**Section 300.120 Criteria For Types of Land Reclamation**

a) Reforestation

1) Minimum Stocking Standard

 Five hundred (500) living trees per acre will be the minimum standard for acceptable stocking after one (1) growing season. In this text the term "trees" will include acceptable shrubs. Survival counts may be made after the second growing season if requested by the operator. In such a case, four hundred fifty (450) living trees per acre will be the minimum standard for acceptable stocking after the second growing season.

2) Sampling Procedure to Determine Stocking

 Determine the average spacing between planted rows and between trees within rows. From this calculate the number of planting spots per acre (and for the area to be examined) as shown below:

|  |  |  |
| --- | --- | --- |
| 43,560 | = | planting spots/acre |
| Spacing between rows (feet) X Spacing between trees in row (feet) |  |  |

A) Determine the number of planting spots that must be examined to constitute a ten percent (10%) sample.

B) Plot four (4) randomly selected lines across the area, perpendicular to the planted tree rows. All planted species will be taken into consideration. Based on the number of rows across a given area, determine the number of rows that must be examined for the ten percent (10%) sample, assuming that ten (10) or twenty (20) planting spots will be examined along each row.

C) Locate a series of transects perpendicular to, and balanced along the random lines as shown in Illustration A. The transect's width will extend on either side of a planted row halfway to the adjacent rows. Each planting spot on the transect will be examined and if a living tree, either planted or an acceptable volunteer, occurs then that spot will be tallied as "living" on a tally meter. If no such living trees occur, tally the spot as "dead" on another tally meter. A planting spot will be considered as a rectangle defined by the transect boundaries and extending along a row from a given planted tree halfway to adjacent planted trees. After transect tallies have been completed calculate the Percent Survival as follows:

|  |  |  |
| --- | --- | --- |
| Number of Planting Spots With Live Trees of Acceptable Species |  |  |
| of Acceptable Species | = | Percent Survival |
| Number of Planting Spots With Live Trees of Acceptable Species PLUS Number of Planting Spots With Dead Trees or No Trees or Unacceptable Species |  |  |

D) Volunteer species that are acceptable or unacceptable will vary for different parts of the State, with compatibility of species, and with soil and site conditions. Acceptability will be based on decisions made by the reclamation technician engaged in an examination of a given site.

E) The number of acceptable live trees per acre can be calculated by multiplying the percent survival times the number of planting spots per acre.

F) Both temporary and permanent water and roads will be omitted from the sampling area.

G) Openings, or failed spots, larger than one-quarter (1/4) acre will be identified on the plan map by the examiner and will not be approved until replanted and the minimum stocking standard attained.

b) Pasture or Crop

1) Rates of seeding per acre and cultural methods shall be governed primarily by those suggested in Bulletin 628, "Reclaiming Illinois Strip Coal Land With Legumes and Grasses," University of Illinois Agricultural Experiment Station, or by other research or successful experience with pasture or meadow seedings on Illinois or similar mined lands.

2) Top quality seed shall be used and it is suggested that seed be used bearing the official state tag giving the purity and germination. Legume seed shall be properly inoculated. Seeding methods, fertilization, weed, insect and disease control shall be in accordance with established methods.

A) Minimum Establishment Standards

 A sixty-five percent (65%) stand of seeded legumes and/or perennial grass shall be required in August through October of the seeding year or an eighty-five percent (85%) stand shall similarly be required the year following seeding. If an eighty-five percent (85%) stand is not achieved the year following seeding, the area shall be reworked and reseeded. If approved by the Director in advance, planting to grain or other crops on suitable land shall meet the requirements.

B) Stand Sampling Procedure

 Percent (%) stand shall be determined as follows:

i) Twenty (20) points shall be selected in the seeded area. The approximate points shall be determined on an aerial photograph by placing a grid over the area on the photograph so that one hundred (100) or more intersections fall in the seeded area. Twenty (20) of the intersections shall be selected using appropriate tables of random numbers. These points in the field shall be located within one hundred (100) feet from the photograph. The exact point shall be decided by throwing some object without looking. Bare areas will not be avoided.

ii) A twenty (20) foot engineer's measuring tape shall be extended directly south of a selected point.

iii) Whether or not seeded grasses and legumes occur in each two-tenths (.2) foot[\_]2@ any part of a plant occurs in a segment that segment shall be considered to have vegetative cover.

iv) Percent vegetative cover shall be the number of two-tenths (.2) foot[\_]2@

c) Recreational Developments

1) Each area, regardless of the primary land use to be emphasized, should be individually appraised taking into account all factors to ensure potential recreational development and use. It is understood that in those cases where primary use is to be recreation, developments will include only requirements necessary to establish the completed base for a fully operational recreation area. However, all proposals for recreational development shall clearly delineate the potential for a functional operation and plan of maintenance.

2) Areas may be highly variable in size depending on the type and combination of different activities considered possible, as well as the projected population of users.

A) Grading of Displaced Overburden

i) One (1) acre out of ten (10) is to be graded so as to be reasonably level and adequately drained. Such graded areas should be distributed in keeping with planned use.

ii) All areas for recreation shall reflect minimal grading requirements (maximum of thirty percent (30%) slope) as specified in Section 6A of the Act.

B) Access

i) Maintainable roads shall be established to provide access to lakes and parking sites associated with areas planned for possible future development under the basic recreational plan.

ii) Actual location of such roads are to make accessible all portions of the area within a distance not to exceed one-half (1/2) mile and planned so as to connect such roads with all graded acreages. (Refer to subparagraph (c)(2)(A)(i) of this subsection (c).)

C) Revegetation

i) A minimum of thirty percent (30%) of the total land area shall be planted to trees or shrubs which will maximize wildlife populations and/or contribute to the scenery of the area. These must meet the stand requirements established for reforestation.

ii) All other land not planted to trees and shrubs shall be seeded to grasses and/or legumes of greatest value to wildlife and which reflect those species considered adaptable to the region as well as which might be most appropriate for the planned recreational use. Stand requirements must be equivalent to those established for pasture.

D) Miscellaneous

i) A recreational plan should emphasize use of the existing water. For areas where recreation is to be the primary use, unless endowed with other exceptional attributes, these should contain not less than five percent (5%) of its total area with acceptable water (at least eight (8) feet deep and three (3) acres in size; seven to ten percent (7%-10%) is preferable). These waters must be stocked with fish in accordance with recommendations by the Division of Fisheries, Illinois Department of Natural Resources.

ii) Bodies of water, irrespective of size and depth, are desirable for various wildlife and hence should be provided, wherever feasible, with plans for development and management.

iii) All aspects of game propagation and management shall be in accordance with recommendations by the Division of Wildlife Resources, Illinois Department of Natural Resources.

iv) Exceptions to regulations should allow for interesting and challenging deviations from the more traditional plans for recreation development so as to permit development of certain scenic or landscaping opportunities, planned sites of isolation, or interesting and unusual hiking and riding trails. Further, exceptions are in order so as to encourage best integration of recreational developments as a part of the total land use concept such as when an area rejects agricultural or forestry as the dominant use. Such exceptions, however, shall not violate the requirements established by the Act with reference to grading and revegetation.

v) Recreational development for water filled quarries, sand excavation, etc., shall include adjacent lands sufficient to permit sites for parking and access. Landscaping shall be so planned as to provide publicly acceptable environments. Where deemed feasible by the divisions of Fisheries and Wildlife Resources, Illinois Department of Natural Resources, fish stocking and game propagation and management shall be included in the plan for development and maintenance.