may be leased long-term for timber production, but it's actually more common for private landowners to lease their lands for hunting and recreation, reserving for themselves the right to sell or harvest timber.Another form of long-term management control over land is the conservation easement. These are becoming more common in	<ul> <li>43 CFR Chapter II, subchapter E, parts 5000 to 5510 - http://www.law.cornell.edu/cfr/text/4</li> <li>3/chapter-II/subchapter-E.</li> <li>25 USC §§ 406, 407, and 466 - http://www.law.cornell.edu/uscode/t ext/25/chapter-12 and http://www.law.cornell.edu/uscode/t ext/25/466.</li> <li>25 CFR part 163 - http://www.law.cornell.edu/cfr/text/2 5/part-163.</li> <li>50 CFR § 29.1 - http://www.law.cornell.edu/cfr/text/5 0/29.1.</li> <li>50 CFR § 36.15 - http://www.law.cornell.edu/cfr/text/5 0/36.15.</li> <li>10 USC §2665 - http://www.law.cornell.edu/uscode/t ext/10/2665.</li> <li>36 CFR part 223, subpart C - http://www.law.cornell.edu/cfr/text/3 6/part-223/subpart-C.</li> <li><i>References</i></li> <li>The US General Services</li> <li>Administration keeps a government-wide list of debarred persons, the Excluded Parties List System,</li> </ul>	John A. Gray, 2002, Forest Concession Policies and Revenue Systems: Country Experiences and Policy Changes for Sustainable Tropical Forestry, at p. 8. Instead, the typical practice is for the landowner to retain management authority over the forest and grant short-term permission to harvest timber. On public lands, this means that the managing agency holds timber sales. Each agency has its own laws and rules for conducting sales. On public lands (mainly those managed at the federal level by the US Forest Service) a Timber Sale Contract is required that specifies environmental compliance and a fee based on an evaluation of the timber value. State natural resource agencies have similar requirements. On public lands, the process of contracting tends to be highly transparent. Opportunities to purchase timber are announced publicly, the bidding process is subject to public scrutiny, and the contracts themselves are public records. Even in anecdotal reports, there does not seem to be much evidence of corruption by public officials in the award of timber sales. A separate issue is the possibility of collusion among bidders. There is no available evidence of this. A third issue is the possibility of people evading the debarment laws. There is no available evidence of this. On private lands, the transaction is rooted in contract. Fraud is a concern. A buyer could
	the United States. The private owner grants a third party (typically a government or a non-governmental conservation organization) the right to block uses of the land. The easement may require the land to be kept in a natural state, or it may allow	available on this website: <u>https://www.sam.gov</u> John A. Gray (2002). Forest Concession Policies and Revenue	misrepresent its logging skills or its intent to follow forest practice laws. A buyer or seller could mislead the other about the value of the standing timber. A buyer could use threats or intimidation to

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	some commercial use if it is consistent with the purpose of the easement. For example, an easement to protect the views of land around an historic village might allow farming or forestry to continue but would prohibit construction of modern roads or structures. Conservation easements are transfers of rights that bind subsequent owners of the land, and as such the easements are usually recorded in the land records. In return for the easement, the land owner may get a purchase payment, may enjoy lower property taxes due to the reduced market value of land subject to the easement, or may get a one-time deduction	Systems: Country Experiences and Policy Changes for Sustainable Tropical Forestry. World Bank Technical Paper No. 522. [http://elibrary.worldbank.org/doi/pdf /10.1596/0-8213-5170-2] at p.8. Alberto Goetzl, S. C., Paul Ellefson, P. U., Philip Guillery, T. F., & Gary Dodge, P. C. (2008). Assessment of Lawful Harvesting & Sustainability	induce a landowner to sell timber. Of these, the greatest risk seems to be the logger or buyer fraudulently misleading the landowner about the value of the timber. Some state forestry agency websites and publications warn about this problem. See, e.g., <u>http://www.state.sc.us/forest/timberval.htm</u> . This site estimates the loss from timber theft and fraud (two different crimes) in South Carolina at \$10 million annually. The annual "delivered value" of
	for income tax purposes reflecting the value of a donated easement.	of US Hardwood Exports. Seneca Creek Associates, LLC. [http://www.americanhardwood.org/f	timber in the state is over \$783 million ( <u>http://www.scforestry.org/</u> ), so the estimated loss is about 1.3% (assuming that the estimated loss is
	For federal lands, see the federal land management agencies in the box above.	ileadmin/docs/Seneca_Creek_Stud y/Seneca_Creek_Study _Full_Version.pdf].	also in terms of "delivered value"). On the whole, the risk of illegality in entering into contracts, public or private, is real, but is
	For state and local lands, the legal authority is the state or local land management agency. Below is a list of the main forestry agencies in the fifty states. In many states, universities have forestry extension programs, and in some states these have a role in management of state lands.	Government Accountability Project. Undated. 'Field Guide to Timber Theft: Understanding Timber Sales, the Contract, and the Law'.	considered low.
	US Forest Service Alabama Forestry Commission Alaska Division of Forestry Arizona State Land Department	[http://www.bark- out.org/sites/default/files/bark- docs/Field_Guide_toTimber_Theft.p df']	
	Arkansas Forestry Commission California Department of Forestry and Fire Protection Colorado State Forest Service Delaware Department of Agriculture Forest Service Florida Division of Forestry Georgia Forestry Commission Hawaii Division of Forestry and Wildlife Idaho Department of Lands	State Forestry Commission South Carolina 'Don't Be A Victim Of Timber Transaction Crime Information For Forest Landowners in South Carolina' - <u>http://www.state.sc.us/forest/timber</u> <u>val.htm</u> .	
	Illinois Division of Forest Resources Indiana Division of Forestry Iowa Dept. of Natural Resources - Forestry Division	South Carolina Forestry Association, SCFA - <u>http://www.scforestry.org/</u> .	

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	Kansas Forest Service		
	Kentucky Division of Forestry		
	Louisiana Department of Agriculture and Forestry - Office of		
	Forestry		
	Maine Forest Service		
	Maryland Forest Service		
	Massachusetts Division of Forests & Parks - Bureau of Forestry		
	Michigan Forest Management Division		
	Minnesota Dept. of Natural Resources - Division of Forestry		
	Mississippi Forestry Commission		
	Missouri Department of Conservation		
	Montana Dept. of Natural Resources and Conservation - Forestry		
	Division		
	Nebraska Forest Service		
	Nevada Division of Forestry		
	New Hampshire Division of Forests & Lands		
	New Jersey Division of Parks & Forestry		
	New Mexico Forestry Division		
	New York Division of Lands & Forests		
	North Carolina Division of Forest Resources		
	North Dakota Forest Service		
	Ohio Department of Natural Resources - Forestry		
	Oklahoma Forestry Services		
	Oregon Department of Forestry		
	Pennsylvania Bureau of Forestry		
	Rhode Island Division of Forest Environment		
	South Carolina Forestry Commission		
	South Dakota Division of Resource Conservation & Forestry		
	Tennessee Division of Forestry		
	Texas Forest Service		
	Utah Division of Forestry, Fire, and State Lands		
	Vermont Department of Forestry, Parks & Recreation		
	Virginia Department of Forestry		
	Washington Department of Natural Resources		
	West Virginia Division of Forestry		
	Wisconsin Department of Natural Resources Forestry Program		
	Wyoming State Forestry Division		

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	Legally required documents or records		
	A written <b>Timber Sale Contrac</b> t (US Forest Service) - A Forest Service contract usually requires advance payment and the posting of a performance bond. There should be documentation of deposit of funds or establishment of a surety by a third party.		
	Other agencies and states will have their own requirements, but government sales contracts are probably universally captured in writing, and the payment and bonding requirements will probably be similar to those of the US Forest Service.		
	On private lands, timber sale contracts are usually written documents, but some landowners and loggers have been known to work based on oral understandings.		
	Conservation easements and long-term leases must be in writing to be enforceable.		
1.3	Applicable laws and regulations	Laws	Low risk
Manageme nt and harvesting	National Forest Management Policy Act of 1976 (US Forest Service lands)	US Forest Service Planning requirements in statute - National renewable resource assessment: 16 USC § 1601, <u>http://www.law.cornell.edu/uscode/t</u> ext/16/1601.	<i>Federal lands</i> US Forest Service: The Forest Service does inventory and plans on many scales, from national
planning	Bureau of Land Management: BLM planning is governed by the Federal Land Policy and Management Act.		to the individual timber sale. On the national level, the Forest and Rangelands Renewable
	Federal business practices law.		Resources Planning Act requires the Forest
	Business & forest practices laws (for all states)	- Renewable resource program: 16	Service to prepare a national assessment of the demand and supply of renewable resources in the
<ul> <li>National renewable resource</li> <li>Renewable resource</li> <li>Inventory: 16 USC §</li> <li>Land and resource m</li> <li>Planning requirements</li> <li>Planning generally: 3</li> <li>Environmental impact</li> </ul>	<u>US Forest Service</u> <i>Planning requirements in statute</i> - National renewable resource assessment: 16 USC § 1601 - Renewable resource program: 16 USC § 1602 - Inventory: 16 USC § 1603 - Land and resource management plans: 16 USC § 1604. <i>Planning requirements in the Code of Federal Regulations</i>	USC § 1602, <u>http://www.law.cornell.edu/uscode/t</u> <u>ext/16/1602</u> . - Inventory: 16 USC § 1603, <u>http://www.law.cornell.edu/uscode/t</u> <u>ext/16/1603</u> . - Land and resource management plans: 16 USC § 1604,	country and a renewable resource program, which includes goals for Forest Service outputs of timber. The nine regions of the Forest Service prepare regional guides addressing regional planning issues. Then, under the National Forest Management Act, each of the over 100 units of the Forest Service prepares a land and resource
	<ul> <li>Planning generally: 36 CFR pt. 219</li> <li>Environmental impact assessment: 36 CFR pt. 220.</li> <li>Timber management planning: 36 CFR pt. 221.</li> </ul>	http://www.law.cornell.edu/uscode/t ext/16/1604.	management plan, which, among other things, identifies areas open to harvest. The law requires the Forest Service to involve the public in planning, and for each plan the Forest Service

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	<ul> <li>Planning requirements in the Forest Service Manual</li> <li>National resource planning: FSM 1910.</li> <li>Land and resource management planning: FSM 1920.</li> <li>Timber management planning: FSM 2410.</li> </ul>	Planning requirements in the Code of Federal Regulations - Planning generally: 36 CFR pt. 219,	must prepare an environmental impact statement satisfying the requirements of the National Environmental Policy Act. The Forest Service then draws up separate timber management plans.
	Bureau of Land Management Planning requirements in statute - Inventory: 43 USC § 1711 - Land use planning: 43 USC § 1712.	http://www.law.cornell.edu/cfr/text/3 6/part-219. - Environmental impact assessment: 36 CFR pt. 220 http://www.law.cornell.edu/cfr/text/3	These cover smaller areas and shorter timeframes than the land and resource management plans. These plans are also subject to environmental assessment.
	<ul> <li>O &amp; C Lands Act (management directives for the O &amp; C lands)</li> <li>43 U.S. Code Chapter 28.</li> <li>Resource management planning: 43 CFR part 1600, subpart 1610.</li> <li>Annual timber plans: 43 CFR § 5410.0-6.</li> </ul>	<u>6/part-220</u> . - Timber management planning: 36 CFR pt. 221, <u>http://www.law.cornell.edu/cfr/text/3</u> 6/part-221.	Bureau of Land Management: BLM planning is governed by the Federal Land Policy and Management Act. It too requires comprehensive management plans, but it has far less detailed planning requirements than the Forest Service
	Bureau of Indian Affairs - Statutory provisions on forest management: 25 USC Chapter 33. - Rules regarding forest management, including management planning: 25 CFR part 163.	Planning requirements in the Forest Service Manual - National resource planning: FSM 1910,	laws. On BLM's most productive forest lands, the O & C lands, the O & C Lands Act sets the goals of management, but it does not have detailed planning requirements.
	Federal environmental impact assessment (all federal agencies) - National Environmental Policy Act EIA requirement: 42 USC § 4332. - EIA regulations: 40 CFR parts 1500 to 1508.	http://www.fs.fed.us/im/directives/fs m/1900/1910.txt. - Land and resource management planning: FSM 1920, http://www.fs.fed.us/im/directives/fs m/1900/1920.doc.	Bureau of Indian Affairs: If the Native American tribe is interested and engaged in forest management, the BIA acts to support them, but BIA imposes some basic standards. For example, BIA rules require the tribe to prepare appropriate
	State forestry law generally (not just planning laws): Defenders of Wildlife. 2000. State Forestry Laws. www.defenders.org/publications/state_forestry_laws.pdf.	- Timber management planning: FSM 2410, http://www.fs.fed.us/im/directives/fs	management and operating plans. State permits generally have a minimum threshold for acreage / board feet of harvest before they are
	Not all states have forest practices laws requiring management and harvesting planning - 34% did not in 2004 and an additional 12% only when certain conditions exist). However, most states	m/2400/2410.doc. Bureau of Land Management Planning requirements in statute	required. They are also often required in ecologically sensitive areas.
	with significant state forests will have planning requirements in the law. A few examples are listed in the box in this row dealing with sources of information.	- Inventory: 43 USC § 1711, http://www.law.cornell.edu/uscode/t ext/43/1711.	For federal lands, the planning process is transparent and participatory, so flaws in planning regularly come to light but seldom go uncorrected.
	Private lands: - The state of California requires private lands to submit a detailed timber harvest plan or a longer term non-industrial	- Land use planning: 43 USC § 1712, http://www.law.cornell.edu/uscode/t	The agencies allow stakeholders to pursue informal administrative challenges to planning decisions and timber sale approvals. In addition,

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	timber management plan before the state will grant a harvest permit. A registered professional forester must prepare these plans. - The state of Oregon requires a harvest plan for harvests needing a waiver from forest practices rules, harvests near certain streams or wetlands, and harvests affecting endangered species. - Some states require landowners to submit a timber management plan before the state will classify land as timber land or forest land, reducing the property tax rate. Most states, though, do not require management plans from private owners. - Some voluntary programs require private planning in order to become eligible for government benefits or assistance. Under the national Forest Stewardship Program, the US Forest Service in cooperation with state forest agencies will help non-industrial private forest owners write forest stewardship management plans, but participation in the program is voluntary. Under conservation programs in the federal Farm Bill, administered by the federal Natural Resources Conservation Service, landowners who adopt management plans and put certain sensitive lands under conservation management are eligible for financial incentives. <u>Sample state forest planning law:</u> - Michigan: Part 525, Sustainable Forestry on State Forestlands, of the Natural Resources and Environmental Protection Act, section 52503 (codified at Michigan Compiled Laws §324.52503. <u>Sample state laws regarding private land planning:</u> - California's Z'berg-Nejedly Forest Practices Act of 1973 requires private timber harvest or management planning. California Public Resources Code §§ 4581 to 4592 (timber harvesting) and §§ 4593 to 4594.7 (non-industrial timber management plans). - Oregon: Oregon Administrative Rules 629-605-0100 and 629- 605-0170 - The state of Washington: Revised Code of Washington Chapter 84.34; see particularly § 84.34.041(4).	ext/43/1712. - O & C Lands Act (management directives for the O & C lands) 43 U.S. Code Chapter 28, http://www.law.cornell.edu/uscode/t ext/43/chapter-28/subchapter-V. <i>Planning requirements in the Code</i> of Federal Regulations - Resource management planning: 43 CFR part 1600, subpart 1610, http://www.law.cornell.edu/cfr/text/4 3/part-1600/subpart-1610. - Annual timber plans: 43 CFR § 5410.0-6, http://www.law.cornell.edu/cfr/text/4 3/5410.0-6. Bureau of Indian Affairs - Statutory provisions on forest management: 25 USC Chapter 33, http://www.law.cornell.edu/uscode/t ext/25/chapter-33. - Rules regarding forest management, including management planning: 25 CFR part 163, http://www.law.cornell.edu/cfr/text/2 5/part-163. Federal environmental impact assessment (all federal agencies) National Environmental Policy Act EIA requirement: 42 USC § 4332, http://www.law.cornell.edu/uscode/t ext/42/4332. EIA regulations: 40 CFR parts 1500 to 1508,	the courts have ruled that people who enjoy the federal lands for recreation or scenic value have the right to sue the managing agencies for failure to comply with planning or EIA laws. A 2014 study in the Journal of Forestry reported that the US Forest Service was taken to court 1125 times between 1989 and 2008 over land management issues. The Service won a bit more than half the cases, lost about a quarter and settled the remainder out of court. Miner, Amanda M.A., Robert W. Malmsheimer, and Denise M. Keele. 2014. Twenty Years of Forest Service Land Management Litigation. J. Forestry. Vol 112, Issue 1. pp. 32-40. State planning is similarly transparent. In some cases, citizens have challenged the adequacy of state plans, however the author has not found reports of widespread or systematic violation of planning rules. Planning requirements for private lands are limited. The author has not been able to find indications of regular violations of these requirements. Based on the available information, the risk for this category has been assessed as low.

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	Legal Authority For public (federal) forests: US Forest Service	http://www.law.cornell.edu/cfr/text/4 0/chapter-V.	
	For the federal and state lands and state regulation of private lands, see the agencies listed in the box above in this column. However, most of the state agencies listed do not require management plans from private lands.	State forestry law generally (not just planning laws): - Defenders of Wildlife. 2000. State Forestry Laws. www.defenders.org/publications/sta	
	State revenue departments and local government revenue and assessor offices administer property tax requirements.	te forestry laws.pdf.	
	Legally required documents or records	Sample state forest planning law Michigan: Part 525, Sustainable	
	Timber Sale Contract (US Forest Service)	Forestry on State Forestlands, of the Natural Resources and	
	All federal land management plans are public documents. (It is possible that plans for military bases might have portions redacted for national security purposes.) Under the environmental assessment laws, the federal agencies must publish a notice of their intent to begin planning, publish a draft plan, take public comment, revise the plan, and publish a final plan.	Environmental Protection Act, section 52503 (codified at Michigan Compiled Laws §324.52503, http://www.legislature.mi.gov/(S(bjn 2yd45nya4kxjuhc5t4vrn))/mileg.asp x?page=shortlinkdisplay&docname =mcl-324-52503).	
	Every US state has some form of freedom of information or open records law. Most management plans for state and local forests are probably public documents.	Sample state laws regarding private land planning - California: California Public	
	Whether private management plans, if submitted to the government, are public documents, depends on state laws. Many freedom of information act laws have provision for protecting confidential business information in documents held by the government. In Maine, for example, management plans are apparently not public documents.	Resources Code §§ 4581 to 4592, http://www.leginfo.ca.gov/cgi- bin/displaycode?section=prc&group =04001-05000&file=4581-4592, (timber harvesting) and §§ 4593 to 4594.7, http://www.leginfo.ca.gov/cgi- bin/displaycode?section=prc&group =04001-05000&file=4593-4594.7, (non-industrial timber management plans). - Oregon: Oregon Administrative	
		Rules 629-605-0100 and 629-605- 0170,	

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
		http://arcweb.sos.state.or.us/pages/ rules/oars_600/oar_629/629_605.ht ml. - Washington State: Revised Code of Washington Chapter 84.34; see particularly § 84.34.041(4), http://app.leg.wa.gov/rcw/default.as px?cite=84.34.	
		References	
		Paul V. Ellefson, Michael A. Kilgore, Calder M. Hibbard and James E. Granskog (2004). 'Regulation of forestry practices on private land in the United States: Assessment of state agency responsibilities and program effectiveness'. STAFF PAPER SERIES NUMBER 176, Department of Forest Resources, College of Natural Resources and Agricultural Experiment Station, University of Minnesota. [http://www.forestry.umn.edu/prod/g roups/cfans/@pub/@cfans/@forestr y/documents/asset/cfans_asset_18 4634.pdf.]	
		Darren Fishell (posted 16 February 2012). 'Georgetown selectmen to investigate potential Tree Growth	
		Tax Fraud'. Bangor Daily News. [http://bangordailynews.com/2012/0 2/16/news/midcoast/georgetown-	
		selectmen-to-investigate-potential- tree-growth-tax-fraud/.]	
		Miner, Amanda M.A., Robert W. Malmsheimer, and Denise M.	

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
		Keele. 2014. Twenty Years of Forest Service Land Management Litigation. J. Forestry. Vol 112, Issue 1.	
1.4	Applicable laws and regulations	Federal laws - Forest Service and	Low risk
Harvesting permits	For US Forest Service: FSH 2409.18, Ch. 50 § 53	BLM lands - The timber sale contract	There is potential that there are specified risks
	On Forest Service and BLM lands, the timber sale contract serves the purpose of a permit. The timber sale contract procedural rules for the Forest Service are in the Forest Service Handbook 2409.18, chapter 50,	procedural rules for the Forest Service: Forest Service Handbook 2409.18, chapter 50, http://www.fs.fed.us/im/directives/fs	in this category at a sub-national level. Further assessment of this category at a sub-national level has been recommended by the Consultant. Based on consultation feedback (including from FSC US, low risk has been
	The Forest Service and the Bureau of Land Management also grant permits for small removals of forest products, but these	h/2409.18/wo_2409.18_50.doc. - The BLM's rules: 43 CFR pt 5400, http://www.law.cornell.edu/cfr/text/4	designated and eventual further verification will take place through the NRA process.
	must have minor impact on the resources and total value of under \$1000. West of the 100th meridian, they may not include sawlogs. Forest Service Handbook 2409.18, part 54.	3/part-5400, BLM Manual § 5400, http://www.blm.gov/style/medialib/bl m/wo/Information_Resources_Man	State permits generally have a minimum threshold for acreage / board feet of harvest before they are required. They are also often required in
	The Forest Service may grant permits for harvests for "administrative uses." These include for research purposes,	agement/policy/blm_manual.Par.94 852.File.dat/5400_Sales_of_Forest	ecologically sensitive areas.
	disaster relief, or property improvement (removal of a diseased or infested tree, for example). These ordinarily should involve small volumes of wood; the preferred method for allowing harvest of merchantable timber is through a timber sale. See Forest	_Products.pdf, and BLM Handbook 5400-2 to 5480-1, http://www.blm.gov/style/medialib/bl m/wo/Information_Resources_Man	Corruption associated with timber sales and harvest permits in the US is generally not an issue. The US also has a relatively good Corruption Perception Index (73), as measured by
	Service Handbook 2409.18, chapter 80.	agement/policy/blm_manual.Par.94 852.File.dat/5400_Sales_of_Forest	Transparency International.
	Based on a small sample of state laws, the states appear to follow the federal practice. That is, they do not require a permit separate from the timber sale contract.	_Products.pdf - Permits for small removals of forest products: Forest Service	Timber is real property and, in many states, is treated similarly as theft of other kinds of property. Additionally, some states have statutes that are
	On private lands, the required permit will vary from state to state, and in some states, from locality to locality. Western states tend	Handbook 2409.18, part 54, http://www.fs.fed.us/im/directives/fs	specific to timber theft and trespass.
	to have more detailed and prescriptive forestry laws. For example, California requires: • The logger to have a license, Cal. Pub. Res Code §§ 4570– 4578.	h/2409.18/wo_2409.18_50.doc. - Permits for harvests for "administrative uses": Forest Service Handbook 2409.18, chapter	There a few potential risks in this category, some of these might equally well fall under "tenure," "taxes," or another category.
	<ul> <li>The landowner or logger to file (1) a timber harvest plan (which the state has 30 days to reject); (2) a notice of the beginning of harvest; (3) a notice of completion of harvest; and (4) a report</li> </ul>	80, http://www.fs.fed.us/im/directives/fs h/2409.18/2409.18_80.doc.	(1) Harvest off public lands without contract or permit, for commercial purposes. It is easy to find anecdotal reports of small-scale tree theft from

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	five years after the harvest on the results of reforesting the site. Cal. Pub Res. Code §§ 4581–4592.	State laws	public lands. Especially when a slow economy puts rural people out of work, thieves "poach" or
	Alaska requires submission of a detailed operations plan. If the state does not act on the plan in thirty days, logging may proceed. Alaska statutes § 41.17.090.	- California: Cal. Pub. Res Code §§ 4570–4578, http://codes.lp.findlaw.com/cacode/ PRC/1/d4/2/8/6; Cal. Pub Res.	"rustle" individual trees for their wood. From the 1980s into the 2000s, in states of Washington and Oregon, old growth western red cedar (Thuja plicata) was valuable enough to poach. See, e.g.
	The state of Virginia is typical of the more restrained approach to regulation found in the southeast. The state does not require a permit but requires notice from the buyer of the timber before the logging is completed. Code of Virginia §10.1-1181.2(H).	Code §§ 4581–4592, http://codes.lp.findlaw.com/cacode/ PRC/1/d4/2/8/7. - Alaska: Alaska statutes §	USA Today article, 18 May 2003. This article lumps individual tree timber theft with theft of firewood and other kinds of illegal activity, but it estimates that as many as one in ten trees cut on
	The state of New Hampshire has requirements aimed at ensuring that the state and local government collect all revenues due. At a logging site, the logger or landowner should publically post a timber tax certificate obtained from the state Department of Revenue, and a notice of intent to cut either signed by a state assessment official or displaying a number, date and time assigned by a municipal official. See Univ. of New Hampshire Cooperative Extension. 2014. Guide to New Hampshire Timber Harvesting Laws, at p.7.	41.17.090, http://codes.lp.findlaw.com/akstatut es/41/41.17./01./41.17.090. - Virginia: Code of Virginia §10.1- 1181.2(H), http://leg1.state.va.us/cgi- bin/legp504.exe?000+cod+10.1- 1181.2 - New Hampshire: See University of New Hampshire Cooperative	national forests is cut illegally. A current problem is theft of the valuable burl or figured wood found at the base of some coastal redwoods (Sequoia sempervirens). This happens on state and national parklands as well as on lands managed for timber. There are also reports of thefts of firewood, Christmas trees, and other non-timber forest products. (2) Harvest off public lands in excess of what is permitted in the contract or permit. A newspaper
	Legal Authority	Extension (2014) "Guide to New	opinion piece by a former federal prosecutor
	US Forest Service (federal lands) State forestry agencies (private / state / county land).	Hampshire Timber Harvesting Laws", at p.7. http://www.nhdfl.org/library/pdf/Fore	Jeffrey Kent, lists a variety of forest offenses he prosecuted in the 1980s and '90s, including cutting beyond the boundary of a timber sale. The
	For the federal and state lands, the legal authority is the land management agency issuing the timber sale contract.	st%20Protection/Guide%20to%20N H%20Timber%20Harvesting%20La	article does not give a sense of how common this practice is now. Other sources suggest that firewood gatherers have been known to use a
	For private lands, the legal authority is usually the state forestry agency, but as the New Hampshire example shows, it can be the state revenue agency or even a local government agency or official.	ws%20rvs2012.pdf References	personal use permit to cover commercial collection. Of concern generally is that "pressure on Federal budgets may have reduced U.S. law enforcement capacity, but no empirical studies
	Legally required documents or records	Transparency International Corruption Perception Index -	are available." US Department of Agriculture. 2011. National Report on Sustainable Forests—
	Timber Sale Contract (US Forest Service). For federal and state lands, the key document will be the timber sale contract.	http://www.transparency.org/cpi201 3/results	2010. (3) Harvest off public lands in violation of
	For private lands, it will vary from state to state. Where states require notice, the landowner or operation would be wise to keep	University of New Hampshire	environmental, labor, or similar conditions in the permit: covered below under environmental and

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	evidence of sending the notice. This might be a copy of the	Cooperative Extension (2014).	labor issues.
	notice and perhaps proof of mailing. In some states, like New	'Guide to New Hampshire Timber	(4) Harvests off public lands while defrauding
	Hampshire, the landowner or logger must post an	Harvesting Laws'.	about volumes, species, or quality: covered below
	acknowledgement that the notice was received.	[http://www.nhdfl.org/library/pdf/For	under taxes and fees and under classification of
	In states where some form of plan or post-activity report is	est%20Protection/Guide%20to%20 NH%20Timber%20Harvesting%20L	species, quantities, and quality. (5) Harvests off private land without permission of
	required, the landowner or logger should have copies of these.	aws%20rvs2012.pdf.]	the owner: timber theft and trespass. This is a chronic, but low-level problem. An article reporting
		USA Today (18 May 2003),	on a new law in the state of Georgia to boost
		"Thieves steal hundreds of millions	timber theft enforcement reports that the
		of dollars worth of trees,"	neighboring states of Alabama and South
		http://usatoday30.usatoday.com/ne	Carolina each investigate 100 to 150 reports of
		ws/nation/2003-05-18-timber-	timber theft each year. The New York State
		theft_x.htm.	Legislative Commission on Rural Resources
			produced a report on timber theft in 2008
		Fox News (13 June 2014),	recommending stronger laws and enforcement. A
		"Redwood burl poaching spreads	2003 masters thesis from Virginia Polytechnic
		from national parks to national	Institute and State University surveyed land
		forests".	owners, attorneys, and law enforcement officers in
		[http://www.foxnews.com/us/2014/0	twenty counties in a four-state region of the
		6/13/redwood-burl-poaching- spreads-from-national-park-to-	southern Appalachian Mountains and estimated the losses from theft and trespass at \$300,000 per
		national-forests/.]	year. This is not a standard statistical region, so
			any comparisons with total harvest would be
		Jeffrey Kent (1 January 2012),	inexact. However harvest figures from the seven
		"Guest Viewpoint: The timber	Virginia counties in the study were valued at over
		racket: A culture of corruption and	\$24,000,000 in 2007, according to the Virginia
		political payoffs harms the land and	Department of Forestry. If the other thirteen
		ourselves". Eugene, Oregon,	counties have anything near that harvest rate, the
		Register-Guard Newspaper,	loss to illegal activity is well below one percent of
		reprinted at	the total harvest value. Note, though, that the
		[http://olympicforest.org/wp-	illegal activity probably focuses on high-value
		content/uploads/2014/03/227.pdf.	hardwood species, such as black cherry (Prunus
			sylvatica) and black walnut (Juglans nigra) and
		Shawn Baker (2003). 'An Analysis	may account for a somewhat higher proportion of
		of Timber Trespass and Theft	that harvest than these numbers suggest.
		Issues in the Southern Appalachian	

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
		Region' Thesis submitted to the Faculty of the Virginia Polytechnic Institute and State University. [http://scholar.lib.vt.edu/theses/avail able/etd-05212003- 153313/unrestricted/timb_theft_thes is.pdf]. United States Department of Agriculture Forest Service (2011) National Report on Sustainable Forests - 2010 FS-979. [http://www.fs.fed.us/research/susta in/national-report.php.]Linda S. Morris (20 September 2014)." New law to crack down on timber theft" The Telegraph. [http://www.macon.com/2014/09/20/ 3318417_new-law-to-crack-down- on-timber.html].NYS Legislative Commission on Rural Resources (2008). "Timber Theft in New York: A Legislative Briefing". [http://www.nysenate.gov/files/pdfs/t imber08appdixCfix.pdf].Virginia Department of Forestry 2007 Locality Value and Volume - http://www.dof.virginia.gov/harvest/ data/2007_Value- Volume_County.htm.	The Seneca Creek report states that the most commonly reported incidents of timber theft and trespass involve poorly marked or disputed boundary lines. The experience of states with the most detailed information allows an estimate that on the order of 800 to 1,000 significant timber theft cases occur annually in the hardwood region, involving an estimated 20,000 to 25,000 cubic meters (including both softwood and hardwood). Even if half or more were hardwood trees, stolen timber would represent a very small portion of total US hardwood production – very likely less than 1%. This national level risk assessment has identified that there may be specified risks in this category at a sub-national level, but further assessment of this category at a sub-national level would be necessary to determine this.
	Та	ixes and fees	

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
1.5 Payment of royalties and harvesting fees	<ul> <li>Applicable laws and regulations</li> <li>Federal and state tax policies</li> <li>On public lands, the timber sale contract will set the fees for commercial timber. The two most common types are scaled sales (the timber is measured or scaled after it has been cut) and tree measurement or lump-sum sales (the timber in the standing trees is estimated, and the payment specified in the contract is based on that estimate.) See Government Accountability Project (undated) cited above, at p. 11. US Forest Service contracts require an up-front payment, plus a performance bond to assure completion of any tasks required in the contract, such as road maintenance or disposal of logging wastes.</li> <li>On private lands, state and local laws will cover harvesting taxes and fees. As with other kinds of laws, the laws of the fifty states show variation, but there are some basic patterns.</li> <li>Most states charge an annual tax based on the value of real property. These "ad valorem" taxes tend to drive landowners to develop the land if the market value (and hence annual tax) rises. To combat this trend, some states will tax land based on its current value as forest land or based on a flat rate per unit of area, as long as the land remains in forest. To get these lower rates of taxation, the landowner may have to accept conditions that are linked to harvest, such as preparation of a management plan, payment of a yield tax when the timber is harvested, or even granting of a conservation easement limiting development of the land. Also, the land owner might be liable for back taxes based on market value if the land is ever converted to non-forest use.</li> <li>States may also levy taxes on the harvested timber itself. Eleven states have a yield tax based on the value. That means that the majority of states have no special harvest tax.</li> </ul>	Taxes as they apply to timber in the US: http://www.fs.fed.us/spf/coop/library /timbertax.pdf The website http://www.timbertax.org/, sponsored by the US Forest Service and private associations representing landowners, has general information on taxation of forestry in the US, with links to state and federal laws. (For a table of state timber tax approaches, see http://www.timbertax.org/statetaxes/ quickreference/.) Title V Taxation - Chapter 79 - Forest Conservation and Taxation, Section 79:1 - http://www.gencourt.state.nh.us/rsa/ html/v/79/79-mrg.htm. See the sources of information on timber sale contracts for more detailed information on contract types, payments, and bonds. Darren Fishell (posted 16 February 2012). 'Georgetown selectmen to investigate potential Tree Growth Tax Fraud'. Bangor Daily News. [http://bangordailynews.com/2012/0 2/16/news/midcoast/georgetown- selectmen-to-investigate-potential- tree-growth-tax-fraud/.]	Low risk There is potential that there are specified risks in this category at a sub-national level. Further assessment of this category at a sub-national level has been recommended by the Consultant. Based on consultation feedback (including from FSC US, low risk has been designated and eventual further verification will take place through the NRA process. Royalties and harvesting fees are generally only applicable to public lands, which are administered at either the county, state, or federal level. All states and federal agencies that hold land have well developed programs for regulating timber and timber harvest. Stumpage fees are very applicable to private timber harvest. There is no doubt that some timber contract holders have cheated the government out of timber payments, in some cases for millions of dollars. See the Jeffrey Kent opinion piece cited above and the Government Accountability Program guide to timber contracts cited above. One avenue of fraud has been collusion between loggers and scalers to under- report the volume or quality of timber harvested. Because of this, the US Forest Service has been moving away from scaled sales to lump-sum scales. The BLM tends to offer only lump-sum scales. Kent declares that the problem is not corruption, but capture of the government agencies by the industries they regulate. There are no payments under the table. Lawful, transparent, but

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	New Hampshire presents an example of a yield tax. It levies a tax of ten percent of the stumpage value of timber harvested. New Hampshire Statutes, Chapter 79. This tax is payable to the town in which the harvested land sits. If the person harvesting the timber does not own the property, the town may require a payment bond before the timber is harvested.		troublingly large contributions to political action committees and candidates keep legislators from instituting more burdensome controls and practices on industry. A culture in the agencies that views the industry as a partner in managing the land keeps the agency officials from acting as
	Legal Authority		true watchdogs.
	For public lands, US Forest Service.		Kent's experience was in the 1980s and '90s. A
	For the public lands, the land management agency generally collects the amounts due under timber contracts.		drop-off of press reports about this kind of contract cheating suggests that after a flurry of bad publicity and Congressional oversight in the
	For private lands, the property, yield, and severance taxes are usually collected by local governments or by the state agency concerned with revenue.		1990s, the Forest Service may have brought the problem under control.
	Legally required documents or records		Studies or documentation of evasion of severance or yield taxes on private harvests has not been
	Timber Sale Contract (US Forest Service)		found. One news report questions the inclusion of
	For public lands, the timber contracts will show the amounts or rates due. For sales based on estimates of the timber volume, the documents inviting bids should indicate the volume. For sales based on scaled volumes after harvest, there should be		land subject to a conservation easement in a property tax classification intended for lands with forests capable of commercial production.
	paperwork from whoever has done the scaling, which might be a government official or a third party such as a independent scaler or the mill purchasing the raw logs. The government land management agency should have copies. The logger and the		True chain of custody marking of trees and tracking of volumes from harvest through milling to bulk sales should make it relatively easy to document tax or contract fraud based on misreporting of harvests.
	government should have records of payments made and bonds or sureties posted.		This national level risk assessment has identified
	On private lands, the local or state revenue agency will have records of the assessed values of land, the reported volumes of timber harvested, and the tax rates applied. They should also have records of the amounts of taxes paid.		that there may be specified risks in this category at a sub-national level, but further assessment of this category at a sub-national level would be necessary to determine this.
1.6 Value	Applicable laws and regulations	New York sales tax requirements	Low risk
added taxes and	The United States does not have a federal value added tax. None of the states currently have a value added tax, although	(example): http://www.tax.ny.gov/pubs_and_bu lls/tg_bulletins/st/record-	There is potential that there are specified risks in this category at a sub-national level. Further

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
other sales taxes	Hawaii has a general excise tax on businesses, which each business can elect to pass on to customers by charging a "quasi sales tax".	sales tax rates by state. Note,	assessment of this category at a sub-national level has been recommended by the Consultant. Based on consultation feedback (including from FSC US, low risk has been designated and eventual further verification will take place through the NRA process. Sales taxes are levied at the state level, with the tax rate varying by state from 0% to 7.5%. Ordinarily, harvest and sale of timber is not going
sales taxes, levied on sales of goods and but there is usually an exemption for goo for future processing and goods sold to b States with sales taxes typically have use	The majority of US states and some local governments have sales taxes, levied on sales of goods and sometimes services, but there is usually an exemption for goods sold as raw materials for future processing and goods sold to buyers from out of state. States with sales taxes typically have use taxes, which apply to goods brought in from out of state for which no comparable sales tax has been paid.		
	In most cases, because logs are being sold for further processing, their sale is not taxable.	example, a state might have a lower tax or even no tax for food, non-	to trigger sales or use tax obligations.
	Note that many states and local governments levy an annual ad valorem tax on personal property (i.e., property other than real estate) used in business. The business typically must file an annual property inventory stating the original purchase dates, prices and current depreciated values of its personal property	luxury clothing, or prescription drugs, or it might have a separate tax rate that applies to motor vehicles.	This national level risk assessment has identified that there may be specified risks in this category at a sub-national level, but further assessment of this category at a sub-national level would be necessary to determine this.
	and then make a payment representing some percentage of the total property value.	States and local governments very often have information pages explaining the tax obligations of	
	Legal Authority	businesses. For example, the page outlining personal property taxes for businesses in Fairfax County Virginia is http://www.fairfaxcounty.gov/dta/bu siness_personalproperty.htm. Penelope Lemov (18 May 2011). "States Look to Collect Internet Sales Taxes". Governing the States and Localities. [http://www.governing.com/columns	
	State departments of revenue		
	Sellers collect sales taxes from buyers, and state and local revenue agencies in turn collect sales taxes from sellers. State agencies generally collect use taxes from buyers.		
	Business personal property taxes are usually paid to the revenue departments of local or state governments.		
	Legally required documents or records		
	Differs by state		
	Sellers will have records of sales taxes collected from buyers and /public-f	/public-finance/states-collect- internet-sales-taxes.html].	

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	A conscientious buyer will have records of purchases made where a use tax is due, and records of tax forms indicating declaration and payment of use taxes. Governments will have records of use tax filings, which are often simply a few lines on the annual income tax forms, but these filings will not be public records.		
	Businesses will have property inventories and records of filing and paying personal property taxes. Governments will have records of filings and payments, which may not be public records.		
1.7 Income	Applicable laws and regulations	For access to the statutes,	Low risk
and profit taxes	Tax policies	regulations, and agency guidance, the IRS maintains a gateway	Income and profit taxes are levied at the federal level, and administered by the Internal Revenue
	Internal Revenue Code	webpage: http://www.irs.gov/Tax-	Service (IRS). Most states also leverage addition
	U.S. federal tax law is complex. The statutes take up all of title 26 of the U.S. Code. The regulations take up all of title 26 of the Code of Federal Regulations. On top of these, there are formal rules and guidance from the Internal Revenue Service (IRS) and rulings of the courts on tax law.	Professionals/Tax-Code,- Regulations-and-Official-Guidance and http://www.irs.gov/Forms-&- Pubs For an overview of federal tax	income and profit taxes, generally at a much lower rate than the federal level. Every individual and every business organized to make profit is subject to annual federal taxation on
	State laws tend to follow federal law in the definition of income, treatment of deductions from income, and so forth.	obligations associated with timber, see	net income. All but four states have annual corporate income taxes, and all but seven have annual individual income taxes. In timber sales,
	Corporations with publicly traded stock are subject to regulation from the federal Securities and Exchange Commission, which requires annual public disclosures of basic financial information, including income, assets, and liabilities.	n, which formation, P. U., Philip Guillery, T. F., & Gary	this means the landowner selling the timber sales, the logger cutting and selling the logs will have recordkeeping, reporting, and taxpaying obligations.
	Legal Authority	Dodge, P. C. (2008). Assessment of	Tax filing tends to be annual, however businesses
	Internal Revenue Service (federal agency)	Lawful Harvesting & Sustainability of US Hardwood Exports. Seneca	and individuals may have to make quarterly
	At the state and local levels, the revenue agencies have various names. The Internal Revenue Service offers the following page linking to business taxation web pages of the states: http://www.irs.gov/Businesses/Small-Businesses-&-Self- Employed/State-Links-1.	Creek Associates, LLC [http://www.americanhardwood.org/f ileadmin/docs/Seneca_Creek_Stud y/Seneca_Creek_Study _Full_Version.pdf].	payments of their own estimated taxes. Employers may have to forward withheld amounts from employee salaries as often as every two weeks. There is also a tax due upon inheritance, called the estate tax. At the risk of oversimplification, before property passes through inheritance, the

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	Legally required documents or records IRS Form 1040: Income taxes IRS Form 1099: Capital Gains taxes Income taxation is tied closely to recordkeeping. An individual or business should have full records of income, expenses, and associated tax filings for the past three years. For investments and depreciable assets, the records must go back longer, often to the acquisition of the investment or asset. Taxing authorities will have copies of income tax returns that individuals and businesses have filed, but these are generally not public documents.	Summary of the disclosure regulations and areas of possible reform: U.S. Securities and Exchange Commission (2013). "Report on Review of Disclosure Requirements in Regulation S-K as Required by Section 108 of the Jumpstart Our Business Startups Act". [http://www.sec.gov/news/studies/2 013/reg-sk-disclosure- requirements-review.pdf]. IRS Oversight Board (2012). "2012 Taxpayer Attitude Survey". [http://www.treasury.gov/IRSOB/rep orts/Documents/IRSOB_TAS%2020 12_FINAL.pdf].	estate of the deceased may have to pay estate taxes. If a large part of the value of the estate is in land, the estate may have to sell land or timber to raise money to pay the taxes. The timing of inheritance tax obligations seldom coincides with the ideal rotation age, so this can disrupt management plans. A financial advisor can help a sophisticated landowner anticipate and avoid inheritance taxes by structuring ownership through corporations or trusts. It is often the smaller landholdings, associated with family farms and woodlots, that are caught up in inheritance tax problems. The US has an income tax that includes special provisions for certain kinds of timber income and expenses. For example, expenses for reforestation and conservation practices are treated favorably (with limits). The federal government also imposes an estate tax that can affect forest properties upon transfer to estate beneficiaries. In turn, the states have various forms of taxation that include income tax, estate and gift tax, property tax and severance or yield taxes. In many states, property taxes are adjusted so that forest properties are valued for current use while some states apply a tax at harvest in lieu of (and sometimes in addition to) annual assessments. Compliance rates to both federal and state tax requirements in general are very high at least 84% for compliance to federal income taxes according to government studies. There are no data to suggest that failure to pay assessed taxes on hardwood timber income or property occurs to any significant extent in the US. IRS surveys show

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
			a very high proportion of taxpayers believe that cheating on taxes is unacceptable and that people who do cheat should be held accountable. Nonetheless, that result suggests that a small percentage of people do try to evade taxes to some degree.
			Businesses will often hire an outside service to handle payroll-associated taxes and will often hire professional assistance to fill out income tax forms. The use of outside professionals, such as certified public accountants, lowers the risk of noncompliance.
			Some businesses, particularly large ones or ones whose stock is traded on public stock markets, will hire independent auditors to review records and payments. This also lowers the risk of noncompliance.
			The risk is probably highest among small businesses and individuals. The IRS randomly audits a small percentage of tax returns, and this promotes compliance. If a business or individual knew that its tax filings would be audited or even might be audited as part of a forest certification program, that would almost certainly either raise compliance or discourage bad actors from seeking certification.
			Overall, based on the available information, the risk for this category has been assessed as low.
	Timber h	arvesting activities	
1.8 Timber	Applicable laws and regulations	Laws	Low risk
harvesting regulations	Requirements for timber harvesting on US Forest Service lands: - 16 USC § 1604 - sets up the land and resource management	<i>Federal -</i> US Forest Service lands - 16 USC § 1604,	There is potential that there are specified risks in this category at a sub-national level. Further

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	<ul> <li>planning system and requires permits, contracts, and resource use generally to be consistent with these plans.</li> <li>CFR Title 36 - more specific regulations.</li> <li>o Timber management plans must call for sustained yield, a non-declining flow of timber (i.e., the harvest level must be relatively constant from year to year), and multiple use (protecting the value of the land for fish, wildlife, water, recreation, and grazing if the land is so used). 36 CFR § 221.3,</li> <li>o All management activities must be consistent with the larger land and resource management plans, 36 CFR § 219.15(b),</li> <li>o Land and resource management plans must provide for ecological, social, and economic sustainability as detailed in 36 CFR § 219.8,</li> <li>o Must maintain a diversity of plant and animal communities, 36 CFR § 219.9.</li> <li>o Must allow for multiple use, 36 CFR § 219.10,</li> <li>o Timber contracts must reflect the requirements of "applicable land and resource management plans and environmental quality</li> </ul>	http://www.law.cornell.edu/uscode/t ext/16/1604 - CFR Title 36 § 221.3, http://www.law.cornell.edu/cfr/text/3 6/221.3. - 36 CFR § 219.15(b), http://www.law.cornell.edu/cfr/text/3 6/219.15. - 36 CFR § 219.8, http://www.law.cornell.edu/cfr/text/3 6/219.8; - 36 CFR § 219.9, http://www.law.cornell.edu/cfr/text/3 6/219.9; - 36 CFR § 219.10, http://www.law.cornell.edu/cfr/text/3 6/219.10. - 36 CFR § 223.30,	assessment of this category at a sub-national level has been recommended by the Consultant. Based on consultation feedback (including from FSC US, low risk has been designated and eventual further verification will take place through the NRA process. Statics show that it is not a common case to see harvesting volume above the allowed and only few cases are known on road construction not following the legislation. Thus a low risk. A recent study in Oregon looked at compliance with forest practice requirements regarding leaving behind snags, live trees, and downed logs for the benefit of wildlife. It found compliance rates of 97% ± 6%, and it noted that sites frequently exceeded the legal minimums.
	standards," 36 CFR § 223.30, - The parallel planning system for the Bureau of Land Management is rooted in 43 U.S.C. § 1712, - The BLM planning and programming regulations are in 43 CFR part 1600. Note that 43 CFR § 1610.3-2, requires plans to be consistent with federal, state, and local programs and policies. - On the BLM's most productive timber lands, the O & C lands, 43 U.S.C. § 1181a, provides a general policy of sustainable harvests and protection of water and recreation. On state and local lands, forest practice requirements are also rooted in management planning. E.g. the Oregon rules on state forest planning, which require identification of lands that require special practices because of riparian habitat, scenic value, and so forth. Oregon Administrative Rules 629 Division 35, Timber sale contracts may incorporate requirements in forest practice and other environmental rules, OAR 629-029-0135(3). The state has over ninety pages of forest practice laws (Oregon Revised Statutes §§ 527.610 to 527.770, 527.990 (1) and 527.992) and rules (OAR 629 Divisions 600 to 670) that apply to harvests on	http://www.law.cornell.edu/cfr/text/3 6/223.30. <i>Federal</i> -Bureau of Land Management - 43 U.S.C. § 1712, http://www.law.cornell.edu/uscode/t ext/43/1712. - 43 CFR part 1600, http://www.law.cornell.edu/cfr/text/4 3/part-1600. - 43 CFR § 1610.3-2, http://www.law.cornell.edu/cfr/text/4 3/1610.3-2, - 43 U.S.C. § 1181a, http://www.law.cornell.edu/uscode/t ext/43/1181a, provides a general policy of sustainable harvests and protection of water and recreation.	A 2012 Washington state study of compliance with requirements for activities affecting riparian areas found rates of compliance ranging from 43% (commercial thinning rules in stream buffer zones, sample of seven sites) to 100% (management of debris in non-fish-bearing streams, 19 sites). It concluded that while most of the observed violations were minor, compliance continues to be "a challenge." Walter Obermeyer and Alice Shelly. 2012. In fiscal year 2012–2013, the Alabama Forestry Commission inspected 258 completed logging jobs for compliance with best management practice guidelines (which are voluntary in Alabama) and reported 97.75% compliance with only two significant violations.

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	state, local, and private lands. The Oregon Department of		A study of BMP compliance in South Carolina
	Forestry offers a collection of the laws in a single document.	State and local lands	found overall 92% compliance with harvest and
	On private lands, state and local laws may control forest practices. The states show three broad approaches to timber harvest regulation. Some states have detailed forest practice laws that prescribe things like stream buffers and rules for skidding and yarding logs. The Oregon laws mentioned above are an example. This regulatory approach is most common in western states.	Oregon: - Oregon Administrative Rules 629 Division 35, http://arcweb.sos.state.or.us/pages/ rules/oars_600/oar_629/629_035.ht ml. - OAR 629-029-0135(3), http://arcweb.sos.state.or.us/pages/	non-harvest BMPs. The lowest rates of compliance were associated with prescribed burning (60% compliance) and stream crossings (81% compliance). BMPs in South Carolina are voluntary guidelines. Guy Sabin. 2012. Compliance and Implementation Monitoring of Forestry Best Management Practices in South Carolina 2011-2012. South Carolina Forestry
	Some states have a few simple forest practice rules, perhaps	rules/oars_600/oar_629/629_029.ht	Commission.
	combined with voluntary or mandatory "best management practices" to protect water and soils. Virginia, for example, has a law requiring landowners to retain seed trees to promote regeneration of pines, Code of Virginia §10.1-1164. In addition, Virginia limits the power of local governments to restrict forest activities beyond the requirements of following best management practices (BMPs), Code of Virginia § 10.1-1126.1. Like most southern states, Virginia has BMP guidelines to prevent water quality problems from silviculture, but these are voluntary except where the logging may affect the Chesapeake Bay (see the discussion of BMPs and Virginia laws under the coverage of environmental quality regulation, below). If an operation is causing pollution, the state forester has the power to order it to	<ul> <li>ml.</li> <li>Oregon Revised Statutes §§ 527.610 to 527.770, 527.990 (1) and 527.992) and rules (OAR 629 Divisions 600 to 670) that apply to harvests on state, local, and private lands.</li> <li>The Oregon Department of Forestry offers a collection of the laws in a single document: http://www.oregon.gov/odf/privatefo rests/docs/fparulebk.pdf.</li> <li>OAR 629 division 43,</li> </ul>	It's difficult to assess risk based on a few reports such as these, but generally it is known that there is good compliance with legal requirements. Caution should be taken where the requirements were expensive or required expert skills to implement, or where enforcement pressure was low. Low enforcement pressure can result from infrequent inspections, but it can also result from a forgiving attitude of inspectors, which in the US is more common in enforcement of environmental standards against agricultural operations than it is in enforcement against manufacturing operations.
	stop. Code of Virginia § 10.1-1181.2.	http://arcweb.sos.state.or.us/pages/	There may also be regional variations. In the state
	Some states have no forest practice laws. A few states defer to local regulation of forest practices.	rules/oars_600/oar_629/629_043.ht ml. Virginia:	of Washington study, compliance rates appear to be higher in the eastern part of the state than in the west. Some of the reports track compliance trends, and it appears that compliance with
	Many states require loggers to take steps to suppress sparks	- Code of Virginia §10.1-1164,	standards tends to improve, perhaps as
	from equipment and to have basic fire-fighting equipment such	http://leg1.state.va.us/cgi-	landowners and loggers become more familiar
	as shovels and axes on site. For example, the Virginia law	bin/legp504.exe?000+cod+10.1- 1164.	with what is necessary to comply.
	regarding spark suppression is Code of Virginia § 10.1-1145. Oregon's much more extensive fire prevention rules are at OAR	- Code of Virginia § 10.1-1126.1,	In the end, the risk needs to be evaluated locally.
	629 division 43.	http://leg1.state.va.us/cgi-	If there are no enforceable standards, there is
		bin/legp504.exe?000+cod+10.1-	obviously no risk. Risk may be moderate for
	Forest Principles (UNCED) (Rio de Janeiro, Brazil, June 1992).	1126.1.	complex standards, for poorly enforced standards,

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	International Tropical Timber Agreement (Geneva, Switzerland, 1994).	- Code of Virginia § 10.1-1181.2, https://leg1.state.va.us/cgi- bin/legp504.exe?000+cod+10.1- 1181.2.	or for new standards. This national level risk assessment has identified
	Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)/Federal Environmental Pesticide Control Act (FEPCA) (1947, 1972).	- Code of Virginia § 10.1-1145, http://leg1.state.va.us/cgi- bin/legp504.exe?000+cod+10.1- 1145.	that there may be specified risks in this category at a sub-national level, but further assessment of this category at a sub-national level would be necessary to determine this
	Federal Plant Pest Act (1957).		
	Forest practices acts - Not all states have Forest Practices Acts and many have voluntary BMPS.	<b>References</b> The websites of state forestry agencies often contain descriptions or links to applicable forest practice	
	Pollution Prevention Act (1990).	requirements and laws. States often publish manuals or educational	
	Federal Insecticide Act (1910).	material for landowners explaining forest practice obligations. For	
	Plant Quarantine Act (1912).	example: Virginia, http://www.dof.virginia.gov/print/mgt	
	Fire practices laws (for all states)	/Timber-Sales.pdf, and Vermont, http://www.vtfpr.org/regulate/docum	
	On the federal lands, the federal government sets the timber harvesting rules, and federal land managers tend to meet or	ents/timber_harvest09_web.pdf.	
	exceed the substance of state forest practices rules, although the federal government is not bound to follow state procedures.	Defenders of Wildlife. 2000. State Forestry Laws.	
	Legal Authority	www.defenders.org/publications/sta te_forestry_laws.pdf.	
	Regulated at the state level Mandatory BMPs (Best Management Practices)	Guy Sabin (2012). "Compliance and Implementation Monitoring of	
	Not all states are mandatory with many southern states being voluntary. More information needed.	Forestry Best Management Practices in South Carolina 2011- 2012". South Carolina Forestry	
	In general, the federal authorities will be the land management agencies, and the state authorities will be the state forestry agencies, boards, and commissions. State cooperative extension services, chartered to help private landowners improve	Commission, Columbia, SC. [http://www.state.sc.us/forest/bmp1 2.pdf].	

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	<ul> <li>management practices, will have a role in educating landowners about requirements and giving them advice about compliance.</li> <li>Legally required documents or records</li> <li>Timber sale contracts may include forest practice requirements or contain references to the applicable laws.</li> <li>If state or federal foresters have inspected a logging site, there may be paperwork records of the inspection.</li> </ul>	Jennifer Weikel, Rod Krahmer, and Jim Cathcart (2014). "Compliance with Leave Tree and Downed Wood Forest Practices Act Regulations - Oregon Department of Forestry Forest Practices Monitoring Section Technical Report #20". Oregon Department of Forestry. [http://www.oregon.gov/odf/PRIVAT E_FORESTS/docs/Leave%20Tree %20Downed%20Wood%20Report %20Final%20April%202014.pdf]. Walter Obermeyer and Alice Shelly (2012). "Forest Practices Compliance Monitoring Report 2010/2011". Washington State Department of Natural Resources. [http://www.dnr.wa.gov/Publications /fp_cm_biennial_report_10-11.pdf]. Alabama Forestry Commission compliance figures: http://www.forestry.alabama.gov/bm pmon.aspx?bv=2&s=1http://www.fo restry.alabama.gov/bmpmon.aspx? bv=2&s=1	
1.9 Protected sites and species	Applicable laws and regulations National Trails System. 16 USC §§ 1241–1251, The National Historic Preservation Act, 16 USC §§ 470–470x6	Laws Federal - Wilderness Act. 16 USC § 1132, http://www.law.cornell.edu/uscode/t ext/16/1132 - National Wild and Scenic Rivers	Low risk There is potential that there are specified risks in this category at a sub-national level. Further assessment of this category at a sub-national level has been recommended by the
	The Migratory Bird Treaty Act prohibits the hunting, killing, capturing, or sale of most native birds without a permit. 16 USC §§ 703–712. This Act does not appear to affect forest practices in a significant way.	Act and System. 16 USC § 1274, http://www.law.cornell.edu/uscode/t ext/16/1274. - National Trails System. 16 USC	Consultant. Based on consultation feedback (including from FSC US, low risk has been designated and eventual further verification will take place through the NRA process.

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	The Bald and Golden Eagle Protection Act protects bald and golden eagles and their nests. 16 U.S.C. 668-668d. The US Fish and Wildlife Service has published non-binding guidelines for avoiding harm to bald eagles and has stated that penalties against persons who unintentionally harm eagles will be mitigated if the persons were following the guidelines. The guidelines for forestry call for buffers of approximately 100 meters in radius around nests, extended to 200 meters during the breeding season. US Fish and Wildlife Service. 2007. National Bald Eagle Management Guidelines. The Endangered Species Act, 16 USC § 1531–1544, , is potentially the most important species protection law for forest management Section 9 of the Act, 16 USC § 1538, makes it unlawful to "take" a species listed as threatened or endangered, and the definition of "take" includes harassing or harming a protected species, 16 USC § 1532(19). Special overlays that Congress might have designated on an ad hoc basis. For example, some lands in the Mount Hood National Forest are also in the Columbia Gorge National Scenic Area and are subject to the management directives in the Columbia Gorge National Scenic Area Act, 16 USC § 544–544p, Administrative set-asides. These should be clearly apparent in the management plans. To take the US Forest Service as an example, their land and resource management plans must designate areas that are not suitable for timber production, 36 CFR 219.11. These include lands where slope or soil conditions make sustainable timber management impossible, and lands designated administratively for other uses (e.g., for scientific and educational use as research natural areas.	§§ 1241–1251, http://www.law.cornell.edu/uscode/t ext/16/chapter-27. - The National Historic Preservation Act, 16 USC §§ 470–470x6, http://www.law.cornell.edu/uscode/t ext/16/chapter-1A/subchapter-II. - Columbia Gorge National Scenic Area Act, 16 USC §§ 544–544p, http://www.law.cornell.edu/uscode/t ext/16/chapter-2/subchapter-II. - Administrative set-asides - e.g. designated areas that are not suitable for timber production, 36 CFR 219.11, http://www.law.cornell.edu/cfr/text/3 6/219.11 or for scientific and educational use as research natural areas, http://www.fs.fed.us/rmrs/research- natural-areas/. - Migratory Bird Treaty Act. 16 USC §§ 703–712, http://www.law.cornell.edu/uscode/t ext/16/chapter-7/subchapter-II. - The Bald and Golden Eagle Protection Act. 16 U.S.C. 668-668d, http://www.law.cornell.edu/uscode/t ext/16/chapter-5A/subchapter-II. - National Bald Eagle Management Guidelines. http://www.fws.gov/southdakotafield office/NationalBaldEagleManageme ntGuidelines.pdf. - The Endangered Species Act, 16 USC §§ 1531–1544, http://www.law.cornell.edu/uscode/t	The US has a broad and comprehensive legal structure surrounding species protection and the protection of socially and ecologically important sites, administered at both the federal and state level. The quick way to find protected areas on a piece of public land is to look at the official management plan prepared by the responsible agency. Due to the transparency of planning and the active participation of interested members of the public, it is highly likely that the plan accurately identifies protected sites. The long way is to start first with the statute or executive order that assigned the land to a particular management agency. That may assign the land to a class of protected areas (e.g., national park, national monument, national historic landmark, etc.), may specify how it is to be managed or protected, and may specify areas within the land subject to special protections. The risks of non-compliance on public lands are generally low. The planning processes are open and transparent, with strong pubic participation. Conservation groups have shown a willingness to take agencies to court over protected area and Endangered Species Act issues. The Endangered Species Act has a citizen suit provision, 16 USC §1540(g), allowing any citizen to sue anyone, including the federal government, seeking an injunction to enforce the Act. As a result, the agencies are generally careful to follow the law on these matters. Where there are high instances of these privately initiated actions, there may be a higher level of risk.

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	<ul> <li>pollution laws.</li> <li>State:</li> <li>Each individual state will be different, but many states have analogues of the federal programs, such as state parks and state wild and scenic rivers, that set state lands in categories with no or limited opportunity for timber management. Again, the quick way to discover these is to consult the current plan that the state land management agency has prepared.</li> <li>Private: <ul> <li>Private</li> <li>Private lands may be subject to local zoning requirements, and requirements to protect scenic values. Also, private lands may lie within federal wild and scenic river corridors. In that case, the federal government typically seeks an agreement with state and local governments over restrictions in land use in the area, but leaves the authority to control land use in state and local hands. If private lands are used in ways that are consistent with state and local laws but inconsistent with the river's designation, the federal government as a last resort can condemn the private property, but this is a costly and rarely used tool.</li> <li>Private lands may also be subject to conservation easements that limit uses.</li> <li>As noted above under taxation, states may offer lower tax rates to lands that owners pledge to keep land as open space. In some states, those programs conceivably could limit the type of forest operations that the owner could perform on the land. Some state forest practice laws create de facto protected areas by requiring buffer strips around streams or roadways.</li> </ul> </li> <li>State and private landowners also face the prohibition does not apply to listed plants on private land, as these are considered the owner's property. State and private owners do not have the requirement to consult with the listing agency before acting, however they may voluntarily agree to a conservation plan and get permission to take a small number of the protected</li> </ul>	ext/16/chapter-35, <b>References</b> The state or regional offices of The Nature Conservancy, an NGO, often can provide GIS information on areas critical to conservation. The Endangered Species Act listing agencies have range maps and maps of areas that are "critical habitat" for listed species. (For some endangered, collectable species, these are not public information!) Activity in these areas has the potential to take listed species or even jeopardize the continued existence of the species.	Private lands may have more risk. Zoning violations are going to occur, but they are going to be hard to disguise, and people will risk local enforcement actions. Damage to historic or archeological sites, especially if previously undiscovered, will be hard to detect, even for certification auditors. Damage to protected species may also be hard to detect, unless the auditor sees nests or individuals of the species near the site. However, violators of the Endangered Species Act face civil and criminal prosecution if caught, which is a strong deterrent. Overall, the risk on private lands is still low, but attention should be paid to areas known to be important to listed species, such as forests in the Pacific Northwest with salmon spawning streams, or forests in the Southeast with red-cockaded woodpeckers. This national level risk assessment has identified that there may be specified risks in this category at a sub-national level, but further assessment of this category at a sub-national level would be necessary to determine this.

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	individuals if they follow the plan.		
	Some states have state versions of the federal Endangered Species Act. The state and federal lists of protected species often overlap, but one list may have species that the other government has not yet reviewed for listing, and states may list species that are rare in the listing state but common elsewhere in the country. (Actually, the federal list also can limit listings to specific regions of the country, if the populations listed are biologically distinct.)		
	Convention on Nature Protection and Wild Life Preservation in the Western Hemisphere (Washington, DC, 1940).		
	Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar, Iran, 2 Feb 1971).		
	Convention Concerning the Protection of the World Cultural and Natural Heritage; (Paris, France, 16 Nov 1972).		
	International Plant Protection Convention (IPPC) (1979 Revised Text) (Rome, Italy, 1979).		
	<b>Endangered Species Act (1973, 1978, 1979, 1982).</b> Forest landowners and managers cannot cause injury or death by direct harm or through habitat modification to a species listed as threatened or endangered.		
	<b>Clean Water Act (CWA):</b> control activities in forested wetlands and requires states to have programs to control non-point source pollution, usually accomplished through Best Management Practices (BMPs).		
	<b>Clean Air Act (CAA):</b> states must have programs to protect air quality and visibility, including controls on prescribed burning and the use of ozone-depleting chemicals. Federal Insecticide, Fungicide and Rodenticide Act (FIFRA): regulates chemical use		

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	in forest stands, whether for insect control or for vegetation management.		
	Resource Conservation & Recovery Act (RCRA) (1976, 1984). Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, commonly known as "Superfund") (1980, 1986).		
	Withdrawn, Kyoto Protocol to the United Nations Framework Convention on Climate Change (Kyoto, Japan, 1997). Convention on Biological Diversity (UNCED) (Rio de Janeiro, Brazil, 5 Jun 1992).		
	Framework Convention on Climate Change, (UNCED) (Rio de Janeiro, Brazil, 1992).		
	Rio Declaration on Environment and Development (UNCED) (Rio de Janeiro, Brazil, 1992).		
	Convention on the Conservation of Migratory Species of Wild Animals (Bonn, Germany, 23 Jun 1979).		
	Legal Authority		
	US Fish and Wildlife Service (ESA)		
	National Marine Fisheries (ESA for anadramous fish, principally in the northwest US).		
	State level laws are administered by state natural resource departments.		
	The US Congress plays a major role in making protected area designations, for example, of national parks and additions to the national wilderness system. The President, under the Antiquities Act, can set aside federal land as national monuments by executive order.		

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	The federal and state land management agencies play a major role in administrative declarations of areas off-limits to commercial forestry. (Note that the laws often vest these powers in the hands of the Secretary of the cabinet department that contains the agency. Thus, the Secretary of Agriculture has powers to administer the national forests, which are assigned to the US Forest Service, and the Secretary of the Interior has powers to administer the national parks, national wildlife refuges, and the otherwise unreserved public lands, assigned to the National Park Service, the US Fish and Wildlife Service, and the Bureau of Land Management.) The National Park Service administers the National Register of Historic Places under the National Historic Preservation Office to inventory historic and archeological sites in the state, conduct planning, and propose sites for addition to the national listing. The U.S. Fish and Wildlife Service and the National Marine Fisheries Service (NOAA Fisheries) administer the federal Endangered Species Act. State wildlife agencies generally		
	administer the state acts. Legally required documents or records		
	Land management agencies tend to have good maps of designated protected areas. These should be included in their land management plans.		
	Federal agencies should have records of their consultation with the listing agencies over possible effects on listed species. If there is a possible effect, there should be a written biological opinion from the listing agency. If the management agency has permission to take some of the listed species, it should have an incidental take statement. A state or private owner that claims permission to take a listed species should have an approved conservation plan and an incidental take permit.		

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
Indicator 1.10 Environme ntal requiremen ts		Laws Federal - National Environmental Policy Act EIA requirement: 42 USC § 4332, http://www.law.cornell.edu/uscode/t ext/42/4332. EIA regulations: 40 CFR parts 1500 to 1508, http://www.law.cornell.edu/cfr/text/4 0/chapter-V. - Federal Water Pollution Control Act, also called the Clean Water Act, 33 USC §§ 1251–1387, http://www.law.cornell.edu/uscode/t ext/33/chapter-26. T - Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). 7 USC §§ 121–136y, http://www.law.cornell.edu/uscode/t ext/7/chapter-6. - Clean Air Act, 42 USC §§ 7410– 7671q, http://www.law.cornell.edu/uscode/t	Risk designation and determinationLow riskThere is potential that there are specified risks in this category at a sub-national level. Further assessment of this category at a sub-national level has been recommended by the Consultant. Based on consultation feedback (including from FSC US, low risk has been designated and eventual further verification will take place through the NRA process.Environmental permits (NEPA) are required for projects on federal lands or those that apply federal funding. Water quality is regulated on both public and private lands via the Clean Water Act. There are also a host of environmental laws that regulate aspects of timber harvest at the state level.Certain federal statutes govern federal land management directly (about 20% of US timberland but less than 1% of US hardwood supply). The most significant of these are: the
	<ul> <li>Environmental quality:</li> <li>Forest management can trigger requirements under several types of environmental laws. In rough order of importance, they are water quality, pesticide, air quality, solid waste, and hazardous waste remediation laws. In all these cases, it really does not matter who owns the land. The environmental laws apply to federal and state land management agencies in the same way that they apply to businesses and individuals.</li> <li>Federal Water Pollution Control Act, also called the Clean Water Act, 33 USC §§ 1251–1387. The application of the Act to forest operations has been controversial, but basically two aspects of the Act are likely to apply. Forest management leads to non-point pollution, which is pollution that is not coming from a discrete outfall, vehicle or other source. The Act addresses non-point pollution through voluntary best management practices</li> </ul>	ext/42/chapter-85. - Resource Conservation and Recovery Act, 42 USC §§ 6921– 6939g, http://www.law.cornell.edu/uscode/t ext/42/chapter-82/subchapter-III. - Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 USC §§ 9601–9675, http://www.law.cornell.edu/uscode/t ext/42/chapter-103 States	supply). The most significant of these are: the National Forest Management Act (NFMA), Federal Land Policy and Management Act (FLMPA), the Wilderness Act, and the National Environmental Policy Act (NEPA). The latter mandates that federal agencies assess the environmental impacts of their activities on government-owned forest land. As result, all federal timber management activities require some form of environmental assessment or impact analysis. Hardwood management is mainly impacted in the national forests of the eastern US that contain significant inventory of hardwood species. Planning and harvest activities on federal forest lands are frequently delayed, altered or cancelled

deterioration of water quality below water quality standards. Forest management in wetlands can lead to movement of soil, which is considered dredging and filling of the wetlands, requiring a Clean Water Act § 404, 33 USC § 1344, permit. "Normal" silvicultural operations are exempt from § 404, but "normal" is narrowly defined. To qualify for the exemption, the operator must follow BMPs, and several other conditions must be met (e.g., no endangered species present, no wild or scenic rivers affected, no endangered species present, no wild or scenic rivers affected, no endangered species present, no wild or scenic rivers affected, no endangered species present, no wild or scenic rivers affected, no endangered species present, no wild or scenic rivers affected, no endangered species present, no wild or scenic rivers affected, no endangered species present, no wild or scenic rivers affected, no endangered species present, no wild or scenic rivers affected, no endangered species present, no wild or scenic rivers affected, no endangered species present, no wild or scenic rivers affected, no endangered species present, no wild or scenic rivers affected, no endangered species present, no wild or scenic rivers affected, no endangered species present, no wild or scenic rivers affected, no endangered species present, no wild take the lead in enforcement. Some states stick with voluntary BMPs; some make part or all of the BMPs mandatory in areas close to the Chesapeake Bay. See the Virginia handbook on BMPs. - Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). 7 USC §§ 121–136. The three basic requirements that apply to forest management are that (1) people can only use a pesticide in a manner consistent withRegulations §§ 95801–96022, http://www.arb.ca.gov/publications/citiz ens. - Sederal Insecticide, Fungicide, and Rodenticide Act (FIFRA). 7 USC §§ 121–136. The thr	Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
the instructions on its label, and (3) people cannot obtain or apply especially dangerous pesticides unless they are licensed applicators. Plants that have been genetically modified to resist pests are considered plant-pesticides, subject to FIFRA regulation. - States can enact their own pesticide laws if they do not interfere with the regulatory scheme of FIFRA. For example, states may set rules limiting aerial spraying near streams or property lines, or requiring pre-spray notice to neighbors. See, e.g., the standards discussed in this news story: Rob Davis, In Oregon, helicopters spray weed killers near people under West Coast'sGeneral landowner guides from statesat a sub-national level, but further assessment this category at a sub-national level would be necessary to determine this.		<ul> <li>legally required documents or records</li> <li>(BMPs), with a fallback to stricter controls if there is actual deterioration of water quality below water quality standards. Forest management in wetlands can lead to movement of soil, which is considered dredging and filling of the wetlands, requiring a Clean Water Act § 404, 33 USC § 1344, permit. "Normal" silvicultural operations are exempt from § 404, but "normal" is narrowly defined. To qualify for the exemption, the operator must follow BMPs, and several other conditions must be met (e.g., no endangered species present, no wild or scenic rivers affected, no permanent change of wetlands to uplands).</li> <li>Most states have parallel water quality laws. In fact, the federal government encourages states to develop laws that are at least as strict as the federal standards. If states do, the federal government can delegate to them the power to write permits and take the lead in enforcement. Some states stick with voluntary BMPs; some make part or all of the BMPs mandatory parts of the forest practice rules. Virginia is an example of a hybrid: it makes BMPs voluntary in most of the state, but mandatory in areas close to the Chesapeake Bay. See the Virginia handbook on BMPs.</li> <li>Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). 7 USC §§ 121–136y. The three basic requirements that apply to forest management are that (1) people can only sell and apply pesticides that have been approved by the federal government, (2) people can only use a pesticide in a manner consistent with the instructions on its label, and (3) people cannot obtain or apply especially dangerous pesticides unless they are licensed applicators. Plants that have been genetically modified to resist pests are considered plant-pesticide laws if they do not interfere with the regulatory scheme of FIFRA. For example, states may set rules limiting aerial spraying near streams or property lines, or requiring pre-spray notice to neighbors. See, e.g., the standards discussed in this n</li></ul>	<ul> <li>California: 17 Calif. Code of Regulations §§ 95801–96022, http://www.arb.ca.gov/regact/2010/c apandtrade10/copusforest.pdf and https://govt.westlaw.com/calregs/Br owse/Home/California/CaliforniaCo deofRegulations?guid=I34B7E5A0E 67711E2960E9FD1BEAA332C&amp;ori ginationContext=documenttoc&amp;tran sitionType=Default&amp;contextData=% 28sc.Default%29.</li> <li>Oregon: Oregon Revised Statutes (ORS) §§ 526.695–.775, ORS §§ 526.780–.783 - https://www.oregonlegislature.gov/b ills_laws/lawsstatutes/2013ors526.h tml.</li> <li><b>References</b></li> <li>This page has a link to a 2007 citizen's guide to federal EIA: https://ceq.doe.gov/publications/citiz ens_guide_to_nepa.html</li> <li><i>General landowner guides from states</i></li> <li>New Hampshire: University of New Hampshire Cooperative Extension (2014) "Guide to New Hampshire Timber Harvesting Laws".</li> <li>[http://www.nhdfl.org/library/pdf/For est%20Protection/Guide%20to%20 NH%20Timber%20Harvesting%20L</li> </ul>	<ul> <li>pending completion of administrative or judicial reviews as a result of stakeholder group challenges.</li> <li>The risk of violation of federal EIA requirements is fairly low. The process is transparent. Citizens have a well-established right to sue to enforce the federal EIA laws, and that keeps agencies accountable. Where there are high instances of these privately initiated actions, there may be a higher level of risk.</li> <li>The risk of violation of clean water and other environmental standards depends first on whether they are standards or just guidelines. Where they are standards, the risk of violation of forest practice rules generally. In fact, the discussion above of risk of violation of forest practice rules drew on studies that looked largely at rules to protect water quality. So there is some risk, especially where rules are complex and compliance is expensive.</li> <li>This national level risk assessment has identified that there may be specified risks in this category at a sub-national level would be</li> </ul>

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	<ul> <li>Clean Air Act, 42 USC §§ 7410–7671q - A clean air concern with forest management is often the smoke from prescribed burns. There are also concerns about pollution from vehicles. Also, states are beginning to write laws concerning carbon offsets from forests. As with water pollution control, the federal government encourages states to develop their own laws and agencies, and delegates authority to them if the state system is at least as strict as the federal system.</li> <li>Forests as carbon sinks: California has developed an accounting protocol for forest projects, for use in its cap-and-trade system, 17 Calif. Code of Regulations §§ 95801–96022. Oregon's Forest Resource Trust, created through Oregon Revised Statutes (ORS) §§ 526.695–.775, can subsidize forestation of non-forest and under-stocked private lands in return for the carbon rights. ORS §§ 526.780–.783 allow the state forester to buy and resell carbon offsets from private landowners, acting as a broker.</li> <li>Hazardous wastes: subtitle C of the Resource Conservation and Recovery Act, 42 USC §§ 6921–6939g. States may have their own versions and delegated authority.</li> <li>Contamination of soil and groundwater from past use of hazardous substances: Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 USC §§ 9601–9675 - makes the land owner, site operator, and people who generated waste, arranged for its disposal at the site, or transported the waste all potentially liable for cleaning up the site. Some states have similar state liability and clean-up laws, which may give the state power to come in and abate hazards and collect the cost from responsible parties.</li> </ul>	for Community Economic Development. Undated. "The Kentucky Forest Landowner's Handbook". [http://www.maced.org/foi/landowne rs-handbook.htm]. - Virginia : Virginia Department of Forestry, (2011). "Virginia's Forestry Best Management Practices for Water Quality Technical Manual (5th ed.)". [http://www.dof.virginia.gov/print/wat er/BMP/Technical/BMP-Technical- Guide.pdf]. - Oregon: Oregon Forest Resources Institute. Undated. "Oregon's Forest Protection Laws (revised 2d ed.)". [http://oregonforests.org/sites/defaul t/files/publications/pdf/OR_For_Prot ect_Laws_2011.pdf]. Rob Davis (23 October 2014). "In Oregon, helicopters spray weed killers near people under West Coast's weakest protections". [http://www.oregonlive.com/environ ment/index.ssf/2014/10/in_oregon_ helicopters_spray_we.html].	
	Legal Authority		
	Environmental Protection Agency (NEPA) For EIA requirements, the land management agency will have responsibility for conducting the assessment. The federal Council on Environmental Quality (CEQ) writes the rules for federal assessments and oversees implementation. The federal Environmental Protection Agency (EPA) incidentally reviews		

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	every agency's environmental impact statements.		
	For environmental requirements, the lead federal agency is the EPA. Every state has its own state environmental agency. In many states, the forestry agency is responsible for overseeing voluntary BMPs on private forest lands.		
	The responsibility for dredge and fill regulation (§ 404) is shared between the US Army Corps of Engineers and the EPA. Very few states have been delegated responsibility for the § 404 program, and then only for certain classes of wetlands, but some states run parallel wetland programs without delegation (meaning a project may require separate federal and state approvals).		
	Note that like the Endangered Species Act, the Clean Water, Clean Air, and Resource Conservation and Recovery Acts have citizen suit provisions allowing citizens to go to court to enforce the acts against individual polluters or the government.		
	Legally required documents or records		
	Environmental Impact Statement (for NEPA)		
	A federal environmental impact assessment, if there is no categorical exclusion, usually produces an EA and then either a FONSI or a notice of intent to prepare an EIS. (For an obviously significant proposed action, such as a long-term land and resource management plan, the agency may skip the EA and go right to the EIS.) The agency should invite public comments on the scope of the environmental review, prepare a draft EIS, collect public comments on the draft, publish a final EIS, and then a issue a record of decision (ROD) on what action to take.		
	Agencies can "tier" assessments. For example, a timber management plan, which might by itself involve significant impacts, can get by with just an EA if all the impacts were already discussed in the earlier land and resource management plan EIS. The timber plan EA tiers on the management plan EIS.		

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	States should have guidelines for BMPs. They may have different BMPs for different regions, forest types, or stream types. In the case of public lands, the timber contracts may incorporate the BMPs by reference. This sometimes is done in private timber sale contracts, too. For operations in wetlands, the situation can get complex. Here, for example, is a link to guidance on compliance from North Carolina, a state that runs a wetlands regulation program in parallel with the federal program: http://ncforestservice.gov/publications/WQ0107/BMP_chapter06. pdf.		
1.11 Health	Applicable laws and regulations	Laws	Low risk
and safety	National Environmental Policy Act (1969, 1975, 1982).	Federal -Occupational Health and Safety	There is potential that there are specified risks
	Occupational Health and Safety Act (OSH Act), 29 USC §§ 651–678	Act (OSH Act), 29 USC §§ 651– 678. - 29 CFR § 1910.266,	in this category at a sub-national level. Further assessment of this category at a sub-national level has been recommended by the
	Federal Water Pollution Control Act/Clean Water Act (1972, 1977).	http://www.law.cornell.edu/cfr/text/2 9/1910.266. - 29 CFR part 1910,	Consultant. Based on consultation feedback (including from FSC US, low risk has been designated and eventual further verification will take place through the NRA process.
	OHSA 1910.266, Logging-specific regulations - 29 CFR	http://www.law.cornell.edu/cfr/text/2 9/part-1910.	will take place through the NKA process.
	29 CFR part 1910 - general safety regulations, applying to all workplaces, covering things like protective equipment, storage of hazardous materials, welding, hand-held power tools, and so forth.	- 29 CFR 1910.1200, http://www.law.cornell.edu/cfr/text/2 9/1910.1200. - OHSA 1910.266, Logging-specific regulations -	Logging is one of the more hazardous occupations in the United States. Health and safety is closely regulated by OHSA, which has specific provisions for logging.
	29 CFR 1910.1200 - The regulations for reporting to workers what toxic chemicals are onsite, applicable to all workplaces. These do not apply to pesticides bearing federally approved labels under the federal pesticide law (FIFRA), but safe handling of these pesticides is covered under FIFRA, as discussed below.	https://www.OHSA.gov/pls/OHSAw eb/owadisp.show_document?p_tabl e=STANDARDS&p_id=9862. - FIFRA Agricultural Worker Protection Standard. 40 CFR part 170,	OHSA standards: Based on a search of OHSA's online database for inspections in standard industrial class (SIC) 2411 (logging), OHSA conducted 378 logging site inspections in 2013. Some were in response to reported accidents or complaints of violations, but most were planned

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	The FIFRA Agricultural Worker Protection Standard 40 CFR part	http://www.law.cornell.edu/cfr/text/4	inspections. A cursory search of the resulting list
	170 - applies to all pesticide use in forests as well as farms. It	0/part-170.	of inspections makes it appear that inspectors
	requires worker safety training, access to information, use of	- FIFRA requires people who apply	found violations at more than half the sites.
	protective equipment, emergency preparedness, and so forth.	especially toxic ("restricted use")	Although enough raw data is available to
		pesticides to be certified or to work	understand the severity and frequency of
	7 USC § 136i - FIFRA requires people who apply especially toxic	under supervision of a certified	violations, the scope of this project did not allow
	("restricted use") pesticides to be certified or to work under	applicator. 7 USC § 136i,	for analysis of the data, and no summary of
	supervision of a certified applicator. The federal government can certify applicators or it can delegate certification authority to a	http://www.law.cornell.edu/uscode/t ext/7/136i.	compliance in the logging industry was found.
	state that submits a satisfactory certification plan.		FIFRA agricultural worker protection: In 2013,
		References	EPA and the states inspected 3663 sites. These
	State:		covered all agricultural users, and it's not clear if
	- The OSH Act allows the federal government to delegate	OHSA logging website:	they included any forest operations. In those
	authority to administer workplace safety regulation to a state if a	https://www.OHSA.gov/SLTC/loggin	inspections, the inspectors issued warnings to 332
	state has a program at least as strict as the federal program.	g/	sites, administrative fines to 58 sites, took 40 to
	About half the states have delegated authority.	A US Department of Labor page	court (includes sites that contested the
	- All states have workers compensation programs that pay benefits to employees injured on the job. Most employers are	A US Department of Labor page with links to state workers	administrative enforcement), and took other action, such as issuing administrative orders to
	required to pay premiums to cover their employees. The federal	compensation programs:	comply, at 267 sites. It is not clear how many of
	government has a program that covers federal government	http://www.dol.gov/owcp/dfec/regs/c	these infractions were minor and how many major,
	employees.	ompliance/wc.htm.	but the warnings almost certainly cover minor
			infractions, the court cases are probably more
	Legal Authority	Index page for information on the	serious infractions, and the administrative fines
	The federal agency concerned with worker safety is the	FIFRA Agricultural Worker	and orders could cover either kind of situation. It's
	Occupational Safety and Health Administration (OHSA), in the	Protection Standard:	possible that some sites had multiple inspections,
	Department of Labor.	http://www.epa.gov/pesticides/healt	and that inspections were designed to focus on
		h/worker.htm	sites of types most likely to have infractions. Still,
	This OHSA web page provides contact information and links to		only about one site in ten had a violation serious
	state occupational safety and health agencies:	US Environmental Protection	enough to merit something more than a warning.
	https://www.OHSA.gov/dcsp/osp/.	Agency Worker Protection Standard	See EPA's web page on monitoring compliance
		Compliance Monitoring Program,	with the standard. It is not currently clear from
	The federal Environmental Protection Agency administers	Accomplishments and Violations	these statistics how many forest sites were
	FIFRA. Where EPA has delegated certification authority to a	Reports:	inspected, or were found to be in breach of the
	state, it is usually a state agriculture agency that is in charge of	http://www.epa.gov/compliance/mo	requirements. This information does show that the
	certification. State cooperative extension services may also play	nitoring/programs/fifra/wps.html.	compliance monitoring and enforcement of the
	a role in training and testing applicators.		legal requirements is carried out seriously by the
		OHSA's information page on	authorities.

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	Legally required documents or records Legally required documents or records OHSA requires employers to keep records of serious job-related injuries. See https://www.OHSA.gov/recordkeeping/. If there are hazardous chemicals other than pesticides at a worksite, there should be Material Safety Data Sheets for each chemical. If there are pesticides, the pesticide label should be available. Official pesticide labels can be several pages long and contain information about the lawful purposes of use (what pests, what crops or trees to protect) and the lawful manner of use. Certified pesticide applicators should have documentation of their certification, and should keep records of their use of restricted- use pesticides.	logging: https://www.OHSA.gov/SLTC/loggin g/index.html. OHSA's "eTool" for learning about logging site requirements: https://www.OHSA.gov/SLTC/etools /logging/index.html. OHSA's user's guide and tutorial on logging workplace safety and health requirements: https://www.OHSA.gov/SLTC/etools /logging/userguide.html. OHSA maintains an online database of past inspections, https://www.OHSA.gov/oshstats/ind ex.html, and users can pull up inspection data for a particular establishment, https://www.OHSA.gov/pls/imis/esta blishment.html, or a particular industry class, https://www.OHSA.gov/pls/imis/indu	This national level risk assessment has identified that there may be specified risks in this category at a sub-national level, but further assessment of this category at a sub-national level would be necessary to determine this.
1.12 Legal employmen t	Applicable laws and regulationsFair Labor Standards Act: regulates minimum wage, medium age, overtime pay.Other laws administered by Department of LaborCivil Rights Act of 1964: outlawed hiring discrimination based on race, gender, religion, or national origin.More details, actual citations and examples from large timber	stry.html. Laws Federal -Minimum Age Laws: Federal Department of Labor's pages on youth employment, http://www.youthrules.dol.gov/know- the-limits/agriculture/index.htm and http://www.dol.gov/dol/topic/youthla bor/agerequirements.htm#lawregs. - Minimum wage laws: The federal Department of Labor maintains a	Low risk There is potential that there are specified risks in this category at a sub-national level. Further assessment of this category at a sub-national level has been recommended by the Consultant. Based on consultation feedback (including from FSC US, low risk has been designated and eventual further verification will take place through the NRA process.

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	<ul> <li>producing states.</li> <li>In general, you will find both federal and state rule regarding legal employment.</li> <li>Employee tax payments and workers compensation: These laws have been covered above in other categories. The discussion of taxes covered the need to get an employer identification number, to withhold and forward employee tax payments, and to make employer payments to fund social benefit programs. The discussion of health and safety mentioned participation in</li> </ul>	reference page on federal and state minimum wage laws: http://www.dol.gov/whd/minwage/a merica.htm. - Citizenship or lawful residency: Section 274A of the federal Immigration and Nationality Act, 8 U.S.C. 1324a, http://www.law.cornell.edu/uscode/t ext/8/1324a. The applicable regulations are in 8 CFR Part 274a,	Most employment in the US is considered "at will," and can be terminated by either party or changed without prior notice. A written contract is not necessary; all employers are still subject to labor laws. Detailed records of accidents, injuries, and corrective measures must be maintained. The Fair Labor Standards Act (FLSA) establishes minimum wage, overtime pay, recordkeeping, and child
	<ul> <li>workers compensation insurance programs.</li> <li>Unemployment Insurance: In the same vein as workers compensation insurance, states require employers to pay into a state unemployment insurance fund. The state programs are set up in compliance with federal law, but are run under state laws by state officials.</li> <li>Minimum age laws: Laws set minimum ages for employment generally, maximum hours for younger employees, and minimum ages for particularly dangerous jobs, including logging.</li> </ul>	http://www.law.cornell.edu/cfr/text/8/ part-274a/subpart-A. - Discrimination: This federal website lists the key federal statutes: http://www.eeoc.gov/laws/statutes/i ndex.cfm. This companion site lists the implementing regulations and ongoing rulemakings: http://www.eeoc.gov/laws/regulation s/index.cfm.	labor standards affecting full-time and part-time workers in the private sector and in federal, state, and local governments. The US Department of Labor rigorously enforces labor and worker safety laws usually in cooperation with corresponding state agencies. Worker's compensation liability insurance requirements are regulated at the state level. Most states require worker's comp insurance.
	Minimum wage laws: Federal laws set minimum wages, and state and local laws may set minimum wages. If they differ, the higher minimum applies. The general minimum wage may not apply to all jobs — for example, they might not apply to jobs where the employee normally receives a significant income from tips. The laws tend to set weekly hour thresholds of around 40 hours, and the pay for work beyond those hours must be at an increased rate. Citizenship or lawful residency: Section 274A of the federal Immigration and Nationality Act, 8 U.S.C. 1324a, , makes it illegal	State - Unemployment Insurance: The state programs are set up in compliance with federal law, but are run under state laws by state officials. For information on laws, see this federal Department of Labor website: http://workforcesecurity.doleta.gov/u nemploy/laws.asp. - An index of state adverse	Timber harvesters (i.e. loggers) are registered or certified in nearly all states within the hardwood- producing region either through public or private programs (such as the Master Logger Program). Only New York and New Jersey have not yet established any kind of registration or certification program for timber harvesters. The licensing or registration of professional foresters occurs in 14 states within the hardwood-producing region. A compendium of federal laws also governs fair
	to employ someone who is not a citizen, lawful permanent resident, or specially permitted immigrant. The applicable regulations are in 8 CFR Part 274a.	possession laws: http://statelaws.findlaw.com/propert y-and-real-estate-laws/adverse-	labor, worker safety and health. For example, the Occupational Safety and Health Act (OHSA) protects forest workers by prescribing that specific safety measures be taken and safety equipment

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	Discrimination: Federal laws prohibit discrimination based on race, color, religion, sex (including pregnancy), national origin,	possession.html - The Bureau of Land Management's web page on	used while engaged in commercial forestry activity.
	disability, genetic information, or age (over 40). Most laws apply only to businesses with a minimum number of employees, such as 15 or 20.	subsistence use in Alaska: http://www.blm.gov/ak/st/en/prog/su bsistence.html.	The risk of non-compliance for tax laws was discussed above. Compliance is probably the rule, but there will be a small number of people trying
	Legal Authority	References	to evade the law. Evidence of things like use of outside bookkeeping or accounting services and
	Department of Labor (DOL)	Annette Bernhardt et al. (2009).	external auditors will indicate a lower risk of non- compliance.
	The federal Internal Revenue Service and the state revenue departments enforce the tax laws.	"Broken Laws, Unprotected Workers: Violations of Employment and Labor Laws in America's	For wage and hour laws, a 2009 study of urban workers in traditionally low-paying occupations
	Unemployment insurance and workers compensation insurance are generally managed by state agencies.	Cities". National Emplaoyment Law Project. [http://www.nelp.org/BrokenLaws].	found about a quarter of workers reported experiencing violations of wage and hour laws. Results varied by industry, and in residential
	The Wage and Hour Division of the Department of Labor oversees minimum wage and age laws at the federal level.	Hector Chichoni (2011). "I-9 Compliance Crackdowns". Society	construction, the sector in the study most like logging, compliance was better than average with closer to an eighth of the workers reporting
	The US Citizenship and Immigration Services oversee compliance with the requirement that employers verify citizenship or lawful residency.	for Human Resource Management. [http://www.shrm.org/publications/hr magazine/editorialcontent/2011/021 1/pages/0211chichoni.aspx]	violations. Compliance was worse in smaller businesses. This suggests that there may be some risk of noncompliance in logging operations, particularly in smaller operations.
	The federal Equal Employment Opportunity Commission oversees compliance with federal anti-discrimination laws.	See the enforcement options listed	For citizenship or lawful residency laws, a 2011
	Legally required documents or records	at https://www.ice.gov/factsheets/i9- inspection.	article published on the website of the Society for Human Resource Management flatly stated that
	I-9 form required to demonstrate eligibility to work in the US W-4 form required to file for mandatory income taxes.	Jeffrey S Passel, D'Vera Cohn, Jens Manuel Krogstad and Ana	"most U.S. employers are not fully compliant." The article then described many of the detailed things that can go wrong leading to technical non-
	As noted above, for taxes and other payments to the government, the employer should have business records and receipts. The employer should obtain a filled-out IRS W-4 form from each employee, so the employer can determine how much	Gonzalez-Barrera (2014). "As Growth Stalls, Unauthorized Immigrant Population Becomes More Settled". Pew Research	compliance, such as failure to make sure the employee has filled out the I-9 form legibly, failure to make sure the form is signed, failure to get the form filled out on the first day of hire, failure to
	salary needs to be withheld to cover expected taxes. The employer should be giving employees and tax authorities annual W-2 forms reporting wages paid and withheld for the year.	Hispanic Trends Project. [http://www.pewhispanic.org/2014/0 9/03/as-growth-stalls-unauthorized-	properly review proof of status documents and make sure the information matches that on the I-9 form, and so forth. The enforcement policy of the

Indicator Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
<ul> <li>People retaining certain independent consultants must give the consultant and government a 1099 form reporting compensation for services.</li> <li>Some states may require work permits or recordkeeping for youths under a given age. For example, Oregon requires employers hiring minors to obtain an annual employment certificate from the state and to keep records of how they verified the youth's age. See this state FAQ page on youth employment: http://www.oregon.gov/boli/TA/pages/t_faq_taminors.aspx.</li> <li>Employers must fill out and retain an I-9 form from the federal government verifying the legal status of each new employee. http://www.uscis.gov/i-9-central.</li> </ul>	immigrant-population-becomes- more-settled/#]. Timothy Sutto (2012). "Out In Left Field: CA Needs H2-A Ag-Worker Overhaul". Immigration Compliance Group. [http://www.immigrationcompliance- blog/tag/california-agriculture/]. US Citizenship and Immigration Service - E-Verify is an Internet- based system that allows businesses to determine the eligibility of their employees to work in the United States. E-Verify is fast, free and easy to use – and it's the best way employers can ensure a legal workforce: http://www.uscis.gov/e-verify.	US Immigration and Customs Enforcement agency seems to reflect that most violations are technical in nature and do not merit more than a formal notice of non-compliance, advising the employer to make corrections. However, the situation might be more severe in the logging sector. The Pew Research Center estimates that about 10.4 million adults in the US are unauthorized immigrants. Many of these people have come to the US looking for work, and agricultural and low-skill trades offer opportunities. A 2012 post in an immigration blog estimated that half the agricultural workers in the state of California were undocumented. The 'Broken Laws'' study above noted that employers willing to hire undocumented workers can offer lower wages with less fear that their employees will make complaints to authorities about labor law compliance. The federal government allows employers to participate in an electronic system to verify that a potential employee is allowed to work. The system is called eVerify. If an employer has taken the effort to qualify to use the system, and uses it regularly, it may be a "best management practice" indicating a lower risk of non-compliance. This national level risk assessment has identified that there may be specified risks in this category at a sub-national level, but further assessment of this category at a sub-national level would be necessary to determine this.
	parties' rights	

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
1.13 Customary rights	Applicable laws and regulations Customary rights are usually not important in US land tenure systems. By and large, the US states either have recognized long-standing customary rights and incorporated them into the system of formal rights, or they have extinguished them.	Laws - Alaska National Interest Lands Conservation Act. See 16 USC §§ 3111–3126, http://www.law.cornell.edu/uscode/t ext/16/chapter-51/subchapter-II	Low risk The risk of violating a right held through adverse possession is low. If the right is being held openly and exclusively, the potential violator should be able to discover it through inspection of the land.
	<ul> <li>There are a few limited exceptions. One is the law of adverse possession, described above under land tenure. It is important only for private lands.</li> <li>Another possible source of claims of customary rights is through treaties with Native American tribes, discussed below under indigenous peoples rights.</li> <li>In the state of Alaska, the federal Alaska Native Claims Settlement Act of 1971 settled most native claims to land. However, on some federal lands, Native Americans and rural residents have rights to use the land for subsistence purposes. These rights are recognized in the Alaska National Interest Lands Conservation Act. See 16 USC §§ 3111–3126.</li> <li>Rivers that have historically supported navigation are subject to a public right of way and use, but forests seldom grow in rivers. Historically, though, this aspect of law has been important in allowing rivers to be used to transport logs. In fact, one test of navigability has been whether the river can float a log.</li> <li>Paths that have been used continuously by humans "since time immemorial" may be subject to public rights of way. Again, this is not a widespread issue in forest land ownership.</li> <li>Legal Authority</li> <li>It is usually up to the courts to make findings of customary rights.</li> <li>On federal lands in Alaska, the federal land management agencies oversee exercises of subsistence rights.</li> </ul>	References An index of state adverse possession laws: http://statelaws.findlaw.com/propert y-and-real-estate-laws/adverse- possession.html The Bureau of Land Management's web page on subsistence use in Alaska: http://www.blm.gov/ak/st/en/prog/su bsistence.html.	Overall, customary rights being are not important in forest management, with the possible exception of Native American treaty rights. On balance the risk for this category is assessed as low.

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination	
	Legally required documents or records			
	By the time most adverse possession rights are reduced to paper, they have become formal rights. The only way to discover possible instances of adverse possession is to inspect the property and locate its boundaries in a survey.			
	Documents relating to tribal claims include the treaties and court interpretations, discussed below under indigenous people's rights.			
1.14 Free	Applicable laws and regulations	N/A	N/A	
prior and informed consent	N/A. There is no general law requiring the free and prior informed consent of indigenous peoples to actions affecting their lands. If indigenous people own the land or hold some rights to it, or if it is held in trust for them, they will have legal rights to control or affect the use of the land. Otherwise, their consent will not be required by law.			
	There are also general requirements within US contract law that parties enter into contracts willingly, but these are not FPIC requirements in the traditional sense.			
	Legal Authority			
	The Bureau of Indian Affairs oversees lands held in trust by the federal government for Native Americans.			
	Legally required documents or records			
	The federal statutes concerning Native Americans are in Title 25 of the USC and the regulations are in Title 25 of the CFR.			
1.15	Applicable laws and regulations	This state of Washington website explains Stevens treaty tribal hunting and fishing rights: http://wdfw.wa.gov/hunting/tribal/tre aty_history.html	Low risk	
Indigenous peoples rights	The Indian Self Determination and Education Assistance Act of 1975		hunting and fishing rights: http://wdfw.wa.gov/hunting/tribal/tre	The legal relationship between the federal government and the Native American tribes is multifaceted. Officially, the two deal with each
	Varied treaties with American Indian Nations, Tribes, and Bands		other as sovereigns, and treaties signed between	

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
Indicator		Sources of InformationThe US Forest Service has a tribal relations office: http://www.fs.fed.us/spf/tribalrelations/.The US Institute for Environmental Conflict Resolution, a federal agency promoting consensual settlement of disputes, has a branch devoted to Native American issues, https://www.udall.gov/OurPrograms/ Institute/ServiceAreaNativeAmerica n.aspx, and may have information on the frequency or number of such conflicts.United Nations General Assembly (2012). "Report of the Special Rapporteur on the rights of indigenous peoples, James Anaya - Addendum - The situation of indigenous peoples in the United States of America". [http://www.ohchr.org/Documents/H RBodies/HRCouncil/RegularSessio n/Session21/A-HRC-21-47- Add1_en.pdf]	the federal government and the tribes outline tribal rights. Tribal members, though, are US citizens. Sometimes the federal government treats the tribes as coequal to the states. For example, the federal government delegates to some tribes the power to take the lead in enforcing environmental or workplace safety and health laws on tribal lands. Tribes have their own police forces and courts, and in some cases their own forestry or wildlife agencies. And sometimes the federal government treats the tribes as beneficiaries of federal trusts, as is often the case with tribal lands nominally owned by the federal government. The situation becomes a bit different in the state of Alaska, where special laws apply. The Alaska Native Claims Settlement Act extinguished informal claims to land, chartered special corporations to hold native interests in land, and granted 40 million acres of land to those corporations. Alaskan tribal members own shares in these corporations, elect their boards, and enjoy dividends from them. In this way, the native peoples exercise ownership rights. As noted above under customary rights, native people also have rights to subsistence use of certain federal lands. Outside of Alaska, the Bureau of Indian Affairs oversees reservations set aside for particular tribes. Some of the land on these reservations is allotted to individuals and some to the tribe as a whole. The BIA and tribal government may conduct forest management on these lands. There are about 18 million acres of forested lands on these reservations.
			The treaties that the federal government negotiated with the tribes in the 19th century

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
			sometimes guaranteed tribes rights outside of the lands reserved for them. In particular the so-called "Stevens treaties," negotiated by Territorial Governor Isaac Stevens with tribes in the Pacific Northwest, typically included language like this: The right of taking fish, at all usual and accustomed grounds and stations, is further secured to said Indians in common with all other citizens of the Territory, and of erecting temporary houses for the purpose of curing them, together with the privileges of hunting, gathering roots and berries, and pasturing their horses on open and unclaimed lands.
			The tribes, states, and federal government have often been in court arguing over the meaning of this language. It is now well-settled that members of certain Northwest tribes have rights to fish and hunt outside their reservations, subject to tribal regulation but only subject to state and federal regulation if necessary to preserve a species. The national forests are considered "open and unclaimed lands." The national parks are not.
			The Indian Self Determination and Education Assistance Act of 1975 greatly increased indigenous people's control of their own rights.
			The UN Report of the Special Rapporteur on the rights of indigenous peoples, Addendum on the United States, lists 168 concerns that native
			peoples expressed to the special rapporteur about their human rights, treaty rights, and other legal rights during a 12-day fact finding mission. Some of these were intra-tribal. Many had nothing to do
			with natural resources. But some, like the Sioux claims to federal land in the Black Hills, involve

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
			forested lands. The Black Hills claim offers one illustration of the nature of these issues. In 1980 the US Supreme Court affirmed a \$106 million judgment against the federal government for taking Native American land in the Black Hills of South Dakota. The Sioux Nation rejected the judgment, however. They did not want compensation. They wanted the land. If there were a timber sale on that federal land today, the legal position would be clear: the land belongs to the federal government and the federal government can sell the trees. There is no violation of law. Nevertheless, talks between the federal government and the tribes on the future of the land are ongoing. There are disagreements and controversies over Native American rights, and there are concerns that the country could do more to meet the letter and spirit of the non-legally binding Declaration of the Rights of Indigenous Peoples. But there does not seem to be a great deal of clearly illegal activity regarding Native Americans and forests.
	Trade	and transport	
1.16 Classificatio n of species, quantities, qualities	<ul> <li>Applicable laws and regulations</li> <li>US state laws on the cutting of timber and required payment of taxes.</li> <li>The general laws against defrauding the United States are in 18 U.S. Code Chapter 47,</li> <li>The BLM regulation prohibiting timber theft and fraud: 43 CFR § 5462.2,</li> </ul>	Laws Federal - The general laws against defrauding the United States: 18 U.S. Code Chapter 47, http://www.law.cornell.edu/uscode/t ext/18/part-l/chapter-47. - The BLM regulation prohibiting timber theft and fraud: 43 CFR § 5462.2,	Low risk There is potential that there are specified risks in this category at a sub-national level. Further assessment of this category at a sub-national level has been recommended by the Consultant. Based on consultation feedback (including from FSC US, low risk has been designated and eventual further verification will take place through the NRA process.

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	The federal False Claims Act, 31 USC § 3729–3733 - allows the government to collect treble damages in a civil suit for making false claims on the government, and allows private citizens to prosecute such cases if the government fails to. Every state has laws against fraud. Legal Authority Regulated through state laws Criminal cases for fraud will be prosecuted on the federal level by U.S. Attorneys or other US Department of Justice attorneys, and on the state level by District Attorneys or their equivalents (the titles of the state prosecuting officials vary, but District Attorney is the most common title). Civil cases can be brought be the party claiming the loss, or in the case of federal False Claims Act cases, by any citizen. Legally required documents or records State and counties require documents, such as load tickets or reports providing this information. Generally, in fraud cases the key documents will be any contracts covering the sale of the timber, and any records about the volume, species, and quality of the timber sold.	http://www.law.cornell.edu/cfr/text/4 3/5462.2. - The federal False Claims Act: 31 USC § 3729–3733, http://www.law.cornell.edu/uscode/t ext/31/subtitle-III/chapter- 37/subchapter-III, allows the government to collect treble damages in a civil suit for making false claims on the government, and allows private citizens to prosecute such cases if the government fails to. <b>References</b> Government Accountability Project. Undated." Field Guide to Timber Theft: Understanding Timber Sales, the Contract, and the Law". [http://www.bark- out.org/sites/default/files/bark- docs/Field_Guide_toTimber_Theft.p df]. Jeffrey Kent (2012). "Guest Viewpoint: The timber racket: A culture of corruption and political payoffs harms the land and ourselves". Eugene, Oregon, Register-Guard Newspaper. Reprinted at [http://olympicforest.org/wp- content/uploads/2014/03/227.pdf]. Public Employees for Environmental Responsibility	US state laws provide regulations for the cutting of timber and required payment of taxes. These requirements include a report showing the kinds, quantities and value of the harvested timber, and this information is required to be reported to the state/county. The sources of information above paint a disturbing picture, but for the federal lands, the sources discuss fraud in the 1980s and '90s. The lack of more recent reports and the apparent closure of the Government Accountability Project's Forest Program give hope that the problems identified have been addressed. On private lands, the problem is probably ongoing, especially for smaller and less sophisticated landowners. It would seem prudent for buyers and sellers to take steps to prevent and detect fraud, such as having a third party verify timber cruises and scaling, and investigating the reputation of the firms involved in timber transactions. This national level risk assessment has identified that there may be specified risks in this category at a sub-national level, but further assessment of this category at a sub-national level would be necessary to determine this.

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
		(1996). "Unindicted Co-conspirator: Timber Theft and the US Forest Service". PEER White Paper. [http://www.peer.org/assets/docs/w hitepapers/1996_unindicted_co- conspirator.pdf].	
		Public Employees for Environmental Responsibility (1997). "Bureau of Mismanagement: Timber Sale Maladministration". [http://www.peer.org/assets/docs/w hitepapers/1996_unindicted_co- conspirator.pdf].	
		Sourht Carolina Forestry Commission(2010). "Don't Be A Victim Of Timber Transaction Crime Information For Forest Landowners in South Carolina". [http://www.state.sc.us/forest/timber val.htm].	
		Massachusetts Woodland Steward (2000). "Under-Your-Nose Timber Scams". [http://daviesand.com/Services/Tim ber_Sales/Timber_Scams/index.ht ml].	
1.17 Trade	Applicable laws and regulations	Laws	Low risk
and transport	The US does not impose any form of export tax on exported goods, including US hardwood exports. The only significant export prohibition for wood products affects unprocessed logs harvested from state and federal lands west of the 100th meridian.	<i>Federal</i> - The Lacey Act, 16 USC § 3372, http://www.law.cornell.edu/uscode/t ext/16/3372	International and interstate commerce is regulated through requirements within the Lacey Act. US state laws provide regulations for transport such as wood load tickets.

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	Trade and transport laws only applying to international trade are discussed below under "Customs regulations." The Lacey Act, 16 USC § 3372, , makes it a federal offence to (1) import, export, transport, sell, receive, acquire, or purchase any plant taken in violation of tribal or federal law; (2) to import, export, transport, sell, receive, acquire, or purchase in interstate or foreign commerce any plant— (i) taken, possessed, transported, or sold in violation of any law or regulation of any State, or any foreign law, that protects plants or that regulates— (I) the theft of plants; (II) the taking of plants from a park, forest reserve, or other officially protected area; (III) the taking of plants strom an officially designated area; or (IV) the taking of plants without, or contrary to, required authorization; (ii) taken, possessed, transported, or sold without the payment of appropriate royalties, taxes, or stumpage fees required for the plant by any law or regulation of any State or any foreign law; or (iii) taken, possessed, transported, or sold in violation of any limitation under any law or regulation of any State, or under any foreign law, governing the export or transhipment of plants. The states have varying requirements concerning timber transport, including rules aimed at discouraging timber theft or mislabelling in transport. Every state also has laws governing vehicle registration and safe operation, which may include special laws for logging and log transport vehicles. For example, there may be limits on vehicle length or requirements about securing loads that apply specifically to log trucks. Oregon Revised Statutes (ORS) § 164.813 requires written permission from the landowner to transport larger volumes of	State - Oregon: Oregon Revised Statutes (ORS) § 164.813, ORS § 164.825 - https://www.oregonlegislature.gov/b ills_laws/lawsstatutes/2013ors164.h tml. ORS Chapter 532 - https://www.oregonlegislature.gov/b ills_laws/lawsstatutes/2013ors532.h tml. - Vermont: 13 Vermont Statutes Annotated, Chapter 77 § 3609, http://www.leg.state.vt.us/statutes/fu llchapter.cfm?Title=13&Chapter=07 7. - Virginia: Code of Virginia §§ Title 59.1, Chapter 8. https://leg1.state.va.us/cgi- bin/legp504.exe?000+cod+TOC590 10000080000000000	"The Lacey Act now makes it unlawful to import, export, transport, sell, receive, acquire, or purchase in interstate or foreign commerce any plant, with some limited exceptions, taken in violation of the laws of a U.S. State or any foreign law that protects plants." There are other federal laws regulating interstate commerce. No indication was found that timber transport crimes are a serious concern of land owners or government. On balance, this category has been assessed as low risk.

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	certain special forest products including firewood. ORS § 164.825 makes it unlawful to cut or transport more than five coniferous trees without written permission from the landowner. The laws specify what information the written permission must contain.		
	ORS Chapter 532 deals with branding of forest products, in other words, the placing of marks identifying the source or owner of the products. Branding of forest products being shipped by road, rail, or water is mandatory in the western part of the state and voluntary in the eastern part. (The most commercially valuable forests are in the western part of the state.) The state maintains a registry of brands.		
	Vermont Statutes Annotated, Chapter 77 § 3609, - Vermont requires a transporter to have a bill of sale or other written evidence of ownership. Vermont does not register brands, but does have penalties for defacing or stealing marked logs. 13		
	Code of Virginia §§ Title 59.1, Chapter 8 - Virginia does not appear to require permits or permission to transport timber, but Virginia has a voluntary branding system intended for logs moved by water. Timber owners register their brands with the clerk of the state circuit court in their county.		
	Legal Authority		
	Regulated through Lacey Act and via state laws.		
	State transport laws are probably going to be enforced largely by state and local police, in cooperation with forestry authorities.		
	In states that have timber branding programs, the responsible offices will vary. In Virginia, for example, the clerks of the circuit courts keep the branding records. In Oregon, the Department of Forestry approves brands and keeps the records.		
	Violations of the federal Lacey Act can be policed by state and		

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	local officials, and also by the enforcement arms of the federal land management agencies, wildlife agencies, or the Federal Bureau of Investigation. Civil and criminal prosecutions of the Act will most often be brought by the prosecutors in the federal Department of Justice.		
	Legally required documents or records		
	State and counties require documents, such as load tickets or reports providing this information.		
	Documentation will vary by state. In Oregon and Vermont, for example, there will be written permission statements or bills of sale from landowners.		
1.18	Applicable laws and regulations	Laws	Low risk
Offshore trading and transfer pricing	ansfer since are higher than state rates, the greatest concern is ext/26/482.	The international tax standard, developed by OECD and supported by the UN and the G20, provides for full exchange of information on request in all tax matters without regard to a domestic tax interest requirement or bank secrec for tax purposes. Currently all 30 OECD member countries, including USA have endorsed and agreed to implement the international tax standard. Furthermore, all offshore financial	
		CFR § 1.482-0, http://www.law.cornell.edu/cfr/text/2	centers accept the standard.
			USA has exchange of information relationships with 84 jurisdictions through 61 DTCs and 31
	Legal Authority	References	TIEAs.
	The federal Internal Revenue Service implements and enforces US tax laws.	Internal Revenue Service IRS (2014). "IRS Transfer Pricing Audit Roadmap".	There is extensive regulation through the Internal Revenue Service (IRS) via the Internal Revenue code.
	State and local revenue agencies implement state and local laws.	[http://www.irs.gov/pub/irs- utl/FinalTrfPrcRoadMap.pdf].	The risk of transfer pricing is limited to multi- jurisdiction firms. This will eliminate from concern
	Legally required documents or records	KPMG (2013). "Global Transfer	government land owners, small non-industrial land

Tax returns and financial records will be the primary evidence of		Risk designation and determination
profits made and taxes paid. Independent audits of financial records or tax returns may shed light on possible transfer payment issues. Through the "APA" Program, a company in doubt about the transfer pricing laws can seek formal guidance from the IRS before the company files its taxes. In that case, there should be a written agreement signed with the IRS explaining how the laws apply to the company's transactions.	Pricing Review - TAX - United States". [http://www.kpmg.com/Global/en/Iss uesAndInsights/ArticlesPublications /global-transfer-pricing- review/Documents/united-states- v2.pdf]. KPMG (2011). "United States: State tax implications of transfer pricing issues". [http://www.us.kpmg.com/microsite/t axnewsflash/tp/2011/TNFTP11_49 US.html]. Web site of state transfer pricing links: http://www.transferpricing.com/usst ate.htm Internal Revenue Service IRS (1999). "Report on the Application and Administration of Section 482". [http://www.irs.gov/pub/irs- pdf/p3218.pdf]. Kelly Phillis Erb. (2012). "IRS brings "A-Team" to crush Transfer Pricing Abuse". Forbes. [http://www.forbes.com/sites/kellyph illipserb/2012/03/27/irs-brings-a- team-to-crush-transfer-pricing- abuse/]. OECD United States - OECD Anti-	owners, and most small to medium enterprises involved in logging and processing. Only the larger firms are likely to have international or multi-state arms that would support the kinds of transactions needed for transfer pricing. In a 1999 report to Congress, the IRS estimated the potential federal tax revenue gap from transfer pricing to be \$2.8 billion per year, of which it was detecting 61% through audits. IRS. 1999. Report on the Application and Administration of Section 482. Since then, the IRS has had some high- profile settlements with large multi-national corporations and has stepped up its enforcement efforts. Kelly Phillis Erb. 2012. According to that article, most of the abuse is thought to be in the high-tech and pharmaceutical sectors. The risk of illegal transfer pricing is low in most US forest operations, but when dealing with large companies with extensive international operations, some evidence of compliance, such as the report of a government or third-party auditor, would be reassuring.

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
		<ul> <li>implementation of the OECD Anti-Bribery Convention in the United States: http://www.oecd.org/daf/anti- bribery/unitedstates-oecdanti- briberyconvention.htm.</li> <li>International Transfer Pricing Journal: http://www.ibfd.org/IBFD- Products/International-Transfer- Pricing-Journal-All-Articles (find 'United States')</li> <li>Exchange of Tax Information Portal - United States: http://www.eoi- tax.org/jurisdictions/US#agreement</li> </ul>	
1.10	Applicable lowe and requisitions	S	Low rick
1.19 Custom regulations	<ul> <li>Applicable laws and regulations</li> <li>Lacey Act</li> <li>Customs regulations</li> <li>The Lacey Act, discussed above, prohibits the export of plants (including material from plants) that have been illegally harvested, transported, or sold.</li> <li>16 USC §§ 620-620h - Federal government has a prohibition against export of unprocessed logs harvested from federal and non-federal public lands in the western US. It also prohibits "substitution," meaning companies can't buy public lands timber and ship unprocessed logs from their own lands overseas.</li> <li>The regulations implementing these bans are in 36 CFR part 223, subparts D and F. These regulations include requirements for marking of all logs reserved for domestic processing. They also include requirements for reporting the acquisition and</li> </ul>	Laws - The Lacey Act, 16 USC § 3372, http://www.law.cornell.edu/uscode/t ext/16/3372 - 16 USC §§ 620-620h, http://www.law.cornell.edu/uscode/t ext/16/chapter-4. - The regulations implementing these bans are in 36 CFR part 223, subparts D, http://www.law.cornell.edu/cfr/text/3 6/part-223/subpart-D, and F, http://www.law.cornell.edu/cfr/text/3 6/part-223/subpart-F. - 15 CFR § 754.4, http://www.law.cornell.edu/cfr/text/1 5/754.4. References Customs & Border Patrol Import	<ul> <li>Low risk</li> <li>No reports of rates of compliance with the export bans or controls were found.</li> <li>The emphasis with the Lacey Act has been on timber imports. No discussion of its effects on exports was found.</li> <li>As long timber theft and trespass occur, there will be a risk of violating the Lacey Act with exports. Some of the exports are illegal. But there is no reliable estimate of the risk.</li> <li>On balance, the risk for this category has been assessed as low.</li> </ul>

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	processing of logs. The federal Bureau of Industry and Security, in the Department of Commerce, requires a license for the export of unprocessed western red cedar (Thuja plicata), because the wood is considered to be in short supply. 15 CFR § 754.4.	Guidelines (http://www.cbp.gov/linkhandler/cgo v/newsroom/publications/trade/iius. ctt/iius.pdf)	
	Legal Authority		
	US Customs and Border Protection, in the Department of Homeland Security, has primary responsibility for implementing and enforcing export laws. It coordinates with its sister investigative agency, Immigration and Customs Enforcement. Offices in the federal land management agencies and the Commerce Department also play a supporting role.		
	The US Department of Agriculture's Animal and Plant Health Inspection Service (APHIS) issues phytosanitation certificates for unprocessed plant products. The US does not require these for exports, but some countries require them to allow import. In the process, APHIS may become aware of unlawful exports of unprocessed logs.		
	Legally required documents or records		
	Customs declaration forms.		
	There should be paperwork on the acquisition and processing of logs from federal land. The logs themselves, upon inspection, should bear "highway yellow" colored marks.		
	There should be written licenses if western red cedar is exported.		
1.20 CITES	Applicable laws and regulations	Laws	Low risk
	Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) (Washington DC, 1973).	- The federal statute implementing CITES trade controls is Endangered Species Act § 8A, 16 U.S.C. 1537a,	No North American tree with commercial timber value is listed in the CITES Appendices. The risk
	Amendment to the Convention on International Trade in	http://www.law.cornell.edu/uscode/t	

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
	<ul> <li>Endangered Species of Wild Fauna and Flora (Art.XI) (Bonn, Germany, 23 Jun 1979).</li> <li>The federal statute implementing CITES trade controls is Endangered Species Act § 8A, 16 U.S.C. 1537a.</li> <li>The implementing regulations are in 50 CFR part 23.</li> <li>Legal Authority</li> <li>US Fish &amp; Wildlife Service, Customs &amp; Border Patrol, other federal enforcement agencies.</li> <li>The official implementing agencies for CITES in the US are the Division of Management Authority and the Division of Scientific Authority within the International Affairs Program of the US Fish and Wildlife Service.</li> <li>US Customs and Border Protection is generally charged with enforcing import and export laws.</li> <li>Legally required documents or records</li> </ul>	ext/16/1537a. - The implementing regulations are in 50 CFR part 23, http://www.law.cornell.edu/cfr/text/5 0/part-23.	of US timber exports violating CITES is therefore low.
	CITES permit		
		lue care procedures	
4.04		·	L en riele
1.21 Legislation requiring due diligence/d ue care procedures	<ul> <li>Applicable laws and regulations</li> <li>The Lacey Act amendment 2008, (the Food, Conservation, and Energy Act of 2008 expanded its protection to a broader range of plants and plant products (Section 8204. Prevention of Illegal Logging Practices).</li> <li>The Lacey Act now makes it unlawful to import, export, transport, sell, receive, acquire, or purchase in interstate or foreign commerce any plant, with some limited exceptions, taken in violation of the laws of a U.S. State or any foreign law that protects plants.</li> <li>Legal Authority</li> </ul>	Laws Federal - Amendments to the Lacey Act from H.R.2419, Sec. 8204 - http://www.aphis.usda.gov/plant_he alth/lacey_act/downloads/backgrou ndredlinedLaceyamndmnt forestsmay08.pdf - Federal Register: Interim Final Rule Common Food Crop and Common Cultivar Definitions. https://www.google.com.au/url?sa=t &rct=j&q=&esrc=s&source=web&cd	Low risk DECLARATION - Compliance with the declaration requirement is necessary to successfully import a timber product. It is currently unknown how well are people actually completing the declarations DUE CARE - No comprehensive data on compliance levels available. High profile Gibson Guitar Case - Even before the case was settled, the 2009 investigations of Gibson had a significant impact on sourcing practices within the music industry. Instrument

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
Indicator		Sources of Information =2&cad=rja&uact=8&ved=0CCUQFj AB&url=http%3A%2F%2Fwww.aphi s.usda.gov%2Fplant_health%2Flac ey_act%2Fdownloads%2FAPHIS- 2009- 0018.pdf&ei=Wfq0VJHCHoSW8Q Wn_IHYBw&usg=AFQjCNE2QbyiW nYN1QGi6dg8YuWID77Ebg&sig2=1 kAvWwxXUZaGaHUCXvGmAQ&bv m=bv.83339334,d.dGc - Federal Register: Advance Notice of Proposed Rulemaking, June 30, 2011 - http://www.aphis.usda.gov/plant_he alth/lacey_act/downloads/APHIS- 2010-0129-0001.pdf - Federal Register: Implementation of Revised Lacey Act Provisions, February 28, 2011 (PDF: 146KB) - http://www.aphis.usda.gov/plant_he alth/lacey_act/downloads/APHIS- 2008-0119-0259.pdf - Federal Register: Common Food Crops and Common Cultivars Definitions, August 4, 2010 (PDF; 55 Kb) - http://www.aphis.usda.gov/plant_he alth/lacey_act/downloads/Proposed CC-Definition.pdf - Federal Register: Implementation of Revised Lacey Act Provisions, September 2, 2009 (PDF; 60 Kb) - http://www.aphis.usda.gov/plant_he alth/lacey_act/downloads/Proposed CC-Definition.pdf - Federal Register: Implementation of Revised Lacey Act Provisions, September 2, 2009 (PDF; 60 Kb) - http://www.aphis.usda.gov/plant_he alth/lacey_act/downloads/2008- 0119.pdf	Risk designation and determination makers essentially stopped buying Malagasy rosewood and ebony, which had been illegal to harvest in Madagascar since 2006, as a result of these visible enforcement actions. In addition, the spotlight the case placed on the illegal Malagasy rosewood and ebony trade also led to crackdowns in China on Chinese importers of this material. The Amendments increasingly are leading companies to focus on monitoring their own supply chains and to adopt compliance programs to help ensure that their plant products come from legal sources. Given the high profile nature of the Gibson Guitar Case, as well as the trade declaration requirement being mandatory, it is likely that there is a good level of knowledge of the Lacey Act requirements. Given the requirements are not proactive in the same way as those in Europe, it is also likely that levels of compliance are reasonably high for timber produced in the USA. On balance, the risk for this category has been assessed as low.
		- Federal Register: Implementation of Revised Lacey Act Provisions,	

Indicator	Applicable laws and regulations, legal Authority, & legally required documents or records	Sources of Information	Risk designation and determination
		February 3, 2009 (PDF; 61 Kb) - http://www.aphis.usda.gov/plant_he alth/lacey_act/downloads/FederalR egister02-03-2009.pdf - Federal Register: Implementation of Revised Lacey Act Provisions, October 8, 2008 (PDF; 59 Kb) - http://www.aphis.usda.gov/plant_he alth/lacey_act/downloads/FederalR egisterNoticeLaceyActImplementati onPlan.pdf	
		References - Environmental Investigation Agency EIA (2012). "Lacey Act has teeth: US gets serious about illegal logging - EIA". [http://eia- global.org/blog/lacey-act-has-teeth- us-gets-serious-about-illegal- logging]. - Marcus Asner and Katherine Ghilain (2014). "The 2008 Lacey Act Amendments and the Fight Against Illegal Logging" Arnold & Porter LLP, Bloomberg Law - http://www.bna.com/the-2008-lacey- act-amendments-and-the-fight- against-illegal-logging/ - Pervaze A. Sheikh (2012). "The Lacey Act: Compliance Issues Related to Importing Plants and Plant Products". Congressional Research Service. http://www.law.umaryland.edu/mars hall/crsreports/crsdocuments/R4211 9_07242012.pdf	

Recommended control measures N/A

## Risk assessment

Indicator	Sources of information	Functional scale	Risk designation and determination
5.1	Prof. Steven Strauss, Oregon State University. (Personal conversation).	N/A	Low risk
	http://oregonstate.edu/ua/ncs/archives/2013/dec/significant-advance-		well as research plots.
	reported-genetically-modified-poplar-trees		Currently an application for commercial timber use of GM eucalyptus is being evaluated. A decision is expected to
			be given within 2015. If this petition will be approved

	there will be no requirements to register/regulate the MU using GMO trees, every GMO that has been deregulated has been analysed by FDA, USDA, and/or EPA and has thus been regulated prior to this.
	AND (3) Other available evidence does not challenge 'low risk' designation.
	Currently there is no use of GMO trees for commercial use, but the US might be close to approve the use of such. If this happens it will not be possible to identify the use of that GMO to a certain MU, which is why there might be specified risk in the future. But as the situation is now in the US there are no commercial GMO timber trees.

GMO Context Question	Answer
1. Is there any legislation covering GMO (trees)?	Yes. GMO trees are not regulated under a specific GMO legislation, but regulated under general health, safety and environmental legislation governing conventional products.
	The agencies responsible for oversight of the products of agricultural modern biotechnology are the U.S. Department of Agriculture's Animal and Plant Health Inspection Service (USDA-APHIS), the U.S. Environmental Protection Agency (EPA), and the Department of Health and Human Services' Food and Drug Administration (FDA). Depending on its characteristics, a product may be subject to review by one or more of these agencies.
	The United States does not have any federal legislation that is specific to genetically modified organisms (GMOs). Rather, GMOs are regulated pursuant to health, safety, and environmental legislation governing conventional products. The US approach to regulating GMOs is premised on the assumption that regulation should focus on the nature of the products, rather than the process in which they were produced.
2. Does applicable legislation for the area under assessment include a ban for commercial use of GMO (trees)?	No, but it does require a specific license approval and EIA that goes through a rigorous process.

3. Is there evidence of unauthorized use of GM trees?	No. Case has been brought up in court, but none have been acknowledged and thus there is no evidence to state that there has been unauthorized use of GM trees.
	(On July 1, 2010, several environmental groups sued APHIS to block authorization of field trials of GE eucalyptus, alleging various violations of the National Environmental Policy Act and the Endangered Species Act. (They lost the case). On October 6, 2011, the Court ruled in USDA's favor on all counts, finding that APHIS' EA was fully sufficient).
4. Is there any commercial use of GM trees in the country or region?	No
5. Are there any trials of GM trees in the country or region?	Yes. Approval for field trial plots has been given since 1989. At Information System for biotechnologyVirginia tec University (ISB VT) the approved research plots can be found
	(http://www.isb.vt.edu/search-release-data.aspx).
6. Are licenses required for commercial use of GM trees?	Yes. There has to be authorization. Eucalyptus (Cold resistant, Male sterile) are being considered for approval, which is expected to be decided within 2015. This could end up in court delaying the use of GMO. For commercial use an Environmental examination before authorizing is required (Environmental Impact Statement).
7. Are there any licenses issued for GM trees relevant for the area under assessment? (If so, in what regions, for what species and to which entities?)	No. Currently only research plots, but application for commercial use of eucalyptus are being evaluated.
8. What GM 'species' are used?	Mostly Poplar and Eucalyptus for field trial. (Also other species are being field tested, e.g. Sweet gum, chestnut)
9. Can it be clearly determined in which MUs the GM trees are used?	No. Currently the research plots has to be disclose to the level of the county, but not down to MU level. Once a license is given for commercial use no registration or tracking of GMO is required.

## **Recommended control measures**

N/A