"PLANNED PLUS MAXIMUM MANAGEMENT FOCUS"

1. Controlled Timing of Salinity Discharges (RTM)

Northwest	East Valley Floor^	Grassland Drainage Area	Grassland Bypass*	Other

ASSUMPTIONS: It is assumed that some irrigation districts in the Northwest and Grassland Drainage Area subareas, through the use of**existing** facilites, have the capability to withhold some of the discharge of saline drainage to the LSJR depending on water year. It is also assumed that small riparian areas would not hold back their discharges.

POST-PROCESSING APPROACH: The modeling of controlled timing of saline discharges will be handled through post-processing of WARMF simulated results. Assumptions regarding timed discharges will be based upon communications with individuals in charge of facility operations. Any assumptions used in post-processing of WARMF simulated results regarding locations and held drainage volumes for existing facilities will be documented in the Task 4 Technical Memorandum.

2c. Reduce Point Sources - Existing Industrial/Food Processing Sources Control and/or Pretreatment

Northwest	East Valley Floor^	Grassland Drainage Area	Grassland Bypass*	Other: Cities of Modesto and Turlock

ASSUMPTIONS: The cities of Modesto and Turlock are the only municipalities in the region that discharge treated effluent to the LSJR. As a sensitivity analysis, a 3% reduction in POTW loads is assumed. This is neither a projection of expected reductions nor a statement on future reductions that should be required.

MODELING APPROACH: WWTP discharges are included in WARMF. Input values for WWTP salinity loading will be reduced by 3%.

3a. Reduce Nonpoint Sources - Reduce Application of Salts in Fertilizers and Soil Amendments

Northwest	East Valley Floor^	Grassland Drainage Area	Grassland Bypass*	Other

ASSUMPTIONS: As a sensitivity analysis, a 10% reduction in the application of nitrogen-based fertilizers in select subareas is assumed. No change in the type or formulation of fertilizer is assumed. This is neither a projection of expected reductions nor a statement on future reductions that should be required. Soil amendments are not anticipated to decrease in their application in the project area.

MODELING APPROACH: Fertilizer application is included in WARMF. The input value for nitrogen-based fertilizer usage in the identified subareas will be reduced by 10%.

8b. Water Conservation - Optimize Existing Irrigation Efficiency

Northwest	East Valley Floor^	Grassland Drainage Area	Grassland Bypass*	Other

ASSUMPTIONS: It is assumed that any water conserved by an irrigation district or individual grower will be used by the entity who conserved the water or will be sold to another entity in the project area who will use the water. It is also assumed that any incremental decreases in salt loading to the SJR will be small and will result in insignificant changes in ambient river concentrations.

MODELING APPROACH: No change in baseline modeling assumptions.

9a. Installation of New High Efficiency Irrigation and Delivery Systems (increase retention of soluable salts)

Northwest	East Valley Floor^	Grassland Drainage Area	Grassland Bypass*	Other

ASSUMPTIONS: Similar assumptions as indicated for 8b.

MODELING APPROACH: No change in baseline modeling assumptions.

10b. Sequential Reuse and Volume Reduction - Salt Accumulation Area (SJRIP) (RTM)

Northwest	East Valley Floor	Grassland Drainage Area	Grassland Bypass	Other

ASSUMPTIONS: There currently exists one salt accumulation area project (SJRIP) in the Grassland Bypass Project (GBP) area within the Grassland Drainage Area. There are no other sequential reuse and volume reduction projects planned for the project area within the Planned Bundle's planning period (5-10 years). It is assumed that the SJRIP project will continue its operation and sequester salts as predicted, resulting in zero discharge of salts from the GBP area. As part of the Maximum Management Focus component of this modeling scenario, one or more additional SJRIP-like projects will be constructed in the Grassland Drainage Area (GDA) to receive agricultural flows currently discharged to Salt Slough, Mud Slough, and the Gustine Area, resulting in targeted salt loading reductions at Crows Landing necessary to meet an EC target of 1,010µmhos/cm.

MODELING APPROACH: WARMF includes inputs from the GBP area and Salt Slough, Mud Slough, and the Gustine Area. San Luis Drain flows will be set to zero (0) in WARMF so the Grassland Bypass will not contribute any flow or loading to the San Joaquin River. Salt Slough, Mud Slough, and Gustine Area flows will be adjusted to meet targeted salt load reductions at Crows Landing.

12a. Drainage Water Recirculation - Tailwater Recovery (RTM)

Northwest	East Valley Floor	Grassland Drainage Area	Grassland Bypass*	Other

ASSUMPTIONS: Tailwater can be blended with irrigation supply to result in reduction in tailwater discharge and usage of fresh irrigation supply water. As part of the Planned Bundle component of this modeling scenario, tailwater recovery projects, as reported by irrigation districts and water quality coalitions, will be simulated in WARMF. As part of the Maximum Management Focus component of this modeling scenario, all agricultural dischargers in the Northwest and East Valley Floor subareas will be assumed to reduce salinty loading to the LSJR by 5%. These area-wide reductions will be simulated in WARMF. It is understood that sequestration of salt in groundwater due to the implementation of tailwater recovery may require (A) subsequent implementation of tilewater recovery and/or (B) subsequent pumping and treatment of saline groundwater, as necessary. These additional measures will be considered in the economic and CEQA evaluations for this project.

MODELING APPROACH: Water "savings" (in AFY) resulting from use of recovered tailwater will be modeled in WARMF as a reduction in fresh irrigation water that is applied to those subareas and a corresponding net increase in irrigation efficiency. As part of the Planned Bundle component of this modeling scenario, water savings will be modeled in WARMF where irrigation districts or water quality coalitions report planned tailwater recovery projects to the LSJRC that will occur within the bundle's planning period (5-10 years). As part of the Maximum Management Focus component of this modeling sceario, a 5% reduction in salinity loading from the Northwest and East Valley Floor subareas will be modeled in WARMF by applying 20% reuse of tailwater in these areas.

12b. Drainage Water Recirculation - Tilewater Recovery (RTM)

Northwest	East Valley Floor	Grassland Drainage Area	Grassland Bypass	Other

ASSUMPTIONS: Tilewater can be reused directly or blended with irrigation supply to result in volume reduction of tilewater and of fresh irrigation water supply. Planned tilewater recovery projects, as reported by irrigation districts and water quality coalitions, will be simulated in WARMF.

MODELING APPROACH: Water "savings" (in AFY) resulting from use of recovered tilewater will be modeled in WARMF as a reduction in fresh irrigation water that is applied to those subareas and a corresponding net increase in irrigation efficiency where irrigation districts or water quality coalitions report planned tilewater recovery projects to the LSJRC that will occur within the bundle's planning period (5-10 years).

Red text indicates those subareas where an implementation action is assumed to occur.

RTM = Real Time Management

^ Includes Stevinson Minor Subarea located in the East Valley Floor

* WARMF inputs from the Grassland Bypass Project will be set to zero (0) under implementation actions 10b and 12b and are not explicitly considered under the current implementation action.

Version: Dec. 19, 2014