## Fiscal Year 2009 Allocation Formulas and Methodologies



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#### **Executive Summary**

Since fiscal year (FY) 2006, the Natural Resources Conservation Service (NRCS) has utilized allocation formulas and methodologies for most conservation programs. These program specific allocation formulas and methodologies are designed to have a natural resource, fact-based foundation that is consistent with each program's statutory purpose. They reflect national program priorities in a state-specific manner and are transparent and repeatable.

While each program allocation formula or methodology is specific to the program's purpose, at a broad view they all utilize four basic elements:

- 1. <u>Factor Categories</u> Consistent grouping of factors in categories that relate programmatic focus and performance.
- 2. <u>Merit-Based Factors</u> Specific areas of focus within a category that relate to the program's purpose(s) and objectives.
- 3. Factor Weights Proportional amount a factor contributes to the total.
- 4. <u>Data</u> State-specific data obtained through validated credible sources.

Consistent use of these elements helps to ensure that NRCS program formulas are natural resource focused, transparent, based on state-specific data, equitable/defensible/repeatable, and are reflective of program purpose(s) and national priorities. Program formulas also are designed to improve the relation between fund distribution and conservation needs, and thus create an opportunity to build programs in all states where there is a corresponding conservation need regardless of historical program activity.

During FY's 2007 and 2008, due to internal efforts and in response to external recommendations, NRCS improved the allocations formulas in several areas:

<u>Optimizing Factors</u> - NRCS has optimized the number of factors in the allocation formulas to increase transparency and understanding as well as better address program priorities and statutory intent. This includes both reducing factors that were redundant and adding new factors where appropriate.

<u>Consistency</u> - NRCS has worked to ensure consistency in formulas for like programs, using the same factors and data where appropriate.

<u>Data Definitions and Sources</u> - NRCS has worked to ensure that the most appropriate and current validated data, with common and agreed upon definitions, are the basis of our allocations formulas. Data comes from credible sources with nationwide data sources.

<u>Improved Documentation</u> – In an effort to increase transparency and facilitate understanding of our allocations formulas, NRCS has worked to improve the written explanations of our formulas and methodologies for FY 2009.

<u>Enhanced State Specificity</u> – NRCS has incorporated state-specific data, including NRCS Activity Based Cost (ABC) data, to capture differences in state technical assistance requirements in some factors.

<u>Cost of Program Model</u> – NRCS is incorporating new data from its Cost of Programs Model to determine financial and technical Assistance proportional requirements for mandatory conservation programs.

<u>Outcome-Based Performance</u> - Using the GAO EQIP Audit, (September 22, 2006) as a guide and considering external recommendations, NRCS has incorporated outcome-based performance measures where possible in allocation formulas. As other data on environmental outcomes becomes available, data will be evaluated for possible inclusion in the program formulas.

<u>Factor Weighting Methodology</u> – To increase transparency, NRCS has utilized "Paired Comparison," a scientifically based methodology, as part of the process to determine program formula factor weights. (See Appendix A for more information on Paired Comparison)

Within this report, 15 program allocation formulas and methodologies are identified:

	Program	Funding*
1	Conservation Technical Assistance Program (CTA)	TA
2	Grazing Land Conservation Initiative (GLCI)	TA
3	Resource Conservation and Development Program (RC&D)	TA
4	Conservation Reserve Program (CRP)	TA (NRCS)
5	Environmental Quality Incentives Program (EQIP)	TA & FA
6	Environmental Quality Incentives Program - Conservation	TA & FA
	Innovative Grants: Air Quality (AQ EQIP)	
7	Wildlife Habitat Incentives Program (WHIP)	TA & FA
8	Agricultural Management Assistance Program (AMA)	TA & FA
9	Chesapeake Bay Watershed Initiative (CWBI)	TA & FA
10	Wetlands Reserve Program (WRP)	TA & FA
11	Farm and Ranchland Protection Program (FRPP)	TA & FA
12	Grassland Reserve Program (GRP)	TA & FA
13	Watershed Rehabilitation Program	TA & FA
14	Watershed Protection and Flood Prevention Program	TA & FA
15	Emergency Watershed Protection (EWP) Program	TA & FA

<sup>\*</sup> Technical Assistance (TA) programs are presented first. These are programs in which NRCS does not provide any Financial Assistance (FA) to producers, only technical expertise. Programs that provide both Financial Assistance (FA) to producers, as well as Technical Assistance (TA) are then presented. Factors are listed by category as follows, in alphabetical order: Resource Base Factors, Resource Quality Factors, Cost of Doing Business Factors, and Performance Factors.

Because of the project-based nature of the Watershed Rehabilitation Program, Watershed Surveys and Planning Program, and the Watershed and Flood Prevention

Operations Program, a formula is not applicable. In these programs a method of prioritizing funding is utilized.

Though many programs use similar or common factors, each program is unique and therefore each formula is different in this report.

For each program formula all factors are listed with supporting information including the factor category, the factor source, the factor definition, and the rationale for the factor.

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### Regional Equity

Regional Equity is a Farm Bill funding provision requiring NRCS to give priority in specific conservation programs to approved applicants in States that have not received a minimum allocation of \$15,000,000 before April 1<sup>st</sup> of each fiscal year.

Regional Equity involves the following conservation programs: Conservation Stewardship Reserve Programs (CStP), Farm and Ranchland Protection Program (FRPP), Grassland Reserve Program (GRP) GRP, Environmental Quality Incentives Program (EQIP), Agriculture Water Enhancement Program (AWEP), Conservation of Private Grazing Lands (CPGL), Wildlife Habitat Incentives Program (WHIP), Chesapeake Bay Watershed Initiative (CBWI), Grassroots Source Water Protection Program, Great Lakes Basin Program, and Voluntary Public Access and Habitat Incentive Program.

Regional Equity is a statutory funding requirement that shifts overall funding levels between States as compared to the results of agency merit-based allocation formulas.

The Regional Equity provision does not affect eligibility for conservation programs; however, because the provision can shift funding from one State to another, it does affect funding availability within certain conservation programs.

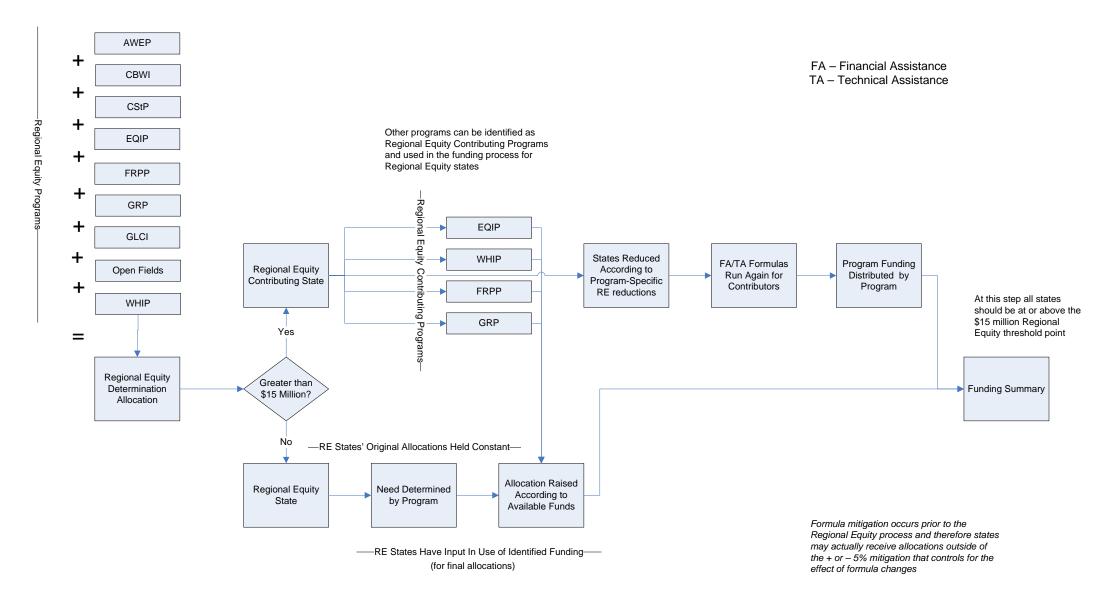
#### Regional Equity is calculated through a series of steps:

- <u>Determine each States' initial allocations</u>: Available program funding is divided between all States through a merit-based, natural resource focused allocation process at the National Level. This is the process described in the rest of this document.
- <u>Determine Regional Equity funding need:</u> After the initial allocation, each State's funding is aggregated for the Regional Equity programs (CStP + FRPP + GRP + EQIP + CIG + AWEP + CPGL + WHIP + CWBI + Grassroots Source Water Protection Program + Great Lakes Basin Program + Voluntary Public Access and Habitat Incentive Program). If a State's total of Regional Equity program funding is less than the \$15 million threshold, then it is considered a Regional Equity State.
- Establish contribution programs and fund levels: Based on program funding levels, the Chief of NRCS determines which Regional Equity programs are able to be 'contribution programs' for Regional Equity States. Contribution programs redistribute funds to Regional Equity states to meet Regional Equity requirements. In FY 2009 the Chief of NRCS determined EQIP, FRPP, WHIP, and GRP to be contribution programs. All non-Regional Equity States' initial allocations are reduced within these contributing programs to bring all states to the \$15 million threshold. In consultation with State Technical Committees, and evaluating program applications, historic program interest, State priorities and resource concerns, each Regional Equity State will determine its percentage of contribution program funding.

A high level process map of the Regional Equity calculation is presented on the next page.

### Regional Equity (RE) High-Level Process Overview FY 2009





### **Technical Assistance Programs**

Conservation Technical Assistance (CTA) Program
Grazing Land Conservation Initiative (GLCI)
Resource Conservation and Development (RC&D) Program

## **BOOK I**



### Fiscal Year 2009

# Conservation Technical Assistance Program Allocation Formula



#### **Purpose and Authority**

The purpose of the Conservation Technical Assistance (CTA) Program is to provide people with the science-based tools and technology to help them conserve, maintain, and improve their natural resources. This technical assistance includes: site-specific conservation planning; development of engineering designs; and non-financial assistance with the installation of conservation practices on the land. NRCS provides this assistance to individuals, groups, and communities who make natural resource management decisions on private, tribal, and other non-federal lands. The overall intent of the CTA Program is to:

- Reduce soil loss from erosion;
- Solve soil, water quality, water conservation, air quality, and agricultural waste management problems;
- Reduce potential damage caused by excess water and sedimentation or drought;
- Enhance the quality of fish and wildlife habitat;
- Improve the long-term sustainability of cropland, forestland, grazing lands, coastal lands, and developed and/or developing lands;
- Facilitate changes in land use for natural resource protection and sustainability.

The CTA Program was established and authorized by Congress through the following legislation:

- Soil Conservation and Domestic Allotment Act of 1935 (Public Law 74-46) (16 U.S.C. 590 a-g), (590q), as amended:
- Soil Information Assistance for Community Planning and Resource Development Act of 1966 (Public Law 89-560) (42 U.S.C., Chapter 40, Sections 3271-3274);
- Soil and Water Resources Conservation Act of 1977 (Public Law 95-192);
- Land Conservation and Land Utilization Act of 1981(Public Law 97-98);
- The Food Security Act of 1985 Title XII, Conservation, as amended through Public Law 109-171;
- Annual Congressional appropriation bills that fund the agency.

CTA Program funds are used for technical assistance only. There are no cost-share or financial assistance dollars associated with the CTA Program. However, the technical assistance provided under the CTA Program can facilitate enrollment in Farm Bill Programs.

CTA FY 2009 Formula Factors		
Technical Assistance		
A) RESOURCE BASE FACTORS	Weight	
Farm and Ranches (no.)	8%	
Farms with Confined Animals (no.)	8%	
Federal Grazing Land Permits (no.)	1%	
Federally Recognized Tribes (no.)	5%	
Forest Land (ac.)	5%	
Grazing Land (1,000 ac.)	8%	
Irrigated Cropland (ac.)	8%	
Non-Irrigated Cropland (ac.)	8%	
Non-Traditional Participants (Index)	5%	
Riparian Areas (mi.)	5%	
Watershed Dams (O&M) (no.)	1%	
Wetlands (1,000 ac.)	5%	
B) RESOURCE QUALITY FACTORS		
Air Quality Non-Attainment Areas (Index)	1%	
At-Risk Species (no.)	4%	
Conservation Compliance Status Reviews (no.)	5%	
Cropland Eroding Above "T" (Soil Loss Tolerance) (1,000 ac.)	8%	
Impaired Streams 2008 (index)	5%	
C) COST OF DOING BUSINESS FACTORS		
Cost of Doing Business-Milken (Index)	1%	
Planning for Program Delivery (Index)	5%	
Travel (\$/SY)	1%	
D) PERFORMANCE FACTORS		
Acres of Conservation Applied (ac./FTE)	1%	
Annual Performance Measures Met (%)	2%	
Total	100%	

Factor: Farms and Ranches (no.) FA/TA:

Category: A) RESOURCE BASE FACTORS

**Source:** U.S. Census of Agriculture, 2002 – Table 1

**Definition:** Any operation from which \$1000 or more of agricultural products were produced and sold,

or normally would have been sold, during the year as reported in the US Census of Agriculture. It is not limited by the size of the operation or the type of products sold.

**Rationale:** The purpose of this factor is to identify NRCS customers in the agriculture sector and thus

serve as a measure of potential workload: the more farms and ranches, the greater the number of potential customers and thus the greater the demand for technical assistance with conservation planning and practice application. The data provides an overall picture of the distribution of agriculture in the nation and shows which States have the greatest potential demand for NRCS assistance. It is the best representation of our customer base and the CTA program, which is very broad and available to all agricultural producers across

the nation.

Factor: Farms with Confined Animals (no.) FA/TA: TA

Category: A) RESOURCE BASE FACTORS

Source: NRCS Animal Husbandry and Clean Water Division (AWCWD) (USDA), 2003

**Definition:** An estimate of all confined livestock operations expected to need a comprehensive nutrient

management plan during the fiscal year. This includes cattle, sheep, hog, horse, goat, and poultry operations. It does not include bee-keeping or aquaculture which represents a small

portion of NRCS workload and is captured in the number of Farms and Ranches.

**Rationale:** Water quality associated with confined animal feeding operations (CAFO's) is more

stringently regulated than environmental issues associated with other types of agricultural operations. This is a growing demand for NRCS which requires additional time, technical analysis, coordination with other agencies, and knowledge of local and state permitting processes. Conservation plans associated with CAFO's also involve meeting regulatory requirements. Engineering designs, evolving technology, and the need to coordinate with

state and local agencies add complexity.

Factor: Federal Grazing Land Permits (no.) FA/TA: TA

Category: A) RESOURCE BASE FACTORS

Source: Bureau of Land Management (BLM) & USDA Forest Service, 2007

**Definition:** The number of grazing permits, grazing agreements, livestock use permits or other

permitting documents on Bureau of Land Management and Forest Service land.

**Rationale:** This factor captures the additional time needed to address grazing (and farming)

operations on Federal lands that adjoin or are included in private ranching operations. In some states, private lands and public lands intermingle and must be managed as a complete unit. Working on lands controlled by other agencies takes additional time and effort before NRCS-led conservation efforts on private land can be implemented due to additional legal constraints (such as more extensive NEPA processes), the need to work with partners, and the increase in land area involved in the operation. Federal lands are best measured by the number of permits issued and are not captured in the number of

farms and ranches.

Factor: Federally Recognized Tribes (no.) FA/TA: TA

Category: A) RESOURCE BASE FACTORS

**Source:** US Department of Interior, Bureau of Indian Affairs (BIA), Division of Tribal Government

Services, 2008, and NRCS

**Definition:** Federally acknowledged tribes means any Indian tribe, band, nation, pueblo, or other

organized group or community including, any Alaska Native village or regional corporation as defined in or established pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. 1601 Et seq.), which is recognized as eligible for the special program and services

provided by the United States to Indian because of their status as Indians.

Rationale: Federally recognized tribes have sovereign nation status. NRCS interactions with them

must be conducted accordingly. Additionally, tribes, foreign countries and territories may have different approaches to an issue, may have different laws, or there may be other considerations that require additional planning time. This factor accounts for the extra demand placed on the agency in working with tribal entities and agencies (BIA) to reach agreement and build trust. This demand is continual and is additional to the regular

customer base.

Factor: Forest Land (ac.) FA/TA: TA

Category: A) RESOURCE BASE FACTORS

**Source:** NRCS Natural Resources Inventory (NRI), 2003

**Definition:** Includes private, State, Tribal, and other non-Federally owned land. Forestland is land that

is at least 10 percent stocked by single-stemmed woody species of any size that will be at least 4 meters (13 feet) tall at maturity and has an understory of vegetation that is not grazed by domestic livestock. Factor calculated by subtracting Grazed Forest Land

acreage from total Forest Land.

**Rationale:** This is land that is classified as forest but which is used primarily for purposes other than

grazing (timber harvest, nature retreats, etc). NRCS provides technical assistance on forest management practices and recreational opportunities on forested land, not just grazing management. Grazed forestland is included under grazing land since its primary land use is animal husbandry. Nearly all purposes of the CTA program can be met when

working on forestlands.

Factor: Grazing Land (1,000 ac.) FA/TA: TA

Category: A) RESOURCE BASE FACTORS

**Source:** NRCS Natural Resources Inventory (NRI), 2003

**Definition:** Total acres of pastureland, rangeland, and grazed forestland. This includes private, State,

Tribal, and other non-federally owned land. Pastureland is managed primarily for the production of introduced forage plants for livestock grazing. Pastureland may consist of a single species in a pure stand, a grass mixture, or a grass-legume mixture. Rangeland is land on which the climax or potential plant cover is composed principally of native grasses, grass-like plants, forbs or shrubs suitable for grazing and browsing, and introduced forage species that are managed like rangeland. Grasslands, savannas, some wetlands, some deserts, and tundra are considered to be rangeland. Certain communities of low forbs and shrubs, such as mesquite, chaparral, mountain shrub, and pinion-juniper, are also included as rangeland. Grazed forestland is land that is at least 10 percent stocked by single-stemmed woody species of any size that will be at least 4 meters (13 feet) tall at maturity

and has an understory of vegetation that is grazed by domestic livestock.

Rationale: Grazing land is one of the top three land use categories for which NRCS provides technical

assistance. In many western states, it is the largest land use category in terms of both size (acreage) and the percentage of customers NRCS assists. This factor addresses grazing-

related resource issues on all non-Federal lands.

Factor: Irrigated Cropland (ac.) FA/TA:

Category: A) RESOURCE BASE FACTORS

**Source:** U.S. Census of Agriculture, 2002 – Table 10

**Definition:** Land where supplemental water is applied to the soil for crop production. Irrigation is

intended to provide water requirements of plants not satisfied by rainfall. This category includes land watered by artificial or controlled means, such as sprinklers, flooding, furrows or ditches, and sub-irrigation. Water is supplied to crops by ditches, pipes, or other conduits. Water spreading is not considered irrigation. This factor includes irrigated cropland and irrigated hayland. Irrigated cropland involves development of crop rotations,

use of fertilizer and the design of irrigation systems.

Rationale: This factor recognizes the additional demand on croplands and other irrigated lands where

irrigation systems require the technical knowledge and skill needed to develop appropriate

water delivery systems.

Factor: Non-Irrigated Cropland (ac.) FA/TA:

Category: A) RESOURCE BASE FACTORS

**Source:** U.S. Census of Agriculture, 2002 – Table 1

**Definition:** Non-Irrigated cropland is used for the production of adapted crops for harvest and does not

include application of supplemental water. This factor includes all types of crop lands: commodity crops, specialty crops, non-cultivated and cultivated crops, hay land, and idle cropland. It is calculated by subtracting total acres of Irrigated Land from total acres of

Cropland.

**Rationale:** Dryland (non-irrigated) cropland production requires a general working knowledge of crop

production techniques, soils, climate, water conservation, and farming tools. Acres of non-

irrigated cropland form the basis for much of the conservation work NRCS does.

Factor: Non-Traditional Participants (Index) FA/TA: TA

Category: A) RESOURCE BASE FACTORS

Source: U.S. Census of Agriculture, 2002 and U.S. Census, 1990 & 2000

**Definition:** An index composed of three measurements: 1) Beginning Farmers or Ranchers; 2)

Socially Disadvantaged Producers; and 3) Limited Resource Producers. The percent of total for each component is weighted by .333 and summed. Hawaii and Alaska are not included in the FAPD programs factor. Alaska is not included in the factor for CTA.

**Rationale:** Underserved producers often need additional time and assistance in order to conserve

natural resources without negatively influencing their financial situation. This may include development of innovative techniques, complex cost-sharing arrangements to reduce out-of-pocket expenditures, use of grants, etc. Many NRCS programs have participation incentives for limited resource producers and CTA is used to support the planning effort

prior to program enrollment.

Factor: Riparian Areas (mi.) FA/TA: TA

Category: A) RESOURCE BASE FACTORS

Source: Federal Water Pollution Control Act (Clean Water Act) Section 305b U.S. Environmental

Protection Agency (EPA) reports, 2008 ATTAINS integrated data

http://www.epa.gov/waters/ir/

**Definition:** The total miles of rivers and streams in a state that are perennial water bodies that flow all

year and non-perennial streams that flow only during wet periods are identified in the EPA 305b report. Riparian areas are lands adjacent to streams where vegetation is strongly influenced by the presence of water. Miles of streams reported in the EPA 305b report can

be used as a surrogate for miles of riparian habitat.

**Rationale:** This factor captures the demand for streambank improvements not associated with water

quality impairment. Riparian areas are recognized as critical to wildlife and to water quality. Riparian areas occur along both impaired and non-impaired streams. NRCS partners with other agencies to develop wetlands, protect streambanks, and enhance riparian areas

outside of Farm Bill programs.

Factor: Watershed Dams (O&M) (no.) FA/TA: TA

Category: A) RESOURCE BASE FACTORS

**Source:** National Inventory of Dams, 2007

**Definition:** Number of project dams (PL-566, PL-534, RC&D) constructed by NRCS that require

annual observation (inspection) and maintenance.

**Rationale:** Once a watershed dam has been constructed, it is the responsibility of the sponsor to

perform inspection and maintenance on the structure. NRCS is responsible for ensuring that maintenance is performed by doing periodic inspections. Follow-up on dams by NRCS is funded through the CTA Program once the structure is complete, regardless of the original source of funding. This is a safety issue as well as a contract compliance issue. Therefore, NRCS must continue ensure that sponsors fulfill their O&M responsibilities.

Factor: Wetlands (1,000 ac.) FA/TA:

Category: A) RESOURCE BASE FACTORS

**Source:** NRCS Natural Resources Inventory (NRI), 2003

**Definition:** Wetlands are lands transitional between terrestrial and aquatic systems where the water

table is usually at or near the surface or the land is covered by shallow water. Wetlands must have one or more of the following three attributes: (1) at least periodically the land supports predominantly hydrophytes; (2) the substrate is un-drained hydric soil or (3) substrate is non-soil and is saturated with water or covered by shallow water some time

during the growing season each year.

**Rationale:** Wetlands are recognized as the most valuable and productive of all land types. Wetlands

require special consideration (e.g. avoidance, mitigation) and staff time beyond the norm. Wetland planning involves partnerships and other activities beyond a simple plan with the landowner. Additionally, wetlands compliance appeals are increasing in number and staff

timo

Factor: Air Quality Non-Attainment Areas (Index) FA/TA: TA

Category: B) RESOURCE QUALITY FACTORS

**Source:** Environmental Protection Agency (EPA) - Air Quality Non-Attainment Areas, June 2007

**Definition:** Total number of counties where air pollution levels persistently exceed national air quality

standards established by the Clean Air Act and reported on the EPA website. Pollutants included in the evaluation are: PM-10, PM-2.5, and 8-hour Ozone. The affected acres in each county are added together for the state to obtain the percentage of the state impacted by non-attainment. The number of standards not attained is also added for each state.

These values are converted to a numerical rating.

**Rationale:** One of the priorities of the CTA program is to address agriculture-related sources of air

pollution. National regulations were enacted for limits on particulate pollution decades ago. More recently states have enacted guidelines and rules on odor, as well. Because air pollution issues related to agriculture are a relatively new area of endeavor, additional time is needed for field employees to assist producers in assessing and addressing the issue,

as well as for state and national support staff to develop guidelines for practice

implementation.

Factor: At-Risk Species (no.) FA/TA: TA

Category: B) RESOURCE QUALITY FACTORS

Source: U.S. Fish & Wildlife Service, Threatened & Endangered Species System (TESS), 2007

**Definition:** Total number of threatened and endangered, proposed and candidate species within a

state. Species include vertebrate animals (mammals, birds, reptiles, amphibians, and fishes), invertebrate animals (clams, snails, insects, arachnids, and crustaceans), flowering

plants, and non-flowering plants (conifers and cycads, ferns and allies, and lichens).

**Rationale:** At-risk species either are protected by environmental legislation or are in the process of

being considered for coverage. Moreover, it is a CTA Program priority to improve wildlife habitat so that plant and animal populations do not decline to the point that the regulatory

restrictions of the Endangered Species Act (ESA) are required. NRCS provides

assistance, in cooperation with state and local authorities, in identifying at-risk species and their habitat and providing alternatives by which they can either avoid or mitigate impacts to

those species. Because of the sensitivity and controversy of at-risk species and their habitat, extra effort is needed by NRCS to work with state and local authorities in developing appropriate practices that avoid or reduce negative impacts yet allow the

farming or ranching operation to remain viable.

Factor: Conservation Compliance Status Reviews (no.) FA/TA: TA

Category: B) RESOURCE QUALITY FACTORS

Source: NRCS, 2007 eGov reports located under "FSA Compliance Reviews" as part of the

NRCS Integrated Accountability System (IAS) http://ias.sc.egov.usda.gov/auth/csr/Default.aspx

**Definition:** Annually, NRCS randomly selects conservation compliance plans to be spot-checked. The

number of tracts to be checked is posted online under the NRCS FSA Compliance Review website. These tracts are field-reviewed for compliance purposes to assure farms receiving commodity payments are in compliance with the Highly Erodible Lands (HEL) provisions and wetlands provisions of the 1985 Food Security Act (FSA) as amended. This is an

important and basic part of the annual CTA workload in each state.

**Rationale:** The 1985 Food Security Act put in motion the need for Conservation Compliance Plans.

As part of its continuing responsibility, NRCS must conduct status reviews for a specific number of compliance plans each year and assist customers when their conservation plan needs to be updated. This factor also includes the time spent handling compliance appeals; which are increasing in number and complexity. Each of these activities is

covered under CTA.

Factor: Cropland Eroding Above "T" (Soil Loss FA/TA: TA

Tolerance) (1,000 ac.)

Category: B) RESOURCE QUALITY FACTORS

**Source:** NRCS Natural Resources Inventory (NRI), 2003

**Definition:** Acres of land eroding greater than T. "T" is the soil loss tolerance factor expressed as the

maximum rate of annual soil loss that will permit crop productivity to be sustained economically and indefinitely on a given soil. Soil erosion is the removal of soil by water and/or wind and is calculated on cultivated cropland, non-cultivated cropland, or hayland.

**Rationale:** The "T" factor is the level at which a soil can erode (by wind or water) yet still sustain its

productivity. Soils eroding above the allowable limit decrease in productivity over time. T applies to all land uses and is the standard by which NRCS has traditionally measured the level of agricultural impacts. It is also one of the factors used to determine whether soils are considered to be highly erodible and thus in need of an HEL compliance conservation plan. While much of the highly erodible farm land in the U.S. is covered by an HEL plan, there is still a need to address erosion on non-highly erodible soils as well as a need to redesign existing HEL plans as changes occur in land ownership, types of crops produced,

farming methods, and climate.

Factor: Impaired Streams 2008 (Index) FA/TA: TA

Category: B) RESOURCE QUALITY FACTORS

Source: Federal Water Pollution Control Act (Clean Water Act) Section 303 (d) & 305(b) U.S.

Environmental Protection Agency (EPA) reports, 2008

**Definition:** An index based on the miles of impaired streams and rivers in a state. The impaired

streams and rivers data is obtained from EPA reports, both 303d and 305b on EPA's ATTAINS website: http://www.epa.gov/waters/ir/ These reports are updated biannually on a staggered schedule. State environmental agencies are responsible for identifying all waters where required pollution controls are not sufficient to attain or maintain applicable EPA water quality standards, and rank the waters according to the use and the severity of the pollution problem. These "water quality limited" bodies, reported in the 305b and 303d lists are expected to exceed water quality standards in the next two years and need

additional pollution controls.

**Rationale:** EPA establishes water quality standards and classifies impaired streams through its 303(d)

report. Listed streams are targeted for TMDL regulation. Producers increasingly seek NRCS assistance in addressing potential pollution from pesticides and fertilizers, erosion and sedimentation, fecal colliform, and temperature changes related to irrigation water use. States, Conservation Districts, and other agencies are engaged in measuring and monitoring water pollution from agriculture, therefore, inclusion of impaired streams as a factor captures the time NRCS invests in assisting producers and Districts in their efforts to meet regulatory standards. Knowledge of regulations, ability to develop conservation practices that fit specific situations, and the need to work collaboratively with regulatory

agencies are key skills which require time and experience to develop.

Factor: Cost of Doing Business-Milken (Index) FA/TA: TA

Category: C) COST OF DOING BUSINESS

**Source:** Milken Institute, Cost of Doing Business Index, 2007

**Definition:** Each state receives a rating based upon the level of cost for wages, taxes and support

costs in that state. This number serves as an indicator of the expenditures a state may

have when providing assistance.

**Rationale:** Just as the cost of living varies between states, the cost of doing business also changes.

NRCS does not have control over such costs other than to ensure it uses the least costly source possible. This widely accepted state level index of the Cost of Doing Business helps to avoid penalizing states for which day-to-day operation is more expensive.

Factor: Planning for Program Delivery (Index) FA/TA: TA

Category: C) COST OF DOING BUSINESS

Source: NRCS ProTracts, 2006-2008 and Activity Based Costing Data (ABC), 2007

**Definition:** Step 1: The number of EQIP contracts a state writes is averaged for FY2005 to FY2007

(ProTracts data). That number is then multiplied by the average hours needed to develop a conservation plan in that respective state (ABC data). The resulting number for each state is then converted into an index. The conversion to an index ensures that any unusual

variations in the data do not adversely affect the overall results.

Because of differences in EQIP funding levels, and to ensure equity between states, another index for this factor is needed. Depending on the customer base, local conservation practice costs, and the natural resource concerns being addressed, states vary in terms of the number of EQIP contracts they are able to write each year. For instance, one state may be able to write many small contracts for the same level of EQIP funding with which another state is able to write only a few large contracts. Therefore, Step 2: is the measurement of EQIP funding a state receives. From ProTracts, EQIP funding levels are extracted and averaged across FY2003-FY2007 for each state. The resulting figures are then converted to an index. As before, indexing minimizes the effect of large variations among states.

Step 3: In order to obtain a single, balanced "score" for each state the two indices described above are added together to get a combined index score. In the allocation formula, the combined index score is used to determine the percentage of the allocation

attributable to this factor that each state will receive.

Rationale:

Conservation technical assistance is a process and service separate from, but linked to, program application and funding. However, program funding is a strong motivating factor for our customers and in some areas of the country program funding drives the planning process. A factor is needed to assess the level of demand for CTA across the nation. Prior to enrolling in a Farm Bill Program for financial assistance, applicants must work with NRCS to develop a conservation plan. NRCS activities associated with developing those conservation plans are funded through the CTA Program. The ABC system captures the time NRCS uses to develop a conservation plan in each state. Similarly, NRCS captures, in its Protracts reporting system, the number of contracts each state writes during a given year. EQIP, the largest Farm Bill program within NRCS, is a reliable indicator of a state's Farm Bill program workload. Hence, the number of EQIP contracts in a state serves as a conservative estimate of its conservation planning workload.

Factor: Travel (\$/SY) FA/TA:

Category: C) COST OF DOING BUSINESS

**Source:** NRCS, Financial Management Division (FMD), Foundational Financial Information

System (FFIS), 2007

**Definition:** Total travel costs for a state per staff year. Factor includes technical assistance funds only,

and does not include any reimbursements for EWP. Gasoline costs, travel expenses, and

relocation travel are included; but sedan & station wagon rental through GSA are excluded. Travel costs include the following components (for CTA only): travel &

transportation of persons, common carrier-domestic, common carrier - local transportation, mileage - domestic, per diem - domestic, actual subsistence - domestic, other travel - domestic, commercial car rental, other non-travel expenditures reimbursed by travel

voucher, and gasoline.

**Rationale:** Just as operating costs vary, so does the cost of travel. The more remote and spread-out

a state is, the more it costs to travel to deliver services within that state. Likewise, states with smaller or less-experienced staffs often need to send their employees out of state to obtain training or to attend conferences and meetings. States that support regional teams or employees, who perform duties in more than one state, also have added expense associated with travel. Some states, such as Hawaii, often fill vacant positions from out of

state thus necessitating high relocation expenditures.

Factor: Acres of Conservation Applied (ac./FTE) FA/TA: TA

Category: D) PERFORMANCE FACTORS

Source: NRCS Conservation Information System (CIS) 7.2 and Performance Results System

(PRS) 1.2, 2007

**Definition:** The number of conservation plans applied in FY2007 in each state (PRS) is divided by the

number of full time equivalents (FTE) in a state. FTE is a measure of total staff hours in a state and is obtained from CIS. The resulting number is the state's efficiency score for the

CTA Program.

**Rationale:** The primary goal of CTA is to "get conservation on the ground" by implementing

conservation treatments. States that achieve high levels of conservation on the ground with fewer staff hours are considered to be more efficient. The more efficient a state, the

more effective it can be at utilizing its CTA Program allocation.

Factor: Annual Performance Measures Met (%) FA/TA: TA

Category: D) PERFORMANCE FACTORS

**Source:** NRCS Performance Results System (PRS) 6.3, 2008

**Definition:** The performance measures under this factor are:

o Conservation Plans for cropland written (ac.);

- o Conservation Plans for grazing land written (ac.);
- o Reduction in the acreage of cropland soils damaged by erosion;
- o Grazing lands with consservation applied to protect the resource base (ac.);
- o Comprehensive nutrient management plans written;
- o Comprehensive nutrient management plans applied;
- o Wetlands created, restored or enhanced;
- o Watershed or area-wide conservation plans developed for water or air quality;
- o Agricultural lands treated for which wildlife habitat is the primary or secondary resource concern; and
- o Irrigation efficiency improved.

The factor is determined by dividing the amount accomplished by the amount goaled for each performance element, and averaged for the measures established in a state's performance. Each performance measure will be weighted equally and the factor is capped at 200% was used.

#### Rationale:

NRCS has established specific measures of performance and each state is goaled according to its ability to complete those measures. States are expected to reach their annual goals without dropping below their goal or under performing by more than 20%. This 20% margin provides a buffer for unforeseen events such as: major disasters which draw staff away from scheduled work; staffing changes; changes in program direction or funding, etc. This factor provides incentive for those that do not reach their goals by ensuring that no additional funds are provided to underperforming states.

#### Allocation Formula Factor Weights

Previous allocation formula factors were weighted using a leadership selection process originating from program manager recommendations. The rational for these weights was not properly documented and the lack of sufficient documentation was highlighted as an area of concern in the independent evaluation completed by World Perspectives, Inc. For FY2009, it was decided to use a paired comparison approach to assist in assigning weights to factors. The following is a discussion of the paired comparison results and weighting options for the CTA program.

#### **Paired Comparison**

Use of Paired Comparison analysis provides a means for assigning weights that is easy to understand and clearly distinguishes the importance of each factor relative to all others in the formula. Results from the Leadership Team, Programs Advisory Board, and the CTA NHQ Team were combined and averaged to provide a comprehensive rank order of the formula factors. Major breaks in the averaged scores were used to identify groupings of high, medium, and low factors. Weights were then assigned to each of the groupings with factors at the top of the rank order receiving the highest weight, medium ranked factors receiving a moderate weight, and low ranked factors receiving a low weight. High, medium, and low groupings and weights were assigned to moderate funding changes to the states.

Results of the paired comparison are as follows:

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Paired Comparison (PC) Ranking - CTA Program Factors			
. ,		HML	Average
FACTOR NAME	PC Rank Order	Conversion	_
Cropland Eroding Above T (1,000 ac.)	1	Н	16.0
Farm and Ranches (no.)	2	Н	15.7
Grazing Land (1,000 ac.)	3	Н	14.3
Non-irrigated Cropland (ac.)	4	Н	14.3
Farms with Confined Animals (no.)	5	Н	12.7
Irrigated Cropland (ac.)	6	Н	12.3
Non-Traditional Participants (index)	7	M	10.3
Riparian Areas (miles)	8	M	10.0
Impaired Streams (index)	9	M	9.7
Cons. Compliance Status Reviews (no.)	10	M	7.0
Wetlands (1,000 ac.)	11	M	6.7
Forest Land (ac.)	12	M	6.7
Federally Recognized Tribes (no.)	13	M	6.0
At-Risk Species (no.)	14	М	5.7
Watershed Dams (O&M) (no.)	15	L	4.0
Federal Grazing Land Permits (no.)	16	L	2.7
Air Quality Non-Attainment Areas (index)	17	لــ	1.3
PERFORMANCE			
Annual Performance Measures Met (%)	18	M*	2.3
Planning for Program Delivery (index)	19	M*	2.3
Cost of Doing Business (index)	20	M*	2.0
Acres of Conservation Applied (ac./FTE)	21	M*	2.0
Travel (\$/SY)	22	M*	1.7

<sup>\*</sup> Note: the performance factors were evaluated independently of the resource base and resource quality factors. When all factors were later grouped together, the CTA performance factors fell into the "low" category.

Factors that fell within the same grouping were given the same weight for each of the High, Medium, and Low factor weights.

Paired Comparison Ranking - CTA Program Factors			
-			
	PC Rank	HML	
FACTOR NAME	Order	Conversion	Weight
Cropland Eroding Above T (1,000 ac.)	1	Н	8.00%
Farm and Ranches (no.)	2	Н	8.00%
Grazing Land (1,000 ac.)	3	Н	8.00%
Non-irrigated Cropland (ac.)	3	Н	8.00%
Farms with Confined Animals (no.)	5	Н	8.00%
Irrigated Cropland (ac.)	6	Н	8.00%
Non-Traditional Participants (index)	7	М	5.00%
Riparian Areas (miles)	8	М	5.00%
Impaired Streams (index)	9	М	5.00%
Conservation Compliance Status Reviews(no.)	10	M	5.00%
Wetlands (1,000 ac.)	11	M	5.00%
Forest Land (ac.)	12	M	5.00%
Federally recognized Tribes (no.)	13	M	5.00%
At-Risk Species (no.)	14	M	5.00%
Planning for Program Delivery (index)	19	M	5.00%
Watershed Dams (O&M) (no.)	15	L	1.00%
Federal Grazing Land Permits (no.)	16	L	1.00%
Air Quality Non-Attainment Areas (index)	17	L	1.00%
PERFORMANCE FACTORS			
Annual Performance Measures Met (%)	18	L	1.00%
Cost of Doing Business (index)	20	L	1.00%
Acres of Conservation Applied (ac/FTE)	21	L	1.00%
Travel (\$/SY)	22	L	1.00%
		TOTAL	100%

Note: Paired Comparison percentages may vary from the final formula percentages due to addition of new factors later in the allocation cycle.

## **BOOK II**



### Fiscal Year 2009

## **Grazing Land Conservation Initiative Allocation Formula**



#### **Purpose and Authority**

The Grazing Lands Conservation Initiative (GLCI) is a collaborative process of individuals and organizations working together to maintain and improve the management, productivity, and health of the Nation's privately owned grazing land. The purpose of GLCI is to provide technical assistance supported by science-based technology and tools to help people conserve, maintain, and improve their grazing land resources.

GLCI was developed to provide for a coordinated effort to identify priority grazing land issues, find solutions, and effect positive change on private grazing land. GLCI seeks to strengthen partnerships, promote voluntary assistance and participation, respects private property rights, encourages diversification to achieve multiple benefits, and emphasizes training, education, and increased public awareness.

The statutory authority to support the purpose of GLCI is derived from NRCS's Conservation (CTA) Program authorities. During the period FY1996 through FY2006, GLCI was funded in accordance with Congressional directives through NRCS's Conservation Technical Assistance (CTA) Program. In FY2007 and FY2008, allocations to the States for the conservation of grazing land were continued through NRCS's CTA Program in lieu of Congressional direction.

GLCI FY2009 Formula Factors Technical Assistance		
Federal Grazing Land Permits (no.)	5%	
Grazing Land (1,000 ac.)	30%	
Ranches/Farms with Grazing Livestock (no.)		
	45%	
B) RESOURCE QUALITY FACTORS		
At Risk Species (no.)	5%	
C) COST OF DOING BUSINESS FACTORS		
Cost of Doing Business-Milken (index)	5%	
D) PERFORMANCE FACTORS		
Conservation Plans Applied on Grazing Land (ac.)		
	5%	
Conservation Plans Developed on Grazing Land		
(ac.)	5%	
Total	100%	

Factor: Federal Grazing Land Permits (no.) FA/TA: TA

Category: A) RESOURCE BASE FACTORS

Source: Bureau of Land Management (BLM) & USDA Forest Service, 2007

**Definition:** The number of grazing permits, grazing agreements, livestock use permits or other

permitting documents on Bureau of Land Management and Forest Service land.

**Rationale:** This factor captures the additional time needed to address grazing (and farming)

operations on Federal lands that adjoin or are included in private ranching operations. In some states, private lands and public lands intermingle and must be managed as a complete unit. Working on lands controlled by other agencies takes additional time and effort before NRCS-led conservation efforts on private land can be implemented due to additional legal constraints (such as more extensive NEPA processes), the need to work with partners, and the increase in land area involved in the operation. Federal lands are best measured by the number of permits issued and are not captured in the number of

farms and ranches.

Factor: Grazing Land (1,000 ac.) FA/TA: TA

Category: A) RESOURCE BASE FACTORS

**Source:** NRCS Natural Resources Inventory (NRI), 2003

**Definition:** Total acres of pastureland, rangeland, and grazed forestland. This includes private, State,

Tribal, and other non-federally owned land. Pastureland is managed primarily for the production of introduced forage plants for livestock grazing. Pastureland may consist of a single species in a pure stand, a grass mixture, or a grass-legume mixture. Rangeland is land on which the climax or potential plant cover is composed principally of native grasses, grass-like plants, forbs or shrubs suitable for grazing and browsing, and introduced forage species that are managed like rangeland. Grasslands, savannas, some wetlands, some deserts, and tundra are considered to be rangeland. Certain communities of low forbs and shrubs, such as mesquite, chaparral, mountain shrub, and pinion-juniper, are also included as rangeland. Grazed forestland is land that is at least 10 percent stocked by single-stemmed woody species of any size that will be at least 4 meters (13 feet) tall at maturity

and has an understory of vegetation that is grazed by domestic livestock.

**Rationale:** Providing technical assistance on grazing land is the focus of GLCI. It is the resource

addressed by GLCI (conservation technical assistance on grazing land). In many western states, it is the largest land use category both in terms of size (acreage) and the percentage of customers NRCS assists. This factor addresses grazing-related resource issues on all non-Federal lands. While western grazing lands are more extensive than those in the East, this factor includes pasturelands which are more dominant in the Eastern

States.

Factor: Ranches/Farms with Grazing Livestock (no.) FA/TA:

Category: A) RESOURCE BASE FACTORS

Source: USDA, National Agricultural Statics Service (NASS) "Farms, Land in Farms, and

Livestock Operations 2007 Summary" February 2008.

**Definition:** This factor is comprised of establishments primarily engaged in raising cattle, sheep,

lambs, and goats as listed in USDA's National Agricultural Statics Service's "Farms, Land

in Farms, and Livestock Operations 2007 Summary" dated February, 2008.

**Rationale:** The purpose of this factor is to identify NRCS customers in the grazing sector and thus

serve as a measure of potential workload: the more farms and ranches with grazing livestock, the greater the number of potential customers and thus the greater the demand for technical assistance with conservation planning and practice application. The data provides an overall picture of the distribution of operations with grazing livestock in the Nation and shows which States have the greatest potential demand for NRCS assistance. While this factor helps to define the number of potential customers, the amount of the land

being served is represented by the "grazing land" factor.

Factor: At-Risk Species (no.) FA/TA: TA

Category: B) RESOURCE QUALITY FACTORS

Source: U.S. Fish & Wildlife Service, Threatened & Endangered Species System (TESS), 2007

**Definition:** Total number of threatened and endangered, proposed and candidate species within a

state. Species include vertebrate animals (mammals, birds, reptiles, amphibians, and fishes), invertebrate animals (clams, snails, insects, arachnids, and crustaceans), flowering

plants, and non-flowering plants (conifers and cycads, ferns and allies, and lichens).

**Rationale:** At-risk species either are protected by environmental legislation or are in the process of being considered for coverage. Moreover, it is a GLCI/CTA Program priority to improve

wildlife habitat so that plant and animal populations do not decline to the point that the regulatory restrictions of the Endangered Species Act (ESA) are required. NRCS provides assistance, in cooperation with state and local authorities, in identifying at-risk species and their habitat and providing alternatives by which they can either avoid or mitigate impacts to those species. Because of the sensitivity and controversy of at-risk species and their habitat, extra effort is needed by NRCS to work with state and local authorities in

developing appropriate practices that avoid or reduce negative impacts yet allow the

farming or ranching operation to remain viable.

Factor: Cost of Doing Business-Milken (Index) FA/TA: TA

Category: C) COST OF DOING BUSINESS

**Source:** Milken Institute, Cost of Doing Business Index, 2007

**Definition:** Each state receives a rating based upon the level of cost for wages, taxes and support

costs in that state. This number serves as an indicator of the expenditures a state may

have when providing assistance.

**Rationale:** Just as the cost of living varies between states, the cost of doing business also changes.

NRCS does not have control over such costs other than to ensure it uses the least costly source possible. This widely accepted state level index of the Cost of Doing Business helps to avoid penalizing states for which day-to-day operation is more expensive.

Factor: Conservation Plans Applied on Grazing Land (ac.) FA/TA:

Category: D) PERFORMANCE FACTORS

**Source:** NRCS Performance Results System (PRS) 1.2, 2007

**Definition:** The number of acres on which conservation plans were applied on grazing land with

respect to the total number of acres of grazing land in a State.

**Rationale:** This factor captures the acres of conservation plans developed with CTA-GLC funding in

the previous fiscal year. Use of this performance factor ensures that funds go to the States

that most effectively and efficiently use them for their intended purpose.

Factor: Conservation Plans Developed on Grazing Land (ac.) FA/TA: TA

Category: D) PERFORMANCE FACTORS

**Source:** NRCS Performance Results System (PRS) 1.2, 2007

**Definition:** The number of acres on which conservation plans developed on grazing land with respect

to the total number of acres of grazing land in a State.

**Rationale:** This factor captures the acres of conservation plans fully applied with CTA-GLC funding in

the previous fiscal years. Use of this performance factor ensures that funds go to the

States that most effectively and efficiently use them for their intended purpose.

## **BOOK III**



### Fiscal Year 2009

# Resource Conservation and Development Allocation Formula



#### Purpose and Authority

The Resource Conservation and Development (RC&D) Program is a voluntary program that helps people conserve and develop their economic, natural, and social resources. Program objectives address improving the quality of life, including social, economic, and environmental concerns; continuing prudent use of natural resources; and strengthening local citizens' ability to use available sources of assistance through the U.S. Department of Agriculture (USDA) and other Federal agency partnerships. Through the establishment of RC&D areas, led by a council, the program establishes or improves coordination systems in rural communities and builds rural community leadership skills to effectively use Federal, State, and local programs for the communities' benefit.

The RC&D program is available in all 50 states, the Caribbean (Puerto Rico and the Virgin Islands), and the Pacific Basin (Guam, the Commonwealth of the Northern Mariana Islands, and American Samoa). Currently, 375 RC&D areas, designated by the Secretary of Agriculture, serve 2,709 counties across the Nation. Designated areas now serve approximately 85 percent of U.S. counties and 80 percent of the U.S. population.

The RC&D Program was developed under the Soil Conservation and Domestic Allotment Act (16 U.S.C. 590a-590f), the Bankhead-Jones Farm Tenant Act, (16U.S.C. 1010 and 1011), and the Food and Agriculture Act of 1962, and is authorized under subtitle H, title XV of the Agriculture and Food Act of 1981, (16 U.S.C. 3451-3461), as amended. Section 2504 of the Farm Security and Rural Investment Act of 2002 permanently authorized the program.

The Secretary of Agriculture has responsibility for the RC&D Program to provide assistance to councils to develop and carry out area plans and projects in designated areas to:

- Conserve and improve the use of land, develop natural resources, and improve and enhance social, economic, and environmental conditions in primarily rural areas of the United States.
- Encourage and improve the capability of State, units of government, Indian tribes, non-profit organizations, and councils to carry out the purposes described.

In carrying out this responsibility, the Secretary may:

- Provide technical and financial assistance to any council to assist in developing and implementing an approved area plan for a designated area.
- Cooperate with other departments and agencies of the Federal Government, State, and local units of government, local Indian tribes, and with local non-profit organizations in conducting surveys and inventories, disseminating information, and developing area plans.
- Enter into agreements with councils

The RC&D statute provides four basic elements for an area plan: Land Conservation, Land Management, Water Management, and Community Development. The resource base and quality allocation factors are based on these four elements with each element assigned an equal weight. The allocation formula also includes factors for the cost of doing business and performance.

NRCS has been delegated responsibility to administer the RC&D Program. Assistance is provided to geographically designated RC&D areas, as authorized by the Secretary of Agriculture, in partnership with non-profit RC&D councils.



RC&D FY 2009 Formula Factors		
Technical Assistance		
A) RES OURCE BASE FACTORS	Weight	
Farms with Confined Animals (no.)	3.5%	
Federally Recognized Tribes (no.)	3.5%	
Forest Land (ac.)	4.0%	
Grazing Land (1,000 ac.)	4.0%	
Irrigated Cropland (ac.)	3.5%	
Small Farms (no.)	3.5%	
Tribal Trust Land (ac.)	3.5%	
Wetlands (1,000 ac.)	3.5%	
Wildlife Habitat (ac.)	3.5%	
B) RES OURCE QUALITY FACTORS		
At Risk Species (no.)	3.5%	
Cropland Eroding Above "T" (Soil Loss Tolerance) (1,000 ac.)	4.8%	
Housing Stressed Counties (no.)	3.5%	
Impaired Streams 2008 (index)	10.5%	
Persistent Poverty Counties (no.)	3.5%	
Population Loss Counties (no.)	3.5%	
Rural Land Converted to Urban and Built Up (%)	3.5%	
Wind Erosion Above "T" (Soil Loss Tolerance) (ac.)	4.8%	
C) COST OF DOING BUSINESS FACTORS		
Cost of Doing Business-Milken (index)	6.0%	
Travel Costs (\$)	4.0%	
D) PERFORMANCE FACTORS		
Land and Water Resources Benefitted by RC&D Projects (%.)	5.0%	
Local Businesses Created or Retained in Rural Communities (no.)	5.0%	
Status of Current Area Plans on File in National Headquarters (%)	5.0%	
Watershed or Area-Wide Conservation Plans Developed (no.)	5.0%	
Total	100.0%	

Factor: Farms with Confined Animals (no.) FA/TA:

Category: A) RESOURCE BASE FACTORS

Source: NRCS Animal Husbandry and Clean Water Division (AWCWD) (USDA), 2003

**Definition:** An estimate of all confined livestock operations expected to need a comprehensive nutrient

management plan during the fiscal year. This includes cattle, sheep, hog, horse, goat, and poultry operations. It does not include bee-keeping or aquaculture which represents a small

portion of NRCS workload and is captured in the number of Farms and Ranches.

**Rationale:** The quality of water resources is vital to the Nation's welfare and a community's viability.

Working with animal feeding operations to develop comprehensive nutrient management plans are needed to minimize the impacts of manure on water quality. RC&Ds assist in identifying funding sources to assist farmers implement their nutrient management plans.

This factor is used to reflect objectives of the water management element which

specifically calls for the improvement of water quality.

Factor: Federally Recognized Tribes (no.) FA/TA: TA

Category: A) RESOURCE BASE FACTORS

**Source:** US Department of Interior, Bureau of Indian Affairs (BIA), Division of Tribal Government

Services, 2008, and NRCS

**Definition:** Federally acknowledged tribes means any Indian tribe, band, nation, pueblo, or other

organized group or community including, any Alaska Native village or regional corporation as defined in or established pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. 1601 Et seq.), which is recognized as eligible for the special program and services

provided by the United States to Indian because of their status as Indians.

**Rationale:** Federally recognized tribes have sovereign nation status. NRCS interactions with them

must be conducted accordingly. Additionally, tribes, foreign countries and territories may have different approaches to an issue, may have different laws, or there may be other considerations that require additional planning time. This demand is continual and is additional to the regular customer base. The RC&D statute specifically identifies assisting Tribes. The number of Federally Recognized Indian tribes also reflects the community

development needs of tribes which may or not own land.

Factor: Forest Land (ac.) FA/TA: TA

Category: A) RESOURCE BASE FACTORS

Source: NRCS Natural Resources Inventory (NRI), 2003

**Definition:** Includes private, State, Tribal, and other non-Federally owned land. Forestland is land that

is at least 10 percent stocked by single-stemmed woody species of any size that will be at least 4 meters (13 feet) tall at maturity and has an understory of vegetation that is not grazed by domestic livestock. Factor calculated by subtracting Grayed Forest Land

acreage from total Forest Land.

**Rationale:** This is land that is classified as forest but which is used primarily for purposes other than

grazing (timber harvest, nature retreats, etc). NRCS provides technical assistance on forest management practices and recreational opportunities on forested land, not just grazing management. Grazed forestland is included under grazing land since its primary land use is animal husbandry. This factor replaces the Erosion on Forest Land as the data is more recent and better reflects a resource base needing assistance by RC&D Council

activities.

Factor: Grazing Land (1,000 ac.) FA/TA: TA

Category: A) RESOURCE BASE FACTORS

**Source:** NRCS Natural Resources Inventory (NRI), 2003

**Definition:** Total acres of pastureland, rangeland, and grazed forestland. This includes private, State,

Tribal, and other non-federally owned land. Pastureland is managed primarily for the production of introduced forage plants for livestock grazing. Pastureland may consist of a single species in a pure stand, a grass mixture, or a grass-legume mixture. Rangeland is land on which the climax or potential plant cover is composed principally of native grasses, grass-like plants, forbs or shrubs suitable for grazing and browsing, and introduced forage species that are managed like rangeland. Grasslands, savannas, some wetlands, some deserts, and tundra are considered to be rangeland. Certain communities of low forbs and shrubs, such as mesquite, chaparral, mountain shrub, and pinion-juniper, are also included as rangeland. Grazed forestland is land that is at least 10 percent stocked by single-stemmed woody species of any size that will be at least 4 meters (13 feet) tall at maturity

and has an understory of vegetation that is grazed by domestic livestock.

**Rationale:** Grazing land is one of the top three land use categories for which NRCS provides technical

assistance. In many western states, it is the largest land use category both in terms of size (acreage) and the percentage of customers NRCS assists. This factor replaces the Erosion on range land as the data is more recent and better reflects a resource base needing

assistance by RC&D Council activities.

Factor: Irrigated Cropland (ac.) FA/TA:

Category: A) RESOURCE BASE FACTORS

**Source:** U.S. Census of Agriculture, 2002 – Table 10

**Definition:** Land where supplemental water is applied to the soil for crop production. Irrigation is

intended to provide water requirements of plants not satisfied by rainfall. This category includes land watered by artificial or controlled means, such as sprinklers, flooding, furrows or ditches, and sub-irrigation. Water is supplied to crops by ditches, pipes, or other conduits. Water spreading is not considered irrigation. This factor includes irrigated cropland and irrigated hayland. Irrigated cropland involves development of crop rotations,

use of fertilizer and the design of irrigation systems.

**Rationale:** One purpose of the RC&D Program is to improve agricultural water management and

protect ground water supplies. Acres of irrigated crop land are used to reflect water quantity issues identified in the Water Management element of the RC&D statute.

Factor: Small Farms (no.) FA/TA: TA

Category: A) RESOURCE BASE FACTORS

**Source:** National Agricultural Statics Service (NASS), 2002

**Definition:** Number of small farms within a state with gross sales below \$250,000 annually. This is

consistent with the USDA National Commission on Small Farms Report of 1998 and the

definition being used by other USDA agencies.

**Rationale:** Small farms present unique challenges when it comes to addressing natural resource

issues due to limited resources, scope of the issue, and their limited opportunity to take advantage of the economy of scale that is available to larger farms. It may take as much as or more time to provide technical assistance on a small operation as a large operation if the involvement of several landowners is needed to address a natural resource concern. In some cases, the owners and managers of smaller operations do not have the expertise in recognizing natural resource problems and implementing conservation practices as compared to larger operations. Due to using gross sales below \$250,000, we are also incorporating, by definition, limited resource producer data that is being used by CTA and EQIP. In addition, the community development element includes the development of resource-based industries and the promotion of food security, economic development, and education. These items within the element, when targeted to small and limited resource

farmers, will assist in the success of these farms.

Factor: Tribal Trust Land (ac.) FA/TA:

Category: A) RESOURCE BASE FACTORS

Source: US Department of Interior, Bureau of Indian Affairs, Office of trust Serices, Division of

Land, Title and records Office, 2008

**Definition:** Tribal lands as defined by Bureau of Indian Affairs and includes Tribal trust and allotted

lands. Total acres of Trust Lands for which the United States holds title in trust for the benefit of a tribe (tribal trust land) or for an individual Indian (individual trust land). Trust land can be alienated or encumbered by the owner with the approval of the Secretary of Interior. This may be on or off-reservation and may be located in more than one state.

**Rationale:** The RC&D statute identifies assisting Tribes. This factor is used to capture the natural

resource needs of Tribes and used to reflect needs related to wildlife habitat on tribal land,

which falls under the land management element of the statute.

Factor: Wetlands (1,000 ac.) FA/TA:

Category: A) RESOURCE BASE FACTORS

**Source:** NRCS Natural Resources Inventory (NRI), 2003

**Definition:** Wetlands are lands transitional between terrestrial and aquatic systems where the water

table is usually at or near the surface or the land is covered by shallow water. Wetlands must have one or more of the following three attributes: (1) at least periodically the land supports predominantly hydrophytes; (2) the substrate is un-drained hydric soil or (3) substrate is non-soil and is saturated with water or covered by shallow water some time

during the growing season each year.

**Rationale:** Wetlands are recognized as the most valuable and productive of all land types. Wetlands

require special considerations (e.g. avoidance, mitigation). Wetland areas perform a disproportionate number of biological and physical functions. These functions have a significant impact on maintaining and improving water quality, ensuring the sustainability of fish and wildlife species, and reducing the impacts of flood events. Wetland planning involves partnerships and other activities beyond a simple plan with the landowner. This factor is used to reflect the protection of fish & wildlife and the need for developing

partnerships and ties to the Land Management element in the statute.

Factor: Wildlife Habitat (ac.) FA/TA:

Category: A) RESOURCE BASE FACTORS

**Source:** NRCS Natural Resources Inventory (NRI), 2003

**Definition:** Non-Federal Acres (total per state)/Total Acres (in USA) % of the aquatic and terrestrial

environments required for wildlife to complete their life cycles, including air, food, cover,

water, and spatial requirements.

**Rationale:** Habitat is an indicator of the resource concern related to wildlife environment needs. The

Land Management Element in the RC&D statute specifically refers to enhancing the quality of fish and wildlife habitat. RC&D is including acres because it takes a broader view of wildlife habitat beyond farm and ranch lands. RC&Ds also work with communities.

Factor: At-Risk Species (no.) FA/TA: TA

Category: B) RESOURCE QUALITY FACTORS

Source: U.S. Fish & Wildlife Service, Threatened & Endangered Species System (TESS), 2007

**Definition:** Total number of threatened and endangered, proposed and candidate species within a

state. Species include vertebrate animals (mammals, birds, reptiles, amphibians, and fishes), invertebrate animals (clams, snails, insects, arachnids, and crustaceans), flowering

plants, and non-flowering plants (conifers and cycads, ferns and allies, and lichens).

**Rationale:** At-risk species are either protected by environmental legislation or are in the process of

being considered for coverage. Number of species identified on these lists is an indicator of the resource concern related to wildlife habitat and indicates the increased workload that may arise from environmental regulations. This factor is used to reflect the protection of fish & wildlife that is referenced in the Land Management Element in the statute and to

reflect potential need for wildlife habitat improvement.

Factor: Cropland Eroding Above "T" (Soil Loss FA/TA: TA

Tolerance) (1,000 ac.)

Category: B) RESOURCE QUALITY FACTORS

**Source:** NRCS Natural Resources Inventory (NRI), 2003

**Definition:** Acres of land eroding greater than T. "T" is the soil loss tolerance factor expressed as the

maximum rate of annual soil loss that will permit crop productivity to be sustained economically and indefinitely on a given soil. Soil erosion is the removal of soil by water and/or wind and is calculated on cultivated cropland, non-cultivated cropland, or hayland.

**Rationale:** Soil Erosion has been a major natural resource concern and is the primary aspect of the

Land Conservation Element in the RC&D Statute. Soil resources are the foundation of many agriculture enterprises and can cause major agronomic and economic loss and stressing many rural communities. This factor for erosion from water on cropland is one of

five used to reflect erosion greater than T and has an equal weight of 3.5%.

Factor: Housing Stressed Counties (no.) FA/TA: TA

Category: B) RESOURCE QUALITY FACTORS

Source: USDA Economic Research Service (ERS) 2004 and US Census Bureau 2000

**Definition:** Housing stress counties have 30 percent or more of households exhibited one or more of

the following housing conditions in 2000: lacked complete plumbing, lacked complete kitchen, paid 30 percent or more of income for owner costs or rent, or had more than 1

person per room.

Rationale: Housing stress is an indicator of the need for socio-economic assistance. The number of

counties that have had housing stress reflects the community development needs of a

state.

Factor: Impaired Streams 2008 (Index) FA/TA: TA

Category: B) RESOURCE QUALITY FACTORS

Source: Federal Water Pollution Control Act (Clean Water Act) Section 303 (d)& 305(b) U.S.

Environmental Protection Agency (EPA) reports, 2008

**Definition:** An index based on the miles of impaired streams and rivers in a state. The impaired

streams and rivers data is obtained from EPA reports, both 303d and 305b on EPA's ATTAINS website: http://www.epa.gov/waters/ir/ These reports are updated biannually on a staggered schedule. State environmental agencies are responsible for identifying all waters where required pollution controls are not sufficient to attain or maintain applicable EPA water quality standards, and rank the waters according to the use and the severity of the pollution problem. These "water quality limited" bodies, reported in the 305b and 303d lists are expected to exceed water quality standards in the next two years and need

additional pollution controls.

**Rationale:** Water quality is a major natural resource concern. The quality of water resources is vital to

the Nation's welfare and a community's viability. This factor is used to reflect objectives of the Water Management element which specifically calls for the improvement in water

quality.

Factor: Persistent Poverty Counties (no.) FA/TA: TA

Category: B) RESOURCE QUALITY FACTORS

Source: USDA Economic Research Service (ERS), 2004 and 2000 U.S. Census

**Definition:** 20 percent or more of residents were poor as measured by each of the last 4 censuses,

1970, 1980, 1990, and 2000.

**Rationale:** Persistent poverty is an indicator of the need for socio-economic assistance. The number

of persistent poverty counties within a state reflects community and economic development needs of that state. The community development element in the statute includes the development of resources-based industries and the promotion of food security, economic development, and education, when increased will decrease the level of poverty within the

state.

Factor: Population Loss Counties (no.) FA/TA:

Category: B) RESOURCE QUALITY FACTORS

Source: USDA Economic Research Service (ERS) 2004and 2000 US Census

**Definition:** Counties that lost population in both the 1980s and 1990s.

Rationale: Population loss is an indicator of socio-economic assistance need. The community

development element in the statute includes the development of resources-based industries and the promotion of food security, economic development, and education, when increased will decrease the out migration within a county. Counties may have population loss but not have a large extent of persistent poverty so this is not a duplication of the

above factor.

Factor: Rural Land Converted to Urban and Built Up (%) FA/TA:

Category: B) RESOURCE QUALITY FACTORS

Source: NRCS Natural Resources Inventory (NRI), 1997 & 2003

**Definition:** The difference in total rural land (cropland, CRP land, pastureland, rangeland, forest land,

and other rural land) with prime farmland soil in each state between 1997 and 2003 expressed as a percent of the rural land in 1997. It is calculated by subtracting the acres of total rural land in 2003 from the acres of total rural land in 1997 and dividing the remainder by the acres of total rural land in 1997. This factor is a measure of threat of development

to rural land and using percent represents the smaller states better.

**Rationale:** Many natural resources are increasingly at risk from urban sprawl and rural subdivisions.

With a increasing populations, agricultural land conversions will have a significant impact on natural resources. The Land Management Element in the statute specifically refers to RC&D to assist in the protection of agricultural land as appropriate from conversion to other uses and facilitating changes in land use as needed for natural resource protection and

sustainability.

Factor: Wind Erosion above "T" (Soil Loss Tolerance) FA/TA: TA

(ac.)

Category: B) RESOURCE QUALITY FACTORS

**Source:** NRCS Natural Resources Inventory (NRI), 1997

**Definition:** Wind erosion is the removal of soil by wind and is calculated on cultivated, non-cultivated

cropland, pastureland, and CRP land.

Rationale: Wind Erosion has been a major natural resource concern and is the primary aspect of the

Land Conservation Element in the RC&D Statute. Soil resources are the foundation of many agriculture enterprises and can cause major agronomic and economic loss and

stressing many rural communities.

Factor: Cost of Doing Business-Milken (Index) FA/TA: TA

Category: C) COST OF DOING BUSINESS

**Source:** Milken Institute, Cost of Doing Business Index, 2007

**Definition:** Each state receives a rating based upon the level of cost for wages, taxes and support

costs in that state. This number serves as an indicator of the expenditures a state may

have when providing assistance.

**Rationale:** Just as the cost of living varies between states, the cost of doing business also changes.

NRCS does not have control over such costs other than to ensure it uses the least costly source possible. This widely accepted state level index of the Cost of Doing Business helps to avoid penalizing states for which day-to-day operation is more expensive.

Factor: Travel Costs (\$) FA/TA:

Category: C) COST OF DOING BUSINESS

Source: NRCS, Financial Management Division (FMD), Foundational Financial Information

System (FFIS), 2008

**Definition:** State travel costs for RC&D based on costs incurred in FY 2008 with an increase of 2% for

inflation. Includes technical funds only and does not include any reimbursements.

**Rationale:** This is used to capture the variance in travel costs across the Nation.

Factor: Land and Water Resources Benefitted by RC&D FA/TA: TA

Projects (%)

Category: D) PERFORMANCE FACTORS

Source: NRCS Performance Results System (PRS), 2008

**Definition:** Land and water resources benefitted by completed RC&D land conservation, land

management or water management projects. Performance is reported in acres. This measure is calculated as the sum of acres associated with completed RC&D projects under the following benefits categories - Acres Treated – Cropland Acres Treated - Grazing Land Acres Treated - Forestland Acres Treated - Mined or Reclaimed Land, Agricultural Land Preserved or Protected, Water Bodies Created, and Water Bodies

Improved.

Rationale: This is an official OMB Program Assessment Ratings Tool (PART) annual performance

goal for the RC&D program. This factor is one of four used to reward performance when a

state meets or exceeds the previous year's established goal.

Factor: Local Businesses Created or Retained in Rural FA/TA: TA

Communities, (no.)

Category: D) PERFORMANCE FACTORS

**Source:** NRCS Performance Results System (PRS), 2008

**Definition:** Businesses created or retained through RC&D projects. Businesses within the agricultural

and non-agricultural sectors are eligible. Example businesses include, but are not limited to, the manufacturing, service, value-added agriculture, tourism, home-based, and energy related industries. Performance is reported in numbers. This measure is calculated as the

sum of new businesses created or businesses retained in the current fiscal year.

Rationale: This is an official OMB Program Assessment Ratings Tool (PART) annual performance

goal for the RC&D program. This factor is one of four used to reward performance when a

state meets or exceeds the previous year's established goal.

Factor: Status of Current Area Plans on File in National FA/TA: TA

Headquarters (%)

Category: D) PERFORMANCE FACTORS

**Source:** Resource Conservation Development and Outreach Division Official Resource

Conservation & Development (RC&D) Area Files, 2008

**Definition:** Percentage of RC&D Area Plans within a state that are in compliance with NRCS policy

and on file in national headquarters.

**Rationale:** NRCS put in place a new format and policy regarding RC&D Area Plans in FY 2007

(CPM.440.513.C, July 2007). The basis for NRCS assistance to a designated area is through the Area Plan. Each designated area must have a current Area Plan. This is a

new measure used to reflect compliance with national policy.

Factor: Watershed or Area-Wide Conservation Plans FA/TA: TA

Developed (no.)

Category: D) PERFORMANCE FACTORS

Source: NRCS Performance Results System (PRS), 2008

**Definition:** Watershed or area-wide plans developed and approved. A watershed or area-wide

conservation plan is developed with stakeholders or clients for a watershed or other geographical (i.e., area-wide) area defined by stakeholders or clients. The watershed or area-wide conservation plan addresses all resource problems identified, contains alternative solutions that meet the minimum quality criteria for each resource, and

addresses applicable laws and regulations. These plans must include specific, quantifiable conservation goals and milestones for natural resource impacts. These plans cover an

area comprised of multiple land ownerships and operations with common and

interdependent natural resource concerns, and are on a larger scale than site-specific plans. Performance is reported in numbers. For RC&D this means RC&D Project Plans that address natural resource concerns, in accordance with section 513.26 of the NRCS General Manual. This measure is calculated as the sum of the number of RC&D Project

Plans.

**Rationale:** This is an official OMB Program Assessment Ratings Tool (PART) annual performance

goal for the RC&D program. This factor is one of four used to reward performance when a

state meets or exceeds the previous year's established goal.

## Financial and Technical Assistance Programs

Environmental Quality Incentives Program (EQIP)
Environmental Quality Incentives Program - Conservation Innovative Grants: Air Quality (AQ EQIP)

Wildlife Habitat Incentives Program (WHIP)
Agricultural Management Assistance Program (AMA)

Chesapeake Bay Watershed Initiative (CWBI)

Wetlands Reserve Program (WRP)

Farm and Ranchland Protection Program (FRPP)

Grassland Reserve Program (GRP)

Conservation Reserve Program (CRP)

Watershed Rehabilitation Program

Watershed Protection and Flood Prevention Program Emergency Watershed Protection (EWP) Program

# **BOOK IV**



### Fiscal Year 2009

# Environmental Quality Incentive Program Allocation Formula



#### Purpose and Authority

The purposes of the Environmental Quality Incentives Program (EQIP) are to promote agricultural production, forest management, and environmental quality as compatible goals, and to optimize environmental benefits. Through EQIP, the Natural Resources Conservation Service (NRCS) provides assistance to eligible farmers and ranchers to address soil, water, and air quality, wildlife habitat, surface and groundwater conservation, energy conservation, and related natural resource concerns. EQIP's financial and technical assistance helps producers comply with environmental regulations and enhance agricultural and forested lands in a cost-effective and environmentally beneficial manner. The purposes of the program are achieved by planning and implementing conservation practices, including conservation practices related to organic production, on eligible land.

Through EQIP, NRCS provides assistance to farmers and ranchers who face threats to soil, water, air, and related natural resources on their land. These lands include cropland, grassland, rangeland, pasture, wetlands, non-industrial private forest land, and other agricultural land on which agricultural commodities, forest-related products, or livestock are produced and natural resource concerns may be addressed. Participation in the program is voluntary.

The statutory authorities for EQIP include the following:

- The Food Security Act of 1985 (1985 Act) (16 U.S.C. 3801 et seq.)
- Federal Agriculture Improvement and Reform Act of 1996 (P.L. 104-127)
- Farm Security and Rural Investment Act of 2002 (P.L. 107-171)
- Section 2501 of the Food, Conservation, and Energy Act of 2008 (16 U.S.3839aa-3839-8).

The EQIP Rule, 7 CFR Part 1466, provides the purpose and scope of the assistance furnished through the program. The funds, facilities, and authorities of the Commodity Credit Corporation (CCC) are available to NRCS for carrying out EQIP. NRCS is assigned the responsibility by the Secretary of Agriculture for carrying out the program objectives. NRCS supports "locally led conservation" by using State Technical Committees at the State level and local work groups at the county/parish level to advise NRCS on technical issues relating to the EQIP implementation such as:

- Identification of priority resource concerns;
- Identification of which conservation practices should be eligible for financial assistance;
- Establishment of payment rates;
- Identification of conservation practices to be implemented to solve resource concerns; and
- Development of an EQIP plan of operation and contracts.

Development of ranking criteria for evaluation and selection of applications is based on the:

- degree of cost-efficiency of the proposed conservation practices;
- magnitude of the environmental benefits;
- treatment of multiple resource concerns:
- use of conservation practices that provide environmental enhancements for a longer period of time;
- compliance with Federal, State, local or tribal regulatory requirements; and
- other locally defined pertinent factors, such as the location of the conservation practice, the extent of natural resource degradation, and the degree of cooperation by local producers to achieve environmental benefits.

EQIP FY 2009 Formula Factors Financial Assistance				
A) RESOURCE BASE FACTORS	Weight			
Farms and Ranches (no.)	5.0%			
Forest Land (ac.)	5.0%			
Grazing Land (1,000 ac.)	9.5%			
Irrigated Cropland (ac.)	9.5%			
Livestock Animal Units (no. of AUEs)	9.5%			
Non-Irrigated Cropland (ac.)	9.5%			
Non-Traditional Participants (Index)	5.0%			
Specialty Crop Farms (no.)	5.0%			
Tribal Trust Land (ac.)	1.0%			
B) RESOURCE QUALITY FACTORS				
Air Quality Non-Attainment Areas (index)	1.0%			
At-Risk Species (no.)	5.0%			
Cropland Eroding Above "T" (Soil Loss Tolerance) (1,000 ac.)	9.5%			
Impaired Streams 2007 (index)	9.5%			
Wetlands (1,000 ac.)	6.0%			
C) COST OF DOING BUSINESS FACTORS				
Cost of Doing Business (USACE index)	5.0%			
D) PERFORMANCE FACTORS				
Comprehensive Nutrient Management Plans (CNMPs) Applied (no.)	0.9%			
Cost-effectiveness (ac./million dollars)	0.9%			
National Priorities (index)	1.5%			
Timely Practice Implementation (%)	1.5%			
Technical Service Providers (TSP) Implementation	0.20/			
(ratio)	0.2%			
Total	100.0%			
Technical Assistance				
Cost of Doing Business-Milken (index)	3.25%			
Implementation Performance (%)	3.25%			
Payments for Practices (%)	32.5%			
Practice Workload (%)	26.0%			
Technical Assistance (TA) Percentage for Current Year Activities (%)	35.0%			
Total	100.0%			

Factor: Farms and Ranches (no.) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

**Source:** U.S. Census of Agriculture, 2002 – Table 1

**Definition:** Any operation from which \$1000 or more of agricultural products were produced and sold,

or normally would have been sold, during the year as reported in the US Census of Agriculture. It is not limited by the size of the operation or the type of products sold.

**Rationale:** The purpose of this factor is to identify NRCS customers in the agriculture sector and thus

serve as a measure of potential workload: the more farms and ranches, the greater the number of potential customers and thus the greater the demand for financial and technical

assistance.

Factor: Forest Land (ac.) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

**Source:** NRCS Natural Resources Inventory (NRI), 2003

**Definition:** Includes private, State, Tribal, and other non-Federally owned land. Forestland is land that

is at least 10 percent stocked by single-stemmed woody species of any size that will be at least 4 meters (13 feet) tall at maturity and has an understory of vegetation that is not grazed by domestic livestock. Factor calculated by subtracting Grazed Forest Land

acreage from total Forest Land.

Rationale: Forest land is not part of the other land use factors and is eligible for EQIP. It links to the

Agency Strategic Goal, "Healthy Plant and Animal Communities "and the PART annual output measure, "Grazing and forest land with conservation applied to protect and improve

the resource base."

Factor: Grazing Land (1,000 ac.) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

Source: NRCS Natural Resources Inventory (NRI), 2003

**Definition:** Total acres of pastureland, rangeland, and grazed forestland. This includes private, State,

Tribal, and other non-federally owned land. Pastureland is managed primarily for the production of introduced forage plants for livestock grazing. Pastureland may consist of a single species in a pure stand, a grass mixture, or a grass-legume mixture. Rangeland is land on which the climax or potential plant cover is composed principally of native grasses, grass-like plants, forbs or shrubs suitable for grazing and browsing, and introduced forage species that are managed like rangeland. Grasslands, savannas, many wetlands, some deserts, and tundra are considered to be rangeland. Certain communities of low forbs and shrubs, such as mesquite, chaparral, mountain shrub, and pinyon-juniper, are also included as rangeland. Grazed forestland is land that is at least 10 percent stocked by single-stemmed woody species of any size that will be at least 4 meters (13 feet) tall at maturity and has an understory of vegetation that is grazed by domestic livestock.

**Rationale:** The purpose of this factor is to address livestock related issues. Federal grazing land is

not included because the acreage of land being leased from the Forest Service and Bureau of Land Management is not quantified and does not accurately depict EQIP eligible acres. It links to the Agency Strategic Goal, "Healthy Plant and Animal Communities" and the PART annual output measure, "Grazing and forest land with conservation applied to

protect and improve the resource base".

Factor: Irrigated Cropland (ac.) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

**Source:** U.S. Census of Agriculture, 2002 – Table 10

**Definition:** Land where supplemental water is applied to the soil for crop production. Irrigation is

intended to provide water requirements of plants not satisfied by rainfall. This category includes land watered by artificial or controlled means, such as sprinklers, flooding, furrows or ditches, and sub-irrigation. Water is supplied to crops by ditches, pipes, or other conduits. Water spreading is not considered irrigation. This factor includes irrigated cropland and irrigated hayland. Irrigated cropland involves development of crop rotations,

use of fertilizer and the design of irrigation systems.

**Rationale:** To address water management, a national priority. Conservation systems for irrigated

cropland have a higher per acre cost for developing or delivering a dependable water source. Links to the PART long-term outcome measure "Million acre-feet of water conserved", annual output measure "Land with conservation applied to improve irrigation

efficiency" and the Agency Strategic Goal of "Clean and Abundant Water."

Factor: Livestock Animal Units (no. of AUEs) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

Source: U.S. Census of Agriculture, 2002 - Tables 16, 17, 19, 27, & 29 (Converted to Animal Unit

Equivalents -AUE)

**Definition:** Numbers of Animal Units, by State and size classes. Data is converted to Animal Unit

Equivalents (AUE) by summing animal units from each table.

**Rationale:** As part of the 2002 Farm Bill, it is required that 60% of the EQIP funds address livestock

related issues. Addressing those issues will impact air and water quality national natural resource priorities. This factor is linked to the Agency Strategic Goals "Clean Air" and

"Clean and Abundant Water."

Factor: Non-Irrigated Cropland (ac.) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

**Source:** U.S. Census of Agriculture, 2002 – Table 1

**Definition:** Non-Irrigated cropland is used for the production of adapted crops for harvest and does not

include application of supplemental water. This factor includes all types of crop lands: commodity crops, specialty crops, non-cultivated and cultivated crops, hay land, and idle cropland. It is calculated by subtracting total acres of Irrigated Land from total acres of

Cropland.

Rationale: To address soil erosion and soil condition, a national priority as well as water quality. It

links to the Agency Strategic Goal, "High Quality, Productive Soils" and the PART long-term outcome measure "Working cropland with improved soil condition" and annual output

measure "cropland with conservation applied to improve soil quality".

Factor: Non-Traditional Participants (Index) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

Source: U.S. Census of Agriculture, 2002 and U.S. Census, 1990 & 2000

**Definition:** An index composed of three measurements: 1) Beginning Farmers or Ranchers; 2)

Socially Disadvantaged Producers; and 3) Limited Resource Producers. The percent of total for each component is weighted by .333 and summed. Hawaii and Alaska are not included in the FAPD programs factor. Alaska is not included in the factor for CTA.

**Rationale:** Non-traditional Participants often need additional time and assistance in order to conserve

natural resources without negatively influencing their financial situation. This may include development of innovative techniques, complex cost-sharing arrangements to reduce out-

of-pocket expenditures, use of grants, etc.

Factor: Specialty Crop Farms (no.) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

**Source:** U.S. Census of Agriculture, 2002 - Tables 27, 28, 30, 34, & 37

**Definition:** Number of Farms that grow specialty crops as defined by the Specialty Crops

Competitiveness Act of 2004.

**Rationale:** Specialty crops typically require more pesticides and fertilizers per acre than conventional

crops and pose special environmental concerns. Also, specialty cropland requires a more diverse set of conservation practices than conventional crops. Conservation systems implemented with specialty crop producers are often very complex (both in number of practices and degree of management intensity) and require practices with higher per acre

costs for installation.

Factor: Tribal Trust Land (ac.) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

Source: US Department of Interior, Bureau of Indian Affairs, Office of trust Serices, Division of

Land, Title and records Office, 2008

**Definition:** Tribal lands as defined by Bureau of Indian Affairs and includes Tribal trust and allotted

lands. Total acres of Trust Lands for which the United States holds title in trust for the benefit of a tribe (tribal trust land) or for an individual Indian (individual trust land). Trust land can be alienated or encumbered by the owner with the approval of the Secretary of Interior. This may be on or off-reservation and may be located in more than one state.

**Rationale:** Tribal lands are not part of the other land-use factors and are eligible for EQIP. Much of

the Tribal land is neither captured in the NRI nor the Census of Agriculture.

Factor: Air Quality Non-Attainment Areas (Index) FA/TA: FA

Category: B) RESOURCE QUALITY FACTORS

**Source:** Environmental Protection Agency (EPA) - Air Quality Non-Attainment Areas, June 2007

**Definition:** Total number of counties where air pollution levels persistently exceed national air quality

standards established by the Clean Air Act and reported on the EPA website. Pollutants included in the evaluation are: PM-10, PM-2.5, and 8-hour Ozone. The affected acres in each county are added together for the state to obtain the percentage of the state impacted by non-attainment. The number of standards not attained is also added for each state.

These values are converted to a numerical rating.

**Rationale:** This factor represents a national natural resource priority. The presence of non-attainment

areas often limits the choice of conservation alternatives and results in higher per acre treatment costs for the conservation systems implemented. It links to the Agency Strategic Goal, "Clean Air." This factor was developed in consultation with the National Atmospheric

Resource Specialist.

Factor: At-Risk Species (no.) FA/TA: FA

Category: B) RESOURCE QUALITY FACTORS

Source: U.S. Fish & Wildlife Service, Threatened & Endangered Species System (TESS), 2007

**Definition:** Total number of threatened and endangered, proposed and candidate species within a

state. Species include vertebrate animals (mammals, birds, reptiles, amphibians, and fishes), invertebrate animals (clams, snails, insects, arachnids, and crustaceans), flowering

plants, and non-flowering plants (conifers and cycads, ferns and allies, and lichens).

**Rationale:** This factor addresses fish and wildlife, a national natural resource priority. The presence

of at-risk species contributes to higher per acre costs for implementing conservation systems. This factor was developed in consultation with the National Wildlife Biologist.

Factor: Cropland Eroding Above "T" (Soil Loss FA/TA: FA

Tolerance) (1,000 ac.)

Category: B) RESOURCE QUALITY FACTORS

**Source:** NRCS Natural Resources Inventory (NRI), 2003

**Definition:** Acres of land eroding greater than T. "T" is the soil loss tolerance factor expressed as the

maximum rate of annual soil loss that will permit crop productivity to be sustained

economically and indefinitely on a given soil. Soil erosion is the removal of soil by water and/or wind and is calculated on cultivated cropland, non-cultivated cropland, or hayland.

**Rationale:** To address air, soil and water quality national natural resource priorities. It is linked to the

Agency Strategic Goal, "High Quality, Productive Soils", the PART long-term outcome "Working cropland with improved soil condition" and annual output measure "cropland with conservation applied to improve soil quality". Soil erosion on cropland is of particular

interest because of its on-site impacts on soil quality and crop productivity, and its off-site

impacts on water quantity and quality, air quality, and biological activity.

Factor: Impaired Streams 2007 (Index) FA/TA: FA

Category: B) RESOURCE QUALITY FACTORS

Source: Federal Water Pollution Control Act (Clean Water Act) Section 303 (d) U.S.

Environmental Protection Agency (EPA) reports, 2007

**Definition:** An index based on the miles of impaired streams and rivers in a state. The impaired

streams and rivers data is obtained from EPA reports, both 303d and 305b on EPA's ATTAINS website: http://www.epa.gov/waters/ir/. These reports are updated biannually on a staggered schedule. State environmental agencies are responsible for identifying all waters where required pollution controls are not sufficient to attain or maintain applicable EPA water quality standards, and rank the waters according to the use and the severity of the pollution problem. These "water quality limited" bodies, reported in 305b and 303d lists are expected to exceed water quality standards in the next two years and need additional

pollution controls.

**Rationale:** To address water quality, a national natural resource priority. It links to the Agency

Strategic Goal, "Clean and Abundant Water." The miles of impaired rivers and streams reflect the interface between water and EQIP-eligible land. It is along this edge that water quality is impacted by improvements in land management. EPA data on acres of impaired water bodies was not used as EQIP activities do not occur on water bodies, which are defined by each state and can include ponds and lakes. Additionally, it is reasoned that water quality improvements made in rivers and streams will result in improvements in water bodies. Factor may be redundant with crop eroding at greater than T factors. However, "impaired rivers and streams" measure damage that has already occurred vs. potential damage. This factor was developed in consultation with the NRCS National Leader for

Clean Water.

Factor: Wetlands (1,000 ac.) FA/TA: FA

Category: B) RESOURCE QUALITY FACTORS

**Source:** NRCS Natural Resources Inventory (NRI), 2003

**Definition:** Wetlands are lands transitional between terrestrial and aquatic systems where the water

table is usually at or near the surface or the land is covered by shallow water. Wetlands must have one or more of the following three attributes: (1) at least periodically the land supports predominantly hydrophytes; (2) the substrate is un-drained hydric soil or (3) substrate is non-soil and is saturated with water or covered by shallow water some time

during the growing season each year.

**Rationale:** To address at-risk species and water quality national priorities. The implementation of

conservation measures must consider both the potential adverse impacts on wetlands and potential use of wetlands in addressing multiple resource concerns for the farm/ranch operation and, therefore, can be more intensive near and around these areas. Links to the Agency Strategic Goals "Clean and Abundant Water" and "Healthy Plant and Animal

Communities."

Factor: Cost of Doing Business (USACE index) FA/TA: FA

Category: C) COST OF DOING BUSINESS

Source: U.S. Army Corps of Engineers, Civil Works Construction Cost Index System, Table A3,

2008

**Definition:** A state by state index based on a representative breakdown of labor, materials, and

equipment costs. Table A-3 is used to compare or adjust a project cost prepared for a project in one state to a project located in another state. Note that Alaska and Hawaii are

not considered in the national average.

**Rationale:** Just as the cost-of-living varies between states, the cost of doing business also changes.

In the context of Financial Assistance Programs, this relates to the cost of construction materials for program practice installation. NRCS does not have control over such costs other than to ensure it uses the least costly source possible. This factor helps to avoid

penalizing states in which materials are more expensive.

Factor: Comprehensive Nutrient Management Plans FA/TA: FA

(CNMPs) Applied (no.)

Category: D) PERFORMANCE FACTORS

Source: NRCS ProTracts, 2008 and U.S. Census of Agriculture, 2002 - Table 1

**Definition:** Ratio between the number of EQIP contracts issued for CNMPs to the number of farms

needing such plans.

Rationale: This factor links to the Agency Strategic Goal "Clean and Abundant Water" and is a PART

annual output measure "Comprehensive nutrient management plans applied".

Factor: Cost-Effectiveness (ac./million dollars) FA/TA: FA

Category: D) PERFORMANCE FACTORS

Source: NRCS ProTracts - Application and Evaluation Ranking Tool, 2008

**Definition:** Total treated acres improved per \$1million dollars of financial assistance.

Rationale: This is a PART efficiency measure. It illustrates the cost to implement one acre of

conservation treatment in an effort to increase TA efficiency.

Factor: National Priorities (Index) FA/TA: FA

Category: D) PERFORMANCE FACTORS

Source: NRCS ProTracts - Application and Evaluation Ranking Tool, 2008

**Definition:** The weight each state places on national natural resource priorities as indicated by the

natural resource concerns funded in contracts. This is determined through the Application

and Evaluation Ranking Tool.

**Rationale:** Helps focus EQIP dollars on key national priorities. The program rule states: "the Chief of

the NRCS will: (a) Use an EQIP fund allocation formula that reflects National priorities and measures and that uses available natural resource concerns data to distribute funds to the state level; and (b) provide a performance incentive to NRCS in States that demonstrate a high level of program performance in implementing EQIP. Performance incentives shall

consider factors such as ... effectively addressing National priorities."

Factor: Technical Service Providers (TSP) FA/TA: FA

Implementation (ratio)

Category: D) PERFORMANCE FACTORS

**Source:** NRCS, Financial Management Division (FMD), Foundational Financial Information

System (FFIS), 2008

**Definition:** Measurement of the agency's ability to provide technical assistance service to increase

program implementation and is expressed as a ratio of TSP disbursements to obligations.

Rationale: This factor provides a measure of a State's commitment to TSPs and effective fund

management.

Factor: Timely Practice Implementation (%) FA/TA: FA

Category: D) PERFORMANCE FACTORS

**Source:** NRCS ProTracts - Application and Evaluation Ranking Tool, 2006-2008

**Definition:** Percent of conservation practices completed in the first three years of the contract in

ProTracts.

**Rationale:** This factor seeks to improve contract implementation. This factor links to the PART

efficiency measure. This factor was developed in consultation with the Late Rate Team.

Factor: Cost of Doing Business-Milken (Index) FA/TA: TA

Category: Technical Assistance (TA) Factor

**Source:** Milken Institute, Cost of Doing Business Index, 2007

**Definition:** Each state receives a rating based upon the level of cost for wages, taxes and support

costs in that state. This number serves as an indicator of the expenditures a state may

have when providing assistance.

**Rationale:** Just as the cost of living varies between states, the cost of doing business also changes.

NRCS does not have control over such costs other than to ensure it uses the least costly source possible. This widely accepted state level index of the Cost of Doing Business helps to avoid penalizing states for which day-to-day operation is more expensive.

Factor: Implementation Performance (%) FA/TA:

Category: Technical Assistance (TA) Factor

**Source:** NRCS ProTracts - Application and Evaluation Ranking Tool, 2006-2008

**Definition:** Average percentage of conservation implementation within three years of financial

assistance (FA) obligation.

**Rationale:** To reward timely installation of conservation practices.

Factor: Payments for Practices (%) FA/TA:

Category: Technical Assistance (TA) Factor

Source: NRCS ProTracts - Application and Evaluation Ranking Tool, 2006-2008

**Definition:** A 3-year rolling average of payments by the practice types of Management, Structural,

Vegetative, and Activity.

**Rationale:** This factor works in conjunction with factor 1. This Technical Assistance formula aims to

allocate funds in the most equitable and transparent way possible by establishing proportional relationships among states based on data related to technical assistance needs. Historical information on installed conservation practices is an indicator of the proportional needs among states for technical assistance. Additionally states may implement different types of practices in the first year of a contract with different technical assistance requirements. Some practices types, such as structural practices, require more resources and therefore more technical assistance than other practices. Factor 1, 'TA Percentage for Current Year Activities' allocates the same amount of TA for current year activities per FA dollar to all state. This factor serves to address differences in current year

TA needs.

Factor: Practice Workload (%) FA/TA:

Category: Technical Assistance (TA) Factor

Source: NRCS ProTracts, 2006-2008 and Activity Based Costing Data (ABC), 2007

**Definition:** The average instance of each practice obligated over the last three years combined with

the state ABC data time for the practice instance.

**Rationale:** This factor aims to capture the relative workload among states associated with practices

scheduled for implementation. Practice implementation constitutes a significant EQIP workload; approximately 34% of time charged to EQIP. CIS report 1.3 for EQIP, National

Summary of Activities for 2007, indicates that 34% of time charged to EQIP is for

conservation implementation.

Factor: Technical Assistance (TA) Percentage for FA/TA: TA

**Current Year Activities (%)** 

Category: Technical Assistance (TA) Factor

**Source:** NRCS Cost of Programs Model, 2008

**Definition:** The percentage of total Technical Assistance needed for current year program activities.

Rationale: The Cost of Programs model was developed by NRCS to estimate the cost of

administering and operating conservation programs. This factor utilizes the Cost of

Programs model's estimate of current year technical assistance needs to allocate a portion

of technical assistance for current year program activities.

#### Allocation Formula Factor Weights

Previous allocation formula factors were weighted using a leadership selection process originating from program manager recommendations. The rational for these weights was not properly documented and the lack of sufficient documentation was highlighted as an area of concern in the independent evaluation completed by World Perspectives, Inc. For FY2009, it was decided to use a paired comparison approach to assist in assigning weights to factors. The following is a discussion of the paired comparison results and weighting options for the EQIP program.

#### **Paired Comparison**

Use of Paired Comparison analysis provides a means for assigning weights that is easy to understand and clearly distinguishes the importance of each factor relative to all others in the formula. Results from the Leadership Team, Programs Advisory Board, and the EQIP NHQ Team were combined and averaged to provide a comprehensive rank order of the formula factors. Major breaks in the averaged scores were used to identify groupings of high, medium, and low factors. Weights were then assigned to each of the groupings with factors at the top of the rank order receiving the highest weight, medium ranked factors receiving a moderate weight, and low ranked factors receiving a low weight. High, medium, and low groupings and weights were assigned to moderate funding changes to the states.

Results of the paired comparison are as follows:

Paired Comparison (PC) Ranking - EQIP Factors				
FACTOR NAME	Rank Order	HML Conversion	Average PC Score	
Cropland Eroding Above "T" (1,000 ac.)	1	Н	14	
Livestock Animal Units (no.AUEs)	2	Н	13.7	
Grazing Land (1,000 ac.)	3	Н	12.7	
Impaired Streams (index)	4	Н	12.3	
Irrigated Cropland (ac.)	5	Н	11.3	
Non-irrigated Cropland (ac.)	6	Н	10.3	
Farm and Ranches (no.)	7	M	added	
At-Risk Species (no.)	8	M	8.3	
Forest Land (ac.)	9	M	5.7	
Non-Traditional Participants (index)	10	М	5	
Specialty Crop Farms (no.)	11	М	4.7	
Wetlands (1,000 ac.)	12	M	4.7	
Air Quality Non-Attainment Areas (index)	13	L	3.7	
Tribal Trust Land (ac.)	14	L	3.7	
PERFORMANCE FACTORS				
Timely Practice Implementation (%)	15	Н	3	
National Priorities (index)	16	Н	3	
CNMPs Applied (ratio)	17	M	2	
Cost-Effectiveness (index)	18	M	2	
TSP Implementation (index)	19	L	1	
Note: "added" = factor added after paired	comparisor	evaluation		

Factors that fell within the same grouping were given the same weight for each of the High, Medium, & Low factor weights.

Paired Comparison Rank Order and Weights - EQIP Factors				
	PC Rank	HML		
FACTOR NAME	Order	Conversion	Weight	
Cropland Eroding Above "T" (1,000 ac.)	1	Н	9.50%	
Livestock Animal Units (no. AUEs)	2	Н	9.50%	
Grazing Land (1,000 ac.)	3	Н	9.50%	
Impaired Streams (index)	4	Н	9.50%	
Irrigated Cropland (ac.)	5	Н	9.50%	
Non-irrigated Cropland (ac.)	6	Н	9.50%	
Farm and Ranches (no.)	7	М	6.00%	
At-Risk Species (no.)	8	М	6.00%	
Forest Land (ac.)	9	M	6.00%	
Non-Traditional Participants (index)	10	М	6.00%	
Specialty Crop Farms (no.)	11	М	6.00%	
Wetlands (1,000 ac.)	12	М	6.00%	
Air Quality Non-Attainment Areas (index)	13	L	1.00%	
Tribal Trust Lands (ac.)	14	L	1.00%	
PERFORMANCE FACTORS				
Timely Practice Implementation (%)	15	Н	1.50%	
National Priorities (index)	16	Н	1.50%	
CNMPs Applied (no.)	17	М	0.90%	
Cost-Effectiveness (index)	18	М	0.90%	
TSP Implementation (index)	19	L	0.20%	
		TOTAL	100%	

Note: Paired Comparison percentages may vary from the final formula percentages due to addition of new factors later in the allocation cycle.

## **BOOK V**



# Fiscal Year 2009

# **Environmental Quality Incentives Program**Air Quality



#### Purpose and Authority

The purpose of the EQIP Air Quality Initiative (the Initiative) is the same as the regular EQIP program with the exception that the Initiative is focused on air quality resource concerns. The fundamental purpose of EQIP is to assist farmers and ranchers with implementation of conservation practices that provide environmental benefits in a cost-effective manner and to assist producers in complying with environmental regulations. The purposes of the program are achieved through providing payments to assist producers with implementing structural and land management conservation practices, including practice to address air quality, on eligible land.

Through EQIP, NRCS provides assistance to farmers and ranchers who face threats to soil, water, air, and related natural resources on their land. These lands include cropland, grassland, rangeland, pasture, wetlands, non-industrial private forest land, and other agricultural land on which agricultural commodities, forest-related products, or livestock are produced and natural resource concerns may be addressed. Participation in the program is voluntary.

The statutory authorities for EQIP include the following:

- The Food Security Act of 1985 (1985 Act) (16 U.S.C. 3801 et seq.);
- Federal Agriculture Improvement and Reform Act of 1996 (P.L. 104-127);
- Farm Security and Rural Investment Act of 2002 (P.L. 107-171);
- Section 2501 of the Food, Conservation, and Energy Act of 2008 (16 U.S.3839aa-3839 -8).

The EQIP Rule, 7 CFR Part 1466, provides the purpose and scope of the assistance furnished through the program. The funds, facilities, and authorities of the Commodity Credit Corporation (CCC) are available to NRCS for carrying out EQIP. NRCS is assigned the responsibility by the Secretary of Agriculture for carrying out the program objectives. In addition to this allocation formula process to address priority air resource concerns, NRCS supports "locally led conservation" by using State Technical Committees at the State level and local work groups at the county/parish level to advise NRCS on technical issues relating to the EQIP implementation such as:

- Resource Issues:
- Identification of priority resource concerns;
- Identification of which conservation practices should be eligible for financial assistance; and Establishment of payment rates.

<b>EQIP Air Quality FY 2009 Formula Factors</b>				
Financial Assistance				
A) RESOURCE BASE FACTORS	Weight			
Air Quality Non-Attainment Factor (no. and ac.)	100.0%			
Total	100.0%			
Technical Assistance				
Technical Assistance (TA) Percentage for Current				
Year Activities (%)	100.0%			
Total	100.0%			

# AQ (EQIP) FY 2009 ALLOCATION FORMULA

Factor: Air Quality Non-Attainment Factor (no. and ac.) FA/TA:

Category:

Source: Environmental Protection Agency (EPA), http://www.epa.gov/air/oaqps/greenbk/, 2008;

and National Agricultural Statistics Service (NASS), Table 1, County Summary Highlights,

2002

**Definition:** Total number of States and Counties where air pollution levels persistently exceed National

Ambient Air Quality Standards (NAAQS) established by the Clean Air Act and documented on the previously listed EPA website. States and Counties selected for initiative funding are derived from EPA designations of "non-attainment" for any of the three priority air quality concerns of: PM-10, PM-2.5, or Ozone. The percent allocation is based upon the

averaging of two factors:

Agricultural Land in each County (Farm Acres)

• Number of Agricultural Operations in each County (Number of Farms)

The number of non-attainment farm operations and acres were added together for each County within the U.S. to obtain the percentage for each State. In addition, the State percentage was "weighted" based upon the number of designated non-attainment pollutants in each County (Equal to the number of NAAQS standards exceeded in the County). The resulting formula is a percentage by State for allocation of both FA and TA

funds to support EQIP.

**Rationale:** The factors used for this formula are based upon current scientific data related to priority

natural resource concerns. The use of EPA designations for non-attainment represents a logical and defensible representation of those areas with the most significant air quality problems associated with agricultural land and operations and meets the intent of Farm Bill Statute and Managers Report. The resulting formula percentages provide an allocation to States and Counties with priority air quality concerns that can be addressed through EQIP.

This process links to the agency Strategic Goal for "Clean Air" and was developed in

consultation with the National Atmospheric Resource Specialist.

# **BOOK VI**



# Fiscal Year 2009

# Wildlife Habitat Incentive Program Allocation Formula



#### Purpose and Authority

The purpose of the Wildlife Habitat Incentives Program (WHIP) is to provide technical and financial assistance to help participants develop and improve fish and wildlife habitat on private agricultural land, nonindustrial private forest land, and tribal land. NRCS implements WHIP in the 50 States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, the Virgin Islands of the United States, American Samoa, and the Commonwealth of the Northern Mariana Islands. NRCS may make payments pursuant to agreements for program implementation and for other goals consistent with the program provided for in this part. NRCS will provide the public with notice of opportunities to apply for participation in the WHIP. In general, under the program, the Secretary shall make cost-share payments to owners of lands to develop:

- Upland wildlife habitat;
- Wetland wildlife habitat:
- Habitat for threatened and endangered species;
- Fish habitat; and
- Other types of wildlife habitat approved by the Secretary, including habitat developed on pivot corners and irregular acres.

WHIP offers financial and technical assistance to eligible participants to install or implement structural and management practices such as wildlife upland habitat management, spring development, brush management, wildlife watering facilities, tree/shrub establishment, fish passage, forest stand improvement, and range planting. These practices address different resource concerns that are outlined in WHIP's National Priorities. The priorities are as follows:

- Promote the restoration of declining or important native wildlife habitats.
- Protect, restore, develop or enhance wildlife habitat of at-risk species (candidate species, and State and Federally listed threatened and endangered species).
- Reduce the impacts of invasive species on wildlife habitats.
- Protect, restore, develop or enhance declining or important aquatic wildlife species' habitats.

Statutory authority for WHIP includes the following:

- Section 387 of the Federal Agriculture Improvement and Reform Act of 1996 (the 1996 Act), 16 U.S.C. 3836a:
- Section 2502 of the Farm Security and Rural Investment Act of 2002 (the 2002 Act),
   Public Law 107-171, repealed the WHIP statute and amended Title XII of the Food Security Act of 1985 to add a new section, 1240N, as the authority for WHIP; and
- Section 2602 of the 2008 Act further amends section 1240N.

The WHIP Rule, 7 CFR Part 636 regulations provides the requirements for WHIP. WHIP priorities will be implemented through the use of WHIP plans of operations (WPO). NRCS may assist in the development of a WPO which will encompass a parcel of land where habitat will be established, improved, protected, enhanced, or restored. The WPO shall be approved by NRCS and address at least one of the following:

- Fish and wildlife conditions that are of concern to the participant;
- Fish and wildlife habitat concerns identified in State, regional, and national conservation initiatives; or
- Fish and wildlife concerns identified in an approved area-wide plan that addresses the wildlife resource habitat concern.

WHIP FY 2009 Formula Factors			
Financial Assistance			
A) RESOURCE BASE FACTORS			
Forest Land (ac.)	9.4%		
Grazing Land (1,000 ac.)	14.5%		
Irrigated Cropland (ac.)	9.4%		
Non-Irrigated Cropland (ac.)	9.4%		
Non-Traditional Participants (Index)	4.5%		
Tribal Trust Land (ac.)	4.5%		
B) RESOURCE QUALITY FACTORS			
At-Risk Wildlife Species (no.)	14.5%		
Impaired Streams 2007 (index)	9.4%		
Wetlands in Agricultural Land (ac.)	9.4%		
C) COST OF DOING BUSINESS FACTORS			
Cost of Doing Business (USACE index)	5.0%		
D) PERFORMANCE FACTORS			
Cost-effectiveness (ac./million dollars)	2.0%		
National Priorities (index)	3.5%		
Timely Practice Implementation (%)	3.5%		
Technical Service Providers (TSP) Implementation			
(ratio)	1.0%		
Total	100.0%		
Technical Assistance			
Cost of Doing Business-Milken (index)	3.25%		
Implementation Performance (%)	3.25%		
Payments for Practices (%)	32.5%		
Practice Workload (%)	26.0%		
Technical Assistance (TA) Percentage for Current			
Year Activities (%)	35.0%		
Total	100.0%		

Factor: FA/TA: FA

Category: A) RESOURCE BASE FACTORS

**Source:** NRCS Natural Resources Inventory (NRI), 2003

**Definition:** Includes private, State, Tribal, and other non-Federally owned land. Forestland is land that

is at least 10 percent stocked by single-stemmed woody species of any size that will be at least 4 meters (13 feet) tall at maturity and has an understory of vegetation that is not grazed by domestic livestock. Factor calculated by subtracting Grazed Forest Land

acreage from total Forest Land.

**Rationale:** Provides forestlands base acreage for upland wildlife species habitat. Will assist in

providing connectivity and preventing fragmentation for wildlife habitat. Links to the Agency Strategic goal, "Healthy Plant and Animal Communities" and the Office of Management and Budget (OMB) Program Assessment Rating Tool (PART) annual output measure of Acres of nonfederal land managed for the protection and enhancement of habitat for species with declining populations and the OMB PART Long Term Performance measure, Acres of improved habitat for prioritized wildlife species within broad geographic watersheds.

Factor: Grazing Land (1,000 ac.) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

Source: NRCS Natural Resources Inventory (NRI), 2003

**Definition:** Total acres of pastureland, rangeland, and grazed forestland. This includes private, State,

Tribal, and other non-federally owned land. Pastureland is managed primarily for the production of introduced forage plants for livestock grazing. Pastureland may consist of a single species in a pure stand, a grass mixture, or a grass-legume mixture. Rangeland is land on which the climax or potential plant cover is composed principally of native grasses, grass-like plants, forbs or shrubs suitable for grazing and browsing, and introduced forage species that are managed like rangeland. Grasslands, savannas, many wetlands, some deserts, and tundra are considered to be rangeland. Certain communities of low forbs and shrubs, such as mesquite, chaparral, mountain shrub, and pinyon-juniper, are also included as rangeland. Grazed forestland is land that is at least ten percent stocked by single-stemmed woody species of any size that will be at least four meters (13 feet) tall at

maturity and has an understory of vegetation that is grazed by domestic livestock.

**Rationale:** Provides grasslands base acreage for upland wildlife species habitat. Links to the Agency

Strategic goal, "Healthy Plant and Animal Communities" and the Office of Management and Budget (OMB) Program Assessment Rating Tool (PART) annual output measure of Acres of nonfederal land managed for the protection and enhancement of habitat for species with declining populations and the OMB PART Long Term Performance measure, Acres of improved habitat for prioritized wildlife species within broad geographic watersheds.

Factor: Irrigated Cropland (ac.) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

**Source:** U.S. Census of Agriculture, 2002 – Table 10

**Definition:** Land where supplemental water is applied to the soil for crop production. Irrigation is

intended to provide water requirements of plants not satisfied by rainfall. This category includes land watered by artificial or controlled means, such as sprinklers, flooding, furrows or ditches, and sub-irrigation. Water is supplied to crops by ditches, pipes, or other conduits. Water spreading is not considered irrigation. This factor includes irrigated cropland and irrigated havland. Irrigated cropland involves development of crop rotations,

use of fertilizer and the design of irrigation systems.

Rationale: "Private agricultural land" was added to the WHIP Statute. Irrigated cropland links to the

Agency Strategic Goal, "High Quality, Productive Soils." Conservation systems for irrigated cropland have a higher per acre cost for developing or delivering a dependable water

source. The Agency Strategic Goal of "Clean and Abundant Water."

Factor: Non-Irrigated Cropland (ac.) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

**Source:** U.S. Census of Agriculture, 2002 – Table 1

**Definition:** Non-Irrigated cropland is used for the production of adapted crops for harvest and does not

include application of supplemental water. This factor includes all types of crop lands: commodity crops, specialty crops, non-cultivated and cultivated crops, hay land, and idle cropland. It is calculated by subtracting total acres of Irrigated Land from total acres of

Cropland.

Rationale: "Private agricultural land" was added to the WHIP Statute. Non-irrigated cropland links to

the Agency Strategic Goal, "High Quality, Productive Soils." Although the weight of this factor and that of irrigated cropland are the same, States have wide variations in the amount of irrigated versus non-irrigated cropland resource concerns which need to be

allocated separately based on these diverse needs.

Factor: Non-Traditional Participants (Index) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

Source: U.S. Census of Agriculture, 2002 and U.S. Census, 1990 & 2000

**Definition:** An index composed of three measurements: 1) Beginning Farmers or Ranchers; 2)

Socially Disadvantaged Producers; and 3) Limited Resource Producers. The percent of total for each component is weighted by .333 and summed. Hawaii and Alaska are not included in the FAPD programs factor. Alaska is not included in the factor for CTA.

Rationale: Non-traditional Participants often need additional time and assistance in order to conserve

natural resources without negatively influencing their financial situation. This may include development of innovative techniques, complex cost-sharing arrangements to reduce out-

of-pocket expenditures, use of grants, etc.

Factor: Tribal Trust Land (ac.) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

Source: US Department of Interior, Bureau of Indian Affairs, Office of trust Serices, Division of

Land, Title and records Office, 2008

**Definition:** Tribal lands as defined by Bureau of Indian Affairs and includes Tribal trust and allotted

lands. Total acres of Trust Lands for which the United States holds title in trust for the benefit of a tribe (tribal trust land) or for an individual Indian (individual trust land). Trust land can be alienated or encumbered by the owner with the approval of the Secretary of Interior. This may be on or off-reservation and may be located in more than one state.

Rationale: Tribal lands are not part of the other land-use factors and are eligible for WHIP. Much of

the Tribal land is neither captured in the NRI nor the. Census of Agriculture.

Factor: At-Risk Wildlife Species (no.) FA/TA: FA

Category: B) RESOURCE QUALITY FACTORS

Source: U.S. Fish & Wildlife Service, Threatened & Endangered Species System (TESS), 2007

**Definition:** Total number of threatened and endangered, proposed and candidate species within a

state. Species include vertebrate animals (mammals, birds, reptiles, amphibians, and fishes), invertebrate animals (clams, snails, insects, arachnids, and crustaceans), and no

plants.

**Rationale:** This factor addresses fish and wildlife, a national natural resource priority. The presence

of at-risk species contributes to higher per acre costs for implementing conservation systems. Plants are considered only if there is a direct relationship to a wildlife species. This factor was developed in consultation with Terrell Erickson, National Wildlife Biologist.

Factor: Impaired Streams 2007 (Index) FA/TA: FA

Category: B) RESOURCE QUALITY FACTORS

Source: Federal Water Pollution Control Act (Clean Water Act) Section 303 (d) U.S.

Environmental Protection Agency (EPA) reports, 2007

**Definition:** An index based on the miles of impaired streams and rivers in a state. The impaired

streams and rivers data is obtained from EPA reports, both 303d and 305b on EPA's ATTAINS website: http://www.epa.gov/waters/ir/. These reports are updated biannually on a staggered schedule. State environmental agencies are responsible for identifying all waters where required pollution controls are not sufficient to attain or maintain applicable EPA water quality standards, and rank the waters according to the use and the severity of the pollution problem. These "water quality limited" bodies, reported in 305b and 303d lists are expected to exceed water quality standards in the next two years and need additional

pollution controls.

**Rationale:** To address water quality for declining wildlife species. Links to the Agency Strategic goal,

"Healthy Plant and Animal Communities" and the OMB PART annual output measure of Acres of nonfederal land managed for the protection and enhancement of habitat for species with declining populations and the OMB PART Long Term Performance measure, Acres of improved habitat for prioritized aquatic wildlife species within broad geographic watersheds. This factor was developed in consultation with the National Leader for Clean

Water.

Factor: Wetlands in Agricultural Land (ac.) FA/TA: FA

Category: B) RESOURCE QUALITY FACTORS

**Source:** NRCS Natural Resources Inventory (NRI), 2003

**Definition:** Shows acres of wetlands in cropland, forestland, pastureland, and rangeland. Agricultural

wetlands includes both Estuarine and Palustrine wetlands. Palustrine wetlands includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 parts per thousand. Estuarine Systems consist of deepwater tidal habitats and adjacent tidal wetlands that are usually semi enclosed by land but have open, partly obstructed, or sporadic access to the open ocean, and in which ocean water is at

least occasionally diluted by freshwater runoff from the land.

Rationale: According to statute, this factor provides wetlands resource quality acreage for wetland

wildlife species habitat. It links to the Agency Strategic goal, "Healthy Plant and Animal Communities" and the OMB PART annual output measure of "Acres of nonfederal land managed for the protection and enhancement of habitat for species with declining populations" and the OMB PART Long Term Performance measure, "Acres of improved

habitat for prioritized wildlife species within broad geographic watersheds".

Factor: Cost of Doing Business (USACE index) FA/TA: FA

Category: C) COST OF DOING BUSINESS

**Source:** U.S. Army Corps of Engineers, Civil Works Construction Cost Index System, Table A3,

2008

**Definition:** A state by state index based on a representative breakdown of labor, materials, and

equipment costs. Table A-3 is used to compare or adjust a project cost prepared for a project in one state to a project located in another state. Note that Alaska and Hawaii are

not considered in the national average.

Rationale: Just as the cost of living varies between states, the cost of doing business also changes. In

the context of Financial Assistance Programs, this relates to the cost of construction materials for program practice installation. NRCS does not have control over such costs other than to ensure it uses the least costly source possible. This factor helps to avoid

penalizing states in which materials are more expensive.

Factor: Cost-Effectiveness (ac./million dollars) FA/TA: FA

Category: D) PERFORMANCE FACTORS

Source: NRCS ProTracts - Application and Evaluation Ranking Tool, 2008

**Definition:** Total treated acres improved per \$1 million dollars of financial assistance.

Rationale: This is a PART efficiency measure. It illustrates the cost to implement one acre of wildlife

habitat conservation treatment in an effort to increase TA efficiency.

Factor: National Priorities (Index) FA/TA: FA

Category: D) PERFORMANCE FACTORS

**Source:** NRCS ProTracts - Application and Evaluation Ranking Tool, 2008

**Definition:** The weight each state places on national natural resource priorities as indicated by the

natural resource concerns funded in contracts. This is determined through the Application

and Evaluation Ranking Tool.

**Rationale:** Helps focus WHIP dollars on key national priorities. Provides a measure of a State's

emphasis in funds disbursed in the previous years' contracts on conservation outcomes

related to all national priorities.

Factor: Technical Service Providers (TSP) FA/TA: FA

Implementation (ratio)

Category: D) PERFORMANCE FACTORS

**Source:** NRCS, Financial Management Division (FMD), Foundational Financial Information

System (FFIS), 2008

**Definition:** Measurement of the agency's ability to provide technical assistance service to increase

program implementation and is expressed as a ratio of TSP disbursements to obligations.

Rationale: This factor provides a measure of a State's commitment to TSPs and effective fund

management.

Factor: Timely Practice Implementation (%) FA/TA: FA

Category: D) PERFORMANCE FACTORS

**Source:** NRCS ProTracts - Application and Evaluation Ranking Tool, 2006-2008

**Definition:** Percent of conservation practices completed in the first three years of the contract in

ProTracts.

**Rationale:** This factor seeks to improve contract implementation. This factor links to the PART

efficiency measure. This factor was developed in consultation with the Late Rate Team.

Factor: Cost of Doing Business-Milken (Index) FA/TA: TA

Category: Technical Assistance (TA) Factor

**Source:** Milken Institute, Cost of Doing Business Index, 2007

**Definition:** Each state receives a rating based upon the level of cost for wages, taxes and support

costs in that state. This number serves as an indicator of the expenditures a state may

have when providing assistance.

**Rationale:** Just as the cost of living varies between states, the cost of doing business also changes.

NRCS does not have control over such costs other than to ensure it uses the least costly source possible. This widely accepted state level index of the Cost of Doing Business helps to avoid penalizing states for which day-to-day operation is more expensive.

Factor: Implementation Performance (%) FA/TA:

Category: Technical Assistance (TA) Factor

**Source:** NRCS ProTracts - Application and Evaluation Ranking Tool, 2006-2008

**Definition:** Average percentage of conservation implementation within three years of financial

assistance (FA) obligation.

**Rationale:** To reward timely installation of conservation practices.

Factor: Payments for Practices (%) FA/TA:

Category: Technical Assistance (TA) Factor

**Source:** NRCS ProTracts - Application and Evaluation Ranking Tool, 2006-2008

**Definition:** A 3-year rolling average of payments by the practice types of Management, Structural,

Vegetative, and Activity.

**Rationale:** This factor works in conjunction with factor 1. This Technical Assistance formula aims to

allocate funds in the most equitable and transparent way possible by establishing proportional relationships among states based on data related to technical assistance needs. Historical information on installed conservation practices is an indicator of the proportional needs among states for technical assistance. Additionally states may implement different types of practices in the first year of a contract with different technical assistance requirements. Some practices types, such as structural practices, require more resources and therefore more technical assistance than other practices. Factor 1, 'TA Percentage for Current Year Activities' allocates the same amount of TA for current year activities per FA dollar to all state. This factor serves to address differences in current year

TA needs.

Factor: Practice Workload (%) FA/TA: TA

Category: Technical Assistance (TA) Factor

Source: NRCS ProTracts, 2006-2008 and Activity Based Costing Data (ABC), 2007

**Definition:** The average instance of each practice obligated over the last three years combined with

the state ABC data time for the practice instance.

**Rationale:** This factor aims to capture the relative workload among states associated with practices

scheduled for implementation. Practice implementation constitutes a significant EQIP workload; approximately 34% of time charged to EQIP. CIS report 1.3 for EQIP, National

Summary of Activities for 2007, indicates that 34% of time charged to EQIP is for

conservation implementation.

Factor: Technical Assistance (TA) Percentage for FA/TA:

Current Year Activities (%)

Category: Technical Assistance (TA) Factor

**Source:** NRCS Cost of Programs Model, 2008

**Definition:** The percentage of total Technical Assistance needed for current year program activities.

Rationale: The Cost of Programs model was developed by NRCS to estimate the cost of

administering and operating conservation programs. This factor utilizes the Cost of

Programs model's estimate of current year technical assistance needs to allocate a portion

of technical assistance for current year program activities.

### Allocation Formula Factor Weights

Previous allocation formula factors were weighted using a leadership selection process originating from program manager recommendations. The rational for these weights were not properly documented and were highlighted as an area of concern in the independent evaluation completed by World Perspectives, Inc. For FY 2009, a paired comparison approach is being used to assist in assigning weights to factors. The following is a discussion of the paired comparison results and weighting of factors for the WHIP FA formula.

### Paired Comparison

Use of Paired Comparison analysis provides a means for assigning weights that is easy to understand and clearly distinguishes the importance of each factor relative to all others in the formula. Results from the Leadership Team, Programs Advisory Board, and the WHIP Program Manager were combined and averaged to provide a comprehensive rank order of the formula factors. Major breaks in the averaged scores were used to identify groupings of high, medium, and low factors. Weights were then assigned to each of the groupings with factors at the top of the rank order receiving the highest weight, medium ranked factors receiving a moderate weight, and low ranked factors receiving a low weight. High, medium, and low groupings and weights were assigned to moderate funding changes to the states.

Results of the paired comparison are as follows:

Paired Comparison (PC) Ranking - WHIP Factors			
FACTOR NAME	PC Rank Order	HML Conversion	Average PC Score
Grazing Land (1,000 ac.)	1	Н	6.8
At-Risk Wildlife Species (no.)	2	Н	6.8
Non-Federal Acres (ac.) DELETED	3		5.4
Irrigated Cropland (ac.) : CHANGE - REPLACES Non-Federal Acres Minus WRP+GRP+CRP			
acreages (ac.)	4	М	5.4
Non-Irrigated Cropland (ac.): CHANGE -			
REPLACES Declining Aquatic Species Habitat			
(mi., ac.)	5	М	4.7
Wetlands in Agricultural Land (ac.)	6	М	4.5
Forest Land (ac.)	7	М	4.4
Impaired Streams (index)	8	М	4.1
Non-Traditional Participants (index.)	9	L	1.6
Tribal Trust Land (ac.)	10	L	1.5
PERFORMANCE FACTORS			
Cost-Effectiveness (index)	М	М	Medium
Timely Practice Implementation (%)	Н	Н	High
National Priorities (index)	Н	Н	High
TSP implementation (index)	L	L	Low

Factors that fell within the same grouping were given the same weight for each of the High, Medium, & Low factor weights.

Faired Companison Nank Ort	Paired Comparison Rank Order and Weights - WHIP Factors			
	PC Rank	HML		
FACTOR NAME	Order	Conversion	Weight	
Grazing Land (1,000 ac.)	1	Н	15%	
At-Risk Wildlife Species (no.)	2	Н	15%	
Irrigated Cropland (ac.)	4	M	10%	
Non-Irrigated Cropland (ac.)	5	М	10%	
Wetlands in Agricultural Land (ac.)	6	M	10%	
Forest land (ac.)	7	M	10%	
Impaired Streams (index)	8	M	10%	
Non-Traditional Participants (index)	9	L	5%	
Tribal Trust Land (ac.)	10	L	5%	
PERFORMANCE FACTORS				
Cost-Effectiveness (index)	М	М	2%	
Timely Practice Implementation (%)	Н	Н	3.50%	
National Priorities (index)	Н	Н	3.50%	
TSP Implementation (index)	L	L	1%	
		TOTAL	100%	

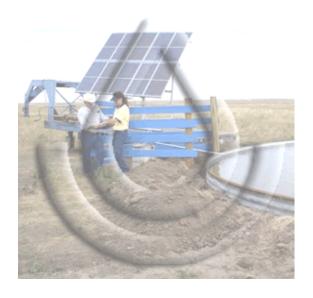
Note: Paired Comparison percentages may vary from the final formula percentages due to addition of new factors later in the allocation cycle.

# **BOOK VII**



# Fiscal Year 2009

# Agricultural Management Assistance Program Allocation Formula



#### **Purpose and Authority**

The purpose of Agricultural Management Assistance (AMA) is to provide technical and financial assistance to agricultural producers to voluntarily address issues such as water management, water quality, and erosion control by incorporating conservation practices into their farming operations. Producers may construct or improve water management structures or irrigation structures; plant trees for windbreaks or to improve water quality; and mitigate risk through production diversification or resource conservation practices, including soil erosion control, integrated pest management, or transition to organic farming.

AMA is available in 16 States where participation in the Federal Crop Insurance Program is historically low, including: Connecticut, Delaware, Hawaii (added as new State in FY 2008 Farm Bill), Maine, Maryland, Massachusetts, Nevada, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Utah, Vermont, West Virginia, and Wyoming. AMA uses mandatory spending funded through the Commodity Credit Corporation (CCC). Mandatory programs are authorized by Congress at a specified annual level - usually though a farm bill - and are to be funded at these levels unless Congress limits funding to a lower amount through the appropriations process. Financial assistance (FA) funds conservation practices completed by the AMA participant. Technical assistance (TA) funds support activities completed by NRCS and Technical Service Providers (TSP).

The national priorities for AMA are as follows:

- Reduction of non-point source pollution, such as nutrients, sediment, pesticides, or excess salinity in impaired watersheds consistent with Total Daily Maximum Loads (TMDLs), where available, as well as the reduction of groundwater contamination.
- Promotion of conservation of ground and surface water resources.
- Reduction of emissions, such as particulate matter, nitrogen oxides (NOX), volatile organic compounds, and ozone precursors and depleters that contribute to air quality impairment violations of National Ambient Air Quality Standards.
- Reduction in soil erosion and sedimentation from unacceptable high levels on agricultural land.
- Promotion of at-risk species habitat conservation.

The statutory authorities for AMA are as follows:

- AMA is authorized under the Agricultural Risk Protection Act of 2000, Title I, Section 133, Public Law 106-224, June 22, 2000.
- Section 524(b) was amended by the Farm Security and Rural Investment Act of 2002, (Farm Bill), Public Law 107-171, May 13, 2002.
- Section 524(b) has been further amended by the Food, Conservation and Energy Act of 2008 (Farm Bill), Public Law 110-246, June 18, 2008.

The AMA program rule, 7 CFR Part 1465 provides the purpose and scope of the technical and financial assistance to be furnished to the identified sixteen states. This assistance addresses the following identified natural resource issues:

- Water management
- Water quality
- Soil erosion control
- Tree planting for windbreaks and water quality improvement
- Mitigating of risk through production diversification through practices such as transition to organic farming and integrated pest management.

# **AMA FY 2009 Formula Factors**

Financial Assistance

i indicial Assistance			
A) RESOURCE BASE FACTORS	Weight		
Farms and Ranches (no.)	9.0%		
Forest Land (ac.)	3.5%		
Grazing Land (1,000 ac.)	7.0%		
Irrigated Cropland (ac.)	9.0%		
Livestock Animal Units (no. of AUEs)	9.0%		
Non-Irrigated Cropland (ac.)	9.0%		
Non-Traditional Participants (Index)	7.0%		
Specialty Crop Farms (no.)	10.0%		
Tribal Trust Land (ac.)	3.5%		
B) RESOURCE QUALITY FACTORS			
Air Quality Non-Attainment Areas (index)	3.5%		
At-Risk Species (no.)	3.5%		
Cropland Eroding Above "T" (Soil Loss Tolerance) (1,000			
ac.)	9.0%		
Impaired Streams 2007 (index)	7.0%		
C) COST OF DO ING BUSINESS FACTORS			
Cost of Doing Business (USACE index)	5.0%		
D) PERFO RMANCE FACTO RS			
Cost-effectiveness (ac./million dollars)	1.3%		
National Priorities (index)	1.5%		
Timely Practice Implementation (%)	1.5%		
Technical Service Providers (TSP) Implementation (ratio)	0.7%		
Total	100.0%		
Technical Assistance			
Cost of Doing Business-Milken (index)	3.75%		
Implementation Performance (%)	3.75%		
Payments for Practices (%)	37.5%		
Practice Workload (%)	30.0%		
Technical Assistance (TA) Percentage for Current Year			
Activities (%)	25.0%		
Total	100.0%		

Factor: Farms and Ranches (no.) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

**Source:** U.S. Census of Agriculture, 2002 – Table 1

**Definition:** Any operation from which \$1000 or more of agricultural products were produced and sold,

or normally would have been sold, during the year as reported in the US Census of Agriculture. It is not limited by the size of the operation or the type of products sold.

**Rationale:** The purpose of this factor is to identify NRCS customers in the agriculture sector and thus

serve as a measure of potential workload: the more farms and ranches, the greater the number of potential customers and thus the greater the demand for financial and technical

assistance.

Factor: Forest Land (ac.) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

Source: NRCS Natural Resources Inventory (NRI), 2003

**Definition:** Includes private, State, Tribal, and other non-Federally owned land. Forestland is land that

is at least 10 percent stocked by single-stemmed woody species of any size that will be at least 4 meters (13 feet) tall at maturity and has an understory of vegetation that is not grazed by domestic livestock. Factor calculated by subtracting Grazed Forest Land

acreage from total Forest Land.

**Rationale:** Forest land is not part of the other land use factors and is eligible for AMA. It links to the

Agency Strategic Goal, "Healthy Plant and Animal Communities."

Factor: Grazing Land (1,000 ac.) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

Source: NRCS Natural Resources Inventory (NRI), 2003

**Definition:** Total acres of pastureland, rangeland, and grazed forestland. This includes private, State,

Tribal, and other non-federally owned land. Pastureland is managed primarily for the production of introduced forage plants for livestock grazing. Pastureland may consist of a single species in a pure stand, a grass mixture, or a grass-legume mixture. Rangeland is land on which the climax or potential plant cover is composed principally of native grasses, grass-like plants, forbs or shrubs suitable for grazing and browsing, and introduced forage species that are managed like rangeland. Grasslands, savannas, many wetlands, some deserts, and tundra are considered to be rangeland. Certain communities of low forbs and shrubs, such as mesquite, chaparral, mountain shrub, and pinyon-juniper, are also included as rangeland. Grazed forestland is land that is at least 10 percent stocked by single-stemmed woody species of any size that will be at least four meters (13 feet) tall at maturity and has an understory of vegetation that is grazed by domestic livestock.

**Rationale:** The purpose of this factor is to address livestock related issues. Federal grazing land is

not included because the acreage of land being leased from the Forest Service and Bureau of Land Management is not quantified. It links to the Agency Strategic Goal, "Healthy Plant

and Animal Communities."

Factor: Irrigated Cropland (ac.) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

**Source:** U.S. Census of Agriculture, 2002 – Table 10

**Definition:** Land where supplemental water is applied to the soil for crop production. Irrigation is

intended to provide water requirements of plants not satisfied by rainfall. This category includes land watered by artificial or controlled means, such as sprinklers, flooding, furrows or ditches, and sub-irrigation. Water is supplied to crops by ditches, pipes, or other conduits. Water spreading is not considered irrigation. This factor includes irrigated

cropland and irrigated hayland. Irrigated cropland involves development of crop rotations,

use of fertilizer and the design of irrigation systems.

**Rationale:** To address water management, a national priority. Conservation systems for irrigated

cropland have a higher per acre cost for developing or delivering a dependable water source. Links to the PART long-term outcome measure "Million acre-feet of water conserved", annual output measure "Land with conservation applied to improve irrigation

efficiency" and the Agency Strategic Goal of "Clean and Abundant Water."

Factor: Livestock Animal Units (no. of AUEs) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

Source: U.S. Census of Agriculture, 2002 - Tables 16, 17, 19, 27, & 29 (Converted to Animal Unit

Equivalents -AUE)

**Definition:** Numbers of Animal Units, by State and size classes. Data is converted to Animal Unit

Equivalents (AUE) by summing animal units from each table.

**Rationale:** This factor is linked to the Agency Strategic Goals "Clean Air" and "Clean and Abundant

Water."

Factor: Non-Irrigated Cropland (ac.) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

**Source:** U.S. Census of Agriculture, 2002 – Table 1

**Definition:** Non-Irrigated cropland is used for the production of adapted crops for harvest and does not

include application of supplemental water. This factor includes all types of crop lands: commodity crops, specialty crops, non-cultivated and cultivated crops, hay land, and idle cropland. It is calculated by subtracting total acres of Irrigated Land from total acres of

Cropland.

**Rationale:** To address soil erosion and soil condition, a national priority as well as water quality. It

links to the Agency Strategic Goal, "High Quality, Productive Soils."

Factor: Non-Traditional Participants (Index) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

Source: U.S. Census of Agriculture, 2002 and U.S. Census, 1990 & 2000

**Definition:** An index composed of three measurements: 1) Beginning Farmers or Ranchers; 2)

Socially Disadvantaged Producers; and 3) Limited Resource Producers. The percent of total for each component is weighted by .333 and summed. Hawaii and Alaska are not included in the FAPD programs factor. Alaska is not included in the factor for CTA.

**Rationale:** Non-Traditional Participants often need additional time and assistance in order to

conserve natural resources without negatively influencing their financial situation. This may include development of innovative techniques, complex cost-sharing arrangements to reduce out-of-pocket expenditures, use of grants, etc. Many NRCS programs have participation incentives for Non-traditional Participants and CTA is used to support the

planning effort prior to program enrollment.

Factor: Specialty Crop Farms (no.) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

**Source:** U.S. Census of Agriculture, 2002 - Tables 27, 28, 30, 34, & 37

**Definition:** Number of Farms that grow specialty crops as defined by the Specialty Crops

Competitiveness Act of 2004.

**Rationale:** Specialty crops typically require more pesticides and fertilizers per acre than conventional

crops and pose special environmental concerns. Also, specialty cropland requires a more diverse set of conservation practices than conventional crops. Conservation systems implemented with specialty crop producers are often very complex (both in number of practices and degree of management intensity) and require practices with higher per acre

costs for installation.

Factor: Tribal Trust Land (ac.) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

Source: US Department of Interior, Bureau of Indian Affairs, Office of trust Serices, Division of

Land, Title and records Office, 2008

**Definition:** Tribal lands as defined by Bureau of Indian Affairs and includes Tribal trust and allotted

lands. Total acres of Trust Lands for which the United States holds title in trust for the benefit of a tribe (tribal trust land) or for an individual Indian (individual trust land). Trust land can be alienated or encumbered by the owner with the approval of the Secretary of Interior. This may be on or off-reservation and may be located in more than one state.

**Rationale:** Tribal lands are not part of the other land-use factors and are eligible for AMA. Much of the

Tribal land is neither captured in the NRI nor the Census of Agriculture.

Factor: Air Quality Non-Attainment Areas (Index) FA/TA: FA

Category: B) RESOURCE QUALITY FACTORS

**Source:** Environmental Protection Agency (EPA) - Air Quality Non-Attainment Areas, June 2007

**Definition:** Total number of counties where air pollution levels persistently exceed national air quality

standards established by the Clean Air Act and reported on the EPA website. Pollutants included in the evaluation are: PM-10, PM-2.5, and 8-hour Ozone. The affected acres in each county are added together for the state to obtain the percentage of the state impacted by non-attainment. The number of standards not attained is also added for each state.

These values are converted to a numerical rating.

**Rationale:** This factor represents a national natural resource priority. The presence of non-attainment

areas often limits the choice of conservation alternatives and results in higher per acre treatment costs for the conservation systems implemented. It links to the Agency Strategic Goal, "Clean Air." This factor was developed in consultation with the National Atmospheric

Resource Specialist.

Factor: At-Risk Species (no.) FA/TA: FA

Category: B) RESOURCE QUALITY FACTORS

Source: U.S. Fish & Wildlife Service, Threatened & Endangered Species System (TESS), 2007

**Definition:** Total number of threatened and endangered, proposed and candidate species within a

state. Species include vertebrate animals (mammals, birds, reptiles, amphibians, and fishes), invertebrate animals (clams, snails, insects, arachnids, and crustaceans), flowering

plants, and non-flowering plants (conifers and cycads, ferns and allies, and lichens).

**Rationale:** This factor addresses fish and wildlife, a national natural resource priority. The presence

of at-risk species contributes to higher per acre costs for implementing conservation systems. This factor was developed in consultation with the National Wildlife Biologist.

Factor: Cropland Eroding Above "T" (Soil Loss FA/TA: FA

Tolerance) (1,000 ac.)

Category: B) RESOURCE QUALITY FACTORS

**Source:** NRCS Natural Resources Inventory (NRI), 2003

**Definition:** Acres of land eroding greater than T. "T" is the soil loss tolerance factor expressed as the

maximum rate of annual soil loss that will permit crop productivity to be sustained

economically and indefinitely on a given soil. Soil erosion is the removal of soil by water and/or wind and is calculated on cultivated cropland, non-cultivated cropland, or hayland.

**Rationale:** To address air, soil and water quality national natural resource priorities. It is linked to the

Agency Strategic Goal, "High Quality, Productive Soils", the PART long-term outcome "Working cropland with improved soil condition" and annual output measure "cropland with conservation applied to improve soil quality". Soil erosion on cropland is of particular

interest because of its on-site impacts on soil quality and crop productivity, and its off-site

impacts on water quantity and quality, air quality, and biological activity.

Factor: Impaired Streams 2007 (Index) FA/TA: FA

Category: B) RESOURCE QUALITY FACTORS

Source: Federal Water Pollution Control Act (Clean Water Act) Section 303 (d) U.S.

Environmental Protection Agency (EPA) reports, 2007

**Definition:** An index based on the miles of impaired streams and rivers in a state. The impaired

streams and rivers data is obtained from EPA reports, both 303d and 305b on EPA's ATTAINS website: http://www.epa.gov/waters/ir/. These reports are updated biannually on a staggered schedule. State environmental agencies are responsible for identifying all waters where required pollution controls are not sufficient to attain or maintain applicable EPA water quality standards, and rank the waters according to the use and the severity of the pollution problem. These "water quality limited" bodies, reported in 305b and 303d lists are expected to exceed water quality standards in the next two years and need additional

pollution controls.

**Rationale:** To address water quality, a national natural resource priority. It links to the Agency

Strategic Goal, "Clean and Abundant Water." The miles of impaired rivers and streams reflect the interface between water and AMA-eligible land. It is along this edge that water quality is impacted by improvements in land management. EPA data on acres of impaired water bodies was not used as AMA activities do not occur on water bodies, which are defined by each state and can include ponds and lakes. Additionally, it is reasoned that water quality improvements made in rivers and streams will result in improvements in water bodies. Factor may be redundant with crop eroding at greater than T factors. However, "impaired rivers and streams" measure damage that has already occurred vs. potential damage. This factor was developed in consultation with the National Leader for Clean

Water.

Factor: Cost of Doing Business (USACE index) FA/TA: FA

Category: C) COST OF DOING BUSINESS

**Source:** U.S. Army Corps of Engineers, Civil Works Construction Cost Index System, Table A3,

2008

**Definition:** A state by state index based on a representative breakdown of labor, materials, and

equipment costs. Table A-3 is used to compare or adjust a project cost prepared for a project in one state to a project located in another state. Note that Alaska and Hawaii are

not considered in the national average.

Rationale: Just as the cost of living varies between states, the cost of doing business also changes. In

the context of Financial Assistance Programs, this relates to the cost of construction materials for program practice installation. NRCS does not have control over such costs other than to ensure it uses the least costly source possible. This factor helps to avoid

penalizing states in which materials are more expensive.

Factor: Cost-Effectiveness (ac./million dollars) FA/TA: FA

Category: D) PERFORMANCE FACTORS

**Source:** NRCS ProTracts - Application and Evaluation Ranking Tool, 2008

**Definition:** Total treated acres improved per \$1million dollars of financial assistance.

Rationale: This is a PART efficiency measure. It illustrates the cost to implement one acre of

conservation treatment to increase TA efficiency.

Factor: National Priorities (Index) FA/TA: FA

Category: D) PERFORMANCE FACTORS

Source: NRCS ProTracts - Application and Evaluation Ranking Tool, 2008

**Definition:** The weight each state places on national natural resource priorities as indicated by the

natural resource concerns funded in contracts. This is determined through the Application

and Evaluation Ranking Tool.

**Rationale:** Helps focus AMA dollars on key national priorities. The program rule states: "the Chief of

the NRCS will: (a) Use an AMA fund allocation formula that reflects National priorities and measures and that uses available natural resource concerns data to distribute funds to the state level; and (b) provide a performance incentive to NRCS in States that demonstrate a high level of program performance in implementing AMA. Performance incentives shall

consider factors such as ... effectively addressing National Priorities".

Factor: Technical Service Providers (TSP) FA/TA: FA

Implementation (ratio)

Category: D) PERFORMANCE FACTORS

Source: NRCS, Financial Management Division (FMD), Foundational Financial Information

System (FFIS), 2008

**Definition:** Measurement of the agency's ability to provide technical assistance service to increase

program implementation and is expressed as a ratio of TSP disbursements to obligations.

Rationale: This factor provides a measure of a State's commitment to TSPs and effective fund

management

Factor: Timely Practice Implementation (%) FA/TA: FA

Category: D) PERFORMANCE FACTORS

Source: NRCS ProTracts - Application and Evaluation Ranking Tool, 2006-2008

**Definition:** Percent of conservation practices completed in the first three years of the contract in

ProTracts.

**Rationale:** This factor seeks to improve contract implementation. This factor links to the PART

efficiency measure, "Percent of conservation practices completed in the first three years of

the contract". This factor was developed in consultation with the Late Rate Team.

Factor: Cost of Doing Business-Milken (Index) FA/TA: TA

Category: Technical Assistance (TA) Factor

**Source:** Milken Institute, Cost of Doing Business Index, 2007

**Definition:** Each state receives a rating based upon the level of cost for wages, taxes and support

costs in that state. This number serves as an indicator of the expenditures a state may

have when providing assistance.

**Rationale:** Just as the cost of living varies between states, the cost of doing business also changes.

NRCS does not have control over such costs other than to ensure it uses the least costly source possible. This widely accepted state level index of the Cost of Doing Business helps to avoid penalizing states for which day-to-day operation is more expensive.

Factor: Implementation Performance (%) FA/TA:

Category: Technical Assistance (TA) Factor

Source: NRCS ProTracts - Application and Evaluation Ranking Tool, 2006-2008

**Definition:** Average percentage of conservation implementation within three years of financial

assistance (FA) obligation.

**Rationale:** To reward timely installation of conservation practices.

Factor: Payments for Practices (%) FA/TA:

Category: Technical Assistance (TA) Factor

**Source:** NRCS ProTracts - Application and Evaluation Ranking Tool, 2006-2008

**Definition:** A 3-year rolling average of payments by the practice types of Management, Structural,

Vegetative, and Activity.

**Rationale:** This factor works in conjunction with factor 1. This Technical Assistance formula aims to

allocate funds in the most equitable and transparent way possible by establishing proportional relationships among states based on data related to technical assistance needs. Historical information on installed conservation practices is an indicator of the proportional needs among states for technical assistance. Additionally states may implement different types of practices in the first year of a contract with different technical assistance requirements. Some practices types, such as structural practices, require more resources and therefore more technical assistance than other practices. Factor 1, 'TA Percentage for Current Year Activities' allocates the same amount of TA for current year activities per FA dollar to all state. This factor serves to address differences in current year

TA needs.

Factor: Practice Workload (%) FA/TA:

Category: Technical Assistance (TA) Factor

Source: NRCS ProTracts, 2006-2008 and Activity Based Costing Data (ABC), 2007

**Definition:** The average instance of each practice obligated over the last three years combined with

the state ABC data time for the practice instance.

Rationale: This factor aims to capture the relative workload among states associated with practices

scheduled for implementation. Practice implementation constitutes a significant EQIP workload; approximately 34% of time charged to EQIP. CIS report 1.3 for EQIP, National

Summary of Activities for 2007, indicates that 34% of time charged to EQIP is for

conservation implementation.

Factor: Technical Assistance (TA) Percentage for FA/TA:

Current Year Activities (%)

Category: Technical Assistance (TA) Factor

Source: NRCS Cost of Programs Model, 2008

**Definition:** The percentage of total Technical Assistance needed for current year program activities.

**Rationale:** The Cost of Programs model was developed by NRCS to estimate the cost of

administering and operating conservation programs. This factor utilizes the Cost of

Programs model's estimate of current year technical assistance needs to allocate a portion

of technical assistance for current year program activities.

#### AMA FY 2009 ALLOCATION FORMULA

#### Allocation Formula Factor Weights

Previous allocation formula factors were weighted using a leadership selection process originating from program manager recommendations. The rational for these weights were not properly documented and were highlighted as an area of concern in the independent evaluation completed by World Perspectives, Inc. For FY 2009, a paired comparison approach is being used to assist in assigning weights to factors. The following is a discussion of the paired comparison results and weighting of factors for the AMA FA formula.

#### Paired Comparison

Use of Paired Comparison analysis provides a means for assigning weights that is easy to understand and clearly distinguishes the importance of each factor relative to all others in the formula. Results from the Leadership Team, Programs Advisory Board, and the AMA Program Manager were combined and averaged to provide a comprehensive rank order of the formula factors. Major breaks in the averaged scores were used to identify groupings of high, medium, and low factors. Weights were then assigned to each of the groupings with factors at the top of the rank order receiving the highest weight, medium ranked factors receiving a moderate weight, and low ranked factors receiving a low weight. High, medium, and low groupings and weights were assigned to moderate funding changes to the states.

Results of the paired comparison are as follows:

Paired Comparison (PC) Ranking - AMA Factors			
FACTOR NAME	PC Rank Order	HML Conversion	Average PC Score
Specialty Crop Farms (no.)	1	Н	6.5
Cropland Eroding Above "T" (1,000 ac.)	2	Н	6.3
Farms and Ranches (no.)	3	Н	added
Non-Irrigated Cropland (ac.)	4	Н	5.6
Irrigated Cropland (ac.)	5	Н	5.4
Livestock Animal Units (no.AUEs)	6	Н	5.1
Grazing Land (1,000 ac.)	7	M	4.7
Non-Traditional Participants (index)	8	M	added
Impaired Streams (index)	7	M	4.7
Forest Land (ac.)	8	L	2.6
At-Risk Species (no.)	9	L	2.2
Wetlands (1,000 ac.)	10	L	added
Tribal Trust Land (ac.)	11	L	added
Air Quality Non-Attainment Areas(index)	12	L	1.9
PERFORMANCE FACTORS			
Timely Practice Implementation (%)	13	Н	High
National Priorities (index)	14	Н	High
Cost-Effectiveness (index)	15	M	added
TSP Implementation (index)	16	L	Low
Note: "added" = factor added after paired comparison evaluation			

#### AMA FY 2009 ALLOCATION FORMULA

Factors that fell within the same grouping were given the same weight for each of the High, Medium, Low factor weights.

Paired Comparison Factor Ranking and Weights - AMA Factors			
FACTOR NAME	PC Rank Order	HML Conversion	Weight
Specialty Crop Farms (no.)	1	Н	10%
Cropland Eroding Above "T" (ac.)	2	Н	10%
Farms and Ranches (no.)	added	Н	10%
Non-Irrigated Cropland (ac.)	3	Н	10%
Irrigated Cropland (ac.)	4	Н	10%
Livestock Animal Units (no. AUEs)	5	Н	10%
Grazing Land (1,000 ac.)	6	М	7%
Non-Traditional Participants (index)	added	М	7%
Impaired Streams (index)	7	М	7%
Forest land (ac.)	8	L	2.80%
At-Risk Species (no.)	9	L	2.80%
Wetlands (1,000 ac.)	added	L	2.80%
Tribal Trust Land (ac.)	added	L	2.80%
Air Quality Non-Attainment Areas (index)	10	L	2.80%
PERFORMANCE FACTORS			
Timely Practice Implementation (%)	Н	Н	1.50%
National Priorities (index)	Н	Н	1.50%
Cost-Effectiveness (index)	added	М	1.30%
TSP Implementation (index)	L	L	0.70%
		TOTAL	100%
Note: "added" = factor added after paired comparison evaluation			

Note: Paired Comparison percentages may vary from the final formula percentages due to addition of new factors later in the allocation cycle.

## **BOOK VIII**



### Fiscal Year 2009

## **Chesapeake Bay Watershed Initiative**



#### **Purpose and Authority**

The purpose of the Chesapeake Bay Watershed Initiative (CBWI) technical and financial assistance funds is to help agricultural producers implement natural resources conservation practices on agricultural lands in the Chesapeake Bay watershed. There are six eligible states: Delaware, Maryland, New York, Pennsylvania, Virginia, and West Virginia.

The CBWI helps agricultural producers improve water quality and quantity, and restore, enhance, and preserve soil, air, and related resources in the Chesapeake Bay watershed through the implementation of conservation practices. These conservation practices reduce soil erosion and nutrient levels in ground and surface water, improve, restore, and enhance wildlife habitat, and help address air quality and related natural resource concerns. Participation in the program is voluntary.

The statutory authorities for CBWI policy include the following:

- Section 1240Q of the Food Security Act, as added by the Food, Conservation, and Energy Act of 2008 (Pub.L. 110-234) (2008 Act), established the Chesapeake Bay Watershed Initiative and defined the Chesapeake Bay Watershed to mean all tributaries, backwaters, and side channels, including their watersheds, draining into the Chesapeake Bay. This area includes portions of the states of Delaware, Maryland, New York, Pennsylvania, Virginia, and West Virginia.
- NRCS is assigned the responsibility by the Secretary of Agriculture for carrying out the initiative objectives.
- The CCC administers the Chesapeake Bay Watershed Initiative under the general supervision of the Chief of the Natural Resources Conservation Service (NRCS), who is a vice president of CCC.
- The Initiative gives special, but not exclusive, consideration to producers' applications in the following river basins: Susquehanna River, Shenandoah River, Potomac River (including North and South Potomac), and the Patuxent River.
- The Initiative is carried out through the various natural resources conservation programs authorized under subtitle D, Title XII of the Food Security Act of 1985, 16 U.S.C. 3830-3839bb-5.

The CBWI assistance in FY 2009 will be delivered through the Environmental Quality Incentives Program (EQIP). All EQIP requirements and policies will apply (see 7 CFR Part 1466).

CBWI FY 2009 Formula Factors			
Financial Assistance			
A) RESOURCE BASE FACTORS	Weight		
Farms and Ranches (no.)	7.6%		
Forest Land (ac.)	2.8%		
Irrigated Cropland (ac.)	7.6%		
Livestock Animal Units (no. of AUEs)	15.3%		
Non-Irrigated Cropland (ac.)	15.3%		
Pastureland (ac.)	7.6%		
B) RESOURCE QUALITY FACTORS			
Ag Sources of Total Nitrogen (ac.)	15.3%		
Ag Sources of Total Phosphorus (ac.)	15.3%		
Air Quality Non-Attainment Areas (index)	2.8%		
At-Risk Species (no.)	2.8%		
Impaired Streams 2007 (index)	7.6%		
Total	100.0%		
Technical Assistance			
No Formula, Technical Assistance (TA)			
Percentage for Current Year Activities (%) Only	100.0%		
Total	100.0%		

Factor: Farms and Ranches (no.) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

**Source:** U.S. Census of Agriculture, 2002 – Table 1

**Definition:** This factor used county data for Chesapeake Bay Watershed counties. Watershed

analysis of Ag Census was conducted by USDA-NRCS-Resource Inventory and Analysis

Division (RIAD).

Any operation from which \$1000 or more of agricultural products were produced and sold, or normally would have been sold, during the year as reported in the US Census of

Agriculture. It is not limited by the size of the operation or the type of products sold.

**Rationale:** The purpose of this factor is to identify NRCS customers in the agriculture sector and thus

serve as a measure of potential workload: the more farms and ranches, the greater the number of potential customers and thus the greater the demand for financial and technical assistance. This factor also achieves the legislative intent of Section 2605 of the Food, Conservation, and Energy Act of 2008 (2008 Farm Bill). An intent of Section 2605 is to help "producers in implementing conservation activities on agricultural lands in the

Chesapeake Bay watershed . . ."

Factor: FA/TA: FA

Category: A) RESOURCE BASE FACTORS

**Source:** Forest Inventory and Analysis 1999-2006, U.S. Forest Service

**Definition:** Land at least 10% stocked by forest trees of any size, including land that formerly had such

tree cover and that will be naturally or artificially regenerated. Forest land includes

transition zones, such as areas between heavily forested and non-forested lands that are at least 10% stocked with forest trees and forest areas adjacent to urban and built-up lands. The minimum area for classification of forest land is one acre. Roadside, streamside, and shelterbelt strips of trees must be at least 120 ft. to qualify as forest land. Unimproved roads and trails, streams, and clearings in forest areas are classified as forest if less than

120 ft. wide.

**Rationale:** Forest land is not part of the other land use factors and is eligible for EQIP. It links to the

Agency Strategic Goal, "Healthy Plant and Animal Communities." Only private lands are eligible under the CBWI and therefore private forest lands are used for this formula factor.

Factor: Irrigated Cropland (ac.) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

**Source:** U.S. Census of Agriculture, 2002 – Table 10

**Definition:** This factor used county data for Chesapeake Bay Watershed counties. Watershed

analysis of Ag Census was conducted by USDA-NRCS-Resource Inventory and Analysis

Division (RIAD).

Land where supplemental water is applied to the soil for crop production. Irrigation is intended to provide water requirements of plants not satisfied by rainfall. This category includes land watered by artificial or controlled means, such as sprinklers, flooding, furrows or ditches, and sub-irrigation. Water is supplied to crops by ditches, pipes, or other conduits. Water spreading is not considered irrigation. This factor includes irrigated cropland and irrigated hayland. Irrigated cropland involves development of crop rotations, use of fertilizer and the design of irrigation systems.

Due to the lack of county level data because of disclosure issues, Irrigated land \
Harvested cropland (acres) in the Chesapeake Bay area was estimated by taking the percent of the state area in the Chesapeake Bay watershed times the total census acres for the state for this category -- with the exception of West Virginia. In West Virginia, there is no estimate for the State and thus the estimate is the sum of the West Virginia Chesapeake Bay watershed counties where data is available.

**Rationale:** To address water management, a national priority. Conservation systems for irrigated

cropland have a higher per acre cost for developing or delivering a dependable water source. Links to the PART long-term outcome measure "Million acre-feet of water conserved", annual output measure "Land with conservation applied to improve irrigation efficiency" and the Agency Strategic Goal of "Clean and Abundant Water." This factor also achieves the legislative intent of Section 2605 of the Food, Conservation, and Energy Act of 2008 (2008 Farm Bill). An intent of Section 2605 is to help producers implement conservation activities on agricultural lands in the Chesapeake Bay watershed for the purposes of "(1) improving water quality and quantity in the Chesapeake Bay watershed."

Factor: Livestock Animal Unit Equivalents (no.) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

Source: U.S. Census of Agriculture, 2002 - Tables 16, 17, 19, 27, & 29 (Converted to Animal Unit

Equivalents -AUE)

**Definition:** This factor used EPA Chesapeake Bay Program Office (CBPO) computer model data,

which comes from NASS 2002 Agriculture Census data.

Animal Unit Equivalents. The CBPO provided a table of Animal Unit Equivalents used in the CBPO computer model. The CBPO computer model data used for the allocation formula includes the following animal types: pullets, broilers, layers, turkeys, beef, dairy, other cattle, hogs and pigs for breeding, hogs for slaughter, sheep and lambs, angora

goats, and milk goats.

**Rationale:** The 2002 Farm Bill requires that 60% of the EQIP funds address livestock related issues.

This factor is linked to the Agency Strategic Goals "Clean Air" and "Clean and Abundant Water." This factor also achieves the legislative intent of Section 2605 of the Food, Conservation, and Energy Act of 2008 (2008 Farm Bill). An intent of Section 2605 is to help producers implement conservation activities on agricultural lands in the Chesapeake Bay watershed for the purposes of "(1) improving water quality and quantity in the Chesapeake Bay watershed; and (2) restoring, enhancing, and preserving soil, air, and

related resources in the Chesapeake Bay watershed."

Factor: Non-Irrigated Cropland (ac.) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

**Source:** U.S. Census of Agriculture, 2002 – Table 1

**Definition:** This factor used county data for Chesapeake Bay Watershed counties. Watershed

analysis of Ag Census was conducted by USDA-NRCS-Resource Inventory and Analysis

Division (RIAD).

Non-Irrigated cropland is used for the production of adapted crops for harvest and does not include application of supplemental water. This factor includes all types of crop lands: commodity crops, specialty crops, non-cultivated and cultivated crops, hayland, and idle cropland. Non-irrigated cropland is obtained by subtracting irrigated cropland data (Census of Agriculture, 2002 – Table 10) from total cropland data (Census of Agriculture, 2002 –

Table 1).

**Rationale:** To address soil erosion and soil condition, a national priority, as well as water quality. It

links to the Agency Strategic Goal, "High Quality, Productive Soils" and the PART long-term outcome measure "Working cropland with improved soil condition" and annual output measure "cropland with conservation applied to improve soil quality". This factor also achieves the legislative intent of Section 2605 of the Food, Conservation, and Energy Act of 2008 (2008 Farm Bill). An intent of Section 2605 is to help producers enhance land and water resources "(1) by controlling erosion and reducing sediment and nutrient levels in

ground and surface water."

Factor: Pasture Land (ac.) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

**Source:** U.S. Census of Agriculture, 2002 – Table 8

**Definition:** This factor used county data for Chesapeake Bay Watershed counties. The Census of

Agriculture defines pastureland as other than cropland and woodland pastured. The Census further states that this land use category is very inclusive and encompasses all grazable land that does not qualify as cropland pasture. It may be irrigated or dry land. In

some areas, it can be a high quality pasture that could not be cropped without

improvements. In other areas, it is barely able to be grazed and is only marginally better than wasteland. Watershed analysis of Ag Census was conducted by USDA-NRCS-

Resource Inventory and Analysis Division (RIAD).

Total acres of pastureland. This includes private, State, Tribal, and other non-federally owned land. Pastureland is managed primarily for the production of introduced forage plants for livestock grazing. Pastureland may consist of a single species in a pure stand, a

grass mixture, or a grass-legume mixture.

**Rationale:** The purpose of this factor is to address livestock related issues. Federal grazing land is

not included because the acreage of land being leased from the Forest Service and Bureau of Land Management is not quantified and does not accurately depict EQIP eligible acres. It links to the Agency Strategic Goal, "Healthy Plant and Animal Communities" and the PART annual output measure, "Grazing and forest land with conservation applied to protect and improve the resource base". This factor also achieves the legislative intent of Section 2605 of the Food, Conservation, and Energy Act of 2008 (2008 Farm Bill). An intent of Section 2605 is to help producers implement conservation activities on agricultural lands in the Chesapeake Bay watershed for the purposes of "(2) restoring, enhancing, and

preserving soil, air, and related resources in the Chesapeake Bay watershed.

Factor: Ag Sources of Total Nitrogen (acres) FA/TA: FA

Category: B) RESOURCE QUALITY FACTORS

**Source:** United States Geological Survey (USGS) – 1997 Sparrow Data, and the Chesapeake Bay

Program Office.

**Definition:** Ag Sources of Total Nitrogen refers to a data set put together using the USGS SPARROW

model. The SPARROW model provides information about the geographic distribution of the amounts of nitrogen and phosphorus in streams of the Chesapeake Bay watershed and how much is delivered to the Bay. The SPARROW model also identifies the major sources of nutrients. The results of this model are being used to help select geographic areas to enhance implementation of management action. The acres of agricultural sources of total nitrogen will be the Chesapeake Bay Program Office's GIS output of acres

that are in the 75-100 percentile range for delivered nitrogen.

Rationale: To address water quality, a Chesapeake Bay Watershed Initiative natural resource priority.

It links to the Agency Strategic Goal, "Clean and Abundant Water." In addition, geographic prioritization based on agricultural nutrient contribution has been identified as a way to accelerate water quality improvements to the Bay watershed. Nitrogen has been identified

as a leading cause of Bay water quality impairment.

Factor: Ag Sources of Total Phosphorus (acres) FA/TA: FA

Category: B) RESOURCE QUALITY FACTORS

**Source:** United States Geological Survey (USGS) – 1997 Sparrow Data, and the Chesapeake Bay

Program Office.

**Definition:** Ag Sources of Total Phosphorus refers to a data set put together using the USGS

SPARROW model. The SPARROW model provides information about the geographic distribution of the amounts of nitrogen and phosphorus in streams of the Chesapeake Bay watershed and how much is delivered to the Bay. The SPARROW model also identifies the major sources of nutrients. The results of this model are being used to help select geographic areas to enhance implementation of management action. The acres of agricultural sources of total phosphorous will be the Chesapeake Bay Program Office's GIS output of acres that are in the 75-100 percentile range for delivered phosphorous.

Rationale: Ag Sources of Total Phosphorus refers to a data set put together using the USGS

SPARROW model. The SPARROW model provides information about the geographic distribution of the amounts of nitrogen and phosphorus in streams of the Chesapeake Bay watershed and how much is delivered to the Bay. The SPARROW model also identifies the major sources of nutrients. The results of this model are being used to help select geographic areas to enhance implementation of management action. The acres of agricultural sources of total phosphorous will be the Chesapeake Bay Program Office's GIS output of acres that are in the 75-100 percentile range for delivered phosphorous.

Factor: Air Quality Non-Attainment Areas (index) FA/TA: FA

Category: B) RESOURCE QUALITY FACTORS

**Source:** Environmental Protection Agency (EPA) Air Quality Non-Attainment Areas, June 2007

**Definition:** Total number of counties where air pollution levels persistently exceed national air quality

standards established by the Clean Air Act and reported on the EPA website. Pollutants included in the evaluation are: PM 2.5 and 8-hour Ozone. (PM-10 was not included because no counties in the watershed had PM10 impairments). Within the Chesapeake Bay Watershed, the number of counties with PM2.5 and 8-hour Ozone were added together to create a state total. State totals were then divided by the total number of

counties within each states' Chesapeake Bay watershed to arrive at an index.

**Rationale:** This factor represents a national natural resource priority. The presence of non-attainment

areas often limits the choice of conservation alternatives and results in higher per acre treatment costs for the conservation systems implemented. It links to the Agency Strategic Goal, "Clean Air." To further clarify the method used the below example is provided for the

state of Delaware:

Total # of counties in watershed = 3

Total # of counties with PM2.5 impairment = 1

Total # of counties with 8-hour Ozone impairment =3

Total impairment = 4

Proportioned for # of counties, index = 1.3

Factor: At-Risk Species (no.) FA/TA: FA

Category: B) RESOURCE QUALITY FACTORS

**Source:** USDA-NRCS, NatureServe Data and Natural Heritage Member Programs, 2006.

**Definition:** This factor used County data from the data source for the Chesapeake Bay Watershed counties. Watershed analysis of the information was conducted by USDA-NRCS-

Resource Inventory and Analysis Division (RIAD).

The data source uses the following categories of At Risk species:

G1: NatureServe Global Conservation Status Rank, Critically Imperiled - At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors

G2: NatureServe Global Conservation Status Rank, Imperiled - At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.

TE: Threatened or Endangered Species - Species listed as threatened or endangered under the federal Endangered Species Act. Most TE species are also ranked as G1 or G2 by NatureServe, but some are not. Inclusion of this category ensures that all federally listed species are included, regardless of NatureServe status rank.

Total number of at-risk species occurrences within a state's Chesapeake Bay Watershed. Species include vertebrate animals (mammals, birds, reptiles, amphibians, and fishes), invertebrate animals (clams, snails, insects, arachnids, and crustaceans), flowering plants, and non-flowering plants (conifers and cycads, ferns and allies, and lichens).

#### Rationale:

This factor addresses fish and wildlife, a national natural resource priority. The presence of at-risk species contributes to higher per acre costs for implementing conservation systems. This factor was developed in consultation with the National Wildlife Biologist. This factor also achieves the legislative intent of Section 2605 of the Food, Conservation, and Energy Act of 2008 (2008 Farm Bill). An intent of Section 2605 is to help producers enhance land and water resources "(2) by planning, designing, implementing, and evaluating habitat conservation, restoration, and enhancement measures where there is significant ecological value . . ."

Factor: Impaired Streams 2007 (Index) FA/TA: FA

Category: B) RESOURCE QUALITY FACTORS

**Source:** Federal Water Pollution Control Act (Clean Water Act) Section 303 (d) U.S. and 305(b)

U.S. Environmental Protection Agency (EPA) Reports, 2002-2006

**Definition:** An index based on the miles of impaired streams and rivers in a state. The impaired

streams and rivers data is obtained from EPA reports, both 303d and 305b on EPA's ATTAINS website: http://www.epa.gov/waters/ir/. These reports are updated biannually on a staggered schedule. State environmental agencies are responsible for identifying all waters where required pollution controls are not sufficient to attain or maintain applicable EPA water quality standards, and rank the waters according to the use and the severity of the pollution problem. These "water quality limited" bodies, reported in the 305b and 303d lists are expected to exceed water quality standards in the next two years and need additional pollution controls. Miles of impaired streams data could not be culled for the specific land areas within each state within the Chesapeake Bay Watershed, therefore an index was created for each state miles of impaired streams based on the proportion of a

states land area within the watershed.

**Rationale:** To address water quality, a national natural resource priority. It links to the Agency

Strategic Goal, "Clean and Abundant Water." The miles of impaired rivers and streams reflect the interface between water and CBWI-eligible land. It is along this edge that water quality is impacted by improvements in land management. EPA data on acres of impaired water bodies was not used as CBWI activities do not occur on water bodies, which are defined by each state and can include ponds and lakes. Additionally, it is reasoned that water quality improvements made in rivers and streams will result in improvements in water

bodies.

#### Allocation Formula Factor Weights

Previous allocation formula factors were weighted using a leadership selection process originating from program manager recommendations. The rational for these weights was not properly documented and the lack of sufficient documentation was highlighted as an area of concern in the independent evaluation completed by World Perspectives, Inc. For FY2009, it was decided to use a paired comparison approach to assist in assigning weights to factors. The following is a discussion of the paired comparison results and weighting options for the CBWI.

#### **Paired Comparison**

Use of Paired Comparison analysis provides a means for assigning weights that is easy to understand and clearly distinguishes the importance of each factor relative to all others in the formula. Results from the Chesapeake Bay Watershed State Conservationists' meeting were combined and averaged to provide a comprehensive rank order of the formula factors. Major breaks in the averaged scores were used to identify groupings of High, Medium, and Low factors. Weights were then assigned to each of the groupings with factors at the top of the rank order receiving the highest weight, medium ranked factors receiving a moderate weight, and low ranked factors receiving a low weight. High, Medium, and Low groupings and weights were assigned to moderate funding changes to the states.

Results of the paired comparison are as follows:

CBWI Paired Comparison (PC) Ranking			
FACTOR NAME	Rank Order	HML Conversion	PC Score
Livestock Animals (units)	1	Н	11
Ag Sources Total Nitrogen (ac.)	2	H	10
Non-irrigated Cropland (ac.)	3	Н	9
Ag Sources Total Phosphorous (ac.)	4	Н	8
Impaired Streams (index)	5	М	7
Farm and Ranches (no.)	6	М	6
Pastureland (ac.)	7	М	5
Irrigated Cropland (ac.)	8	М	4
Forest Land (ac.)	9	L	3
At-Risk Species (no.)	10	L	2
Air Quality Non-attainment Areas (index)	11	L	1

Factors that fell within the same grouping were given the same weight for each of the High, Medium, & Low factor weights.

CBWI Paired Comparison Rank Order and Weights			
FACTOR NAME	PC Rank Order	HML Conversion	Weight
Livestock Animals (units)	1	Н	15.3%
Ag Sources Total Nitrogen (ac.)	2	Н	15.3%
Non-irrigated Cropland (ac.)	3	Н	15.3%
Ag Sources Total Phosphorous (ac.)	4	Н	15.3%
Impaired Streams (index)	5	М	7.6%
Farm and Ranches (no.)	6	М	7.6%
Pastureland (ac.)	7	М	7.6%
Irrigated Cropland (ac.)	8	М	7.6%
Forest Land (ac.)	9	L	2.8%
At-Risk Species (no.)	10	L	2.8%
Air Quality Non-attainment Areas			
(index)	11	L	2.8%
		TOTAL	100%

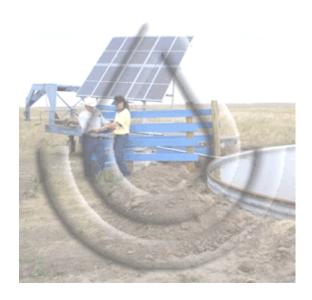
Note: Paired Comparison percentages may vary from the final formula percentages due to addition of new factors later in the allocation cycle.

## **BOOK IX**



### Fiscal Year 2009

## Wetlands Reserve Program Allocation Formula



#### Purpose and Authority

The Wetlands Reserve Program (WRP) is a voluntary program offering landowners financial and technical assistance to restore, protect, and enhance wetlands and associated uplands through permanent easements, 30-year easements, long-term restoration agreements, and 30-year contracts on tribal lands. The program is designed to achieve maximum wetland functions and values while obtaining optimum wildlife habitat on private or tribal lands in the most cost effective manner possible.

Eligible land includes wetlands cleared or drained for farming, pasture, or timber production; certain adjacent lands that contribute significantly to wetland functions and values; previously restored wetlands that need long-term protection; upland areas needed to provide an adequate buffer or that contribute to creating a manageable boundary; drained wooded wetlands; existing or restorable riparian habitat corridors that connect protected wetlands; and certain lands substantially altered by flooding. The land must be restorable and be suitable for providing wildlife benefits.

The 2008 Farm Bill reauthorized the Wetlands Reserve Program (WRP) through 2012; raised the total acreage enrollment cap to 3,041,200 acres with no annual cap; and added a new seven-year ownership requirement with limited waiver provisions. In addition the changes in the 2008 farm bill include the following

- Restricted the program to private and tribal lands.
- Changed the easement compensation procedures.
- Ensured the eligibility of cropland or grassland that was used for agricultural production prior to being flooded by a closed lake basin or pothole.
- Established the authority for the NRCS to enter into agreements with state, local and tribal governments to carry out a special Wetlands Reserve Enhancement Project for the purpose of enhancing delivery of technical assistance.
- Requires NRCS to carry out a pilot program in which a landowner may reserve grazing rights if the grazing is compatible with long term protection and enhancement of the wetland

The statutes that have authorized the Wetlands Reserve Program are:

- The Food, Conservation, and Energy Act of 2008 (P.L. 110-246);
- The Farm Security and Rural Investment Act of 2002 (P.L. 107-171);
- The Federal Agriculture Improvement and Reform Act of 1996 (P.L. 104-127); and
- The Food, Agriculture, Conservation, and Trade Act of 1990 (P.L. 101-624).

WRP FY 2009 Formula Factors		
Financial Assistance		
A) RESOURCE BASE FACTORS	Weight	
Agricultural Working Wetlands (1,000 ac.)	14.5%	
Hydric soils (ac.)	8.0%	
State Wetlands Loss (%)	11.5%	
B) RESOURCE QUALITY AND PRIORITY FACTORS		
Impaired Streams (mi.)	8.0%	
Impaired Wetlands (ac.)	11.5%	
Threatened, Endangered and Declining Species Habitat (no.)	11.5%	
C) COST OF DO ING BUSINESS		
Cost of Doing Business-Milken (index)	5.0%	
D) PERFORMANCE FACTORS	3.070	
Acres Restored (%)	7.5%	
Easements Closed (%)		
Easements Closed Within 12 Months (3 yr. avg.) (%)	7.5%	
Easements with Restoration Completed Within 3 years of	7.5%	
Easement Closing (3 yr. avg.)		
	7.5%	
Total	100%	
Technical Assistance		
Acres of Wetlands Protected By Easement FY 2008 (Percent of	I	
PRS target achieved)	1.0%	
Acres of Wetlands Restored, Created or Enhanced FY2008		
(Percent of PRS target achieved)	1.0%	
Contracts to be Enrolled, acres (percent of national total)	9.5%	
Contracts to be Enrolled, number (percent of national total)	9.5%	
Cost of Doing Business-Milken (index)	5.0%	
Easements Closed Within 12 Months in FY2008 (percent of state		
total)	1.0%	
Easements with Restoration Completed Within 3 Years of		
Easemeent Closing (3 yr. avg.)	1.0%	
Easements to be Closed in FY2009, acres (percent of national		
total)	6.3%	
Easements to be Closed in FY2009, number (percent of national		
total)	6.3%	
Prior Year Contracts, acres (percent of national total)	6.3%	
Prior Year Contracts, number (percent of national total)	6.3%	
Restoration to be Completed in FY2009, acres (percent of national	0.5 /0	
total)	20.8%	
Restoration to be Completed in FY2009, number (percent of national total)	20.8%	
Technical Assistance (TA) Percentage for Current Year Activities	20.070	
(%)	5.0%	
Total	100%	

Factor: Agricultural Working Wetlands (1,000 ac.) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

**Source:** NRCS Natural Resources Inventory (NRI), 2003

**Definition:** The acres of Agricultural Working Wetlands in a State as a percent of the national total.

Agricultural Working Wetlands are non-federal wetlands that are cropland, pastureland or rangeland. This factor is the sum of the following 2003 Natural Resources Inventory (NRI)

data elements: Wetlands with Cropland; Wetlands within CRP; Wetlands withing

Pastureland; Wetlands within Rangeland.

**Rationale:** The statutory purpose of the WRP is to restore and protect eligible wetlands. There is no

available data that directly shows the acres of land that would be eligible for enrollment to meet this purpose in any given State. Three (3) Natural Resource Base factors were selected as relative indicators of the amount of wetlands in a State. When used as a group they serve as a relative indicator of the potential for eligible lands to exist in that State. Because they are relative indicators, none of the factors used alone would be a reasonable

measure of potential enrollment.

Factor: Hydric Soils (%) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

**Source:** NRCS Natural Resources Inventory (NRI), 1992 -1997

**Definition:** The acres of Hydric soils in a State as a percent of the national total.

**Rationale:** The statutory purpose of the WRP is to restore and protect eligible wetlands. There is no

available data that directly shows the acres of land that would be eligible for enrollment to meet this purpose in any given State. Three (3) Natural Resource Base factors were selected as relative indicators of the amount of wetlands in a State. When used as a group they serve as a relative indicator of the potential for eligible lands to exist. Because they are relative indicators, none of the factors used alone would be a reasonable measure of

potential enrollment.

Factor: State Wetlands Loss (%) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

Source: U.S. Fish and Wildlife Service (USFWS) report to Congress – "Wetlands Losses in the

United States 1780's to 1980's" published in 1990

**Definition:** The acres of wetlands converted to non-agricultural use in a State as a percent of the

national total.

**Rationale:** The statutory purpose of the WRP is to restore and protect eligible wetlands. There is no

available data that directly shows the acres of restorable wetland that would be eligible for enrollment to meet this purpose in any given State. This Natural Resource Base factor was selected as a relative indicator of the amount of wetlands that have been converted to non-wetland conditions as a relative indicator of the potential for restorable wetlands to exist in that State. Because it is a relative indicator, it is not by itself a reasonable measure

of potential enrollment.

Factor: Impaired Streams (mi.) FA/TA: FA

Category: B) RESOURCE QUALITY AND PRIORITIES FACTORS

**Source:** U.S. Environmental Protection Agency (EPA), Office of Water - Atlas of America's

Polluted Waters, May 2000

**Definition:** Miles of impaired streams in a State as a percent of the national total. Factor measures

the relative potential for eligible riparian areas to exist. Not all eligible lands would be on

the list of impaired streams and not all lands on the list would be eligible for WRP.

**Rationale:** The WRP statute requires that lands enrolled in WRP maximize wetland functions and

values. Priority is given to 4 key functions and values, including water quality. There is no available data that directly shows the acres of land that would be eligible for enrollment that would meet this priority in any given State. Two (2) National Priority factors were chosen to serve as relative indicators of the potential for eligible lands to exist that would impact this priority. Because the factors are relative indicators, neither of them used alone would be a

reasonable measure of potential enrollment.

Factor: Impaired Wetlands (ac.) FA/TA: FA

Category: B) RESOURCE QUALITY AND PRIORITIES FACTORS

Source: U.S. Environmental Protection Agency (EPA), Office of Water - Atlas of America's

Polluted Waters, May 2000

**Definition:** The acres of impaired lakes, estuaries, and wetlands as a percent of the national total. Not

all eligible lands would be on the list of impaired waters and not all lands on the list would

be eligible for WRP.

**Rationale:** The WRP statute requires that lands enrolled in WRP maximize wetland functions and

values. Priority is given nationally to 4 key functions and values, including water quality. There is no available data that directly shows the acres of land that would be eligible for enrollment that would meet this priority in any given State. Two (2) National Priority factors were chosen to serve as relative indicators of the potential for eligible lands to exist that would impact this priority. Because the factors are relative indicators, neither of them used

alone would be a reasonable measure of potential enrollment.

Factor: Threatened, Endangered and Declining Species FA/TA: FA

Habitat (no.)

Category: B) RESOURCE QUALITY AND PRIORITIES FACTORS

**Source:** NaturServ data developed for the strategic plan

**Definition:** The number of species of concern, as defined in the NRCS Strategic plan, found on

palustrine wetlands in a States as a percent of the national total.

**Rationale:** The statute requires that lands enrolled in WRP maximize wildlife benefits. Priority is given

to 4 key functions and values, including habitat for declining species. There is no available data that directly shows the acres of land that would be eligible for enrollment that would meet this priority in any given State. This factor is a relative indicator of the potential for eligible lands to exist that would impact this priority. Because the factor is a relative

indicator, it is not by itself a reasonable measure of potential enrollment.

Factor: Cost of Doing Business-Milken (Index) FA/TA: FA

Category: C) COST OF DOING BUSINESS

**Source:** Milken Institute, Cost of Doing Business Index, 2007

**Definition:** Each state receives a rating based upon the level of cost for wages, taxes and support

costs in that state. This number serves as an indicator of the expenditures a state may

have when providing assistance.

**Rationale:** Just as the cost of living varies between states, the cost of doing business also changes.

NRCS does not have control over such costs other than to ensure it uses the least costly source possible. This widely accepted state level index of the Cost of Doing Business helps to avoid penalizing states for which day-to-day operation is more expensive.

Factor: Acres Restored (%) FA/TA: FA

Category: D) PERFORMANCE FACTORS

Source: NRCS Wetland Reserve Program (WRP) Access Database, 2007

**Definition:** The percent of the total restorable acres enrolled over the life of the program that have

been restored by State.

**Rationale:** The statutory purpose of the WRP is to restore and protect eligible wetlands. There are 4

performance related factors, factors 9 and 11 measure progress in meeting the restoration portion of this purpose and factors 8 and 10 measure progress in meeting the protection

portion.

Factor: Easements Closed (%) FA/TA: FA

Category: D) PERFORMANCE FACTORS

Source: NRCS Wetland Reserve Program (WRP) Access Database, 2008

**Definition:** The total easements enrolled in a state that have been closed over the life of the program

as a percent of the state's total enrollment.

**Rationale:** The statutory purpose of the WRP is to restore and protect eligible wetlands. There are 4

performance related factors, factors 9 and 11 measure progress in meeting the restoration portion of this purpose and factors 8 and 10 measure progress in meeting the protection

portion.

Factor: Easements Closed Within 12 Months (3 yr. avg.) FA/TA: FA

(%)

Category: D) PERFORMANCE FACTORS

Source: NRCS Wetland Reserve Program (WRP) Access Database, 2005-2007

**Definition:** A measure of the recent progress in protecting acres enrolled in WRP, by state. A three

year weighted average of the percent of easements closed within 12 months of the State

Conservationist signing the Option Agreement to Purchase.

**Rationale:** The statutory purpose of the WRP is to restore and protect eligible wetlands. There are 4

performance related factors, factors 9 and 11 measure progress in meeting the restoration portion of this purpose and factors 8 and 10 measure progress in meeting the protection

portion.

Factor: Easements with Restoration Completed Within 3 FA/TA: FA

years of Easement Closing (3 yr. avg.) (%)

Category: D) PERFORMANCE FACTORS

Source: NRCS Wetland Reserve Program (WRP) Access Database, 2003 - 2005

**Definition:** A measure of the recent progress in restoring those acres enrolled in WRP by a State. A

three year weighted average of the easements where restoration is completed within 3

years of the date the easement is recorded.

**Rationale:** The statutory purpose of the WRP is to restore and protect eligible wetlands. There are 4

performance related factors, factors 9 and 11 measure progress in meeting the restoration portion of this purpose and factors 8 and 10 measure progress in meeting the protection

portion.

Factor: Acres of Wetlands Protected By Easement FA/TA: TA

FY2008 (Percent of PRS Target Achieved)

Category: Technical Assistance (TA) Factor

Source: NRCS Performance Results System (PRS), 2007

**Definition:** The percent of the States PRS goal for wetlands protected by an easement achieved in

FY2008.

**Rationale:** This factor is a relative indicator of the states performance in accomplishing timely

protection of enrolled acres by completing easement acquisition. This factor measures

progress in meeting PRS measures for easement closings.

Factor: Acres of Wetlands Restored, Created, or FA/TA: TA

Enhanced FY2008 (Percent of PRS Target

Achieved)

Category: Technical Assistance (TA) Factor

**Source:** NRCS Performance Results System (PRS), 2007

**Definition:** The percent of the States PRS goal for wetlands restored, created, or enhanced achieved

in FY2008.

**Rationale:** This factor is a relative indicator of the states performance in accomplishing timely

restoration of enrolled acres. This factor measures progress in meeting PRS measures for

TA

restoration.

Factor: Contracts to be Enrolled, Acres (Percent of FA/TA:

National Total)

Category: Technical Assistance (TA) Factor

**Source:** NRCS Wetland Reserve Program (WRP) Access Database

**Definition:** The TA necessary to enroll new acres in the current year. It is based on the acres of

expected applications to be serviced.

Rationale: This factor reflects the time necessary to enroll the number of contracts a state is expected

to handle in the current fiscal year. This number is based on the FA allocation estimate, the historic size of contracts for the state and the historic average cost per acre for the

state. Time estimates based on Cost of Programs Model.

Factor: Contracts to be Enrolled, Number (Percent of FA/TA: TA

National Total)

Category: Technical Assistance (TA) Factor

**Source:** NRCS Wetland Reserve Program (WRP) Access Database

**Definition:** The TA necessary to enroll new acres in the current year. It is based on the number of

expected applications to be serviced.

**Rationale:** This factor reflects the time necessary to enroll the number of contracts a state is expected

to handle in the current fiscal year. This number is based on the FA allocation estimate, the historic size of contracts for the state and the historic average cost per acre for the

state. Time estimates based on Cost of Programs Model.

Factor: Cost of Doing Business-Milken (Index) FA/TA: TA

Category: Technical Assistance (TA) Factor

**Source:** Milken Institute, Cost of Doing Business Index, 2007

**Definition:** Each state receives a rating based upon the level of cost for wages, taxes and support

costs in that state. This number serves as an indicator of the expenditures a state may

have when providing assistance.

**Rationale:** Just as the cost of living varies between states, the cost of doing business also changes.

NRCS does not have control over such costs other than to ensure it uses the least costly source possible. This widely accepted state level index of the Cost of Doing Business helps to avoid penalizing states for which day-to-day operation is more expensive.

Factor: Easements Closed Within 12 Months in FY2008 FA/TA: TA

(Percent of State Total)

Category: Technical Assistance (TA) Factor

**Source:** NRCS Wetland Reserve Program (WRP) Access Database

**Definition:** The percent of the easements enrolled in a State that were closed in FY2008 within 12

months of the date the State Conservationist signed the Option Agreement to Purchase.

**Rationale:** This factor is a relative indicator of the states performance in accomplishing timely

protection of enrolled acres by completing easement acquisition. This factor measures progress in meeting PART efficiency measures in closing easements in a timely manner.

TA

Factor: Easements Restored Within 3 Years of Closing FA/TA:

in FY2008 (Percent of State Total)

Category: Technical Assistance (TA) Factor

**Source:** NRCS Wetland Reserve Program (WRP) Access Database

**Definition:** The percent of the easements enrolled in a State that were fully restored within 3 years of

the easement closing in FY2008.

**Rationale:** This factor is a relative indicator of the states performance in delivering the program

efficiently and effectively by accomplishing timely restoration of enrolled acres. This factor

measures progress in meeting PART efficiency measures in restoring easements in a

timely manner.

Factor: Easements to be Closed in FY2009, Acres FA/TA: TA

(Percent of National Total)

Category: Technical Assistance (TA) Factor

**Source:** NRCS Wetland Reserve Program (WRP) Access Database

**Definition:** The acres of easement projects enrolled in prior years that will be closed in the current

fiscal year.

Rationale: This factor reflects completing the easement acquisition process on easements enrolled in

prior years. It is based on closing easements within 12 months of the date the State

Conservationist signs the Option Agreement to Purchase.

Factor: Easements to be Closed in FY2009, Number FA/TA:

(Percent of National Total)

Category: Technical Assistance (TA) Factor

**Source:** NRCS Wetland Reserve Program (WRP) Access Database

**Definition:** The number of easement projects enrolled in prior years that will be closed in the current

fiscal year.

Rationale: This factor reflects completing the easement acquisition process on easements enrolled in

prior years. It is based on closing easements within 12 months of the date the State

Conservationist signs the Option Agreement to Purchase.

Factor: Prior Year Contracts, Acres (Percent of National FA/TA: TA

Total)

Category: Technical Assistance (TA) Factor

**Source:** NRCS Wetland Reserve Program (WRP) Access Database

**Definition:** The number of prior year contracts that will require ongoing monitoring activities.

Rationale: NRCS policy requires that all easements be monitored annually to insure adequate

protection of enrolled land. Monitoring must be on-site annually until restoration is completed then on-site once every 3 years and remotely the other 2 years. This factor accounts for the number of easements that a state will monitor this year. Because some states enroll large numbers of easements while others enroll large acreage, factors for both

number and acres are included for equity.

Factor: Prior Year Contracts, Number (Percent of FA/TA: TA

National Total)

Category: Technical Assistance (TA) Factor

**Source:** NRCS Wetland Reserve Program (WRP) Access Database

**Definition:** The number of prior year contracts that will require ongoing monitoring activities.

**Rationale:** NRCS policy requires that all easements be monitored annually to insure adequate

protection of enrolled land. Monitoring must be on-site annually until restoration is completed then on-site once every 3 years and remotely the other 2 years. This factor accounts for the number of easements that a state will monitor this year. Because some states enroll large numbers of easements while others enroll large acreage, factors for both

number and acres are included for equity.

Factor: Restoration to Be Completed in FY2009, Acres FA/TA: TA

(Percent of National Total)

Category: Technical Assistance (TA) Factor

**Source:** NRCS Wetland Reserve Program (WRP) Access Database

**Definition:** The acres of prior year contracts that will require restoration in the current fiscal year.

**Rationale:** This factor reflects the acres within a state that need to be restored. It is based on

restoration being completed with 3 years from the date the easement is closed.

Factor: Restoration to Be Completed in FY2009, Number

(Percent of National Total)

Category: Technical Assistance (TA) Factor

**Source:** NRCS Wetland Reserve Program (WRP) Access Database

**Definition:** The acres of prior year contracts that will require restoration in the current fiscal year.

**Rationale:** This factor reflects the number of contracts within a state that need to be restored. It is

based on restoration being completed with 3 years from the date the easement is closed.

FA/TA:

TA

Factor: Technical Assistance (TA) Percentage for FA/TA: TA

**Current Year Activities (%)** 

Category: Technical Assistance (TA) Factor

Source: NRCS Cost of Programs Model, 2007 and Wetland Reserve Program (WRP) Access

Database

**Definition:** The TA necessary to conduct basic activities required to attempt to enroll new acres in the

current year.

**Rationale:** There is a base need for technical assistance to carry out basic processes to attempt to

enroll new acres in the current fiscal year. These actions are necessary even if no new acres end up being enrolled. Because the potential for enrollment is linked to the states FA allocation this factor is a simple percent of the FA. This percent is calculated from the time

required for these activities in the Cost of programs Model.

#### Allocation Formula Factor Weights

Previous allocation formula factors were weighted using a leadership selection process originating from program manager recommendations. The rational for these weights were not properly documented and were highlighted as an area of concern in the independent evaluation completed by World Perspectives, Inc. For FY 2009, a paired comparison approach is being used to assist in assigning weights to factors. The following is a discussion of the paired comparison results and weighting of factors for the WRP FA formula.

#### Paired Comparison

Use of Paired Comparison analysis provides a means for assigning weights that is simple, easy to understand, and clearly distinguishes the values of the factors. The results of the Paired Comparison analysis were averaged across a Leadership team that includes the WRP Program Manager. The resulting average rank order of formula factors was converted to High, Medium, and Low weightings. These groupings reflect major breaks in the average scores. Identical weights were then assigned within each grouping of high, medium, and low factors.

Results of the paired comparison are as follows:

Paired Comparison (PC) Ranking - WRP Factors			
FACTOR NAME	PC Rank Order	HML Conversion	Average PC Score
Agricultural Working Wetlands (1,000ac.)	1	Н	3.7
State Wetlands Loss (%)	2	М	3
Impaired Wetlands (ac.)	3	М	2.7
Threatened, Endangered,&Declining			
Species Habitat (no.)	4	M	2.5
Hydric Soils (ac.)	5	L	1.9
Impaired Streams (mi.)	6	L	1.3
PERFORMANCE FACTORS			
Easements Closed (%)	Н	Н	High
Acres Restored (%)	М	М	Medium
Easements Closed w/in 12 Months (3 yr.			
avg.)(%)	Н	Н	High
Easements w/Restoration Completed w/in			
3 yrs of Easement Closing (3yr avg)(%)	Н	Н	High
Cost of Doing Business (index)			5%

Factors that fell within the same grouping were given the same weight for each of the High, Medium, & Low factor weights.

Paired Comparison Rank Order and Weights - WRP Factors			
FACTOR NAME	PC Rank Order	HML Conversion	Weight
Agricultural Working Wetlands (1,000 ac.)	1	Н	14.50%
State Wetlands Loss (%)	2	М	11.50%
Impaired Wetlands (ac.)	3	М	11.50%
Threatened, Endangered, & Declining			
Species Habitat (no.)	4	M	11.50%
Hydric Soils (ac.)	5	L	8%
Impaired Streams (mi.)	6	L	8%
PERFORMANCE FACTORS			
Easements Closed (%)	Н	Н	8%
Acres Restored (%)	M	М	6%
Easements Closed w/in 12 months (3 yr.			
avg.)(%)	Н	Н	8%
Easements w/Restoration Completed w/in			
3 yrs of Easement Closing (3yr avg)(%)	Н	Н	8%
Cost of Doing Business (index)			5%
		TOTAL	100%

Note: Paired Comparison percentages may vary from the final formula percentages due to addition of new factors later in the allocation cycle.

## **BOOK X**



### Fiscal Year 2009

# Farm and Ranch Lands Protection Program Allocation Formula



#### Purpose and Authority

The Farm and Ranch Lands Protection Program (FRPP) is a voluntary program providing funding to cooperating entities (State, Tribal, and local governments and non-government organizations) to acquire permanent conservation easements on farm and ranch land protecting them from conversion to nonagricultural use. Eligible lands are lands that contain prime, unique or Statewide and locally important soils, contain historic and archaeological resources, or support the policies of State and local farm and ranch land protection programs. The purpose of the program is to protect land in agricultural use and with related conservation values from conversion to non-agricultural uses. FRPP obligates funding through cooperative agreements with the cooperating entities that specify the amount of the obligation and lists the farms and ranches to be acquired.

FRPP is available in all 50 states, the Caribbean Area (Puerto Rico and the Virgin Islands), and the Pacific Basin Area (Guam, the Commonwealth of the Northern Mariana Islands, and American Samoa).

The Farm and Ranch Lands Protection Program (FRPP) was reauthorized in the Farm Security and Rural Investment Act of 2002 (Farm Bill) to protect working agricultural land from conversion to non-agricultural uses. FRPP was given permanent authority in the Federal Agriculture and Reform Act of 1996 (Farm Bill) and is funded annually through the Congressional appropriations process.

The 2002 Farm Bill expanded the program beyond State and local governments to include non-governmental organizations as eligible entities. It also made farm and ranch land containing historical and archaeological sites eligible. The 2002 Farm Bill also allowed a State, Tribal, or local government or non-governmental organization to supplement its share of the easement cost through a landowner's donation.

The 2008 Farm Bill revised the purpose of the FRPP from protecting topsoil to protecting agricultural use and related conservation values from conversion by limiting nonagricultural uses of the land. It also revises the role of the Secretary from purchasing conservation easements to facilitating and providing funding for the purchase of conservation easements.

The statutes that have authorized the Farmland Protection Program (also known as the Farm and Ranch Lands Protection Program):

The Food, Conservation, and Energy Act of 2008 (P.L. 110-246);

The Farm Security and Rural Investment Act of 2002 (P.L. 107-171); and

The Federal Agriculture Improvement and Reform Act of 1996 (P.L. 104-127).



FRPP FY 2009 Formula Facto					
Financial Assistance					
A) RESOURCE BASE FACTORS					
Rural Land Converted to Urban and Build Up -					
Gross Change (1,000 ac)	14.0%				
Rural Land Converted to Urban and Built Up (%)	14.0%				
Gross Changes in Prime Farmland Soil (1,000 ac.)	14.0%				
Change in Prime Farmland Soil (%)					
	14.0%				
B) RESOURCE QUALITY FACTORS					
Easements with State, Tribal, Local Governments					
(no.)	4.0%				
Entity Average Annual Easement Expenditures,					
Non-FRPP (Dollars)	4.0%				
Leveraging, Entity Cost Share (%)	4.0%				
Prime Farmland to be Protected (%)	6.0%				
Total Farmland to be Protected (ac.)	6.0%				
C) COST OF DOING BUSINESS FACTORS					
Cost of Doing Business-Milken (index)	5.0%				
D) PERFORMANCE FACTORS					
Easements Closed within 18 Months (5 yr. avg.)					
	10.0%				
Easements Meeting National Objectives for Prime,					
Unique, & Important Farmland Soil (%)	5.0%				
Total	100.0%				
	100.070				
Technical Assistance					
Share of Prior Year Pending Easements (%)	43.44%				
Share of Prior Year Closed Easements (%)	46.81%				
Cost of Doing Business-Milken (index)	4.8%				
Technical Assistance (TA) Percentage for Current					
Year Activities (%)	5.0%				
Total	100.0%				

Factor: Change in Prime Farmland Soil (%) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

Source: NRCS Natural Resources Inventory (NRI), 1992 & 1997

**Definition:** The difference in rural land (cropland, CRP land, pastureland, rangeland, forest land, and

other rural land) with prime farmland soil in each state between 1992 and 1997 expressed

as a percent of the rural land with prime farmland soil in 1992. It is calculated by

subtracting the acres of total rural land with prime farmland soil in 1997 from the acres of total rural land with prime farmland soil in 1992 and dividing the remainder by the acres of total rural land in 1992. This factor is a measure of threat of development to rural land with prime, unique, and important farmland soil; using percent represents the smaller states

better.

**Rationale:** This factor is a measure of threat of development to rural land with prime, unique, and

important farmland soil; using percent represents the smaller states better; using a soil quality factor indicates a commitment to use Federal funds wisely to acquire the best quality land for agricultural use; and percent of easement land in prime, unique, and

important farmland soil is an OMB PART goal.

Factor: Gross Changes in Prime Farmland Soil (1,000 FA/TA: FA

acs.)

Category: A) RESOURCE BASE FACTORS

Source: NRCS Natural Resources Inventory (NRI), 1992 & 1997

**Definition:** The difference in total rural land (cropland, CRP land, pastureland, rangeland, forest land,

and other rural land) with prime farmland soil in each state between 1992 and 1997 expressed as a 1,000 acres of the rural land with prime farmland soil. It is calculated by subtracting the acres of total rural land with prime farmland soil in 1997 from the acres of total rural land with prime farmland soil in 1992. This factor is a measure of threat of development to rural land with prime farmland soil; using acres represents the larger states

better.

**Rationale:** This factor is a measure of threat of development to rural land with prime farmland soil;

using acres represents the larger states better; using a soil quality factor indicates a commitment to use Federal funds wisely to acquire the best quality land for agricultural use; and percent of easement land in prime, unique, and important farmland soil is an

OMB PART goal.

Factor: Rural Land Converted to Urban and Built Up - FA/TA: FA

Gross Change (1,000 acs.)

Category: A) RESOURCE BASE FACTORS

Source: NRCS Natural Resources Inventory (NRI), 1997 & 2003

**Definition:** The difference in total rural land (cropland, CRP land, pastureland, rangeland, forest land,

and other rural land) in each state between 1997 and 2003 expressed as 1,000 acres of rural land. It is calculated by subtracting the acres of total rural land in 2003 from the acres of total rural land in 1997. This factor measures the threat of development and using acres

represents the larger states better.

**Rationale:** This factor measures the threat of development and using acres represents the larger

states better.

Factor: Rural Land Converted to Urban and Built Up (%) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

Source: NRCS Natural Resources Inventory (NRI), 1997 & 2003

**Definition:** The difference in total rural land (cropland, CRP land, pastureland, rangeland, forest land,

and other rural land) with prime farmland soil in each state between 1997 and 2003

expressed as a percent of the rural land in 1997. It is calculated by subtracting the acres of total rural land in 2003 from the acres of total rural land in 1997 and dividing the remainder by the acres of total rural land in 1997. This factor is a measure of threat of development

to rural land and using percent represents the smaller states better.

Rationale: This factor measure of threat of development to rural land and using percent represents

the smaller states better.

Factor: Easements with State, Tribal, Local FA/TA: FA

Governments (no.)

Category: B) RESOURCE QUALITY AND PRIORITIES FACTORS

Source: NRCS Farm and Ranchland Protection Program (FRPP) Database, 2007

**Definition:** The sum of the total number of parcels enrolled in each state by State, Tribal, and Local

governments.

Rationale: This factor is measure of the stability of easement stewardship. The assumption behind

the factor is that easements held by units of governments are more secure than

easements held by non-government organizations.

Factor: Entity Average Annual Easement Expenditures, FA/TA: FA

Non-FRPP (Dollars)

Category: B) RESOURCE QUALITY AND PRIORITIES FACTORS

Source: NRCS State Farm and Ranchland Protection Program (FRPP) Plan Database, 2008

**Definition:** The average of the state's cooperating entities non-FRPP easement expenditures in

dollars. It is calculated by adding the sum of a state's cooperating entities non-FRPP easement expenditures and dividing by the number of entities participating in FRPP in the

state.

**Rationale:** This factor is a measure of the entities' commitment to farm and ranch lands protection

and ability to enforce conservation easement deeds.

Factor: Leveraging, Entity Cost Share (%) FA/TA: FA

Category: B) RESOURCE QUALITY AND PRIORITIES FACTORS

Source: NRCS Farm and Ranchland Protection Program (FRPP) Database, 2007

**Definition:** The amount of non-Federal funds involved in the acquisition of FRPP easements in each

state expressed as a percentage of the estimated fair market value of the parcels. It is calculated by dividing the cooperating entities contributions and landowner donations by the

total value of easements.

**Rationale:** This factor is a measure of the entities' ability to match FRPP funds.

Factor: Prime Farmland to be Protected (%) FA/TA: FA

Category: B) RESOURCE QUALITY AND PRIORITIES FACTORS

Source: NRCS State Farm and Ranchland Protection Program (FRPP) Plan Database, 2008

**Definition:** The percent of the total farm and ranch land that cooperating entities plan to acquire in

each state that has prime farmland soils. It is calculated from the NRCS state FRPP plan by dividing the total acres of farm and ranch land to be protected by the acres of acres of

farm and ranch land with prime farmland soils.

**Rationale:** This factor is a measure of the intent of cooperating entities to acquire land with prime,

unique, and important farmland soil. Using a soil quality factor indicates a commitment to use Federal funds wisely to acquire the best quality land for agricultural use. The percent of easement land in prime, unique, and important farmland soil is an OMB PART goal.

Factor: Total Farmland to be Protected (ac.) FA/TA: FA

Category: B) RESOURCE QUALITY AND PRIORITIES FACTORS

Source: NRCS State Farm and Ranchland Protection Program (FRPP) Plan Database, 2008

**Definition:** The total acres of farmland that cooperating entities in each state plan to protect through

FRPP and have sufficient matching funds to share the cost of the easement with NRCS.

**Rationale:** This factor is a measure of the intent of cooperating entities to acquire a certain area of

land.

Factor: Cost of Doing Business-Milken (Index) FA/TA: FA

Category: C) COST OF DOING BUSINESS

**Source:** Milken Institute, Cost of Doing Business Index, 2007

**Definition:** Each state receives a rating based upon the level of cost for wages, taxes and support

costs in that state. This number serves as an indicator of the expenditures a state may

have when providing assistance.

Rationale:

Factor: Easements Closed within 18 Months (5 yr. avg.) FA/TA: FA

(%)

Category: D) PERFORMANCE FACTORS

Source: NRCS Farm and Ranchland Protection Program (FRPP) Database, 2003 - 2007

**Definition:** The percent of the total easements enrolled in each state within a three year period that

closed within 18 months. It is calculated by adding the number of easements closed with 18 months of the signing of the cooperative agreement in each state (between the three year period) divided by the total number of easements enrolled in the state between the

three year period.

Rationale: The factor is a measure of the ability of entities to close easements efficiently (adapted

from PART measure).

Factor: Easements Meeting National Objectives for FA/TA: FA

Prime, Unique, & Important Farmland Soil (%)

Category: D) PERFORMANCE FACTORS

Source: NRCS Farm and Ranchland Protection Program (FRPP) Database, 2007

**Definition:** The percent of all easements enrolled in each state that has at least 65% prime, unique,

and important farmland soil. It is calculated by adding the number of easements with 65% prime, unique, and important farmland soil in each state and dividing the sum by the total

number of easements enrolled in the state.

**Rationale:** This factor is a measure of the ability of entities to acquire land with prime, unique, and

important farmland soil. Using a soil quality factor indicates a commitment to use Federal funds wisely to acquire the best quality land for agricultural use. The percent of easement

land in prime, unique, and important farmland soil is an OMB PART goal.

Factor: Cost of Doing Business-Milken (Index) FA/TA: TA

Category: Technical Assistance (TA) Factor

**Source:** Milken Institute, Cost of Doing Business Index, 2007

**Definition:** Each state receives a rating based upon the level of cost for wages, taxes and support

costs in that state. This number serves as an indicator of the expenditures a state may

have when providing assistance.

**Rationale:** Just as the cost of living varies between states, the cost of doing business also changes.

NRCS does not have control over such costs other than to ensure it uses the least costly source possible. This widely accepted state level index of the Cost of Doing Business helps to avoid penalizing states for which day-to-day operation is more expensive.

Factor: Share of Prior Year Closed Easements (%) FA/TA:

Category: Technical Assistance (TA) Factor

Source: NRCS Farm and Ranchland Protection Program (FRPP) Database

**Definition:** Each state's proportional share of closed easements.

**Rationale:** Represents a states proportional share of work associated with closed easements.

Factor: Share of Prior Year Pending Easements (%) FA/TA: TA

Category: Technical Assistance (TA) Factor

Source: NRCS Farm and Ranchland Protection Program (FRPP) Database

**Definition:** Each state's proportional share of pending easements.

**Rationale:** Represents a states proportional share of work associated with pending easements.

Factor: Technical Assistance (TA) Percentage for FA/TA:

Current Year Activities (%)

Category: Technical Assistance (TA) Factor

**Source:** NRCS Cost of Programs Model, 2007and Farm and Ranchland Protection Program

(FRPP) Database

**Definition:** The TA necessary to conduct basic activities required to attempt to enroll new acres in the

current year.

**Rationale:** There is a base need for technical assistance to carry out basic processes to attempt to

enroll new acres in the current fiscal year. These actions are necessary even if no new acres end up being enrolled. Because the potential for enrollment is linked to the states FA allocation this factor is a simple percent of the FA. This percent is calculated from the time

required for these activities in the Cost of programs Model.

#### Allocation Formula Factor Weights

Previous allocation formula factors were weighted using a leadership selection process originating from program manager recommendations. The rational for these weights were not properly documented and were highlighted as an area of concern in the independent evaluation completed by World Perspectives, Inc. For FY 2009, a paired comparison approach is being used to assist in assigning weights to factors. The following is a discussion of the paired comparison results and weighting of factors for the FRPP FA formula.

#### Paired Comparison

Use of Paired Comparison analysis provides a means for assigning weights that is simple, easy to understand, and clearly distinguishes the values of the factors. The results of the Paired Comparison analysis were averaged across a Leadership team that includes the FRPP Program Manager. The resulting average rank order of formula factors was converted to High, Medium, and Low weightings. These groupings reflect major breaks in the average scores. Identical weights were then assigned within each grouping of high, medium, and low factors.

Results of the paired comparison are as follows:

PairedComparison (PC) Ra	nking - FRPP Fa	actors	T
FACTOR NAME	PC Rank Order	HML Conversion	Average PC Score
Rural Land Converted to Urban & Built Up (%)	1	Н	5.6
Change in Prime Farmland Soil (%)	2	Н	5.3
Gross Changes in Prime Farmland Soil (1,000 ac)	3	Н	5.1
Rural Land Converted to Urban & Built Up (1,000 acres)	4	Н	4.9
Total Farmland to be Protected (acres)	5	M	4.2
Prime Farmland to be Protected (%)	6	M	4.1
Leveraging Entity Cost Share (%)	7	L	3.1
Entity Average Annual Easement Expenditures (\$)	8	L	2.1
Easements with State, Tribal & Local Governments (no.)	9	L	1.6
PERFORMANCE FACTORS			
Easements Meeting Nat'l Objectives for Prime, Unique & Important Farmland Soil (%)	M	M	Medium
Easements Closed within 18 Months (5 yr. avg.) (%)	Н	М	High
Cost of Doing Business (index)			5%

Factors that fell within the same grouping were given the same weight for each of the High, Medium, \_Low factor weights.

Paired Comparison Rank Order and Weights - FRPP Factors								
FACTOR NAME	PC Rank Order	HML Conversion	Weight					
Rural Land Converted to Urban & Built Up (%)	1	Н	14%					
Change in Prime Farmland Soil (%)	2	Н	14%					
Gross Changes in Prime Farmland Soil (1,000ac.)	3	Н	14%					
Rural Land Converted to Urban & Built Up (1,000 ac.)	4	Н	14%					
Total Farmland to be Protected (ac.)	5	М	6%					
Prime Farmland to be Protected (%)	6	М	6%					
Leveraging Entity Cost Share (%)	7	L	4%					
Entity Average Annual Easement Expenditures (\$)	8	L	4%					
Easements with State, Tribal & Local Governments (no.)	9	L	4%					
PERFORMANCE FACTORS								
Easements Meeting Nat'l Objectives for Prime, Unique &								
Important Farmland Soil (%)	M	M	5%					
Easements Closed within 18 Months (5 yr.avg.) (%)	Н	Н	10%					
Cost of Doing Business (index)			5%					
		TOTAL	100%					

Note: Paired Comparison percentages may vary from the final formula percentages due to addition of new factors later in the allocation cycle.

## **BOOK XI**



## Fiscal Year 2009

# Grassland Reserve Program Allocation Formula



#### Purpose and Authority

The Grassland Protection Program (GRP) is authorized by the Food Security Act of 1985, as amended by the Farm Security and Rural Investment Act of 2002 (2002 Farm Bill) and the Food, Conservation, and Energy Act of 2008 (P.L. 110-246). The USDA Natural Resources Conservation Service (NRCS) and USDA Farm Service Agency (FSA) administer the program. NRCS provides technical assistance for grazing management, easements and restoration. FSA administers rental contracts and all program payment functions. Funding for the GRP comes from the Commodity Credit Corporation (CCC).

Congress authorized the Secretary of Agriculture to protect land using permanent easements, or easements for the maximum length allowed by State law, as well as 10-year, 15-year, or 20-year rental contracts. Congress also authorized the Secretary to enter into restoration agreements on the land covered by the easement or rental agreement. Lands enrolled in easements and rental contracts protect grazing uses and related conservation values, subject to appropriate restrictions during the nesting season for birds in the local area that are in significant decline or are conserved in accordance with Federal or State law as determined by the NRCS State Conservationist; and fire rehabilitation and construction of fire breaks and fences.

Easements and rental agreements must prohibit the production of crops (other than hay), fruit trees, vineyards, or any other agricultural commodity that is inconsistent with maintaining grazing land; and the conduct of any other activity that would be inconsistent with maintaining grazing land enrolled in the program except those activities required by a restoration agreement.

In exchange for a permanent easement, the Secretary must make payments that do not exceed the fair market value of the land less the grazing value of the easement. Compensation for easements will be the lowest of the fair market value of the land, the geographic area rate cap, or the offer made by the landowner. Payments may be provided in up to 10 annual payments. In the case of restoration agreements, the Secretary is also authorized to make payments not to exceed 50 percent of the costs of carrying out measures and practices necessary to restore functions and values of that land.

The statute requires the Secretary to establish criteria to evaluate and rank applications for easements and rental contracts and in doing so, must emphasize support for grazing operations, plant and animal biodiversity, and grassland, land that contains forbs, and shrubland under the greatest threat of conversion. The Secretary shall establish terms and conditions of a cooperative agreement under which an eligible entity shall use funds to own, write, and enforce a GRP easement.



GRP FY 2009 Formula Factors	<b>-</b>
Financial Assistance	
A) RESOURCE BASE FACTORS	Weight
Ranches/Farms with Grazing Livestock (no.)	10.0%
Pastureland (1,000 ac.)	15.0%
Pastureland Lost (1,000 ac.)	20.0%
Rangeland (per 1,000 ac.)	15.0%
Rangeland Lost (1,000 ac.)	20.0%
B) RESOURCE QUALITY FACTORS	
At-Risk Species (no.)	15.0%
C) COST OF DOING BUSINESS FACTORS	
Cost of Doing Business-Milken (index)	5.0%
Total	100.0%
Technical Assistance	
5 Year History of Easements Closing (% of total)	5.0%
Cost of Doing Business-Milken (index)	0.29%
Estimated Rental Contracts (no.)	0.9%
Existing Easements Requiring Monitoring (no.)	4.6%
Technical Assistance (TA) Percentage for Current Year	
Activities (%)	89.3%
Total	100.0%

Factor: Pastureland (1,000 ac.) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

**Source:** NRCS Natural Resources Inventory (NRI), 2003

**Definition:** Land managed primarily for the production of introduced forage plants for livestock

grazing. Pastureland cover may consist of a single species in a pure stand, a grass mixture, or a grass-legume mixture. Management usually consists of cultural treatments: fertilization, weed control, reseeding or renovation, and control of grazing. This includes land that has a vegetative cover of grasses, legumes, and/or forbs, regardless of whether

or not it is being grazed by livestock.

Rationale: The purpose of this factor is to help define the amount of land being used as pasture and

identify which States have the greatest potential for GRP.

Factor: Pastureland Lost (1,000 ac.) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

**Source:** NRCS Natural Resources Inventory (NRI), 1997

**Definition:** Acres of total pastureland in a State in 1982 minus acres of total pastureland in that State

in 1997.

**Rationale:** This factor indicates the threat of conversion of pasturelands to other uses including

development, conversion to crop or other non grazing use.

Factor: Ranches/Farms with Grazing Livestock (no.) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

Source: USDA, National Agricultural Statics Service (NASS) "Farms, Land in Farms, and

Livestock Operations 2007 Summary" February 2008.

**Definition:** Comprised of establishments primarily engaged in raising cattle, sheep, lambs, and goats

as listed in USDA National Agricultural Statics Service (NASS) report.

**Rationale:** The purpose of this factor is to identify NRCS customers in the grazing sector and thus

serve as a measure of potential workload: the more farms and ranches with grazing livestock, the greater the number of potential customers and thus the greater the demand for technical assistance with conservation planning and practice application. The data provides an overall picture of the distribution of operations with grazing livestock in the nation and shows which States have the greatest potential demand for NRCS assistance. While this factor helps to define the number of potential customers, the amount of the land being served is represented by the "grazing land" and "grazing land needing treatment"

factors.

Factor: Rangeland (per 1,000 ac.) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

**Source:** NRCS Natural Resources Inventory (NRI), 2003

**Definition:** Land on which the climax or potential plant cover is composed principally of native

grasses, grass like plants, forbs or shrubs suitable for grazing and browsing, and introduced forage species that are managed like rangeland. This would include areas where introduced hardy and persistent grasses, such as crested wheatgrass, are planted and such practices as deferred grazing, burning, chaining, and rotational grazing are used, with little or no chemicals or fertilizer being applied. Grasslands, savannas, many wetlands, some deserts, and tundra are considered to be rangeland. Certain communities of low forbs and shrubs, such as mesquite, chaparral, mountain shrub, and pinyon-juniper,

are also included as rangeland.

Rationale: The purpose of this factor is to help define the amount of land being used for range and

identify which States have the greatest potential for GRP.

Factor: Rangeland Lost (1,000 ac.) FA/TA: FA

Category: A) RESOURCE BASE FACTORS

Source: NRCS Natural Resources Inventory (NRI), 1982 & 1997

**Definition:** Acres of total Rangeland in a State in 1982 minus acres of total Rangeland in that State in

1997.

**Rationale:** This factor indicates the threat of conversion of rangelands to other uses including

development, conversion to crop or other non grazing use.

Factor: At-Risk Species (no.) FA/TA: FA

Category: B) RESOURCE QUALITY FACTORS

Source: U.S. Fish & Wildlife Service, Threatened & Endangered Species System (TESS), 2007

**Definition:** Total number of threatened and endangered, proposed and candidate species within a

state. Species include vertebrate animals (mammals, birds, reptiles, amphibians, and fishes), invertebrate animals (clams, snails, insects, arachnids, and crustaceans), flowering plants, and non-flowering plants (conifers and cycads, ferns and allies, and

lichens).

Rationale: This factor recognizes of ecological value through loss of habitat and biodiversity. It is a

GRP priority to protect wildlife habitat for threatened and endangered plant and animal

species.

Factor: Cost of Doing Business-Milken (Index) FA/TA: FA

Category: C) COST OF DOING BUSINESS

**Source:** Milken Institute, Cost of Doing Business Index, 2007

**Definition:** Each state receives a rating based upon the level of cost for wages, taxes and support

costs in that state. This number serves as an indicator of the expenditures a state may

have when providing assistance.

**Rationale:** Just as the cost of living varies between states, the cost of doing business also changes.

NRCS does not have control over such costs other than to ensure it uses the least costly source possible. This widely accepted state level index of the Cost of Doing Business helps to avoid penalizing states for which day-to-day operation is more expensive.

Factor: 5 Year History of Easement Closings (% of total) FA/TA:

Category: Technical Assistance (TA) Factor

**Source:** NRCS Easement Program Division (EPD) Database

**Definition:** This factor is a proxy for an efficiency measurement for performance in closing GRP

easements until more data is available on the average time to close GRP easements in a State. The total number of easements in a State is taken as a percentage of the total number of all GRP easements and averaged with the total number of GRP acres in a

State.

Rationale: The purpose of this factor is to reward States that have shown success in closing GRP

easements over the last 5 years (performance bonus). It also addresses program efficiency as recommended by Program Assessment Rating Tool (PART) and addresses performance concerns identified in other easement programs from the World Perspectives

Inc. review.

Factor: Cost of Doing Business-Milken (Index) FA/TA: TA

Category: Technical Assistance (TA) Factor

**Source:** Milken Institute, Cost of Doing Business Index, 2007

**Definition:** Each state receives a rating based upon the level of cost for wages, taxes and support

costs in that state. This number serves as an indicator of the expenditures a state may

have when providing assistance.

**Rationale:** Just as the cost of living varies between states, the cost of doing business also changes.

NRCS does not have control over such costs other than to ensure it uses the least costly source possible. This widely accepted state level index of the Cost of Doing Business helps to avoid penalizing states for which day-to-day operation is more expensive.

Factor: Estimated Rental Contracts (no.) FA/TA:

Category: Technical Assistance (TA) Factor

**Source:** Farm Service Agency Rental Contract Summary for GRP

**Definition:** An estimate of rental contracts that will need NRCS technical assistance. A 5 year

average of existing rental contracts was used to calculate this factor.

**Rationale:** The purpose of this factor is to define the potential number of GRP rental contracts which

will require state assistance.

Factor: Existing Easements Requiring Monitoring (no.) FA/TA:

Category: Technical Assistance (TA) Factor

**Source:** NRCS Easement Program Division (EPD) Database

**Definition:** The total number of existing GRP easements in each state. This includes permanent and

30-year easements.

**Rationale:** The purpose of this factor is to determine technical assistance needs from States to

monitor and manage existing easements.

Factor: Technical Assistance (TA) Percentage for FA/TA:

Current Year Activities (%)

Category: Technical Assistance (TA) Factor

**Source:** NRCS Cost of Programs Model, 2008

**Definition:** The TA necessary to conduct basic activities required to attempt to enroll new acres in the

current year.

**Rationale:** There is a base need for technical assistance to carry out basic processes to attempt to

enroll new acres in the current fiscal year. These actions are necessary even if no new acres end up being enrolled. Because the potential for enrollment is linked to the states FA allocation this factor is a simple percent of the FA. This percent is calculated from the

time required for these activities in the Cost of programs Model.

#### Allocation Formula Factor Weights

For FY 2009, a paired comparison approach is being used to assist in assigning weights to factors. The following is a discussion of the paired comparison results and weighting of factors for the GRP FA formula.

### **Paired Comparison**

Use of Paired Comparison analysis provides a means for assigning weights that is easy to understand and clearly distinguishes the importance of each factor relative to all others in the formula. Results from the Leadership Team, Programs Advisory Board, and the GRP Program Team were combined and averaged to provide a comprehensive rank order of the formula factors. Major breaks in the averaged scores were used to identify groupings of high, medium, and low factors. Weights were then assigned to each of the groupings with factors at the top of the rank order receiving the highest weight, medium ranked factors receiving a moderate weight, and low ranked factors receiving a low weight. High, medium, and low groupings and weights were assigned to moderate funding changes to the states. Factors that fell within the same grouping were given the same weight for each of the High, Medium, & Low factor weights.

Results of the paired comparison are as follows:

Paired Comparison (PC) Ranking - GRP Factors									
FACTOR NAME	PC Rank Order	HML Conversion	Average PC Score						
Pasture Land Lost (1,000 ac.)	1	Н	3.9						
Range Land Lost (1,000 ac.)	2	Н	3.7						
Range Land (1,000 ac.)	3	M	3.6						
Pasture Land (1,000 ac.)	4	M	3.4						
Ranches/Farms with Grazing Livestock (no.)	5	L	2.4						
Federally Listed Candidate Species (no.): CHANGE - combined with T&E Species.	6	L	2.2						
Federally Listed Threatened & Endangered Species (no.): CHANGE - combined with Candidate Species.	7		1.6						

Factors that fell within the same grouping were given the same weight for each of the High, Medium, & Low factor weights.

Paired Comparison	Rank Order and Weig	nts - GRP Factors	S
FACTOR NAME	PC Rank Order	HML Conversion	Weight
Pasture Land Lost (1,000 ac.)	1	Н	20%
Range Land Lost (1,000 ac.)	2	Н	20%
Range Land (1,000 ac.)	3	М	15%
Pasture Land (1,000 ac.)	4	М	15%
Ranches/Farms with Grazing			
Livestock (no.)	5	L	10%
At-Risk Species	7	L	20%
		TOTAL	100%

Note: Paired Comparison percentages may vary from the final formula percentages due to addition of new factors later in the allocation cycle.

## **BOOK XII**



## Fiscal Year 2009

## **Conservation Reserve Program**





## **Conservation Reserve Program (CRP)**

#### **Program Purpose and Authority**

The Conservation Reserve Program (CRP) provides technical assistance (TA) and financial assistance (FA) to eligible farmers and ranchers to address soil, water, and related natural resource concerns on their lands in an environmentally beneficial and cost-effective manner. The program provides assistance to farmers and ranchers in complying with Federal, State, and tribal environmental laws, and encourages environmental enhancement. The program is funded through the Commodity Credit Corporation (CCC). CRP is administered by the Farm Service Agency (FSA); with the Natural Resources Conservation Service (NRCS) providing TA for land eligibility determinations, conservation planning and practice implementation. The CRP was authorized by Title XII of the Food Security Act of 1985, and amended by the Food, Conservation, and Energy Act of 2008

NRCS provides TA either directly or through NRCS-approved Technical Service Providers (TSP), and assure all technical work done will meet NRCS technical requirements.

For fiscal year (FY) 2009, the CRP TA workload will primarily be for the Continuous CRP (CCRP) sign-up, which includes the Conservation Reserve Enhancement Program (CREP) and all other CCRP initiatives; the Farmable Wetlands Program (FWP); Emergency Forestry Conservation Reserve Program (EFCRP); CCRP Re-enrollment acres from contracts expiring in FY 2009 – 2010; and CCRP Program Eligibility Determinations. CRP TA allocation is based on the following:

- The Farm Service Agency (FSA) estimates the number of contracts that will need TA. This estimate includes current year and prior-year contracts, any new CCRP projections for the FY and all eligibility determinations.
- 2. NRCS estimates the costs per contract based on the Activity Based Costs (ABC) data and applies this cost to the estimated number of contracts from FSA's annual projections. NRCS costs are derived from tasks identified in the 2006 ABC data for eligibility determinations, contract planning, contract management and practice implementation plus salaries and benefits which are updated yearly and the streamlined planning and application efficiencies agreed to by NRCS and FSA for general sign-up contracts.
- 3. Funds are allocated to individual states based on the states projected workload for all contracts proportionate to the national workload.

The Cost of Program (COP) model determines the TA need for NRCS to provide TA in support of CRP. Policy and program support for all CRP contracts is incorporated in the model. The model calculates the total needed staff years to complete all the tasks associated with the yearly workload projections from FSA. The staff years projected is not specific to NRCS and could also include the partners, such as district staff, who assist with the CRP Program. Cost, however, is determined by using NRCS staff year salary estimates.

CRP TA funds are a reimbursement from FSA for carrying out TA to producers and FSA; therefore, NRCS must earn these TA dollars. States must also adhere to the NRCS policies (roles and responsibilities for CRP as defined in the Memorandum of Agreement). States may <u>not</u> reimburse Technical Service Providers (TSP) for more than it costs NRCS to perform the same task(s).

## **BOOK XIII**



## Fiscal Year 2009

## **Watershed Rehabilitation Program**





## FY 2009 FUNDING METHODOLOGY Watershed Rehabilitation Program

### **Purpose and Authority**

To extend the service life of dams and bring them into compliance with applicable safety and performance standards or to decommission the dams so they no longer pose a threat to life and property.

Watershed Rehabilitation Amendments of 2000 which amended the Watershed Protection and Flood Prevention Program (Public Law 83-566) to authorize the Natural Resources Conservation Service to provide technical and financial assistance to watershed project sponsors in rehabilitating their aging dams. The authority applies to dams that were constructed through the Flood Control Act of 1944 (PL 78-534); the pilot watershed program authorized under the heading of "Flood Prevention" of the Department of Agriculture Appropriation Act, 1954; and Watershed Protection and Flood Prevention Act of 1954 (PL 83-566).

In fiscal year (FY) 2009, changes that were implemented in fiscal year FY2007 were adjusted in the fund allocation process:

- The moratorium on funding assessments was rescinded. There were allocation considerations given for assessment requests for high hazard dams, not to exceed \$10,000 TA per assessment.
- 2. Funds for the "management and leadership" component of previous fiscal years' Watershed Rehabilitation Program allocations were eliminated. Prior to FY2007, management and leadership funds were provided for capacity building with potential watershed rehabilitation project sponsors, and for general program management.

Technical assistance (TA) and financial assistance (FA) funding allocations were made for as many projects as funds allowed based on national priorities. Projects were sorted within each of the priority categories (below) using the highest to the lowest risk-index (potential for loss of life if the dam were to fail) of a dam to be rehabilitated:

- Priority 1: TA to service prior year contract obligations for which FA has been obligated,
   or TA to service a prior year contract or agreement for planning or design.
- Priority 2: Earmarks
- Priority 3: Construction --or other implementation-- will be completed (previously funded FA).
- Priority 4: Construction –or other implementation-- will be continued (previously funded FA)
- Priority 5: FA will be obligated for a project that was authorized prior to FY2009.
- Priority 6: FA will be obligated for a project that has received funds in a prior year and becomes authorized in FY2009, prior to allocations.
- Priority 7: FA will be obligated for a project that has not received funds in a prior year and becomes authorized in FY2009, prior to allocations.

- o Priority 8: Complete a plan or design which was previously funded.
- o Priority 9: Continue a plan or with a design which was previously funded.
- o Priority 10: Initiate and complete a plan in FY2009.
- o Priority 11: Initiate a plan, but will not complete in FY2009.
- o Priority 12: Risk Index = 0.

## **BOOK XIV**



## Fiscal Year 2009

## **Watershed Protection and Flood Prevention**





## Watershed Protection and Flood Prevention Funding Methodology

The Watershed and Flood Prevention Operations Program FA and TA funding allocations are made for as many projects on the national priority list as possible based on available funds

#### FY 2009 Allocation Strategy, in order of priority:

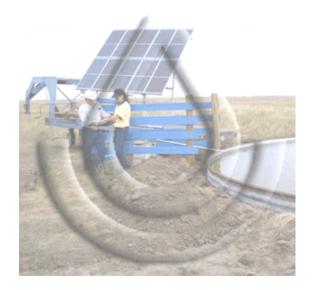
- Technical Assistance (TA) to service legal contractual obligations from prior years
- Technical and financial assistance (FA) for emergency remedial repairs (repairs needed to dams or other structures that have deficiencies due to NRCS design errors and/or oversights that could result in failure of the measures).
- Congressional earmarks in order of the following resource concern priorities and in the order of priority established in each state:
  - Flood damage reduction, in order of the least cost requests to the highest costs requests.
  - Water Conservation, in order of the least cost requests to the highest costs requests.
  - Water quality, in order of the least cost requests to the highest costs requests.
  - Erosion control, in order of the least cost requests to the highest costs requests.
- After funding of Congressional earmarks, remaining projects that are not Congressional earmarks will be funded in the same order of resource concern priorities until available funds are exhausted:
  - Flood damage reduction, in order of the least cost requests to the highest costs requests.
  - Water Conservation, in order of the least cost requests to the highest costs requests.
  - o Water quality, in order of the least cost requests to the highest costs requests.
  - o Erosion control, in order of the least cost requests to the highest costs requests.

## **BOOK XV**



## Fiscal Year 2009

## **Emergency Watershed Protection Program**





## Emergency Watershed Protection (EWP) Program Funding Methodology

The Emergency Watershed Protection Program (EWP) is funded through a Congressional Supplemental Appropriation. One hundred percent of the FA requested by a State is provided when funding is available. When funding needs exceed available funding, an EWP Program "wait-list" is maintained. EWP Program funds are allocated in chronological order starting with the longest waiting project by priority category.

#### **Financial Assistance Allocation Funding Priorities**

- Priority 1: Exigency Those situations that demand immediate action to avoid potential loss of life or property, including situations where a second event may occur shortly thereafter that could compound the impairment, cause new damage or the potential loss of life if action to remedy the situation is not taken immediately.
- Priority 2: Non-Exigency Projects on the wait-list, funding the oldest first

When funds are available, all authorized project modifications and cost overruns will be funded upon request.

#### **Technical Assistance (TA) Formula**

Technical Assistance is provided at 20% of Financial Assistance. This calculation is based on 75% of total installation costs. To maintain TA fund integrity and accountability, "drawing accounts" are established for each state. Only 50% of the TA above \$50,000 is allocated when the FA is allocated. States may request the balance of their TA when the FA has been obligated and the need for the TA is justified.

## **APPENDIX**

## Allocation Formula Factor Weights Using the Method of Paired Comparisons to Evaluate Resource Base and Resource Quality Factors

One of the critical parts of an allocation formula is assignment of weights to each of the factors. Higher weights signify greater importance. Historically, teams were gathered to recommend weights for each program as formulas were developed or modified. These weights were then vetted through a Leadership Group, and the Chief of NRCS. However, rationale used in assigning weights was not systematically documented. It is important to note that the World Perspectives report commented that it was an appropriate function for NRCS Leadership to assign weights, as long as the process was clearly documented.

In an effort to increase transparency and defensibility of NRCS Program Allocation Formulas, the Programs Deputy Area has incorporated *paired comparisons*, a 'scientifically based' methodology, into the assignment of Allocation Formula factor weights for the resource base and resource quality factors. The method of paired comparisons utilizes our inherent familiarity with and ability to make comparisons. In a paired comparison a set of factors within an allocation formula is judged by presenting all possible pairs of the factors to each respondent who chooses, for each pair, the item that better satisfies the priorities and statutes of the particular program.

The method of paired comparisons for recording human judgments has a long history. Use of the method dates back at least to G.T. Fechner's studies (1860). An early English text on experimental psychology by E.B. Titchener (1901) covered paired comparisons, and L.L. Thurstone (1927a, 1927c) brought considerable attention to the method with his psychological scaling proposals in the late 1920s. Summaries of the method are found in psychometric textbooks (e.g., Guilford, 1954; Nunnally, 1976; Torgerson, 1958) and, from the statistical perspective in David (1988).

For FY 2009, a paired comparison approach was used to assist in assigning weights to factors for the following programs: AMA, CTA, EQIP, FRPP, GRP, WHIP, and WRP.

Members of National Leadership, the Programs Advisory Board (composed of State and field level employees), and NHQ Program teams were interviewed using the method of paired comparisons to obtain individual rank orderings of the factors within these program formulas. Once all interviews were completed, the individual rank orderings of factors were summed and averaged to produce an average rank ordering of the factors for each program. The average rankings for each of the evaluated programs were then converted to broad categories of high-medium-low by visually comparing the group rankings. These high-medium-low groupings reflect major breaks in the average rank order scores. Factors that fell within the same grouping were given the same weight.

The following series of slides explains how the process works.



## A "Paired Comparison" is simply a binary choice

 Paired Comparison analysis compares all items (in this case natural resource base factors) to each other. The respondent chooses, for each pair, the most important factor.



Which factor is more important?

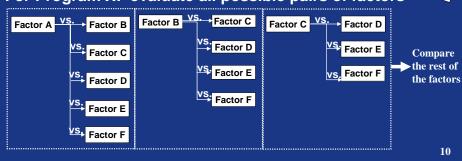
**United States Department of Agriculture Natural Resources Conservation Service** 



There are four steps in the process used to determine factor weights.

Step 1: Compare all possible pairs of factors with each other and select the most important factor in each pair. ILLUSTRATIVE

For Program X: evaluate all possible pairs of factors







Comparing all factors with each other creates a prioritized list (rank order) of the factors – ordered from most important to least important.

Step 2: Evaluate the resulting prioritized rank of factors created from evaluation of all possible pairs of factors

**Program X:** 

Rank	Factor	PC Scor
1	C	28
2	E	27
3	D	15
4	В	13
5	A	12
6	F	3
7	G	2
		100



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**United States Department of Agriculture Natural Resources Conservation Service** 





The rank ordered list is then grouped, based on breaks in the data, into High, Medium, or Low importance. Factors within each group receive the same factor weight.

Step 3: Group factors, based on breaks in data

Rank	Factor	PC Score		Assigned V	Veight
1 2	C E	$\frac{28}{27}$ High		High	26 26
3	D	15)			14
4	В	13 - Medium		Medium	14
5	A	لـ12	, , , , , , , , , , , , , , , , , , ,		14
6	F	3 Low			3
7	$\mathbf{G}$	2		Low	3
		100			<u>100</u>

Step 4: Assign factor weights to each H,M,L category

Factor A	Factor B	Factor C	Factor D	Factor E	Factor F	Factor G	
14%	14%	26%	14%	26%	3%	3%	12

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