

# Forest Carbon Incentives in Washington



AMERICAN FORESTS  
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# From the proviso...

- “Compiling and providing access to information on existing opportunities for carbon compensation services and other incentive based carbon reducing programs to assist owners of private and other nonstate owned or managed forestland interested in voluntarily engaging in carbon markets.”
- “The department must also describe any barriers, including costs, to the use of voluntary, incentive-based carbon reducing or sequestering programs.”

# Methods

1. Data call from agencies coupled with internet-based research.
2. Examined and classified 49 incentives: type, carbon nexus, origin, etc.
3. Compilation into spreadsheet.
4. Completed preliminary retrospective assessment (2009 – 2019) of estimated funding to Washington nonstate landowners, acreage, and carbon sequestered.

# Carbon Nexus Definitions

## I. Reforestation

Carbon is sequestered through the creation or re-establishment of forests via planting natural regeneration and related activities.

## II. Avoided conversion

Forests with a high likelihood of carbon loss due to conversion to agriculture or development are conserved to retain forest as forest, usually legally binding activities.

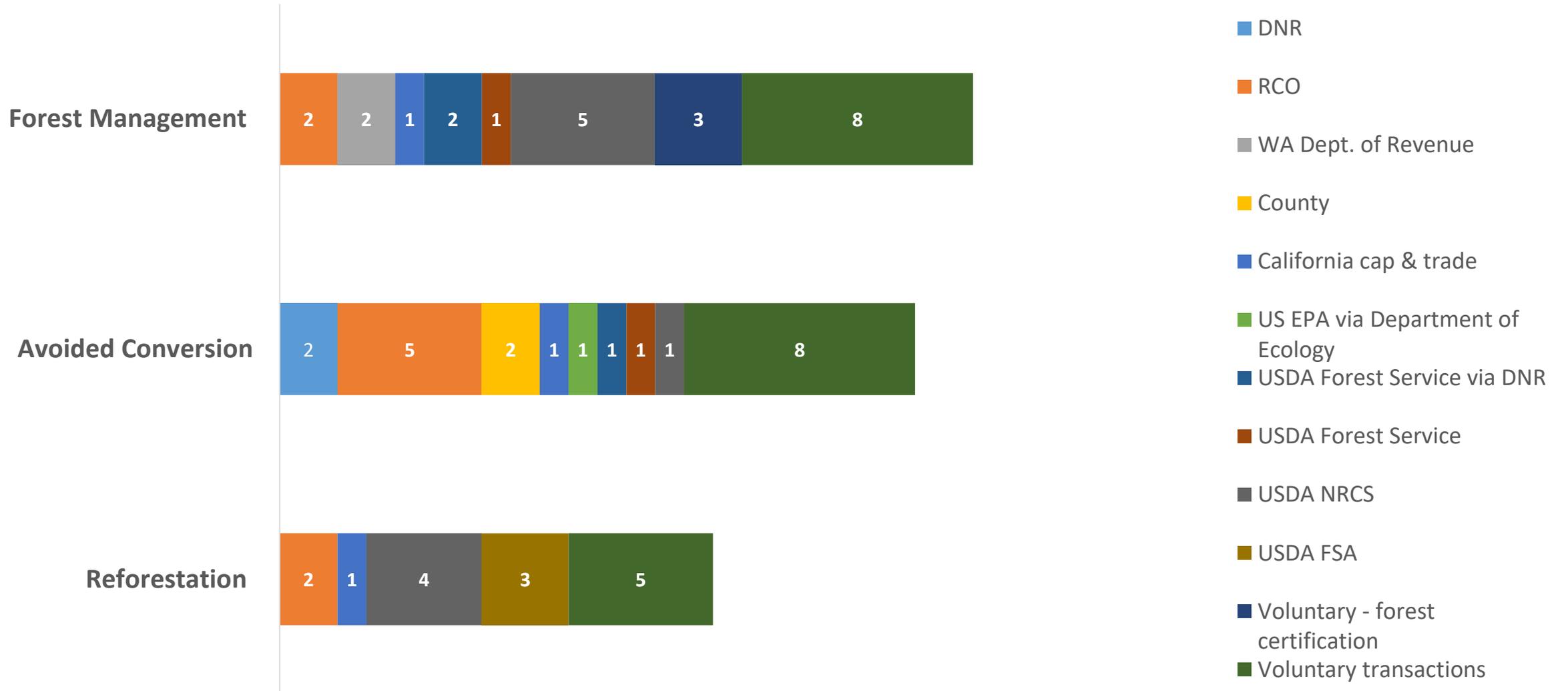
## III. Forest management

Additional carbon is sequestered or carbon loss is minimized through increasing productivity, improving forest health, reducing harvest impact, maintaining high stocking, increasing rotation age, or other management actions.

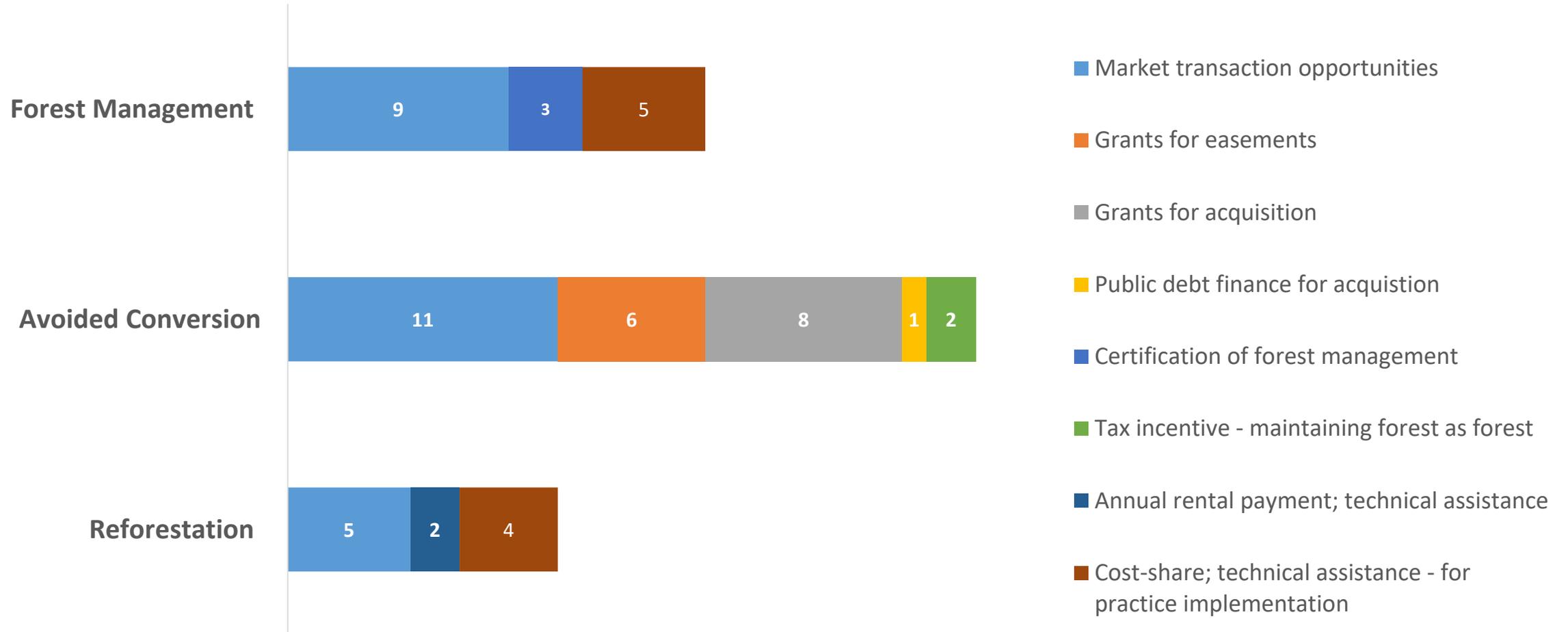
# INCENTIVE TYPE AND LENGTH OF COMMITMENT BY CARBON NEXUS

CARBON NEXUS	INCENTIVE TYPE	LENGTH OF COMMITMENT
Reforestation	Annual rental payment	10 - 15 years eligible for re-enrollment
	Carbon offset methodology	25 years; +30 years; +100 years
	Practice cost-share	1 - 5 years
Avoided conversion	Grants for easement or acquisition	10 years; 30 years; 50 years; +100 years; Permanent
	Carbon offset methodology	100 years; Permanent
	TDR market	Permanent
	Public debt finance for acquisition	Permanent
Forest management	Carbon offset methodology	1 year; 5 years; 20 years; 40 years; +100 years
	Practice cost-share	1 - 5 years; 10 years; 30 years

# NUMBER OF INCENTIVES ARRAYED BY CARBON NEXUS



# INCENTIVE PROGRAM TYPE BY CARBON NEXUS



# FARM BILL INVESTMENTS (2009 - 2019)—EQIP, CSP, RCPP, CREP, WHIP-discontinued)

Practice	Carbon Nexus	Number of Projects	Acres	Payment
666 - Forest stand improvement	Forest management	1,320	31,801	\$ 6,356,836
380 - Windbreak/shelterbelt establishment	Reforestation	47	35	\$ 33,996
422 - Hedgerow planting	Reforestation; adding trees to agricultural landscapes	125	574	\$ 176,723
381 - Silvopasture establishment	Reforestation; adding trees to agricultural landscapes	6	44	\$ 17,240
490 - Site prep for tree/shrub establishment	Reforestation	621	5,012	\$ 910,192
612 - Tree/shrub establishment	Reforestation	1,137	12,204	\$ 4,045,008
391 - Riparian forest buffer establishment	Reforestation	86	415	\$ 380,866
CREP. Establishing a riparian forest buffer.	Reforestation	555	3,947	TBD
CRP	Reforestation	As of 2017, there were 10,903 contracts on 1,204,101 acres.		
<b>TOTAL</b>		<b>3,897</b>	<b>54,032</b>	<b>\$11,920,860</b>

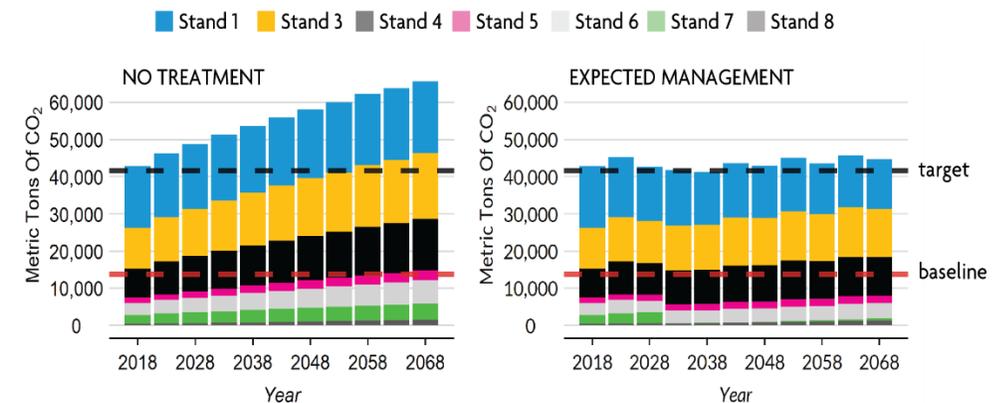
# REGIONAL CONSERVATION PARTNERSHIP PROGRAM

A flexible partnership program: innovation, leveraging federal and non-federal funds, targeting NRCS financial and technical assistance programs (e.g. EQIP, CSP, HFRP, etc.) to co-invest in problems and places. Opportunity for AFAs.

**Example 1:** SW WA Small Forestlands Conservation Partnership. EQIP, CSP, and HFRP FA and TA leveraged with state resources.



**Example 2:** Unlocking Carbon Markets for Family Forest Owners. Innovative use of EQIP TA and FA ranking to leverage private resources (foundation grants, venture capital, carbon market investment) to help landowners assess and access carbon markets and/or implement carbon mgmt. plans and practices.



# CONSERVATION STEWARDSHIP PROGRAM

- Nationally, more funding is now coming through CSP than any other Farm Bill program; rewards the engaged landowner (i.e. a small forest owner who has a management plan).
- CSP includes new practices that are geared towards enhanced carbon sequestration and emissions mitigation.

## EXAMPLES

### Reforestation

- E612130Z - Planting for high carbon sequestration rate \$763/acre
- E391 A-C - Increase riparian forest buffer width to enhance wildlife habitat \$1,740 - \$11,769/acre
- E612A - Cropland conversion to trees or shrubs for long term improvement of water quality \$890/acre

### Forest management

- E666130Z - Increase on-site carbon storage \$15/acre
- E666106Z2 - Maintaining and improving forest soil quality \$44/acre
- E666132Z2 - Reduce forest stand density to improve a degraded plant community \$305/acre
- E666133Z1 - Creating structural diversity with patch openings in dry western forests \$1,153/acre
- E384135Z - Biochar production from woody residue \$6,260/acre

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Carbon nexus	Incentive type	Funding source	Program/Incentive Name	Currently Identified Acres (2009 – 2019)	
Reforestation	Practice cost-share	Federal	Conservation Stewardship Program (CSP)	14	21,000
			Wildlife Habitat Incentives Program (WHIP)	39	
			Regional Conservation Partnership Program (RCPP)	52	
			Environmental Quality Incentives Program (EQIP)	16,930	
	Annual rental payment	Federal & state	Conservation Reserve Enhancement Program (CREP)	3,947	
	Market transaction	Market	City Forest Credits -Tree Planting	1.5	
Avoided conversion	Grants for acq. & eas.	Federal	Forest Legacy Program (FLP)	42,390	72,000
	Public debt finance - acq.	Federal and state	Clean Water State Revolving Loan Fund (SRF)	5,471	
	Market transaction	Market	City Forest Credits - Tree Preservation	15	
			"Rural Forest" TDR - King County	4,526	
	Grants for easement	State	Rivers and Habitat Open Space Program (RHOSP)	1,117	
			Forest Riparian Easement Program (FREP)	6,201	
	Grants for acquisition	Federal	Community Forest and Open Space Program	3,161	
		Federal & state	Salmon Recovery and Puget Sound Acq. & Res. (PSAR)	1,068	
		State	Estuary and Salmon Restoration Program (ESRP)	644	
			RCO WWRP	7,588	
Forest management	Practice cost-share	Federal	Conservation Stewardship Program (CSP)	1	530,000
			Regional Conservation Partnership Program (RCPP)	51	
			Wildlife Habitat Incentives Program (WHIP)	801	
			Environmental Quality Incentives Program (EQIP)	30,950	
	Market transaction	Market	VCS IFM in Temperate and Boreal Forests	880	
			California Compliance IFM	487,938	
			ACR IFM	10,088	

**DRAFT**

Does not include: tax incentives, county Conservation Futures, federal Conservation Reserve Program, federal Emergency Forest Restoration Program (EFRP), federal & state Forest Stewardship Program and Forest Health Protection program, King County TDRs classified as "Rural" and "Agriculture," RCO easement of acquisition of parcels lacking > 95% tree canopy cover or acquisitions by state agencies, or any data on forest certification.

## BARRIERS AND LIMITATIONS BY CARBON NEXUS

Carbon nexus	Incentive type	Length of commitment	Potential Barriers and Limitations
Reforestation	Annual rental payment	10 - 15 yrs eligible for re-enrollment	Funding amount is limited; perceived opportunity cost; potentially temporary.
	Carbon offset	25 yrs; +30 yrs; +100 yrs	Lack of demand for ex ante crediting (changing? e.g. Climate Forward).
	Practice cost-share	1 - 5 yrs	Cost-share may not include financial and technical assistance to optimize survival.
Avoided conversion	Grants for easement & acq.	10 yrs; 30 yrs; 50 yrs; +100 yrs; Permanent	Land is expensive; term-easements via HFRP are new and lack funding; financing involves multiple sources.
	Carbon offset	100 years; Permanent	Land is expensive; limitations for landowners based on ownership type, parcel size, and forest condition (e.g. carbon stocking).
	TDR market	Permanent	Land is expensive
	Public debt for acq.	Permanent	Land is expensive
Forest management	Carbon offset	1 yr; 5 yrs; 20 years; 40 years; +100 yrs	High transaction costs; high opportunity costs; project lengths can be long; limitations for landowners based on ownership type, parcel size, and forest condition (e.g. carbon stocking).
	Practice cost-share	1 - 5 yrs; 10 yrs; 30 yrs	Technical assistance just beginning to address carbon sequestration; carbon sequestration-specific cost-share is just now available, e.g. in CSP and RCPP but it is not being utilized.

# Next Steps

1. Incorporate additional incentives based on CSAG feedback.
2. Acquire and compile additional data that is helpful for:
  - Assisting landowners
  - Describing barriers
3. Revise preliminary retrospective assessment (2009 – 2019) of: estimated funding to WA landowners, acreage, and carbon sequestered.



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