United States
Department of
Agriculture

Soil
Conservation
Service

210 Walnut Street
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Des Moines, IA 50309

US

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NATIONAL ENGINEERING MANUAL
SUPPLEMENT 7, PARTS IA504 AND IA512

SUBJECT: Reservoir Sedimentation Surveys; Inspection of Construction Work; Engineering Equipment, Records and Coordination; and As-Built Plans

Purpose. This supplement transmits current Iowa policy on reservoir sedimentation surveys; inspection of construction work; maintenance of construction inspection records; and developing, reproducing, and disposition of As-Built plans.

Effective Date. This supplement is effective upon receipt.

Filing Instructions. Pages IA504-10(1), (2), and (3) should be added following page 504-10. Pages IA512-12(1) and (2) should be added following page 512-11. Page IA512-14(1) should be added following page 512-14. Page IA512-17(1) should be added following page 512-17.

This supplement should be noted on the Iowa Supplement Tabulation Sheet. This transmittal should be destroyed when the material has been filed.

William J. Brune
State Conservationist

Attachments

AC
DC
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SCE Midwest States

§IA504.20(b) Iowa sites designated for survey:

Watershed	Site	LRA	Drainage Area Sq. Mi.
Pioneer (PL-566)	M-1	102	6.1
Mule Creek (Pilot)	R	107	0.81
Diamond Lake (PL-566)	C-14	108	0.81
Walters Creek (PL-566)	18-2	108	0.64
Big Wyacondah (PL-566)	27-1	109	1.09

§IA504.21(d) Responsibilities for reservoir surveys, land use, land treatment and erosion determinations.

Job	Responsibility
(1) Survey schedule.	State Conservation Engineer and Sedimentation Geologist
(2) Survey of ranges will be made by boat or through ice in winter time with adequate safety precautions.	Project Engineer
(3) When sediment deposits are of sufficient thickness (at least five inches) volume weight samples (jar samples) will be taken of the sediment.	Project Engineer and Sedimentation Geologist
(4) Survey notes and volume weight samples will be sent to the State Office.	Project Engineer
(5) The volume weights will be determined by the foundation investigation unit.	State Conservation Engineer
(6) The volume and weight of accumulated sediment will be computed and summary reports of reservoir survey computations will be prepared.	Sedimentation Geologist

IA504.21(d)(7)

Job	Responsibility
(7) Annual recording of land use and treatment.	
(i) On a duplicate tracing of the master overlay, record for each field: a. Land Use b. Crop grown c. Temporary tillage practices used such as contouring and conservation tillage.	District Conservationist
(ii) For succeeding years, the master overlay can be changed to reflect changes in permanent features, such as additional terraces, ponds, etc., as they are established.	District Conservationist
(8) Computation of Gross Sheet Erosion.	
(i) At the time of reservoir resurvey or at other specified times, gross sheet erosion will be computed using the Universal Soil Loss Equation. In making these computations, the average annual rate applicable to the land use, crop grown, and practices on each field for the interval will be determined and multiplied by the number of years under consideration for total gross erosion. Forms Iowa WS-5 will be used to record these computations.	District Conservati[illegible]c & Sedimentation Geologis
(ii) The completed Iowa WS-5 forms along with a copy of each annual overlay showing land use and cropping will be sent to the State Office for processing and reporting by January 15 of each year.	District Conservationist

Job	Responsibility
(9) Gully, roadside, and other types of erosion.	
(i) At the time of resurvey, the sedimentation geologist will again examine all other types of erosion and estimate the gross erosion from these sources during the interval of study.	Sedimentation Geologist
(ii) Information relative to changes in sources of other types of erosion should be noted on the annual overlay. Examples might include regrading of roads and shaping gullies into waterways.	District Conservationist