regulations at 30 CFR 816.111, 816.116, 817.111, and 817.116.

Therefore, the Director finds that North Dakota's proposed revisions in Chapter II, Section H of the revegetation document, concerning wetlands on land reclaimed for use as fish and wildlife habitat, are no less effective than the Federal regulations at 30 CFR 816.111, 816.116, 817.111, and 817.116, and approves the proposed revisions.

e. *Chapter II, Section I, requirements for revegetation success on reclaimed lands developed for use as recreation, residential, industrial, and commercial.* North Dakota proposed to revise its revegatation document by creating a new Section I in Chapter II. Proposed Section I includes the requirements for success of revegatation on lands reclaimed for use as recreation, residential, and industrial and commercial. North Dakota proposed to require on areas developed for recreation, residential, and industrial and commercial land uses, for both third and fourth-stage bond release, establishment of vegetation sufficient to control erosion and documentation showing that the areas are not contributing suspended solids to streamflow or runoff outside the permit area. North Dakota proposed (1) a technical standard for establishment of revegetation, measured with a point frame, of either 73 percent total cover based on basal hits or 83 percent total cover based on first hits, (2) the requirement that live cover included in the standard must be perennial species not detrimental to the land use, and (3) that either standard must be achieved with 90 percent statistical confidence. North Dakota's rules at NDAC 69–05.2–22–07(4)(j) require that within 2 years after completion of grading or soil replacement, the ground cover of living plants must not be less than required to control erosion on areas to be developed for recreation, water areas, residential, or industrial and commercial uses.

For areas developed for residential, or industrial and commercial land uses, the Federal regulations at 30 CFR 816.116(b)(4) and 817.116(b)(4) require that the vegetative ground cover shall not be less than that required to control erosion.

For areas developed for use as recreation, the Federal regulations at 30 CFR 816.116(b)(3) (i) through (iii) and 817.116(b)(3) (i) through (iii) require, in part, that success of revegetation be determined on the basis of tree and shrub stocking and vegetative ground cover and include the requirements that (1) permit specific or programwide minimum stocking and planting arrangements shall be specified by the regulatory authority on the basis of local and regional conditions and after consultation with and approval by the State agencies responsible for the administration of forestry and wildlife programs, (2) trees and shrubs counted in determining such success shall be healthy and have been in place for not less than two growing seasons, (3) at least 80 percent of the trees and shrubs used to determine such success shall have been in place for 60 percent of the applicable minimum period of responsibility, and (4) vegetative ground cover shall not be less than that required to achieve the approved postmining land use.

The Director finds that proposed Chapter II, Section I in North Dakota's revegetation document, with respect to areas developed for residential or industrial and commercial land uses, is no less affective than the Federal regulations at 30 CFR 816.116(b)(4) and 817.116(b)(4).

However, on areas developed for a recreation land use, neither the North Dakota rule nor its revegetation document require revegetation success standards for tree and shrub stocking and vegetative ground cover based on consultation with and approval from the State agencies responsible for the administration of forestry and wildlife programs. Therefore, with respect to areas developed for a recreation land use, the Director finds that the North Dakota rules at NDAC 69–05.2–22–07(4)(j) and Chapter II, Section I in the revegetation document are less effective than the Federal regulations at 30 CFR 816.116(b)(3) and 817.116(b)(3). With the exception that Chapter II, Section I does not include complete requirements for measuring the success of revegetation on land reclaimed for use as recreation, the Director approves the revegetation success standards and sampling techniques proposed by North Dakota in Chapter II, Section I of its revegetation document for areas developed for recreation, residential, or industrial and commercial land uses. With respect to areas developed for a recreation land use, the Director requires that North Dakota (1) revise its rule at NDAC 69–05.2–22–07(4)(j) and Chapter II, Section I in its revegetation document to require tree and shrub stocking standards that (a) have been approved by the State agencies responsible for forestry and wildlife programs and (b) meet all other requirements for tree and shrub standards included in 30 CFR 816.116(b)(3), and (2) provide evidence of consultation with and approval from the State agencies responsible for forestry and wildlife programs for the ground cover standard, concerning a recreation land use, proposed in Chapter II, Section I.

f. *Chapter III, Section C, sample design and sample size adequacy.* North Dakota proposed to revise Chapter III, Section C, to (1) require that the determination of an adequate sample size include an initial sampling to obtain estimates of the mean and variance of each site type or reference area; (2) specify a minimum number of samples when hand sampling to determine (a) total production and cover on native grassland and tame pastureland, (b) production on cropland, or (c) total cover; and (3) require that the mean and variance derived from the initial sampling be used to calculate adequate sample size using (a) a two-stage sampling procedure, (b) a procedure using the standard error as a percentage of the mean, or (c) a procedure described for comparing two different populations (e.g., reference area and reclaimed area). Each of these procedures for determining sample size are based on either a normal or binomial distribution of the population when parametric statistics are used to evaluate the revegetation data collected from the reclaimed area.

The Federal regulations at 30 CFR 816.116(a)(2) and 817.116(a)(2) require that the sampling techniques for measuring revegetation success shall use a 90-percent statistical confidence interval (i.e., one-sided test with a 0.10 alpha error).

North Dakota's proposed revisions of Chapter III, Section C, concerning sample design, are consistent with the Federal regulations at 30 CFR 816.116(a)(2) and 817.116(a)(2) in that North Dakota has clearly required that all sampling techniques shall use a 90 percent statistical confidence level.

North Dakota also proposed to revise Chapter III, Section C, concerning sample design to state that, in some cases, the sample size derived from a formula may appear to be unreasonably large due to non-parametric or non-normal distributions and that North Dakota will evaluate such cases and establish a maximum sample size.

The distribution of (1) vegetative cover in the arid west and (2) shrub density throughout the west often do not exhibit normal or binomial characteristics, and the use of non-parametric statistics may be appropriate for evaluation of the revegetation data collected from these reclaimed environment. Because North Dakota's proposed requirement that all sampling techniques use a 90 percent statistical confidence level applies whether