Appendix Q: *NRCS National Handbook on Conservation Practices and Oregon Supplement*

The following subsections of this Appendix consist of selected conservation practice standards from the Natural Resources Conservation Service (NRCS) National Handbook of Conservation Practices (NHCP) and Oregon supplements to the handbook. The NHCP establishes national standards for conservation practices commonly used to treat natural resource concerns (soil, water, air, plant, and animal). Conservation practice standards are based on research, conservation field trials, and knowledge and experience. More information regarding conservation practices can be found online at: *http://www.nrcs.usda.gov/technical/agronomy.html.*

6.1 Conservation Practice Standards for Dairy Management

6.1(A) Waste Utilization — Conservation Practice Standard 633

This standard concerns managing the use of agricultural wastes such as manure, wastewater and other organic residues from on-farm processes to achieve desired results. Its purposes are to (1) protect water quality, (2) provide fertility for crops/forage, (3) improve/maintain soil structure, (4) provide feedstock for animals, and (5) provide a source of energy for the operation. See Appendix A for full text of standard.

6.1(B) Nutrient Management — Conservation Practice Standard 590

This standard involves managing the amount, sources, placement, form and timing of the application of nutrients and soil amendments. Its purposes are to (1) budget and supply nutrients for plant production, (2) properly utilize manure or organic by-products as a plant nutrient source, (3) minimize agricultural non-point source pollution of surface and ground water resources, and (4) to maintain or improve the physical, chemical and biological conditions of soil. See Appendix A for full text of standard.

6.1(C) Irrigation Water Management — Conservation Practice Standard 449

This standard involves the process of determining and controlling the volume, frequency and application rate of irrigation water in a planned, efficient manner. Its purposes are to (1) manage soil moisture to promote desired crop response, (2) optimize the use of available water supplies, (3) minimize irrigation induced soil erosion, (4) decrease non-point source pollution of surface and groundwater resources, (5) manage salts in the crop root zone, (6) manage air, soil, or plant micro-climate, (7) provide proper and safe chemigation or fertigation, and (8) improve air quality by managing soil moisture to reduce particulate matter movement. See Appendix A for full text of standard.

6.1(D) Feed Management — Conservation Practice Standard 592

This standard involves managing the quantity of available nutrients fed to livestock for their intended purpose. Its purposes are twofold: (1) supply the quantity of available nutrients required by livestock and poultry for maintenance, production, performance, and reproduction; while reducing the quantity of nutrients, especially nitrogen and phosphorus, excreted in manure by minimizing the over-feeding of these and other nutrients and (2) improve net farm income by feeding nutrients more efficiently. See Appendix A for full text of standard.

6.1(E) Prescribed Grazing — Conservation Practice Standard 528

This standard involves managing the harvest of vegetation with grazing and/or browsing animals. Its purposes are to (1) improve or maintain desired species composition and vigor of plant communities, (2) improve or maintain quantity and quality of forage for grazing and browsing animals' health and productivity, (3) improve or maintain surface and/or subsurface water quality and quantity, (4) improve or maintain riparian and watershed function, (5) reduce accelerated soil erosion, and maintain or improve soil conditions, and (6) improve or maintain the quantity and quality of food and/or cover available for wildlife. See Appendix A for full text of standard.

6.1(F) Forage Harvest Management — Conservation Practice Standard 511

This standard involves the timely cutting and removal of forages from necessary fields as either hay, green-chop, or ensilage. Its purposes are to (1) optimize the economic yield of forage at the desired quality and quantity, (2) promote vigorous plant re-growth, (3) maintain stand life for the desired time period, (4) maintain desired species composition of the stand, (5) use forage plant biomass as a nutrient uptake tool, (6) control insects, diseases and weeds, and (7) maintain and/or improve wildlife habitat. See Appendix A for full text of standard.

6.1(G) Atmospheric Resource Quality Management

This standard involves applying a combination of treatments to manage resources that maintain or improve air quality. Its purposes are to (1) minimize or reduce emissions of Particulate Matter, Smoke, Odors, Greenhouse Gases, Ozone, and chemical drift; (2) maintain or increase visibility. Appendix A for full text of standard.

6.2 Conservation Practice Standards for Dairy Processes and Infrastructure

6.2(A) Waste Storage Facility — Conservation Practice Standard 313

This standard pertains to a waste storage impoundment made by constructing an embankment and/or excavating a pit or dugout, or by fabricating a structure. This structure's purpose is to temporarily store wastes such as manure, wastewater, and contaminated runoff as a storage function component of an agricultural waste management system. See Appendix A for full text of standard.

6.2(B) Manure Transfer — Conservation Practice Standard 634

This standard pertains to a manure conveyance system using structures, conduits, or equipment. This system's purpose is to transfer animal manure (including other residues associated with animal production such as bedding material, spilled feed, and process/wash water) through a hopper or reception pit, a pump (if applicable), a conduit, or hauling equipment to: (1) a manure storage/treatment facility, (2) a loading area, and (3) agricultural land for final utilization. See Appendix A for full text of standard.

6.2(C) Solid/Liquid Waste Separation Facility — Conservation Practice Standard

632

This standard pertains to a filtration or screening device, settling tank, settling basin, or settling channel used to separate a portion of solids from a liquid waste stream. The purpose of this equipment is to partition solids, liquids and their associated nutrients as part of a conservation management system to: (1) improve or protect air quality, (2) improve or protect water quality, (3) improve or protect animal health, and (4) meet management objectives. See Appendix A for full text of standard.

6.2(D) Roof Runoff Structure — Conservation Practice Standard 558

This standard pertains to structures that collect, control, and transport precipitation from roofs away from waste storage facilities. The purpose of this type of structure is to (1) improve water quality, (2) reduce soil erosion, (3) increase water infiltration to soil, (4) protect structures, and (5) increase water quantity. See Appendix A for full text of standard.

6.2(E) Waste Facility Cover — Conservation Practice Standard 367

This standard pertains to a fabricated rigid, semi-rigid, or flexible membrane over a waste treatment or storage facility. Its potential purposes include (1) improving water and air quality and (2) capturing biogas for energy production. See Appendix A for full text of standard.

6.2(F) Filter Strip — Conservation Practice Standard 393

This standard pertains to a strip or area of herbaceous vegetation situated between cropland, grazing land, or disturbed land (including forestland) and environmentally sensitive areas. The purpose of this strip is to (1) reduce sediment, particulate organics, and sediment adsorbed contaminant loadings in runoff, (2) reduce dissolved contaminant loadings in runoff, (3) reduce sediment, particulate organics, and sediment adsorbed contaminant loadings in surface irrigation tailwater, (4) restore, create or enhance herbaceous habitat for wildlife and beneficial insects, and (5) maintain or enhance watershed functions and values. See Appendix A for full text of standard.

6.2(G) Composting Facility — Conservation Practice Standard 317

This standard pertains to the treatment of organic material to obtain biological stabilization for further use. This type of facility can reduce the pollution potential of organic agricultural wastes to surface and ground water. See Appendix A for full text of standard.

6.2(H) Use Exclusion — Conservation Practice Standard 472

This standard pertains to the temporary or permanent exclusion of animals, people or vehicles from a given area. The purpose of this standard is to (1) prevent, restrict, or control access to an area, (2) maintain or improve the quantity and quality of natural resources, and (3) minimize liability and human health concerns. See Appendix A for full text of standard.

6.2(I) Fence — Conservation Practice Standard 382

This standard pertains to any constructed barrier to animals or people. The purpose of such a structure is to facilitate the application of conservation practices by providing a means to control movement of animals and people. See Appendix A for full text of standard.

6.2(J) Underground Outlet — Conservation Practice Standard 620

This standard pertains to a conduit installed beneath the surface of the ground to collect surface water and convey it to a suitable outlet. Its purpose is to dispose of excess water from terraces, diversions, subsurface drains, surface drains, trickle tubes or principal spillways from dams (outside the dam area only), or other concentrations without causing damage by erosion or flooding. See Appendix A for full text of standard.

Existing Conservation Practice Standards Not Currently Included in AWMPs, but with Potential for Future Inclusion

6.3(A) Waste Treatment — Conservation Practice Standard 629

This standard applies to the mechanical, chemical or biological treatment of agricultural waste. The purpose of this type of treatment is to (1) improve ground and surface water

quality by reducing the nutrient content, organic strength, and/or pathogen levels of agricultural waste, (2) improve air quality by reducing odors and gaseous emissions, (3) produce value added by-products, and (4) facilitate desirable waste handling, storage, or land application alternatives. See Appendix A for full text of standard.

6.3(B) Waste Treatment Lagoon — Conservation Practice Standard 359

This standard applies to a waste treatment impoundment made by constructing an embankment and/or excavating a pit or dugout. The purpose of this type of structure is to biologically treat waste, such as manure and wastewater, and thereby reduce pollution potential by serving as a treatment component of a waste management system. See Appendix A for full text of standard.

6.3(C) Anaerobic Digester with Controlled Temperature — Conservation Practice Standard 366

This standard pertains to a managed temperature waste treatment facility. The purpose of this type of facility is to biologically treat waste as a component of a waste management system to: (1) produce and capture biogas and for energy production, (2) improve air quality, (3) reduce greenhouse gas emissions, (4) reduce pathogens, and (5) improve nutrient management. See Appendix A for full text of standard.

6.3(D) Animal Mortality Facility — Conservation Practice Standard 316

This standard applies to an on-farm facility for the treatment or disposal of livestock carcasses. This type of facility supports (1) a decrease in non-point source pollution of surface and groundwater resources, (2) a reduction of the impact of odors that result from improperly handled animal mortality, (3) a decrease in the likelihood of the spread of disease or other pathogens that result from the interaction of animal mortality and predators, and (4) provides contingencies for normal and catastrophic mortality events. See Appendix A for full text of standard.

6.3(E) Amendments for Treatment of Agricultural Waste — Conservation Practice Standard 591

This standard pertains to the treatment of manure, process wastewater, storm water runoff from lots or other high intensity areas, and other wastes with chemical or biological additives. This type of process alters the physical and/or chemical characteristics of the waste stream to: (1) improve or protect air quality, (2) improve or protect water quality, (3) improve or protect animal health, and (3) alter the consistency of the waste stream to facilitate implementation of a waste management system. See Appendix A for full text of standard.