

SEPT. 19, 1986 VERSION

THESE WORK ITEMS WERE DEVELOPED TO HELP NEW ECONOMISTS IDENTIFY THINGS THAT NEED TO BE ACCOMPLISHED, AND REMIND EXPERIENCED ECONOMISTS OF STEPS NEEDED, TO EVALUATE A PROJECT

AG FLOOD

200AG PRELIMINARY
PROJECT EVALUATION

STAFF INFORMATION ABOUT A POTENTIAL PROJECT HAS BEEN RECEIVED. PROJECT POTENTIAL IS DETERMINED BY THE STAFF ACCESSING THE FOLLOWING:

- A. IDENTIFY THE RESOURCE PROBLEMS
 - 1. QUANTIFY PROBLEMS
 - 2. DETERMINE IF PROBLEM FITS PURPOSE LISTED UNDER PL-566 (URBAN FLOOD, AG. FLOOD, WATERSHED PROTECTION, IRRIGATION, ETC.)
 - 3. DETERMINE IF PROJECT CAN BEST BE SOLVED UNDER THE PL-566 PROGRAM
 - 4. DETERMINE POTENTIAL FOR PROJECT ECONOMIC FEASIBILITY
- B. IDENTIFY OBJECTIVES OF LOCAL PEOPLE AND DETERMINE POTENTIAL SPONSORS
 - 1. COMPARE SPONSOR OBJECTIVES TO PROGRAM REQUIREMENTS
 - 2. DETERMINE RANGE OF ALTERNATIVES THAT ARE SOCIALLY ACCEPTABLE
- C. ASSIST IN PREPARING A PRELIMINARY REPORT AND IF PROJECT PLANNING CONTINUES, USE THE FOLLOWING WORK ITEMS TO GUIDE THE ECONOMIC ANALYSIS

201AG DEVELOP A STUDY
PLAN, ECONOMICS PORTION.

- A. LIST IN TIME SEQUENCE ALL ECONOMIC WORK ITEMS NEEDED TO SOLVE THE PROBLEMS IDENTIFIED IN THE PROJECT. USE THE WORK ITEMS DESCRIBED BELOW. ADD AND DELETE WORK ITEMS TO MAKE THE PLAN OF WORK SPECIFIC TO THE PROJECT BEING PLANNED. COORDINATE WITH APPROPRIATE STAFF AND TSC ECONOMISTS AS NEEDED. (BEGINNING OF POST APPLICATION PLANNING 502.31(A) NWSM)
- B. DESCRIBE PROCEDURES FOR ACCOMPLISHING EACH WORK ITEM WITH WORK DAYS REQUIRED. PROVIDE TO STUDY LEADER.
- C. OBTAIN COPY OF THE OVERALL SCHEDULE AND USE IT TO SCHEDULE THE ECONOMIST WORK ITEMS ON DESK CALENDAR, INDIVIDUAL ANNUAL PLAN OF OPERATIONS OR STATE ANNUAL PLAN OF OPERATIONS.

202AG ASSEMBLE BASIC STAFF
RESOURCE DATA

- A. ASSEMBLE ON A WATERSHED OR COUNTY BASIS AS APPLICABLE. GATHER ONLY DATA THAT IS USEFUL FOR

THE PROJECT EVALUATION AND NARRATIVE

1. BASIC ECONOMY OF THE AREA

- A. POPULATION- BOTH RURAL AND URBAN, AGE, EDUCATION, MINORITIES
- B. EMPLOYMENT BY SECTOR, E.G. AG, MFG., COMMERCIAL, ETC.
- C. INCOME
 - (1) RANGE
 - (2) MEDIAN
 - (3) COMPARE TO STATE AND NATION
- D. FARM AND RANCH ENTERPRISES
 - (1) TYPE- DAIRY, BEEF, SPECIALIZED,

- CASH CROP, ETC.
- (2) SIZE
- (3) NUMBER
- (4) TENURE
- (5) AVERAGE VALUE OF BUILDINGS
- E. OFF-FARM EMPLOYMENT
 - (1) NUMBER OF DAYS
 - (2) KINDS, IF KNOWN

- 2. PROJECT BASE MAP.
- 3. SOILS INFORMATION
- 4. DRAINAGE AREA
- 5. COUNTY MAPS
- 6. AERIAL MOSAICS
- 7. WATERSHED LAND USE (PRESENT AND FUTURE)
- 8. WATER AND LAND RESOURCE PROBLEMS
- 9. PAST FLOOD EVENTS (DATES, BENCHMARKS, EXISTING DAMAGE SURVEYS, PHOTOS, VIDEOS)
 - A. MOST RECENT
 - B. LARGEST (ATTEMPT TO DELINEATE FLOOD BOUNDARIES.
 - C. SIGNIFICANCE OF LARGE FLOODS COMPARED TO SMALLER INFREQUENT FLOODS

SOURCE: PUBLISHED SOIL SURVEYS, AERIAL PHOTOS, CITY & COUNTY DATA BOOK, AG. CENSUS, STATE AG. STATISTICS, ONSITE FIELD EXAMINATION, FLOOD DAMAGE REPORTS, APPLICATION FOR ASSISTANCE, AND OTHER SUCH SOURCES.

B. OTHER DATA: (MOST RECENT PRICES AND INTEREST TO BE USED IN PLAN.)

- 1. PRICE DATA: EHWR 620-C
PRICES PAID AND PRICES RECEIVED BY COMMODITY GROWN.
- 2. INTEREST RATES EHWR 620.02(C)
- 3. EVALUATION PERIOD EHWR 620.02(D)
- 4. COST RETURN STUDIES
- 5. YIELD DATA

SOURCE: NATIONAL BULLETINS, EXTENSION SERVICE, AG. STATISTICS, AG. COMMISSIONERS

203AG CHOOSE ONE OF HY PROCEDURES TO USE FOR EVALUATION

- A. FREQUENCY METHOD (PREFERRED BY P&G)
 - 1. DEFINED CHANNEL AND VALLEY
 - A. CALCULATE DAMAGES BASED ON DEPTH
 - B. CALCULATE DAMAGES BASED ON DURATION
 - 2. OVERLAND FLOW
 - A. CALCULATE DAMAGES BASED ON AVERAGE FLOOD PATH
- B. HISTORICAL SERIES METHOD (P&G LIMITS ITS USE) NEED FREQUENT FLOODING AND MAJOR DAMAGE TO CROPS
- C. NET INCOME METHOD (P&G LIMITS ITS USE) CALCULATE CHANGE IN NET INCOME FROM FLOOD

DAMAGES

SOURCE: EHWR 621-A

204AG COMPUTER PRO-
GRAMS

A. DETERMINE POTENTIAL FOR USE OF COMPUTER
PROGRAMS

1. ECON2-CALCULATE FLOODWATER DAMAGES TO CROPS
2. LDAMG-CALCULATE LAND DAMAGE
3. VAGPR-COMPUTE PROJECT RETURNS FOR DIFFERENT
ALTERNATIVES

205AG PROBLEM AREA
LOCATION

HY

A. AERIAL PHOTOS OR MOSAICS OR OTHER SUITABLE BASE AND FLOOD PLAIN PROFILE SHOWING ELEVATION OF SIGNIFICANT PROPERTIES, PROBLEM AREAS, (FLOOD PLAINS), REACHES, AND CROSS SECTIONS.

B. DETERMINE IF FLOOD DAMAGES WILL COVER ALL THE AREA OR IF A SAMPLE WILL BE USED.

C. DEFINE NUMBER AND LOCATION OF REACHES IN ORDER TO PROPERLY STRATIFY RESOURCE PROBLEMS FOR ANALYSIS. THINGS TO CONSIDER:

1. ROAD CROSSINGS IN THE FLOODPLAIN
2. HEIGHT OF ROADS CROSSING THE FLOODPLAIN
3. OTHER NATURAL OBSTRUCTIONS
4. HIGH DAMAGEABLE PROPERTIES
5. SIMILIAR DAMAGE VALUES AND RATES

206AG DETERMINE
PRESENT LAND USE-
CROPPING PATTERNS
IN PROBLEM AREA

USE AERIAL PHOTOS, COUNTY LAND USE MAPS, AND ON SITE INVESTIGATIONS

207AG DETERMINE
FUTURE LAND USE-CROP-
PING PATTERNS IN
PROBLEM AREA

USE THE PRESENT LAND USE AND CROPPING PATTERNS AS A BASE

AG DETERMINE BASE AG
YIELDS UNDER PROBLEM
FREE CONDITIONS

YIELDS SHOULD BE BASED ON INFORMATION OBTAINED FROM ON-SITE INTERVIEWS AND SIMILIAR PROBLEM FREE CONDITIONS. STATISTICAL REPORTING SERVICE COUNTY AVERAGES AND SOILS 5 YIELDS MAY BE HELPFUL. AVERAGE MANAGEMENT IS ASSUMED. DISPLAY IN TABLE FORM.

209AG CROP AND PASTURE
FLOOD DAMAGE

DEVELOP AVERAGE ANNUAL DAMAGES USING WORK ITEMS 210-220 DESCRIBED BELOW.

210AG DETERMINE CUR-
RENT LAND USE

DEVELOP CROPPING PATTERNS ON PROBLEM FREE AREAS BY REACHES AND DISPLAY ON BASE MAPS AND IN A TABLE WITH ACRES AND/OR PERCENT LAND USE AND CROPS GROWN. CORRELATE CURRENT LAND USE IN FLOOD AREA TO LAND USE DEVELOPED IN WORK ITEM 206.

211AG PROJECT FUTURE
LAND USE AND CROPPING
PATTERNS

DETERMINE WHAT CHANGE IS EXPECTED FROM THE CURRENT CONDITION. PROJECT BY APPROPRIATE TIME PERIOD AND DISPLAY ON BASE MAP AND IN TABLE. PROJECTIONS SHOULD BE BASED ON INTERVIEWS WITH FARMERS, LOCAL RESIDENTS, EXTENSION PERSONNEL, AND OTHER KNOWLEDGEABLE PEOPLE. CORRELATE FUTURE LAND USE IN FLOOD AREA TO LAND USE DEVELOPED IN WORK ITEM 207.

212AG ESTABLISH CUR- AG
T YIELDS WITH
ADJUDGING

YIELDS DETERMINED FROM DAMAGE QUESTIONNAIRES FROM FLOODPLAIN RESIDENTS. AVERAGE MANAGEMENT IS ASSUMED. YIELDS REFLECT CURRENT FLOODING PROBLEM

AND OTHER HAZARDS THAT EXIST

AG ESTABLISH CUR- AG
RENT FLOOD-FREE YIELD

USE BASE YIELDS ESTABLISHED IN WORK ITEM 208.

214AG PROJECT FUTURE AG
FLOOD FREE YIELDS

DETERMINE CHANGE EXPECTED FROM CURRENT CONDITIONS
PROJECT BY TIME PERIOD. DISPLAY THE RESULTS IN A
TABLE.

215AG COMPUTE PRO-

USE PROJECTED YIELDS ESTIMATED ABOVE TIMES THE CUR-

ATED DAMAGEABLE
AND DISPLAY IN TABLE.
VALUES.

RENT NORMALIZED PRIC

216AG CALCULATE
CHANGE IN COSTS

USE CROP BUDGETS TO CALCULATE THE CHANGE IN
VARIABLE COSTS FOR EACH CROP.

1. CALCULATE CHANGE IN COSTS FOR FUTURE
WITHOUT PROJECT
2. CALCULATE CHANGE IN COSTS FOR EACH
ALTERNATIVE

217AG DEVELOP DAM-
AGE FACTORS

A. SHOW THE NET LOSS OF INCOME AS A PERCENT DAMAGE
OF GROSS INCOME AS A RESULT OF DAMAGES CAUSED BY
FLOODING. DEVELOP A TABLE SHOWING HOW NET INCOME
WAS CALCULATED.

B. RUN THE ECON2 PROGRAM IF IT IS DETERMINED TO
BE THE MOST EFFICIENT MEANS TO CALCULATE AVERAGE
ANNUAL DAMAGES RATHER THAN USING WORK ITEMS 218-
220.

METHOD: EHWR 621-A

218AG DETERMINE HY
DAMAGE BY CROP

A. CALCULATE DAMAGES FOR EACH CROP FOR EACH
SEASON FOR DIFFERENT DEPTHS AND/OR DURATION TO
DETERMINE WEIGHTED PER ACRE DAMAGES FROM FLOODING.
HYDROLOGIC DATA WILL BE USED TO DETERMINE FLOOD
FREQUENCY AND DISTRIBUTION

B. MAKE ADJUSTMENTS FOR DAMAGES FOR RECURRING
FLOODS IN THE SAME YEAR.

219AG DETERMINE
COMPOSITE ACRE DAMAGE
FOR EACH ALTERNATIVE

A. MULTIPLY CROP DAMAGES TIMES PERCENT OF EACH
CROP IN EACH EVALUATION REACH.

B. TABULAR OR GRAPHICAL DAMAGE FREQUENCY DATA BY
REACH.

220AG CALCULATE
AVERAGE ANNUAL FLOOD
DAMAGES FOR CROPS

A. DEVELOP A DAMAGE FREQUENCY GRAPH

221AG CALCULATE
BENEFITS

DETERMINE THE INCREASE IN NET INCOME TO RESOURCE
USERS FROM REDUCED OR CONTROLLED FLOOD FLOWS.

222AG OTHER AG DAM-
AGES INVENTORY

A. INVENTORY EACH OF THE FOLLOWING ITEMS OCCURRING
IN THE PROBLEM AREA:

1. MILES OF FENCE
2. ACRES OF DEBRIS
3. ACRES OF WEED SEED
4. NUMBER, LOCATION, AND ELEVATIONS OF FARM-
STEADS
5. AMOUNTS OF FARM MACHINERY, LIVESTOCK, COR-
RALS, IRRIGATION EQUIPMENT

- A. CONSIDER INCREASED REPAIRS
- B. CONSIDER REDUCED LIFE
- 6. LENGTHS OF FARM ACCESS ROADS, FIELD ROADS, DIVERSIONS, AND LEVEES
- 7. NUMBER AND LOCATION OF FARM ROAD CULVERTS, BRIDGES, AND OTHER SUCH IMPROVEMENTS
- 8. HIGH-WATER MARKS
- B. TABULATION OF DAMAGE OCCURRING IN EACH REACH

AG OTHER AG AVERAGE -
ANNUAL BENEFITS

A. ESTIMATE BY FLOOD EVENT, DEPTH, OR DURATION DAMAGES THAT WOULD OCCUR TO THE INVENTORIED ITEMS
B. GRAPHICAL OR TABULAR SUMMARY OF DAMAGE-FREQUENCY DATA USING HYDROLOGIST'S DEPTH-DISCHARGE-FREQUENCY DATA FOR EACH ALTERNATIVE.

224AG NON AG DAM-
AGES INVENTORY

A. INVENTORY EACH OF THE FOLLOWING ITEMS OCCURRING IN THE PROBLEM AREA:
1. MILES OF ROAD, RAILROAD, AND NUMBER AND KIND OF BRIDGES BY REACH.
2. DATA FROM DAMAGE SCHEDULES (FORM SCS-ECN-004).
3. ESTIMATES ARE MADE BY FLOOD EVENTS, DEPTH, OR DURATION AND COMPILED BY REACH.
B. TABULATION OF DAMAGE OCCURRING IN EACH REACH

225AG NON AG AVER- HY
AGE ANNUAL BENEFITS
DAMAGES

A. ESTIMATE BY FLOOD EVENT, DEPTH, OR DURATION DAMAGES THAT WOULD OCCUR TO THE INVENTORIED ITEMS
B. GRAPHICAL OR TABULAR SUMMARY OF DAMAGE-FREQUENCY DATA USING HYDROLOGIST'S DEPTH-DISCHARGE-FREQUENCY DATA FOR EACH ALTERNATIVE.

226AG EROSION AND
SEDIMENT

DEVELOP AVERAGE ANNUAL DAMAGES USING WORK ITEMS 227-242 BELOW. SHEET AND RILL EROSION FOR UPLAND AREAS IS NOT INCLUDED. SEE THE WATERSHED PROTECTION SECTION FOR THESE WORK ITEMS.

227AG ESTABLISH TYPE GS
AND EXTENT OF EROSION
PROBLEM.

A. CLASSIFY AS GULLY-STREAMBANK (PERMANENT), TOTALLY OR PARTIALLY RECOVERABLE (FLOOD PLAIN SCOUR), OR OUTSIDE THE FLOOD PLAIN (SHEET).
B. DETERMINE IF DAMAGES ARE IN EQUILIBRIUM, INCREASING, OR DECREASING IN EXTENT (AREA) OR DEGREE (SEVERITY).
METHOD: EHWR 621-D

228AG DETERMINE CUR-
RENT LAND USE

DEVELOP CROPPING PATTERNS ON PROBLEM FREE AREAS BY REACHES AND DISPLAY ON BASE MAPS AND IN A TABLE WITH ACRES AND/OR PERCENT LAND USE AND CROPS GROWN. CORRELATE CURRENT LAND USE TO LAND USE DEVELOPED IN WORK ITEM 206.

229AG PROJECT FUTURE
LAND USE AND CROPPING
PATTERNS

DETERMINE WHAT CHANGE IS EXPECTED FROM THE CURRENT CONDITION. PROJECT BY APPROPRIATE TIME PERIOD AND DISPLAY IN TABLE. PROJECTIONS SHOULD BE BASED ON INTERVIEWS WITH FARMERS, LOCAL RESIDENTS, EXTENSION PERSONNEL, AND OTHER KNOWLEDGEABLE PEOPLE. CORRELATE FUTURE LAND USE TO LAND USE DEVELOPED IN WORK ITEM 207.

300AG ESTABLISH CUR- AG
YIELDS WITH SED-
IMENT AND/OR EROSION

YIELDS SHOULD BE DETERMINED FROM DAMAGE QUESTIONNAIRES FROM AFFECTED RESIDENTS. AVERAGE MANAGEMENT IS ASSUMED. YIELDS REFLECT THE CURRENT EROSION

PROBLEM AND OTHER HAZARDS STILL EXIST.

231AG PROJECT FUTURE AG
YIELDS WITHOUT EROS-
SION OR SEDIMENT

DETERMINE CHANGE EXPECTED FROM CURRENT CONDITIONS
PROJECT BY TIME PERIOD AND DISPLAY RESULTS IN
A TABLE.

232AG COMPUTE PRO-
JECTED DAMAGEABLE
VALUES

USE PROJECTED YIELDS ESTIMATED ABOVE TIMES THE CUR-
RENT NORMALIZED PRICES AND DISPLAY IN TABLE.

AG CALCULATE NET RETURNS FOR CROPS

USE CROP BUDGETS TO CALCULATE VARIABLE COSTS AND WITH THE PROJECTED VALUES FROM WORK ITEM 232 TO CALCULATE THE NET RETURNS FOR EACH CROP.

1. CALCULATE FUTURE WITHOUT PROJECT RETURNS
2. CALCULATE RETURNS FOR EACH ALTERNATIVE

234AG SEDIMENT SWAMPING DAMAGE GS

CALCULATE NET LOSS IN INCOME AS A RESULT OF SWAMPING AND DISPLAY IN TABLE AS POTENTIAL RECOVERABLE NET INCOME.

METHOD: EHWR 621-D

235AG SEDIMENT SWAMPING BENEFITS

CALCULATE INCREASED NET INCOME TO LAND

METHOD: EHWR 621-D

236AG SEDIMENT DEPOSITION DAMAGE GS

CALCULATE NET LOSS IN INCOME AS A RESULT OF SEDIMENT AND DISPLAY IN TABLE AS POTENTIAL RECOVERABLE NET INCOME.

METHOD: EHWR 621-D

237AG SEDIMENT DEPOSITION BENEFITS

CALCULATE INCREASED NET INCOME TO LAND

METHOD: EHWR 621-D

238AG SEDIMENT SCOUR DAMAGE GS

CALCULATE NET LOSS IN INCOME AS A RESULT OF SCOUR AND DISPLAY IN TABLE AS POTENTIAL RECOVERABLE NET INCOME.

METHOD: EHWR 621-D

239AG SEDIMENT SCOUR BENEFITS

CALCULATE INCREASED NET INCOME TO LAND

METHOD: EHWR 621-D

240AG SEDIMENT-OTHER PROPERTIES INVENTORY GS

DETERMINE THE NUMBER AND LOCATION OF PROPERTIES EFFECTED. USE A MAP OR TABLE TO DISPLAY THE PROPERTIES EFFECTED.

241AG SEDIMENT-OTHER PROPERTIES DAMAGES GS

- A. DETERMINE ADVERSE EFFECTS OF SEDIMENT TO DRAINS
 1. CONSIDER COSTS OF REMOVAL & HAULING
 2. ADJUST DAMAGES FOR NORMAL MAINTENANCE
 3. IDENTIFY SOURCE OF DAMAGES SO EFFECTS CAN BE DETERMINED FOR DIFFERENT ALTERNATIVES
- B. DETERMINE ADVERSE EFFECTS OF SEDIMENT TO IRRIGATION SYSTEMS.
 1. CONSIDER COST OF REMOVAL & HAULING
 2. IF LOSS OF INCOME DUE TO LOSS OF USE, USE WORK ITEMS DESCRIBED IN IRRIGATION SECTION. THE COST TO RESTORE WATER DELIVERY TO THE AREA NEEDS TO BE INCLUDED.
 3. ADJUST DAMAGES FOR NORMAL MAINTENANCE
 4. IDENTIFY SOURCE OF DAMAGES SO EFFECTS CAN BE DETERMINED FOR DIFFERENT ALTERNATIVES
- C. DETERMINE ADVERSE EFFECTS OF SEDIMENT TO DAMS
 1. LOSS OF SERVICE METHOD--BASED ON EXTENDING LIFE OF DAM

2. COST OF SEDIMENT REMOVAL METHOD--BASED ON ACTUAL COSTS OF REMOVING SEDIMENT
3. ADJUST DAMAGES FOR NORMAL MAINTENANCE
4. IDENTIFY SOURCE OF DAMAGES SO EFFECTS CAN BE DETERMINED FOR DIFFERENT ALTERNATIVES

- D. ESTIMATE SEDIMENT DAMAGES TO M&I WATER SUPPLIES
1. CONSIDER COST OF REMOVAL, DAMAGE TO EQUIPMENT, AND ADDITIONAL TREATMENT COSTS FROM SEDIMENT FROM PROJECT AREA.

E. ESTIMATE SEDIMENT DAMAGE AFFECTING PRODUCT QUALITY.

242AG SEDIMENT-OTHER PROPERTIES BENEFITS

REDUCED COST OF REMOVAL, INCREASED INCOME, INCREASED LIFE OF DAM, OR REDUCED COSTS

243AG EROSION-GULLY GS DAMAGE

CALCULATE NET INCOME LOSS TO LAND BY TIME FRAME BY SOILS TYPE.

- A. CONSIDER TEMPORARY MEASURES AND RELOCATON
- B. CALCULATE VOIDING DAMAGES
- C. CALCULATE DEPRECIATED VALUE OF AREAS NEAR THE GULLIES

METHOD: EHWR 621-D

244AG EROSION-GULLY BENEFITS

DISPLAY CHANGE IN NET INCOME TO LAND FOR EACH ALTERNATIVE.

245AG EROSION STREAM-GS BANK EROSION DAMAGE

DETERMINE ADVERSE EFFECTS OF STREAMBANK EROSION. CONSIDER TEMPORARY MEASURES AND RELOCATION

METHOD: EHWR 621-D

246AG EROSION STREAM-BANK EROSION BENEFIT

DISPLAY CHANGE IN NET INCOME TO LAND FOR EACH ALTERNATIVE.

247AG EROSION STREAM-GS BANK INCISION DAMAGE

DETERMINE ADVERSE EFFECTS OF STREAMBANK INCISION.

METHOD: EHWR 621-D

AG EROSION STREAM-BANK INCISION BENEFIT

DISPLAY CHANGE IN NET INCOME TO LAND FOR EACH ALTERNATIVE.

249AG FUTURE DEVELOPMENT

- A. IF DEVELOPMENT IS INCREASING IN THE FUTURE WITHOUT PROJECT, DAMAGES NEED TO BE INCREASED.
- B. IF DEVELOPMENT OF HIGHER VALUED GOODS WILL TAKE PLACE WITH PROJECT AND WILL BE SUBJECTED TO SOME REMAINING FLOODING, BENEFITS FROM THE PROJECT NEED TO BE REDUCED.

METHOD: EHWR 621-A

250AG INTENSIFICATION

THIS IS FOR BENEFITS DERIVED FROM A CHANGE IN LAND USE OR CROPPING PATTERN. USE THE FOLLOWING WORK ITEMS TO CALCULATE INTENSIFICATION BENEFITS.

251AG NON-AG

USE THE WORK ITEMS FOR INTENSIFICATION DESCRIBED UNDER URBAN FLOODING

252AG AG BASIC DATA

A. GATHER PHYSICAL, ECONOMIC, AND SOCIAL DATA NEEDED TO EVALUATE THE BENEFITS.

1. AGRONOMIC POTENTIAL OF THE LAND.
2. TYPE OF FARMING.
3. WIDTH AND TOPOGRAPHY OF AREA TO BENEFIT.
4. NEED FOR RESULTING PRODUCTION.
5. DEGREE OF PROTECTION OR SERVICE OFFERED

- BY PLANNED IMPROVEMENTS.
6. LAND USE CHANGE THAT THIS PROTECTION WILL ALLOW.
 7. WILLINGNESS AND ABILITY OF PRODUCERS TO DEVELOP THE LAND.
 8. AVAILABILITY OF MARKETS FOR PRODUCTS.
 9. RESTRICTIONS OF ACREAGE ALLOTMENTS, MARKETING QUOTAS, OR ZONING.

B. EVALUATE THE PRODUCTIVITY AND RESPONSIVENESS OF THE LAND TO THE PRODUCTION INPUTS.

METHOD: EHWR 621-A

C. USE THE WORK ITEMS FOR INTENSIFICATION DESCRIBED UNDER THE IRRIGATION SECTION

253AG ADJUSTMENTS TO DAMAGES

ADJUST THE CALCULATED DAMAGES TO ACCOUNT FOR THE FOLLOWING SITUATIONS WHEN THEY APPLY.

A. ADJUST BENEFITS TO ACCOUNT FOR TIME REQUIRED TO CLEAR LAND OR PROPERLY PREPARE THE LAND

METHOD: EHWR 621-A

B. ADJUST BENEFITS TO ACCOUNT FOR DELAYS STEMMING FROM MANAGEMENT AND FINANCIAL LIMITATIONS.

METHOD: EHWR 621-A

C. IF DEVELOPMENT OF HIGHER VALUED GOODS WILL TAKE PLACE WITH PROJECT AND WILL BE SUBJECTED TO SOME REMAINING FLOODING, BENEFITS FROM THE PROJECT NEED TO BE REDUCED.

METHOD: EHWR 621-A

D. PARTICIPATION BY PRODUCERS WILL NOT BE 100 PERCENT AND BENEFITS WILL NEED TO BE ADJUSTED.

254AG OFFSITE

EVALUATE POSSIBLE OFFSITE DAMAGES THAT COULD BE ALLEVIATED WITH PROJECT ACTION. SUCH OFFSITE DAMAGES COULD INCLUDE DAMAGES TO: OYSTER BEDS, RECREATION, NAVIGATION, POWER GENERATION, FISHING, ETC.

255AG FOR VARIOUS ALTERNATIVES OBTAIN COSTS FOR STRUCTURAL AND NONSTRUCTURAL MEASURES. PE

ESTIMATES ARE MADE BY PLANNING STAFF BASED ON RECENT INSTALLATION EXPERIENCE.

A. CONSTRUCTION COST - NWSM 501.30H, EHWR 630.01
B. ENGINEERING SERVICES - NWSM 501.30E
C. LAND RIGHTS - NWSM 501.30G, EHWR 629
D. WATER RIGHTS - NWSM 501.30F

E. PROJECT ADMINISTRATION COST - NWSM 501.30J
F. RELOCATION COST - NWSM 501.30K
G. OPERATION, MAINTENANCE AND REPLACEMENT - ESTIMATES MADE BY PLANNING STAFF AND LOCAL SPONSORS BASED ON SIMULATED OR RECENT O&M EXPERIENCES. NWSM 501.30L, EHWR 630.01B
H. ASSOCIATED COST - NWSM 501.30M, EHWR 630.02
I. EXTERNAL DISECONOMIES - NWSM 501.300, EHWR 630.01C
J. NONPROJECT COST - NWSM 501.30P

256AG FOR VARIOUS ALTERNATIVES ESTIMATE THE FOLLOWING LAND STAFF

DETERMINE NEED FOR ACCELERATED LAND TREATMENT TO MEET REQUIREMENTS OF LAW OR TO ACHIEVE BENEFITS FROM PROJECT. ESTIMATE UNIT COSTS AND ACRES TO

TREATMENT COST:
A. LAND
TREATMENT MEASURES.
B. LAND
TREATMENT TECHNICAL
ASSISTANCE.

BE TREATED.
A. ESTIMATES MADE BY DC, AC, AND STATE STAFF.
B. ESTIMATES MADE BY DC, AC, AND STATE STAFF.

257AG DEVELOP NED
ALTERNATIVE

DO INCREMENTAL ANALYSIS TO ADD STRUCTURAL ITEMS
AND LAND TREATMENT PRACTICES. DESIGNATE NED
ALTERNATIVE AND DOCUMENT IN TABULAR FORM.
METHOD: CONSULT NTC ECONOMIST FOR
ASSISTANCE

258AG DEVELOP NED PORTIONS OF OTHER ALTERNATIVES AND DETERMINE CONTRIBUTION OF EACH ALTERNATIVE TO NED COMPONENT NEEDS.

ASSIST IN SELECTION OF MEASURES FOR EACH ALTERNATIVE PLAN. DETERMINE CONTRIBUTION MADE TO COMPONENT NEEDS. DOCUMENT IN TABULAR FORM WITH APPROPRIATE NARRATIVE DESCRIPTION AND FILE.

259AG ESTIMATE EMPLOYMENT BENEFITS RESULTING FROM PROJECT INSTALLATION AND PROJECT OPERATION AND MAINTENANCE.

EMPLOYMENT BENEFITS CAN BE CLAIMED IN AREAS OF UNEMPLOYED OR UNDEREMPLOYED LABOR.
METHOD: EHWR 627

260AG DEVELOP DATA FOR SWB ACCOUNT.

WHERE NECESSARY DEVELOP A SOCIAL WELL BEING ACCOUNT TO DISPLAY PROJECT EFFECTS RELEVANT TO DECISION-MAKERS. USE CENSUS DATA AND OTHER APPROPRIATE REFERENCES TO DEVELOP INCOME CLASS AND PERCENTAGES FOR EACH CLASS.

261AG COST ALLOCATION. PE

USE COST ALLOCATION WORKSHEET. NWSM 501.31, EHWR 631

AG COST SHARING PE

METHOD: NWSM 506.60

263AG DEVELOP NED DISPLAYS

A. ASSIST STUDY LEADER TO PREPARE FOR PUBLIC MEETINGS AND REPORTS, THE NECESSARY MAPS, TABLES, AND DISPLAYS TO CLEARLY DESCRIBE NED MEASURES AND EFFECTS: USE DATA FROM COMPLETED WORK ITEMS ABOVE
B. PROVIDE SIGNIFICANT NED EFFECTS FOR THE FOUR ACCOUNT TABLES AS NEEDED. (INCLUDE TIME FOR REVISIONS AS A RESULT OF PUBLIC INPUT.)

264AG PREPARE ECONOMIC PORTIONS OF THE PLAN, EIS, AND DOCUMENTATION.

A. PREPARE, AS ASSIGNED, ECONOMIC PORTIONS OF THE PLAN, EIS, ENV. ASSESS. SUMMARY, I&A REPORT, ETC.
B. ASSEMBLE ALL RELEVANT ECONOMIC DOCUMENTATION IN NOTEBOOKS (PREFERABLY ONE) SUITABLE FOR REVIEW. REFER TO ORGANIZATION OF DOCUMENTATION CHECKLIST IN THIS GUIDE.
C. PARTICIPATE IN RESOLVING STATE AND TSC COMMENTS

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