

**DIFFERENTIATION AMONG AGGREGATORS OFFERING
MANAGED FOREST OFFSET CONTRACTS FOR THE CCX**
(February 2009)

Acronyms

ACF Association of Consulting Foresters
 CF Certified Forester
 CFI Carbon Financial Instrument of CCX (carbon payment)
 CCX Chicago Climate Exchange
 FSP Forest Stewardship Plan
 SAF Society of American Foresters
 XFO Exchange Forestry Offset (carbon credit)

Contract

	AgraGate	Delta	Forecon
Minimum acreage	none	none	250 target
Contract final year	2010 with auto-renewal until 2022 or terminated	2012	until terminated
Carbon debit due to harvest	spread over period quantified; attributed to project owner	shared equally among pool participants if credits prev. sold	replacement by project owner with banked or other credits
Level at which sampling error discount calculated	pool	pool	individual project
Vintage credits	available	available	available
Wood product credits	available	available if documented	avail. if docum.+ carbon ownership retained
Aggregation fee (% of gross revenue)	10%	10%	10%
Verification fee	\$0.10-0.20 per credit, depending on pool	proportional to contributed credits	included in Aggregation fee
Transfer fee to other Aggregator	10% of value of credits	not specified	Early exit requires: <ul style="list-style-type: none"> ▪ payment (time + mtrls) for project develop. verific. + consulting ▪ commissions on all registered credits
Trading time⁺	net proceeds distributed up to semi-annually	annually	annually
Interim payment basis	average net contribution to pool	sold XFOs	in accordance with sequest. performance of specific project
Non-compliance	cancellation of CFI's in amount equal to previously issued XFOs + possible ban from future participation in CCX	return quantity of carbon credits for project years or pay their equivalent cost + possible ban from future participation in CCX	reimbursement of carbon credits, financial penalties, hourly svc charges for loss of certification or noncompliance

Currently available as far back as 2003 only if qualified baseline inventory performed prior to contract year.

⁺ At Aggregator's discretion, subject to specified constraint.

Inventory

	AgraGate	Delta	Forecon
Fixed-radius plot size (ac)	0.1 or	0.1, 0.2, or	0.2, 0.1, or other
Variable radius plot (BAF)	10	10 or 20	10, 20, or other
Understory plot size (ac)	0.01, common center w/ overstory plot*	0.01, at each sample point*	nested fixed-radius plots acceptable
Seasonal restriction	none	dormant ⁺	none
Minimum sampling intensity (plots)	<ul style="list-style-type: none"> ▪ 10 per stand ▪ 1 per 40 ac 	<ul style="list-style-type: none"> ▪ to achieve target error $\leq 20\%$ at 90% confid. for volume ▪ 10% error is target for pool 	<ul style="list-style-type: none"> ▪ at least 2 per stand w/guidelines for different tract sizes ▪ to achieve min. stat. std of $\pm 10\%$ at 90% confid. for volume
Sampling design	systematic grid	<ul style="list-style-type: none"> ▪ systematic grid or random sample ▪ stands as large as possible 	<ul style="list-style-type: none"> ▪ systematic grid with random start ▪ min. stand size 20 ac (w/exceptions) ▪ monumented centers (GPS)
Stratification	<ul style="list-style-type: none"> ▪ heavy v light stocking ▪ sawlog v pulpwood ▪ pine v hardwood ▪ planned harvest 	<ul style="list-style-type: none"> ▪ forest cover type ▪ sawlog v sapling ▪ planned harvest 	required on project-specific basis
Stand parameters	<ul style="list-style-type: none"> ▪ site index + species (USDA Soil Surv.) ▪ age ▪ forest cover type ▪ size class 	<ul style="list-style-type: none"> ▪ site index + species (USDA /Soil Surv.) ▪ age ▪ forest cover type 	according to region-specific industry std
Maps + photos delineating property, stands, plots	<ul style="list-style-type: none"> ▪ shape file (NAD 30) ▪ cruise map 	aerial photo or shape file	shape file (ArcView) or Topo/Orthophoto paper map
Overstory plot msmts	For trees ≥ 4.6 in. dbh, tally: <ul style="list-style-type: none"> ▪ species (FVS alpha) ▪ dbh in 1-in. classes 	For trees ≥ 4.6 in. dbh, tally: <ul style="list-style-type: none"> ▪ species (USFS code) ▪ dbh in 1-in. classes ▪ live/dead ▪ leave/cut (optional) ▪ diam. incr. (optional) 	For trees ≥ 1.1 in. dbh, digitally tally (Two Dog, Access or Excel): <ul style="list-style-type: none"> ▪ species (code provided) ▪ dbh in 2-in. classes ▪ merchantable height ▪ no. merch. 16' sawlogs ▪ defect in 10% increm.
Understory plot msmts	For plants >12 in. ht and <4.6 in. dbh, tally: <ul style="list-style-type: none"> ▪ species (FVS alpha) 	For plants >12 in. ht and <4.6 in. dbh, tally: <ul style="list-style-type: none"> ▪ species (USFS code) ▪ ht in 1-ft increments 	n/a
Qualified forester	recommended	Requires one of: <ul style="list-style-type: none"> ▪ SAF CF ▪ state-registered ▪ ACF member ▪ FSP Writer w/for.deg. 	Recommends one of: <ul style="list-style-type: none"> ▪ SAF CF ▪ ACF member
True-up	<ul style="list-style-type: none"> ▪ after harvest $>20\%$ ▪ end of 15-yr contract ▪ not req'd if opt out of contract in 2010 	<ul style="list-style-type: none"> ▪ for areas affected by harvest or catastrophe ▪ not at end of contract unless CCX requires 	<ul style="list-style-type: none"> ▪ for areas affected by harvest or catastrophic events

* Carbon sequestration estimates will be reduced by the lack of replacements for pole-sized trees moving into higher size classes in the growth and yield model if (optional) understory plots not sampled.

⁺ Inventories in the growing season are acceptable if client willing to forego carbon credits in that year.

Other Services

	AgraGate	Delta	Forecon
Web-based	none	none	<ul style="list-style-type: none">▪ mapping▪ current carbon stocks
Sub-aggregator agreement	Forest Service Provider, if used, receives up to 10% of net revenue	separate work agreement could allow consulting forester to treat carbon credit program like timber sale by disbursing revenue minus costs	<ul style="list-style-type: none">▪ competitive fee schedules for pools from sub-aggregator, depending on tasks assumed and carbon credit volume▪ sub-aggregator fees self-determined

The above matrices were verified by representatives of the Aggregators in February 2009:

David Krog, AgraGate Climate Credits Corporation, www.agragate.com

Todd K. Parker, Delta Institute, delta-institute.org

Brock D. Carlson, Forecon EcoMarket Solutions LLC, www.foreconinc.com

Prepared by Peter Becker, Research Coordinator, Eastern Ozarks Forestry Council, www.eofc.org.