Family: ***Cupressaceae***

Taxon: ***Cupressus arizonica***

Synonym: ***Common Name:*** Arizona cypress

Questionaire : current 20090513 **Assessor:** Patti Clifford **Designation:** H(HPWRA)

Status: Assessor Approved **Data Entry Person:** Patti Clifford **WRA Score 15**

101	**Is the species highly domesticated?**	**y=-3, n=0**	**n**
102	**Has the species become naturalized where grown?**	**y=1, n=-1**	
103	**Does the species have weedy races?**	**y=1, n=-1**	
201	**Species suited to tropical or subtropical climate(s) - If island is primarily wet habitat, then substitute "wet tropical" for "tropical or subtropical"**	**(0-low; 1-intermediate; 2-high) (See Appendix 2)**	**High**
202	**Quality of climate match data**	**(0-low; 1-intermediate; 2-high) (See Appendix 2)**	**High**
203	**Broad climate suitability (environmental versatility)**	**y=1, n=0**	**y**
204	**Native or naturalized in regions with tropical or subtropical climates**	**y=1, n=0**	**y**
205	**Does the species have a history of repeated introductions outside its natural range?**	**y=-2, ?=-1, n=0**	**y**
301	**Naturalized beyond native range**	**y = 1*multiplier (see Appendix 2), n= question 205**	**y**
302	**Garden/amenity/disturbance weed**	**n=0, y = 1*multiplier (see Appendix 2)**	**n**
303	**Agricultural/forestry/horticultural weed**	**n=0, y = 2*multiplier (see Appendix 2)**	**n**
304	**Environmental weed**	**n=0, y = 2*multiplier (see Appendix 2)**	**y**
305	**Congeneric weed**	**n=0, y = 1*multiplier (see Appendix 2)**	**y**
401	**Produces spines, thorns or burrs**	**y=1, n=0**	**y**
402	**Allelopathic**	**y=1, n=0**	**y**
403	**Parasitic**	**y=1, n=0**	**n**
404	**Unpalatable to grazing animals**	**y=1, n=-1**	
405	**Toxic to animals**	**y=1, n=0**	**n**
406	**Host for recognized pests and pathogens**	**y=1, n=0**	
407	**Causes allergies or is otherwise toxic to humans**	**y=1, n=0**	**y**
408	**Creates a fire hazard in natural ecosystems**	**y=1, n=0**	**n**
409	**Is a shade tolerant plant at some stage of its life cycle**	**y=1, n=0**	**n**
410	**Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)**	**y=1, n=0**	**y**
411	**Climbing or smothering growth habit**	**y=1, n=0**	**n**

412	**Forms dense thickets**	**y=1, n=0**	**n**
501	**Aquatic**	**y=5, n=0**	**n**
502	**Grass**	**y=1, n=0**	**n**
503	**Nitrogen fixing woody plant**	**y=1, n=0**	**n**
504	**Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)**	**y=1, n=0**	**n**
601	**Evidence of substantial reproductive failure in native habitat**	**y=1, n=0**	**y**
602	**Produces viable seed**	**y=1, n=-1**	**y**
603	**Hybridizes naturally**	**y=1, n=-1**	
604	**Self-compatible or apomictic**	**y=1, n=-1**	
605	**Requires specialist pollinators**	**y=-1, n=0**	**n**
606	**Reproduction by vegetative fragmentation**	**y=1, n=-1**	**n**
607	**Minimum generative time (years)**	**1 year = 1, 2 or 3 years = 0, 4+ years = -1**	**>3**
701	**Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)**	**y=1, n=-1**	**y**
702	**Propagules dispersed intentionally by people**	**y=1, n=-1**	**y**
703	**Propagules likely to disperse as a produce contaminant**	**y=1, n=-1**	**n**
704	**Propagules adapted to wind dispersal**	**y=1, n=-1**	**y**
705	**Propagules water dispersed**	**y=1, n=-1**	
706	**Propagules bird dispersed**	**y=1, n=-1**	**n**
707	**Propagules dispersed by other animals (externally)**	**y=1, n=-1**	**n**
708	**Propagules survive passage through the gut**	**y=1, n=-1**	**n**
801	**Prolific seed production (>1000/m2)**	**y=1, n=-1**	
802	**Evidence that a persistent propagule bank is formed (>1 yr)**	**y=1, n=-1**	**y**
803	**Well controlled by herbicides**	**y=-1, n=1**	
804	**Tolerates, or benefits from, mutilation, cultivation, or fire**	**y=1, n=-1**	**y**
805	**Effective natural enemies present locally (e.g. introduced biocontrol agents)**	**y=-1, n=1**	

Designation: H(HPWRA) **WRA Score** **15**

Supporting Data:

101	2011. WRA Specialist. Personal Communication.	[Is the species highly domesticated? No] No evidence of domestication that reduces invasive ability.
102	2011. WRA Specialist. Personal Communication.	[Has the species become naturalized where grown?] NA
103	2011. WRA Specialist. Personal Communication.	[Does the species have weedy races?] NA
201	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Species suited to tropical or subtropical climate(s) - If island is primarily wet habitat, then substitute "wet tropical" for "tropical or subtropical"?] Latitude between 35 degrees North and 27 degrees North.
201	2011. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network (GRIN) [Online Database Index]. National Germplasm Resources Laboratory, Beltsville, Maryland. http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Species suited to tropical or subtropical climate(s) - If island is primarily wet habitat, then substitute "wet tropical" for "tropical or subtropical"] Native range: United States - New Mexico, Texas, Arizona, California; Mexico - Baja Norte [n.], Chihuahua, Coahuila, Durango, Nuevo Leon, San Luis Potosi, Sonora, Tamaulipas, Zacatecas.
202	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Quality of climate match data?] Latitude between 35 degrees North and 27 degrees North
202	2011. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network (GRIN) [Online Database Index]. National Germplasm Resources Laboratory, Beltsville, Maryland. http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Quality of climate match data?] Native range: United States - New Mexico, Texas, Arizona, California; Mexico - Baja Norte [n.], Chihuahua, Coahuila, Durango, Nuevo Leon, San Luis Potosi, Sonora, Tamaulipas, Zacatecas.
203	1993. Sullivan, J.. Cupressus arizonica . In: fire effects information system [online]. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory, http://www.fs.fed.us/database/feis/plants/tree/cupari/all.h	[Broad climate suitability (environmental versatility)? Yes] "Arizona cypress is generally found at elevations from 3,000 to 8,000 feet (900-2,400 m) on gravelly slopes or cuts with northern exposure."
203	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Broad climate suitability (environmental versatility) ? Yes] Climatic amplitude (estimates) - Altitude range: 0 - 2400 m - Mean annual rainfall: 300 - 600 mm - Rainfall regime: winter - Dry season duration: 0 - 4 months - Mean annual temperature: 6 - 20ºC - Mean maximum temperature of hottest month: 18 - 40ºC - Mean minimum temperature of coldest month: -9 - 2ºC - Absolute minimum temperature: > -35ºC
203	2006. Gilman, E.F./Wantson, D.G.. Cupressus arizonica var. arizonica: Arizona cypress ENH381. University of Florida IFAS Extension, http://edis.ifas.ufl.edu/pdffiles/ST/ST22200.pdf	[Broad climate suitability (environmental versatility)?] USDA Hardiness zones: 7a-9b.
203	2011. Eckenwalder, J.E.. Cupressus arizonica Flora of North America Vol. 2. efloras.org, http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=200005413	[Broad climate suitability (environmental versatility)? Yes] Canyon bottoms, pinyon-juniper woodland, chaparral; 750--2000 m; Ariz., Calif., N.Mex., Tex.; Mexico.
204	2011. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network (GRIN) [Online Database Index]. National Germplasm Resources Laboratory, Beltsville, Maryland. http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Native or naturalized in regions with tropical or subtropical climates? Yes] Native range: United States - New Mexico, Texas, Arizona, California; Mexico - Baja Norte [n.], Chihuahua, Coahuila, Durango, Nuevo Leon, San Luis Potosi, Sonora, Tamaulipas, Zacatecas.
205	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Does the species have a history of repeated introductions outside its natural range? Yes] Extensively planted in Europe, South Africa, and Kenya.
205	2005. Staples, G.W./Herbst, D.R.. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI	[Does the species have a history of repeated introductions outside its natural range? Yes] Cupressus arizonica has been used for reforestation in Hawaii at 2,500' elevation. More than 10,000 trees were planted between 1910 and 1950.

301	2003. Hosking, J.R./Conn, B.J./Lepschi, B.J.. Plant species first recognised as naturalised for New South Wales over the period 2000-2001. Cunninghamia. 8: 175-187.http://www.rbgsyd.nsw.gov.au/__data/assets/pdf_file/0003/58908/Cun8Hos175.pdf	[Naturalized beyond native range? Yes] Naturalized in New South Wales, Australia. "The species is known to be naturalised in a few localities near existing plantings in NSW Tableland areas. At Majors Creek plants are growing in an area that was Eucalyptus radiata forest but is now cleared and dominated by mowed Themeda australis. Here it is growing on soil derived from granite. At Blackheath this species is growing in disturbed native Eucalyptus sieberi and Eucalyptus oreades shrubby woodland on sandy soil derived from sandstone."
302	2007. Randall, R.. Cupressus arizonica. Hawaii Invasive Species at Risk (HEAR), http://www.hear.org/gcw/species/cupressus_arizonica/	[Garden/amenity/disturbance weed? No] No evidence.
303	2007. Randall, R.. Cupressus arizonica. Hawaii Invasive Species at Risk (HEAR), http://www.hear.org/gcw/species/cupressus_arizonica/	[Agricultural/forestry/horticultural weed? No] No evidence.
304	2008. Swearingen, J.M.. Survey of Invasive Plants Impacting National Parks in the United States. National Park Service, Center for Urban Ecology, Washington, DC http://www.invasive.org/weedus/surveynps.pdf	[Environmental weed? Yes] Cupressus arizonica is considered an environmental weed of Haleakala National Park, Hawaii. A 1998 survey of invasive weeds in natural areas and national parks of the United States identified species (including C. arizonica) that were causing an observable impact to natural habitat, native species or ecological functions.
305	2007. Brink, M.. Cupressus lusitanica Mill. [Internet] Record from Protabase. PROTA (Plant Resources of Tropical Africa / Ressources végétales de l'Afrique tropicale), Wageningen, Netherlands http://database.prota.org/search.htm	[Congeneric weed? Yes] Cupressus lusitanica is considered invasive in Malawi. [no mention of impacts or control].
305	2011. Caspar Community Center. Draft state of California PEF. Casparcommons.org, http://casparcommons.org/Library/EucalyptusPlan.php	[Congeneric weed? Yes] Cupressus macrocarpa is an invasive weed in Caspar Headlands State National Reserve. A main objective of a restoration project is to remove the trees from the park and revegetate with natives.
401	2006. Gilman, E.F./Wantson, D.G.. Cupressus arizonica var. arizonica: Arizona cypress ENH381. University of Florida IFAS Extension, http://edis.ifas.ufl.edu/pdffiles/ST/ST22200.pdf	[Produces spines, thorns or burrs ? Yes] "Trunk/bark/branches: branches don't droop; showy; typically one trunk; thorns."
402	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Allelopathic? Yes] "C. arizonica does not increase the fertility of the soil. Indirectly, it favours the establishment of other tree species because its acid litter reduces the surface pH of the soil." "C. arizonica was and is planted in many European countries with winter and spring frosts to reduce the frequency of fire and wind damage to crop production. Due to its dense foliage and acidic litter, Arizona cypress and smooth cypress cover the soil completely, reducing weeds and, indirectly, the risks of fire."
403	2011. Eckenwalder, J.E.. Cupressus arizonica Flora of North America Vol. 2. efloras.org, http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=200005413	[Parasitic? No] Cupressaceae.
404	2011. WRA Specialist. Personal Communication.	[Unpalatable to grazing animals?] Unknown.
405	2011. National Center for Biotechnology Information. PubMed. U.S. National Library of Medicine, Bethesda, Maryland http://www.ncbi.nlm.nih.gov/	[Toxic to animals? No] No evidence of toxicity.
405	2011. Specialized Information Services, U.S. National Library of Medicine. TOXNET toxicology data network [online database]. National Institutes of Health, http://toxnet.nlm.nih.gov/	[Toxic to animals? No] No evidence of toxicity.
406	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Host for recognized pests and pathogens?] Cupressus arizonica is very susceptible to Cinara cupressi and they are not able to recover if the attacks of this pest are severe.
407	1995. Subiza, J./Jerez, M./Jimenez, J.A./Narganes, M.J./Cabrera, M./Varela, S./Subiza, E.. The Journal of Allergy and Clinical Immunology. 96: 15-23.	[Causes allergies or is otherwise toxic to humans? Yes] A 15 year study was done in Madrid, Spain to determine the months in which the highest concentrations of allergenic pollens occur. Cupressus arizonica had among the most significant allergenic pollen with a prevalence of positive prick test results of 20%.

407	1996. Barletta,B./Afferni, C./Tinghino, R./Mari, A./Di Felice, G./Pini, C.. Cross-reactivity between Cupressus arizonica and Cupressus sempervirens pollen extracts. Journal of Allergy and Clinical Immunology. 98: 797-804.	[Causes allergies or is otherwise toxic to humans? Yes] "Cupressus arizonica and C. sempervirens, two species belonging to the Cupressaceae family, are recognized as an important cause of respiratory allergies in countries with a Mediterranean climate."
408	1993. Sullivan, J.. Cupressus arizonica . In: fire effects information system [online]. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory, http://www.fs.fed.us/database/feis/plants/tree/cupari/all.h	[Creates a fire hazard in natural ecosystems?]"Arizona cypress does tend to have a "ladder-fuel" branching habit, with many branches hanging low to the ground. In the Chisos Mountains of Big Bend National Park, Texas, downed woody fuels totalled 15.44 tons per acre (34.7 T/ha), with a litter layer continuous enough to carry fire."
408	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Creates a fire hazard in natural ecosystems?] "C. arizonica was and is planted in many European countries with winter and spring frosts to reduce the frequency of fire and wind damage to crop production. Due to its dense foliage and acidic litter, Arizona cypress and smooth cypress cover the soil completely, reducing weeds and, indirectly, the risks of fire."
409	1993. Sullivan, J.. Cupressus arizonica . In: fire effects information system [online]. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory, http://www.fs.fed.us/database/feis/plants/tree/cupari/all.h	[Is a shade tolerant plant at some stage of its life cycle? No] "Cypress seedlings are shade intolerant and survive best in full sunlight on bare mineral soils.
409	2006. Gilman, E.F./Wantson, D.G.. Cupressus arizonica var. arizonica: Arizona cypress ENH381. University of Florida IFAS Extension, http://edis.ifas.ufl.edu/pdffiles/ST/ST22200.pdf	[Is a shade tolerant plant at some stage of its life cycle? No] Full sun.
410	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)? Yes] Soil and physiography: For optimal growth, cypresses of the Arizona group need limestone soils; they do not tolerate humid soils or sandy soils. Arizona cypress tolerates a wide range of pH: from 5.5 to 8.3. Soils of the native range are coarse and rocky or granitic and limestone soils on hilly terrains at high altitudes, but in Europe cypresses grow better on fertile soils in the hills and mountains of Italy, France and Greece. Soil descriptors - Soil texture: medium - Soil drainage: free - Soil reaction: neutral; alkaline - Special soil tolerances: shallow - Soil types: calcareous soils; clay soils; granite soils; limestone soils; sandstone soil
410	2006. Gilman, E.F./Wantson, D.G.. Cupressus arizonica var. arizonica: Arizona cypress ENH381. University of Florida IFAS Extension, http://edis.ifas.ufl.edu/pdffiles/ST/ST22200.pdf	[Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)? Yes] "Soil tolerances: sand, loam, acidic, alkaline, well-drained.
411	2011. Eckenwalder, J.E.. Cupressus arizonica Flora of North America Vol. 2. efloras.org, http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=200005413	[Climbing or smothering growth habit? No] Trees to 23 m.
412	2011. WRA Specialist. Personal Communication.	[Forms dense thickets? No] No evidence.
501	2011. Eckenwalder, J.E.. Cupressus arizonica Flora of North America Vol. 2. efloras.org, http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=200005413	[Aquatic? No] Terrestrial. Tree.
502	2011. Eckenwalder, J.E.. Cupressus arizonica Flora of North America Vol. 2. efloras.org, http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=200005413	[Grass? No] Cupressaceae.
503	2011. Eckenwalder, J.E.. Cupressus arizonica Flora of North America Vol. 2. efloras.org, http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=200005413	[Nitrogen fixing woody plant? No] Cupressaceae.

504	2011. Eckenwalder, J.E.. Cupressus arizonica Flora of North America Vol. 2. efloras.org, http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=200005413	[Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)? No] Tree.
601	1993. Sullivan, J.. Cupressus arizonica . In: fire effects information system [online]. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory, http://www.fs.fed.us/database/feis/plants/tree/cupari/all.h	[Evidence of substantial reproductive failure in native habitat? Yes] "The limited distribution of Arizona cypress varieties in the United States has raised concerns about the risk of its extinction [68]. Posey and Goggans [49] reported that they observed little Arizona cypress reproduction anywhere in the Southwest (no specific data, however) and were concerned that a low reproductive rate may threaten the existence of the species."
602	2006. Gilman, E.F./Wantson, D.G.. Cupressus arizonica var. arizonica: Arizona cypress ENH381. University of Florida IFAS Extension, http://edis.ifas.ufl.edu/pdffiles/ST/ST22200.pdf	[Produces viable seed? Yes] Propagate by seed or grafting."
603	1981. Silba, J.. Revised generic concepts of Cupressus L.. Phytologia. 49: 390-399.http://biostor.org/cache/pdf/63/16/bb/6316bb4a503f0b1caf55665cb6ea1c67.pdf	[Hybridizes naturally?] Cupressus arizonica var. glabra is a possible hybrid between Cupressus arizonica and Cupressus bakeri.
604	2011. WRA Specialist. Personal Communication.	[Self-compatible or apomictic?" Unknown.
605	2009. Williams, C.G.. Conifer reproductive biology. Springer, http://www.springerlink.com/content/978-1-4020-9601-3#section=44385&page=1	[Requires specialist pollinators? No] Wind pollinated.
606	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Reproduction by vegetative fragmentation? No] Vegetative propagation by cuttings; grafting.
607	2011. Johnson, L.C./Karrfalt, R.P.. Cupressus L.. http://www.nsl.fs.fed.us/wpsm/Cupressus.pdf	[Minimum generative time (years)? >3] Female cone production often occurs on trees less than 10 years old, but collectable quantities don't usually occur until later. [genus description]
701	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)? Yes] Extensively planted in Europe, South Africa, and Kenya for forestry plantations. [seeds can be transported on machinery]
702	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Propagules dispersed intentionally by people? Yes] Extensively planted in Europe, South Africa, and Kenya.
703	2011. WRA Specialist. Personal Communication.	[Propagules likely to disperse as a produce contaminant? No] No evidence of produce contamination. [not grown with produce]
704	2003. Hosking, J.R./Conn, B.J./Lepschi, B.J.. Plant species first recognised as naturalised for New South Wales over the period 2000-2001. Cunninghamia. 8: 175-187.http://www.rbgsyd.nsw.gov.au/__data/assets/pdf_file/0003/58908/Cun8Hos175.pdf	[Propagules adapted to wind dispersal? Yes] Wind dispersed seed.
704	2011. Johnson, L.C./Karrfalt, R.P.. Cupressus L.. http://www.nsl.fs.fed.us/wpsm/Cupressus.pdf	[Propagules adapted to wind dispersal? Yes] "Cypress seeds vary widely in shape and size. Length with wings attached ranges from 2 to 8 mm; width dimensions are slightly less." [genus level description]
705	2011. WRA Specialist. Personal Communication.	[Propagules water dispersed?] Unknown.
706	2011. Eckenwalder, J.E.. Cupressus arizonica Flora of North America Vol. 2. efloras.org, http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=200005413	[Propagules bird dispersed? No] "Seed cones globose or oblong, mostly 2--3 cm, gray or brown, often glaucous at first; scales mostly 3--4 pairs, smooth or with scattered resin blisters, sometimes with erect conic umbos to 4 mm, especially on apical scales. Seeds mostly 4--6 mm, light tan to dark brown, not glaucous to heavily glaucous."
706	2011. Johnson, L.C./Karrfalt, R.P.. Cupressus L.. http://www.nsl.fs.fed.us/wpsm/Cupressus.pdf	[Propagules bird dispersed? No] "Cypress seeds vary widely in shape and size. Length with wings attached ranges from 2 to 8 mm; width dimensions are slightly less." [genus description]
707	2011. Eckenwalder, J.E.. Cupressus arizonica Flora of North America Vol. 2. efloras.org, http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=200005413	[Propagules dispersed by other animals (externally)? No] "Seed cones globose or oblong, mostly 2--3 cm, gray or brown, often glaucous at first; scales mostly 3--4 pairs, smooth or with scattered resin blisters, sometimes with erect conic umbos to 4 mm, especially on apical scales. Seeds mostly 4--6 mm, light tan to dark brown, not glaucous to heavily glaucous."
707	2011. Johnson, L.C./Karrfalt, R.P.. Cupressus L.. http://www.nsl.fs.fed.us/wpsm/Cupressus.pdf	[Propagules dispersed by other animals (externally)? No] "Cypress seeds vary widely in shape and size. Length with wings attached ranges from 2 to 8 mm; width dimensions are slightly less." [genus level description]

708	2005. Staples, G.W./Herbst, D.R.. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI	[Propagules survive passage through the gut? No] Seeds 0.15-0.2" long. [probably not]
801	2011. WRA Specialist. Personal Communication.	[Prolific seed production (>1000/m2)?] Unknown.
802	1993. Sullivan, J.. Cupressus arizonica . In: fire effects information system [online]. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory, http://www.fs.fed.us/database/feis/plants/tree/cupari/all.h	[Evidence that a persistent propagule bank is formed (>1 yr)? Yes] "Seeds do not appear to have innate dormancy; they remain viable for a number of years in unopened cones and germinate when moistened."
802	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Evidence that a persistent propagule bank is formed (>1 yr)? Yes] Seed storage orthodox. "When seeds are ripe (18 months after pollination), the mean size of cones is 20-25 mm long and 20-22 mm wide. Shortly after seed maturity, trees shed seeds, but it is common for the cones to remain unopened for several years in clusters (serotinous cones) and they frequently hang on for many years after shedding their seeds."
803	2011. WRA Specialist. Personal Communication.	[Well controlled by herbicides?] Unknown.
804	1993. Sullivan, J.. Cupressus arizonica . In: fire effects information system [online]. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory, http://www.fs.fed.us/database/feis/plants/tree/cupari/all.h	[Tolerates, or benefits from, mutilation, cultivation, or fire? Yes] "The lack of regeneration in these stands can be interepreted as resulting from fire exclusion and the absence of suitable sites for regeneration; Arizona cypress may therefore be considered a fire climax."
804	2011. Eckenwalder, J.E.. Cupressus arizonica Flora of North America Vol. 2. efloras.org, http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=200005413	[Tolerates, or benefits from, mutilation, cultivation, or fire?] Trees to 23 m, shrubby where subject to fires.
805	2011. WRA Specialist. Personal Communication.	[Effective natural enemies present locally (e.g. introduced biocontrol agents)?] Unknown.