United States
Department of
Agriculture

Soil
Conservation
Service

Northeast NTC
160 E. 7th Street
Chester, PA 19013

February 26, 1986

NORTHEAST NTC TECHNICAL NOTE WS - UD-27 CANCELLATION

SUBJECT: TSC TECHNICAL NOTE WS - UD-27, ECONOMICS - ALLOCATING JOINT FLOOD PREVENTION BENEFITS FROM MULTIPLE PURPOSE FLOOD PREVENTION AND DRAINAGE CHANNEL PROJECTS TO DAMAGE REDUCTION AND LAND ENHANCEMENT

Purpose. To cancel TSC Technical Note WS - UD-27.

Effective Date. When received.

Background. Current procedures for evaluating multi-purpose channels are contained in National Instruction No. 390-304 and Section III of the Principles and Guidelines. 1982

Action. Remove and destroy TSC Technical Note WS - UD-27.

Scott Hoag Jr.

Scott Hoag, Jr.
Head, Economics, Social Sciences
and Evaluation Staff

DIST: N, T, NE S

File In Bulletin Book

United States Department of Agriculture
Soil Conservation Service
P.O. Box 2890
Washington, D.C.
20013

October 25, 1982

NATIONAL INSTRUCTION NO. 390-304

SUBJECT: PROJ DEV MAINT - PROJECT FORMULATION - INCREMENTAL ANALYSIS

Purpose: To establish procedures for developing incremental analysis for measures to be included in the NED plan.

Effective Date: This instruction is effective when received.

Background: The Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies requires that an NED alternative plan be formulated. In addition, this NED plan must be developed for any project prior to being transmitted to Congress or, on plans already approved, receiving a construction start. Many questions have arisen as to how to accomplish the formulation of the NED plan. This instruction is designed to establish procedures for developing an incremental analysis and meeting this requirement.

Acting for

PETER C. MYERS
Chief

Enclosure

ROUTING

Action To	Route To
SWANK	
GODDARD	
LUCAS	✓
DUNN	
THORN	
DOVE	
SHREVE	
HATFIELD	
SCOTT	
CLEVENGER	

DIST: L, T, S

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NATIONAL INSTRUCTION NO. 390-304

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PART 304 - PROJECT FORMULATION - INCREMENTAL ANALYSIS

SUBPART A - GENERAL

304.00

§304.00 Background.

Paragraph 1.6.3 of the Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies requires that National Economic Development (NED) plan alternative be formulated. This NED plan alternative is defined as one that "reasonably maximizes net national economic development benefits, consistent with the Federal objective." In order to develop the NED plan, an incremental analysis must be made to be certain that each incremental addition to the plan is adding benefits in excess of the cost.

SUBPART B - MULTIPURPOSE CHANNELS

§304.10 General.

The accepted procedure for formulating an alternative plan which will reasonably maximize net benefits is to incrementally add independent units so long as the increased benefits to the system are in excess of the costs of the unit. In the case of drainage, it is possible to enlarge the system by adding additional laterals or extending existing laterals to serve other areas. Also, it is physically possible to change the size of the ditches which are serving these areas. The incremental analysis for multipurpose channels currently being used in the Service is to examine the costs and benefits of expanding the areal extent of the system.

§304.11 Procedures.

(a) As a general principle, the minimum capacity of a channel is that necessary to remove excess water from the soil profile to allow optimum plant growth and development. This channel capacity, based on appropriate drainage criteria for the region, should be the first increment for plan formulation, so far as capacity is concerned.

(b) Beyond this basic size, larger ditches will be analyzed for the damage reduction contributions they make to nec income. Additional increments of capacity should be added and analyzed from a flood prevention viewpoint to determine the optimum plan based on net benefits achieved by each increment added. Net income increases from the larger ditches will be compared to costs resulting from the enlargements, i.e., the cost of additional excavation, bridge or culvert modifications, etc., to confirm that positive net benefits exist for each incremental increase.

(c) The analysis of drainage and multipurpose drainage/flood prevention for development of the NED plan alternative will involve both recognized aspects of a channel system, the areal extent and the size component, as they relate to drainage and flood damage reduction.