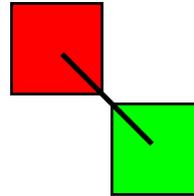


SBAS

Sediment Budget Analysis System



Cell Properties

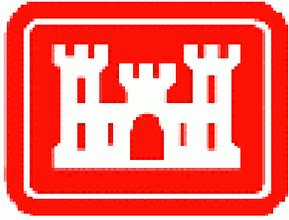
6 Units: cu yd/yr

Variable	Value	Uncertainty	Locked	Shared With
SOURCE FLUXES				
LST 5	7,000.00	2,450.00	<input type="checkbox"/>	5
Bluff 6	56,000.00	11,200.00	<input type="checkbox"/>	None
SINK FLUXES				
To Inlet	1,000.00	350.00	<input type="checkbox"/>	10
To Ebb Shoal	4,000.00	1,200.00	<input type="checkbox"/>	11
dV	-15,000.00	5,250.00	<input type="checkbox"/>	N/A
Residual				
Residual	73,000.00	12,671.52	38.58	

Flux Properties

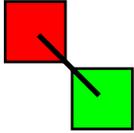
Flux Values Dependencies

- None
- Calculate Q due to relative sea-level rise
- Calculate Q due to on- or off-shore transport
- Define equation (dependency on other Q's)
- Define equation (dependency on other Q's and dV)
- Calculate Q using "CERC" longshore sediment transport equation



SBAS

Overview

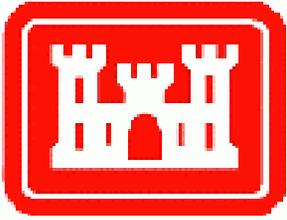


A sediment budget is a tally of sediment gains and losses, within a specified control area, or cell over time.

Sediment budgets are a fundamental planning and design tool for projects concerned with sediment transport, deposition, and erosion.

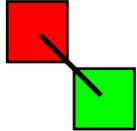
Regional Sediment Management (RSM) requires software tools that allow rapid, quantitative assessment of sediment budgets over regional scales.

SBAS provides report quality visualization together with a comprehensive backbone of quantitative tools for the formulization of sediment budgets. Project level detail is supported, and local processes can be combined to represent processes in regional (macro) scale.

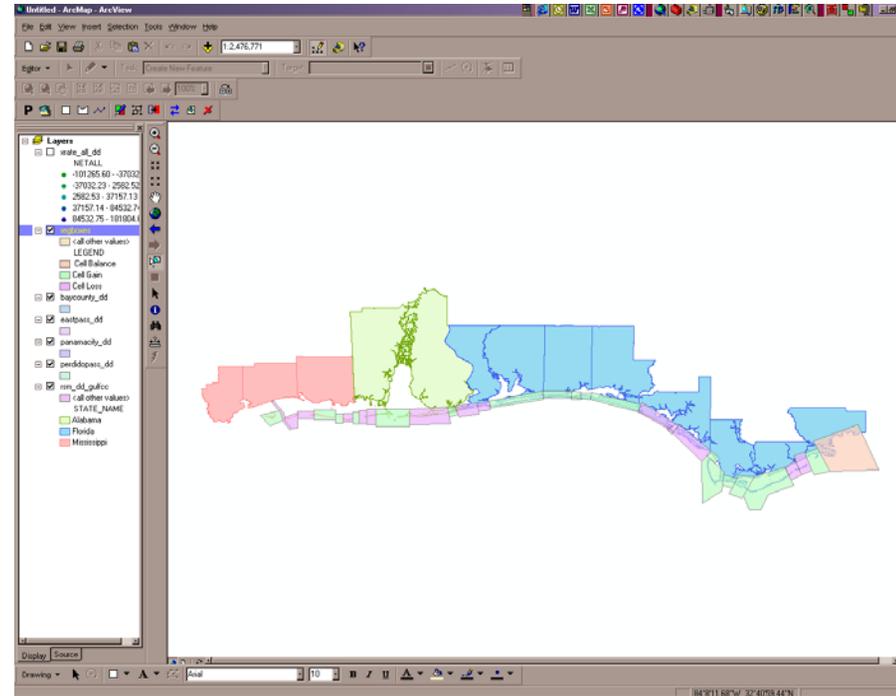
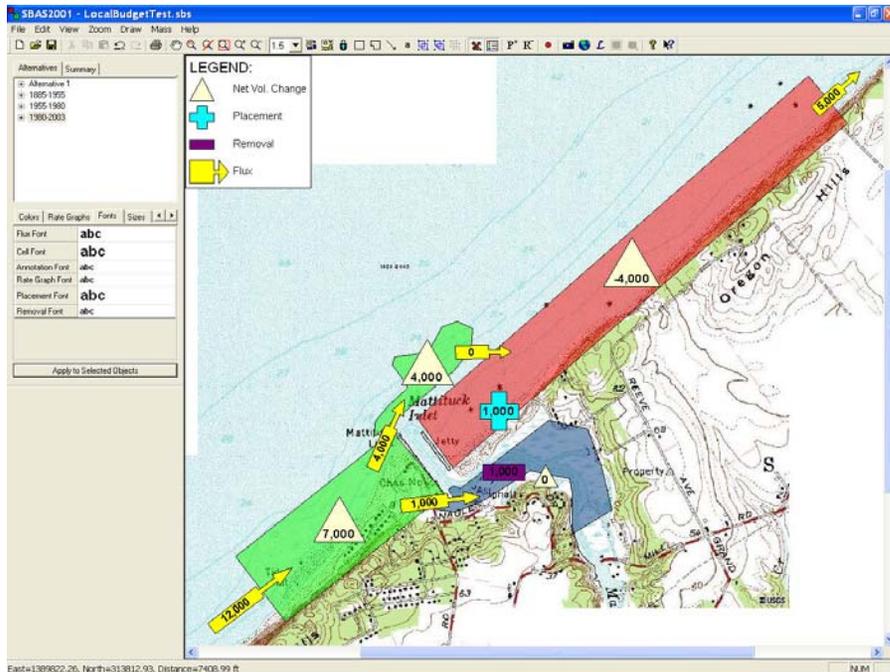


SBAS

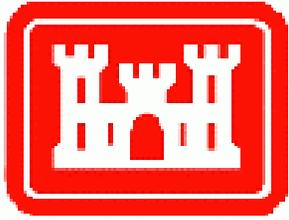
Supporting RSM



Project scale....

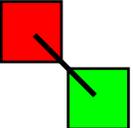


...to Regional scale



SBAS

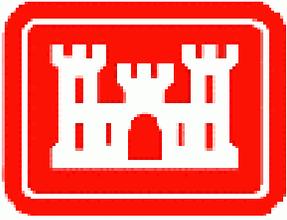
Functionality



SBAS is an easy-to-use interface, with a robust feature-set of calculations including:

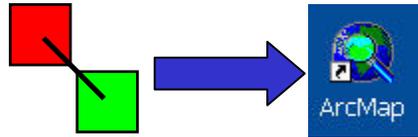
- sediment transport estimation
- coastal response to sea level rise
- dynamic linking to GENESIS
- dependency calculations
- uncertainty assessment and tabulation
- force balancing

These features support rapid project evaluation, decision making, and risk assessment.



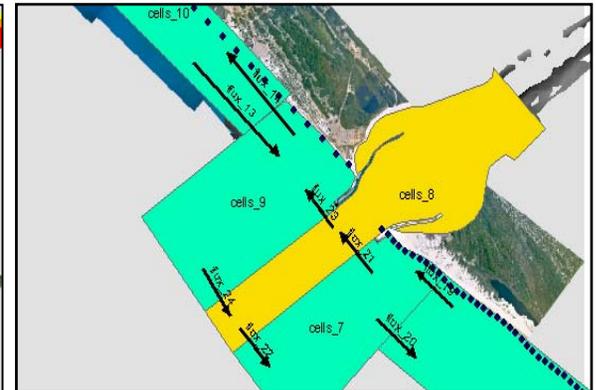
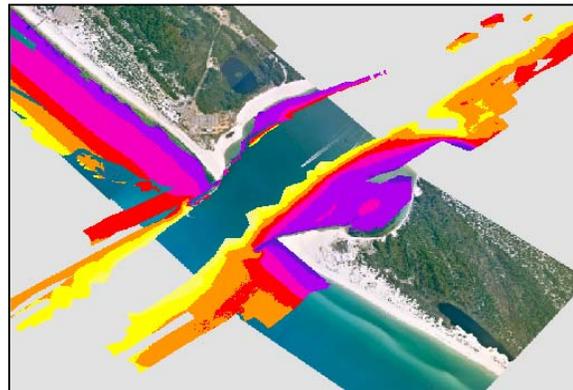
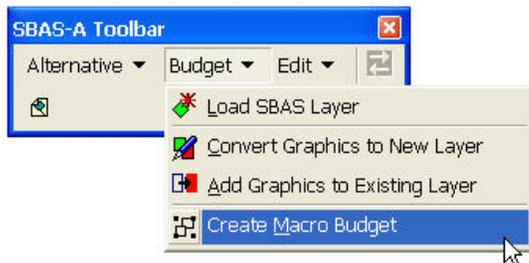
SBAS-A

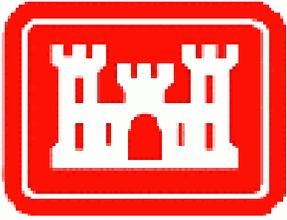
Extension of SBAS into ArcGis



Geographic Information System software (GIS) is an essential tool for understanding regional sediment processes, viewing, and analyzing surface data.

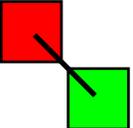
SBAS-A extends SBAS capabilities into the GIS, allowing delineation of sediment budget cells, and calculation of volume change within those cells directly in the GIS environment.





SBAS

Future Activities



- Proposed Improvements

- Linkage to regional models (Cascade, SIAM, etc) and tools within the SMS (Surface Modeling System).
- Linkage to the Regional Morphology Analysis Package (RMAP).
- Develop example library, with complete watershed representation (river to coast), e.g., Columbia River system.
- Improve and add content based on user review.
- Upgrade help files and user guide.