

A Review of the 2002 Farm Bill: Topics Relevant to Air Quality

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Executive Summary:

All the following information is based on:

CONFERENCE REPORT

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Air quality is strongly addressed in the 2002 Farm Bill through five major areas: **air quality** mainly in the conservation title (Title II), **renewable energy** in the rural development title (Title VI), Forestry Title (Title VIII), and energy title (Title IX), **biomass** in the conservation title (Title II) and the energy title (Title IX), **greenhouse gases and carbon sequestration** in the conservation title (Title II), research title (Title VII), forestry title (Title VIII), and energy title (Title IX), and **wind erosion** in the research title (Title VII). NRCS will have to make major efforts to address conservation planning and evaluation tools to be able to address the related air quality concerns, and train field people to implement the air quality concerns in the Farm Bill.

The 2002 Farm Bill addresses a variety of environmental and conservation issues. Among these are numerous references to air quality and air resource related concerns and items. From an air quality perspective, there are five major titles within the 2002 Farm Bill which draw interest: Title II – Conservation (air quality, renewable energy, biomass, greenhouse gases); Title VI – Rural Development (renewable energy); Title VII – Research (air quality, renewable energy, biomass, greenhouse gases, and wind erosion); title VIII – Forestry (air quality, renewable energy, greenhouse gases), Title IX – Energy (renewable energy, biomass, greenhouse gases). A brief evaluation of each follows, as well as an evaluation of other factors/concerns which could evolve from each of the air quality issues. Throughout this evaluation, the NRCS air quality cooperating scientists recognize the tremendous rural economic potential that renewable energy and biomass have, but are concerned that these activities will impact not only air quality issues like odor, greenhouse gases, particulates, and ozone, but also will affect other conservation issues like soil erosion, water and soil quality, biodiversity, and wildlife habitat.

1) Air Quality

The eight specific references to “air quality” are under:

Title II – Conservation, Subtitle A – Conservation Security, Subtitle B – Conservation Reserve, and Subtitle D – Environmental Quality Incentives
Title VII – Research and Related Matters, Subtitle B – Modifications
Title VIII – Forestry, Subtitle A – Cooperative Forestry Assistance Act of 1978

Title II - Conservation

Title II, Subtitle A, Section 1238A, (page 94-96) orders the Secretary to establish a Conservation Security Program to promote “the quality of soil, water, air, energy....”. Item (d) (3) (A) directs the Secretary to use the NRCS National Handbook of Conservation Practices to determine eligible conservation practices. Item (d) (4) (page 98) lists “air quality management” as a practice that may be implemented by a producer. This practice does not currently exist as an accepted national standard in the NHCP, and would have to be developed, reviewed, and published before it could be used in a conservation plan.

Title II, Subtitle B – Conservation Reserve, includes as eligible land that which “if permitted to remain in agricultural production, would contribute to the degradation of soil, water, or air quality;” (page 110). For the first time, this clause brings air quality equal to water or soil quality as a criteria for CRP eligibility.

Title II, Subtitle D – Environmental Quality Incentives, Sec. 1240, (1) (A) lists one of the specific purposes of the program to assist “producers in complying with local, State, and national regulatory requirements concerning.....air quality:” (page 125)

Sec 1240, (2) identifies the desire to avoid “regulatory programs by assisting producers in protecting soil, water, air and related natural resources....” (page 125)

Section 1240A (2) (B) (vi) includes as eligible land that which “poses a serious threat to soil, air, water, or related resources” (page 126)

Section 1240B, (e) Incentive Payments (2) Special Rule – The secretary “may accord great significance to a practice that promotes.....air quality management.” (page 127)

Three programs, each of which has air quality as one of the cornerstone concerns for which the program is to be implemented.

Title VII – Research and Related Matters

Sec 7208 (b) (29) directs research and extension grants to address agricultural impacts on air and water quality. (page 320-321)

Title VIII – Cooperative Forestry Assistance Act of 1978

Sec 8002 (b) (1) targets resources from the Forest Land Enhancement Program to a number of objectives, including enhancing air quality in private forest lands. (page 347-351)

2) Renewable Energy

Renewable energy is of keen interest to the air quality community:

- 1) Renewables reduce dependence on fossil fuels, and can reduce the emissions of NO_x, SO_x, and VOC's, two criteria pollutants in the Clean Air Act.
- 2) Renewables can offset increases in atmospheric carbon dioxide from fossil fuels, which addresses concerns regarding global warming.

Title VI – Rural Development

As defined by the Farm Bill, renewable energy includes wind energy, anaerobic digestors, and solar energy systems. Title VI – Rural Development, Subtitle A, Sec 6013 amends the Consolidated Farm and Rural Development Act by including wind energy and anaerobic digestors as available for loans and loan guarantees under that Act (page 234).

Title VI , Subtitle A, Sec 6017, (8),

“(i) IN GENERAL.—Subject to clause (ii), the principal amount of a business and industry loan made to a cooperative organization and guaranteed under this subsection shall not exceed \$40,000,000.

“(ii) USE.—To be eligible for a guarantee under this subsection for a business and industry loan made to a cooperative organization, the principal amount of the any such loan in excess of \$25,000,000 shall be used to carry out a project—

“(I) in a rural area; and

“(II) that provides for the value-added processing of agricultural commodities.”

Under this title, a value added agricultural product may include grain for ethanol, and biomass for fuel or ethanol production. (page 236)

Later, under Title VI, Subtitle E, Sec 6401 (a) (2), renewable energy is included as a “value-added agricultural product”, and as such can be used as a basis for awarding a grant to create and develop marketing opportunities for value added agricultural products. (page 303)

Subtitle E, Sec 6402 establishes an Agriculture Innovation Center Demonstration Program:

“(a) PURPOSE.—The purpose of this section is to direct the Secretary of Agriculture to establish a demonstration program under which agricultural producers are provided—

(1) technical assistance, consisting of engineering services, applied research, scale production, and similar services, to enable the agricultural producers to establish businesses to produce value-added agricultural commodities or products;” (page 304)

Title VII – Research and Related Matters

Sec 7134 provides for grants for research on production and marketing of alcohols and industrial hydrocarbons from agricultural commodities and forest products (page 314).

Sec 7208 (b) (37) provides for research grants to be made for the purpose of developing “crops that can be used as renewable energy sources....” (page 321)

Sec. 7209 (b) modifies the National Agricultural Research, Extension, and Teaching Policy Act of 1977 to provide grants for research on production and marketing of alcohols and industrial hydrocarbons from agricultural commodities and forest products. (page 323).

Title VIII – Forestry

Title VIII, Subtitle B, Sec 8101 Provides for sustainable forestry outreach initiative and activities in renewable resources. (page 353)

Title IX – Energy

The bulk of the references to renewable energy rests under Title IX (starting on page 354).

Title IX, Sec 9001, (4) defines renewable energy (page354).

Title IX, Sec 9005 covers the Energy Audit and Renewable Energy Development Program, which provide competitive grants to assist farmers, ranchers, and small businesses to use renewable energy technology (page 360).

Title IX, Sec 9006, authorizes the Secretary to make available funds for farmers, ranchers, and small businesses to purchase renewable energy systems. Item (2) (C) says that the Secretary shall take into consideration the expected environmental benefits of renewable energy systems. (page 361).

3) Biomass

As a renewable fuel, biomass ties in well with the previous heading, addressing many of the same issues. While dealing with the country’s dependence on fossil fuels, and helping to address global warming issues, research into biomass based fuel, and

assistance to encourage development of biomass production and utilization, is strongly identified in the Farm Bill.

Title II - Conservation

Title II, Subtitle B – Conservation Reserve

Sec 1232 (a) (7) (A) allows the “managed harvesting and grazing (including the managed harvesting of biomass)” on conservation reserve land, as long as it is “consistent with conservation of soil, water quality, and wildlife habitat...” (page 115)

Title IX - Energy

As with Renewable Energy, the majority of references to biomass reside under Title IX – Energy. Sec 9001 (3) (A) and (B) define and provide examples of biomass. (page 354)

Sec 9003 has numerous references to biomass in regard to conversion of biomass to energy. (pages 357-358).

Sec 9008 amends an earlier law, providing for further funding of biomass research and development. (page 362).

4) Wind Erosion

As a potential source of fine particulates, wind erosion is a concern to air quality scientists. Given the problems with developing and implementing new process-oriented wind erosion models, the reference to wind erosion is particularly interesting:

Title VIII – Research and Related Matters

Title VII, Subtitle B – Modifications Sec 7208 (b) (26) specifies research and extension grants be made for the purpose of validating wind erosion models. (page 320)

5) Greenhouse Gases

Title II – Conservation

Title II, Subtitle D, Environmental Quality Incentives, Sec 2301, “Sec 1240H Conservation Innovation Grants, (b) identifies innovative conservation practices, including the storing of carbon in the soil. (page 129).

Title VII – Research and Related Matters

Title VII, Subtitle B, Sec 7223 provides for continuation of carbon cycle research (333).

Title VIII – Forestry

Title VIII, Sec 8002 “Sec 4, (b) (4) Increasing and enhancing carbon sequestration opportunities in forestry. (page 348).

Title VIII, Sec 8002 “Sec 4, (f) (2) (J) energy conservation and carbon sequestration (page 350).

Title IX - Energy

Title IX, Sec 9009 (d) authorizes the Secretary to cooperate with other departments and agencies in the US Global Change Research Program to carry out research to promote understanding of carbon dioxide and other greenhouse gas fluxes from agriculture, and flux of carbon in soils and plants. (page363)