Report to the GSL Se Steering Committee

December 6, 2005

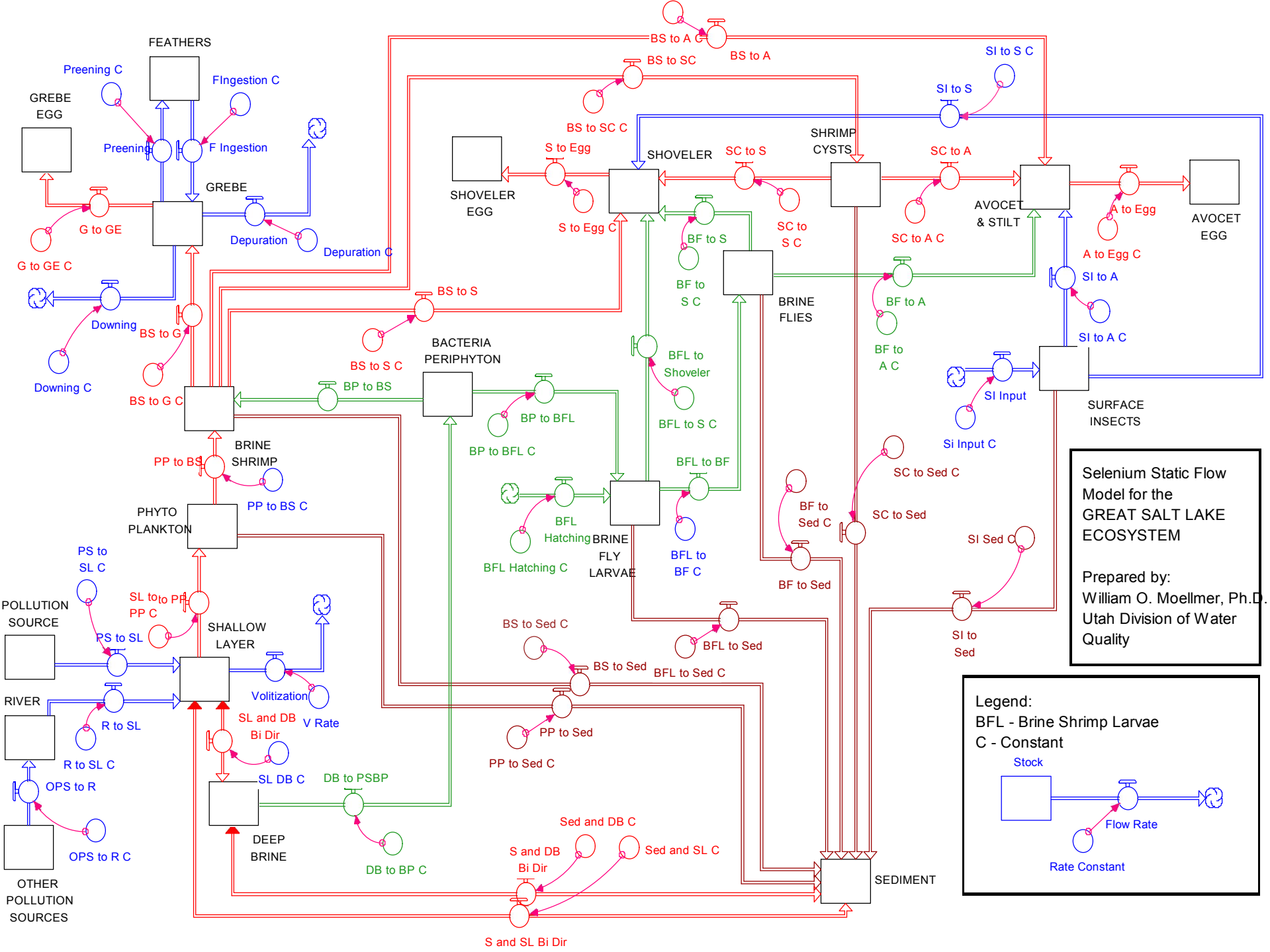
Utah Division of Water Quality
William O. Moellmer, Ph.D.
Chair, Science Panel

Science Panel Projects Recommended for RFPs

- 1. Map bird census data usage on USGS GLS map. Identify species breeding on the Lake and nesting populations. [2006]
- 2. Analyze USGS samples that are being held. [2005]
- 3. Develop RFP for collecting eggs [2006]
  - Avocets, stilts,and shovelers
  - Concurrent harvesting, testing of brine shrimp and brine flies.

Science Panel Projects Recommended for RFPs

- 5. RFP: Mass loadings to GSL. [2006]
  - Flow and concentrations from all sources
- 6. RFP: Selenium transfer/flux between the sediments and water column. [Long Term]
- 7. Review conceptual model contract and evaluate need for addendum for continuation. [2005]
- 8. Develop report (web) of round robin. [2005]


FEATHERS
Preening C
FIngestion C
GREBE EGG
Preening
F Ingestion
GREBE
G to GE
G to GE C
Depuration
Depuration C
Downing
Downing C
BS to G
BS to G C
BS to A C
BS to A
BS to SC
BS to SC C
SI to S C
SI to S
SHOVELER EGG
S to Egg
SHOVELER
SC to S
SHRIMP CYSTS
SC to A
AVOCET & STILL
A to Egg
AVOCET EGG
S to Egg C
SC to S C
SC to A C
A to Egg C
BF to S
BF to S C
BRINE FLIES
BF to A
BF to A C
SI to A
SI to A C
BS to S
BS to S C
BACTERIA PERIPHYTON
BP to BS
BP to BFL
BP to BFL C
BFL to Shoveler
BFL to S C
SI Input
Si Input C
SURFACE INSECTS
BRINE SHRIMP
PP to BS
PP to BS C
PHYTO PLANKTON
BFL Hatching
BFL Hatching C
BRINE FLY LARVAE
BFL to BF
BFL to BF C
SC to Sed C
SC to Sed
BF to Sed C
BF to Sed
SI Sed C
SI to Sed
PS to SL C
POLLUTION SOURCE
PS to SL
SL to PP C
SHALLOW LAYER
Volitization
V Rate
RIVER
R to SL
R to SL C
SL and DB Bi Dir
SL DB C
DB to PSBP
OPS to R
OPS to R C
OTHER POLLUTION SOURCES
DEEP BRINE
DB to BP C
BS to Sed C
BS to Sed
BFL to Sed
BFL to Sed C
PP to Sed
PP to Sed C
Sed and DB C
S and DB Bi Dir
Sed and SL C
SEDIMENT
S and SL Bi Dir
Selenium Static Flow Model for the GREAT SALT LAKE ECOSYSTEM
Prepared by:
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Utah Division of Water Quality
Legend:
BFL - Brine Shrimp Larvae
C - Constant
Stock
Flow Rate
Rate Constant