

Input - Forcing Data

Groundwater Models	Dataset	Minimum Spatial Extent	Minimum Spatial Resolution	Minimum Temporal Resolution	Anticipated source	Desired level of precision (optional)	Comments
MODFLOW 2005 2D Transect Models	Surface-water stage levels	Transect Length at each Focus Area Transect Location	N/A	Varies	Measured data, open water and ice cover flow routing models	--	--
	Groundwater boundary conditions	Valley sides for transect models	N/A	Varies	groundwater well observational data	--	--
	Precipitation input	Transect Scale	N/A	Varies	measured precipitation data and evaluation of regional estimates	--	--
	--	--	--	--	--	--	--
MODFLOW 2005 3D Spatial Model	Surface-water stage levels	Main channel, side channels, sloughs at FA-128 (Slough 8A) model domain	N/A	Varies	Measured data, open water and ice cover flow routing models	--	--
	Groundwater boundary conditions	Valley side of model domain for FA-128 (Slough 8A)	N/A	Varies	groundwater well observational data	--	--
	Precipitation input	N/A	N/A	Varies	measured precipitation data and evaluation of regional estimates	--	--
	--	--	--	--	--	--	--

Input - Parameters

Groundwater Models	Parameter	Minimum spatial extent	Minimum spatial resolution	Minimum Temporal Resolution	Anticipated source	Desired level of precision (optional)	Comments
MODFLOW 2005 2D Transect Models	Surface-water stage levels	surface-water systems within groundwater model domains	N/A	N/A	field measured data, simulations from flow routing models		
	Groundwater boundary conditions	groundwater conditions at model domain extents	N/A	N/A	field measured data, estimated long-term conditions		
	Precipitation input	Focus Area precipitation measurements	N/A	N/A	field measured data, estimated long-term conditions		
	--	--	--	--	--	--	--
	--	--	--	--	--	--	--
MODFLOW 2005 3D Spatial Model	Surface-water stage levels	surface-water systems within groundwater model domains	N/A	N/A	field measured data, simulations from flow routing models		
	Groundwater boundary conditions	groundwater conditions at model domain extents	N/A	N/A	field measured data, estimated long-term conditions		
	Precipitation input	Focus Area precipitation measurements	N/A	N/A	field measured data, estimated long-term conditions		
	--	--	--	--	--	--	--
	--	--	--	--	--	--	--

Input - Calibration Data

Groundwater Models	Dataset	Minimum spatial extent	Minimum spatial resolution	Minimum Temporal Resolution	Anticipated source	Desired level of precision (optional)	Comments
MODFLOW 2005 2D Transect Models	Measured water levels from groundwater wells and surface-water measurement locations	within model domain	N/A	15 minutes	measured field data		calibration data will primarily come from various periods where storm peaks or other hydrologic events that result in pressure pulses in groundwater conditions
MODFLOW 2005 3D Spatial Model	Measured water levels from groundwater wells and surface-water measurement locations	within model domain	N/A	15 minutes	measured field data		calibration data will primarily come from various periods where storm peaks or other hydrologic events that result in pressure pulses in groundwater conditions

Output - Predicted Quantities

Groundwater Models	Predicted/Simulated Quantity	Spatial extent	Spatial resolution	Temporal resolution	Level of precision	Anticipated user	Comments
MODFLOW 2005 2D Transect Models	groundwater levels, surface-water stage levels, selected fluxes	model domain	--	variable	--	used for process understanding, combined with field observations to determine final conditions for binary matrix approach in habitat models	--
MODFLOW 2005 3D Spatial Model	groundwater levels, surface-water stage levels, selected fluxes	model domain	--	variable	--	used for process understanding, combined with field observations to determine final conditions for binary matrix approach in habitat models	--

Model Assumptions		
Groundwater Models	Assumption	Comment
MODFLOW 2005 2D Transect Models	2-Dimensional assumption of groundwater flow in transect groundwater models	The groundwater modeling objectives for aquatic analysis is primarily for support of process understanding and to help characterize upwelling conditions, in combination with other sources of field data. The assumptions associated with the 2D transect modeling approach will meet the intended purpose of better understanding GW/SW interactions
	valley-side groundwater level conditions	Assumptions will be made for valley side groundwater water level conditions and the annual variation, field data will be collected at boundary wells to help develop and evaluate these assumptions
	--	--
MODFLOW 2005 3D Spatial Model	valley-side groundwater level conditions	Assumptions will be made for valley side groundwater water conditions and the variation on an annual period, field data will be collected at boundary wells to help develop and evaluate these assumptions
	vertical groundwater conditions	Assumptions will be made for vertical groundwater level conditions, based on field data and characterization of groundwater conditions at the larger scale
	--	--