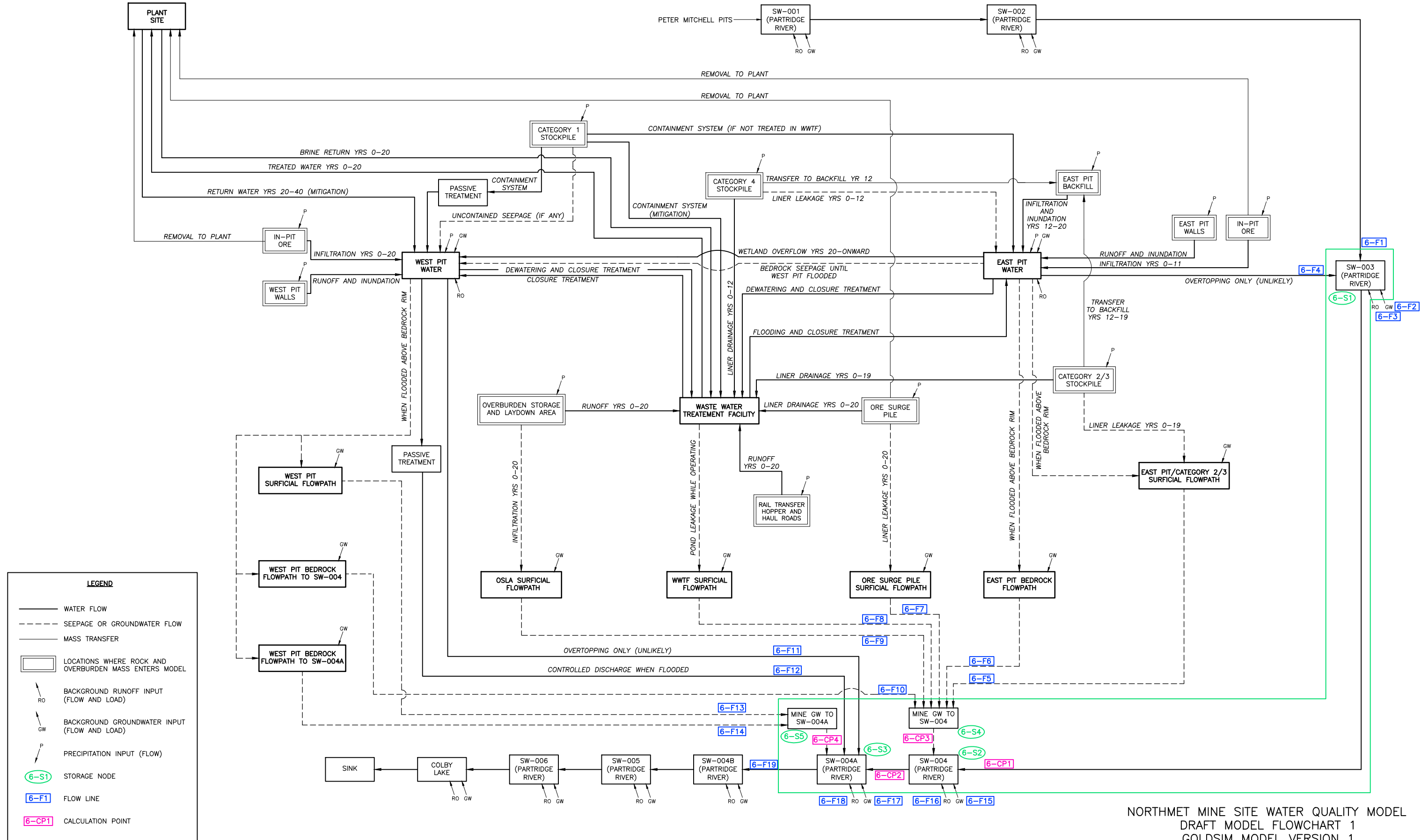


CADD USER: Rick Custer FILE: M:\DEPT\WORK\RLG\236986200_NORTHMET MINE SITE WATER QUALITY MODEL FLOWCHART 1.DWG PLOT SCALE: 1:2 PLOT DATE: 8/15/2012 2:13 PM



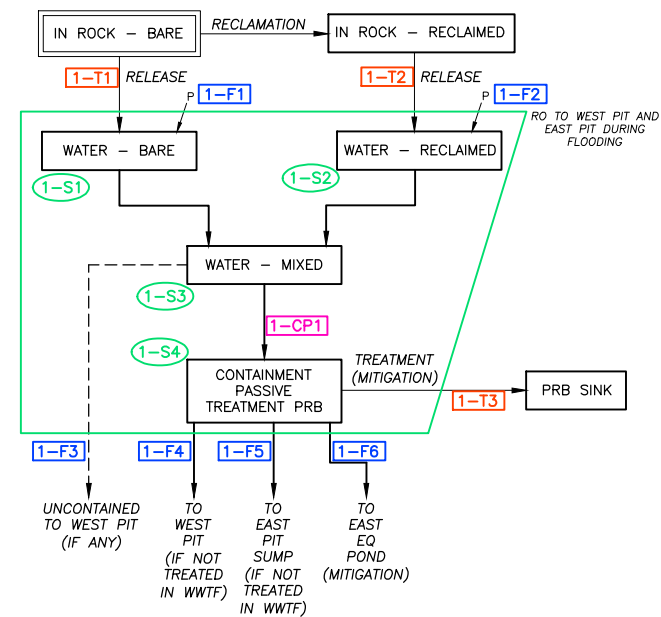
LEGEND

- WATER FLOW
- - - SEEPAGE OR GROUNDWATER FLOW
- MASS TRANSFER
- ▭ LOCATIONS WHERE ROCK AND OVERBURDEN MASS ENTERS MODEL
- ↙ RO BACKGROUND RUNOFF INPUT (FLOW AND LOAD)
- ↙ GW BACKGROUND GROUNDWATER INPUT (FLOW AND LOAD)
- P PRECIPITATION INPUT (FLOW)
- 6-S1 STORAGE NODE
- 6-F1 FLOW LINE
- 6-CP1 CALCULATION POINT

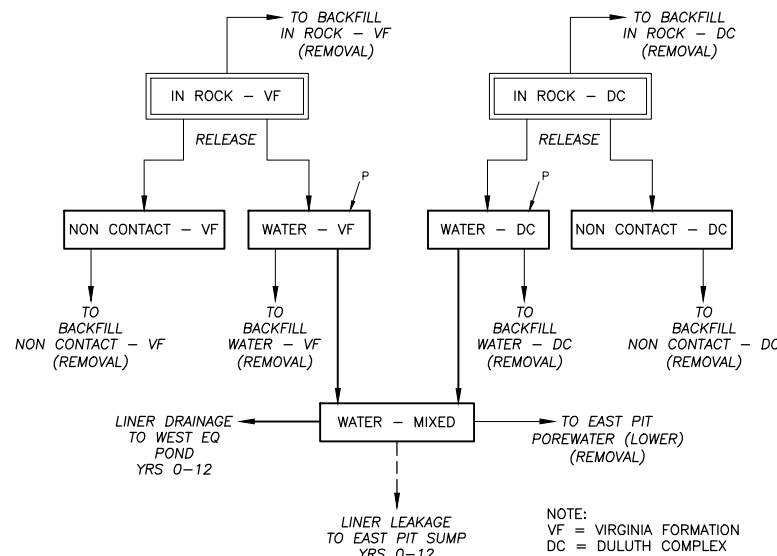
CONTROL VOLUME 6

NORTHMET MINE SITE WATER QUALITY MODEL
 DRAFT MODEL FLOWCHART 1
 GOLDSIM MODEL VERSION 1
 AUGUST, 2012

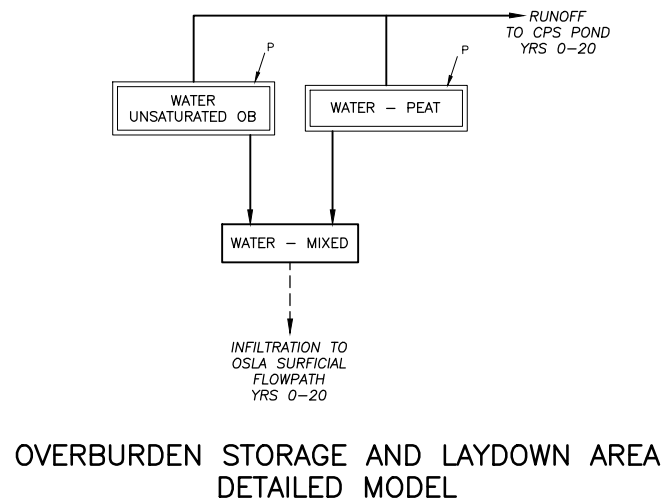
CONTROL VOLUME 1



CATEGORY 1 STOCKPILE DETAILED MODEL

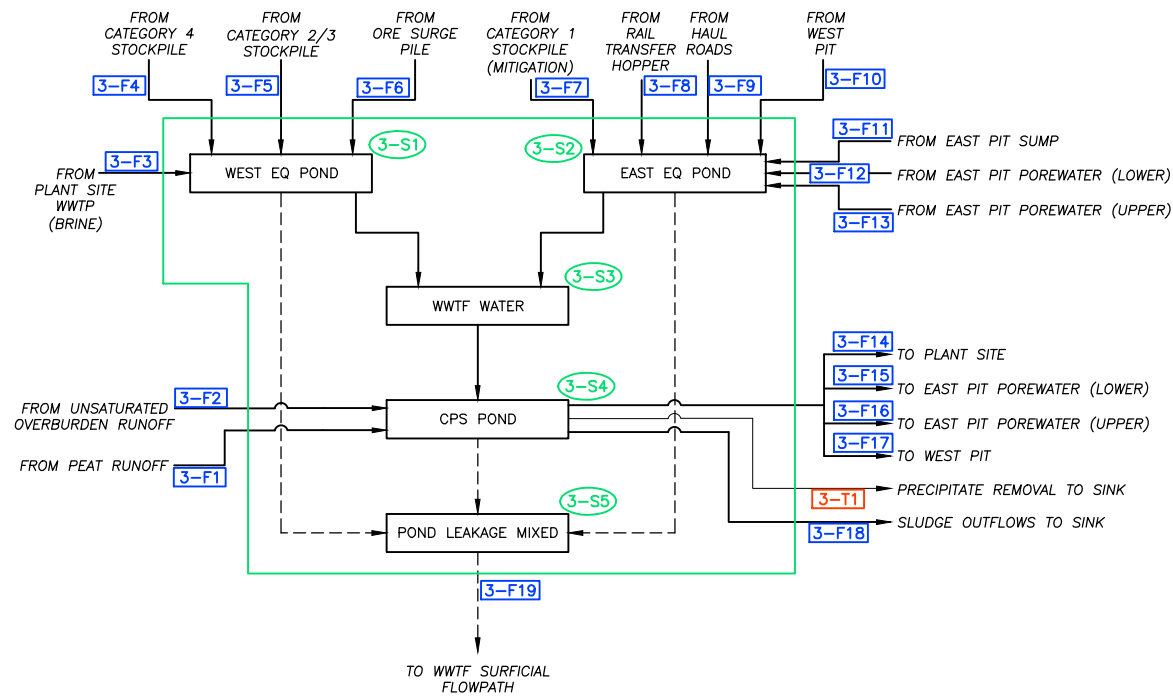


CATEGORY 4 STOCKPILE DETAILED MODEL

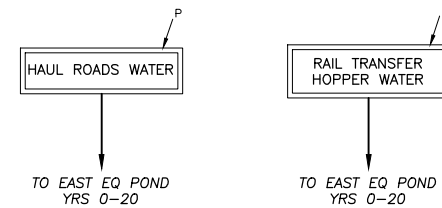


OVERBURDEN STORAGE AND LAYDOWN AREA DETAILED MODEL

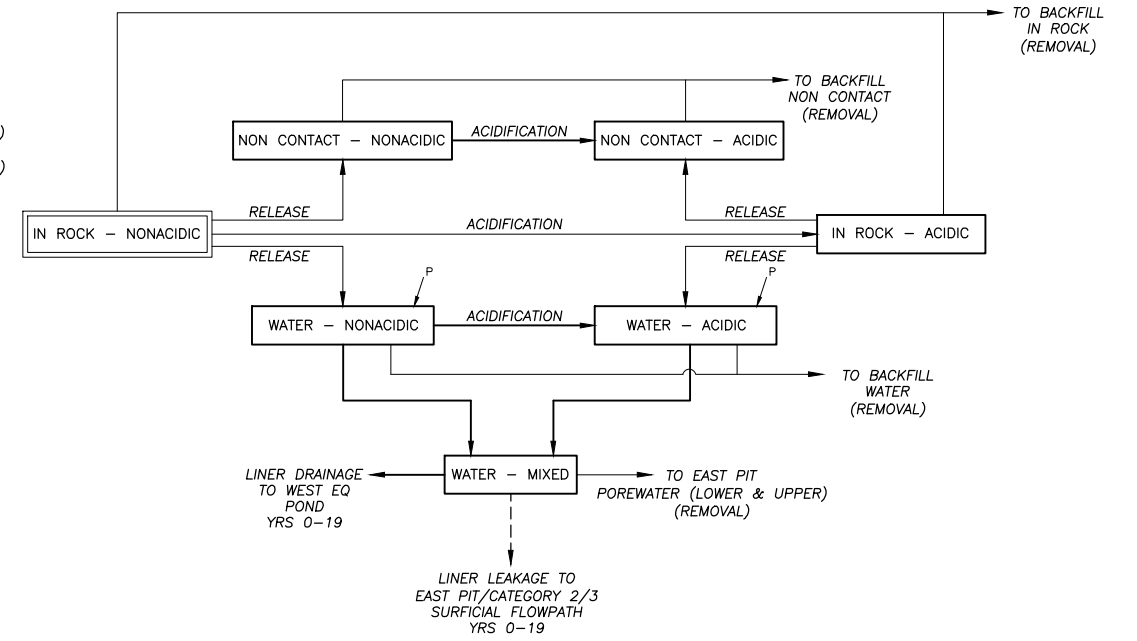
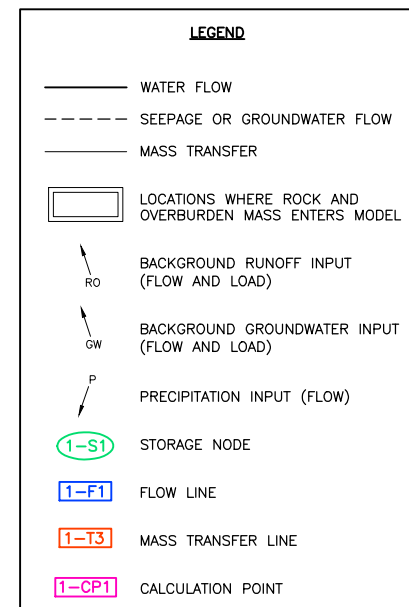
CONTROL VOLUME 3



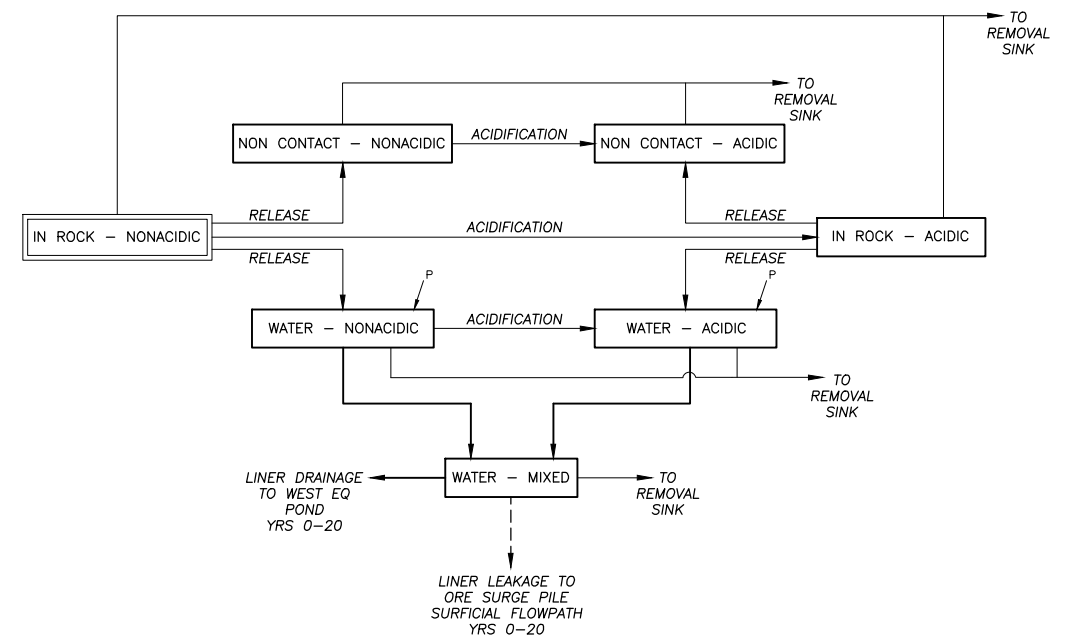
WASTE WATER TREATMENT FACILITY DETAILED MODEL



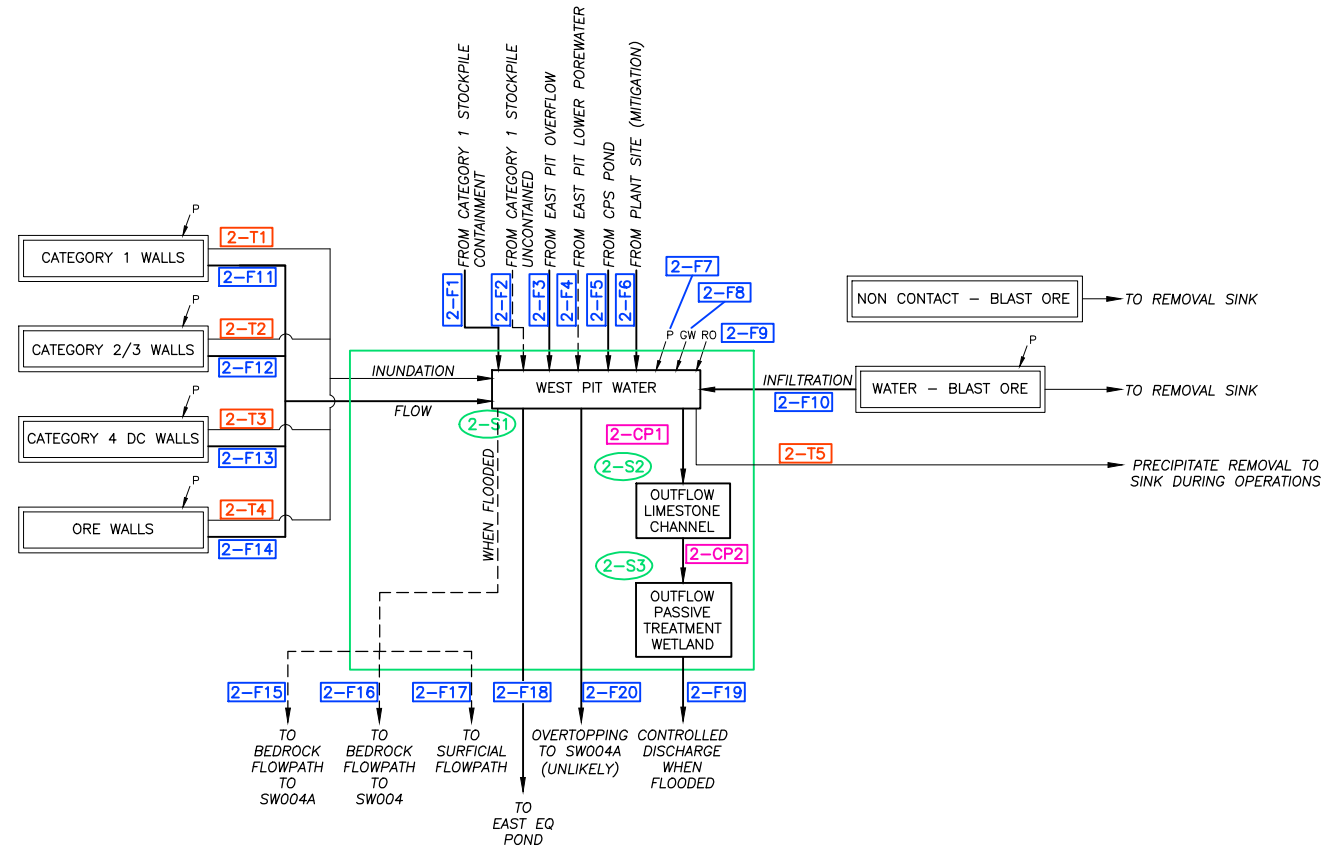
RAIL TRANSFER HOPPER AND HAUL ROAD DETAILED MODEL



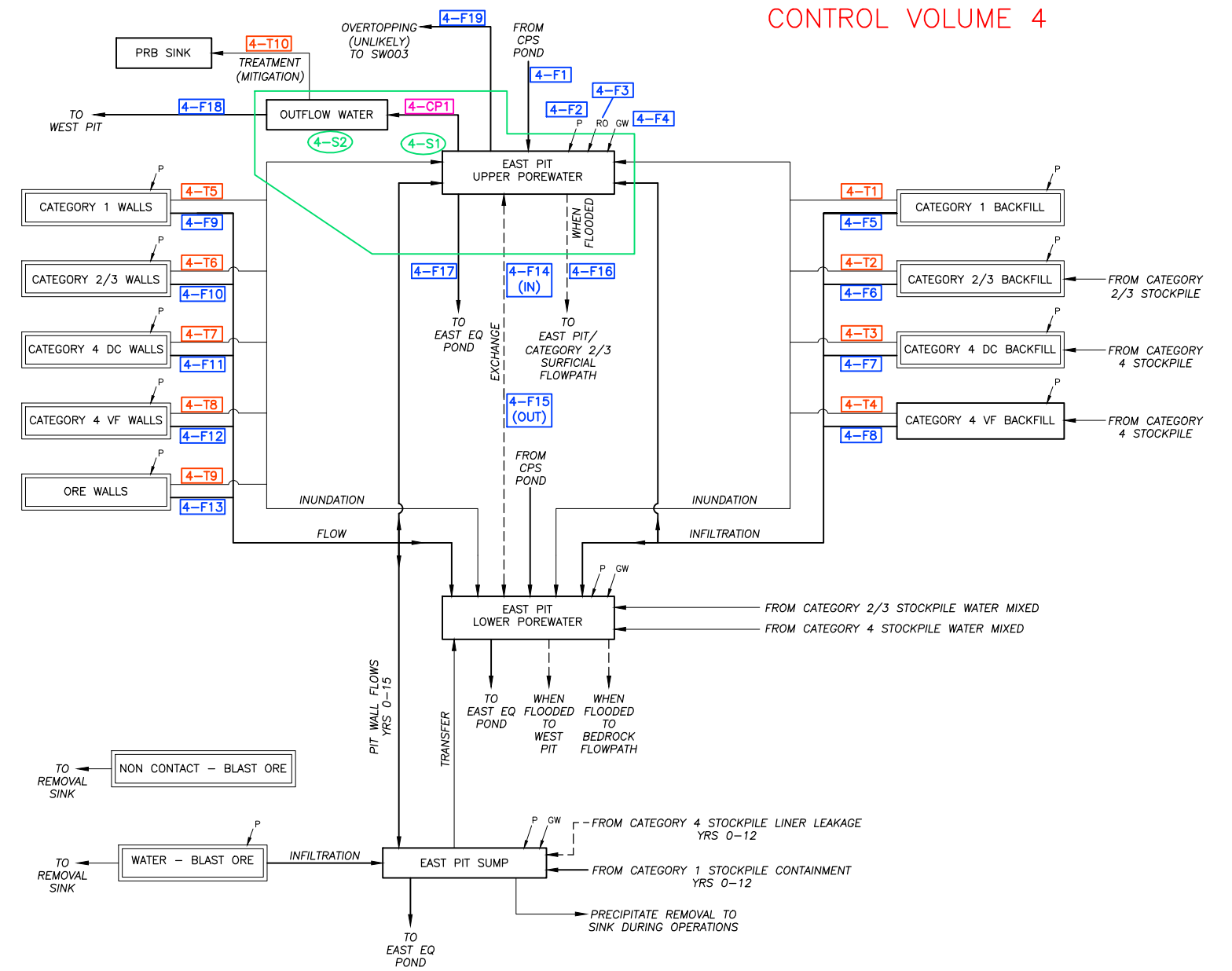
CATEGORY 2/3 STOCKPILE DETAILED MODEL



ORE SURGE PILE DETAILED MODEL



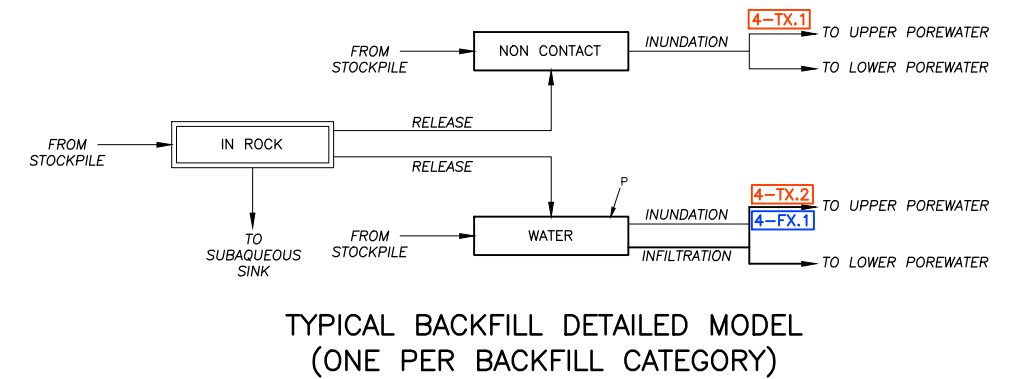
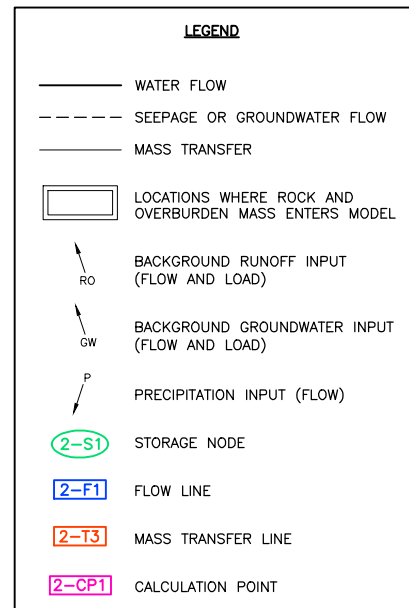
WEST PIT DETAILED MODEL



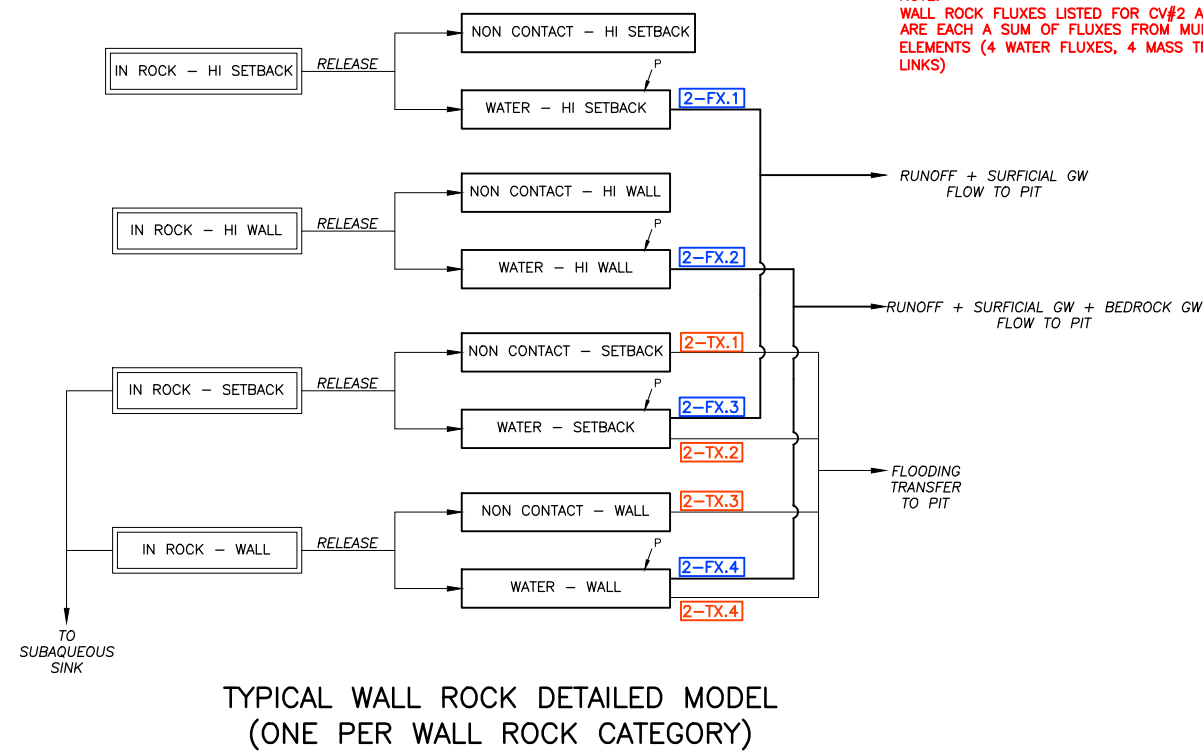
EAST PIT DETAILED MODEL

NOTE:
 WALL ROCK FLUXES LISTED FOR CV#2 AND #4 ABOVE ARE EACH A SUM OF FLUXES FROM MULTIPLE MODEL ELEMENTS (4 WATER FLUXES, 4 MASS TRANSFER LINKS)

NOTE:
 BACKFILL FLUXES LISTED FOR CV#4 ABOVE ARE EACH A SUM OF FLUXES FROM MULTIPLE MODEL ELEMENTS (1 WATER FLUX, 2 MASS TRANSFER LINKS)

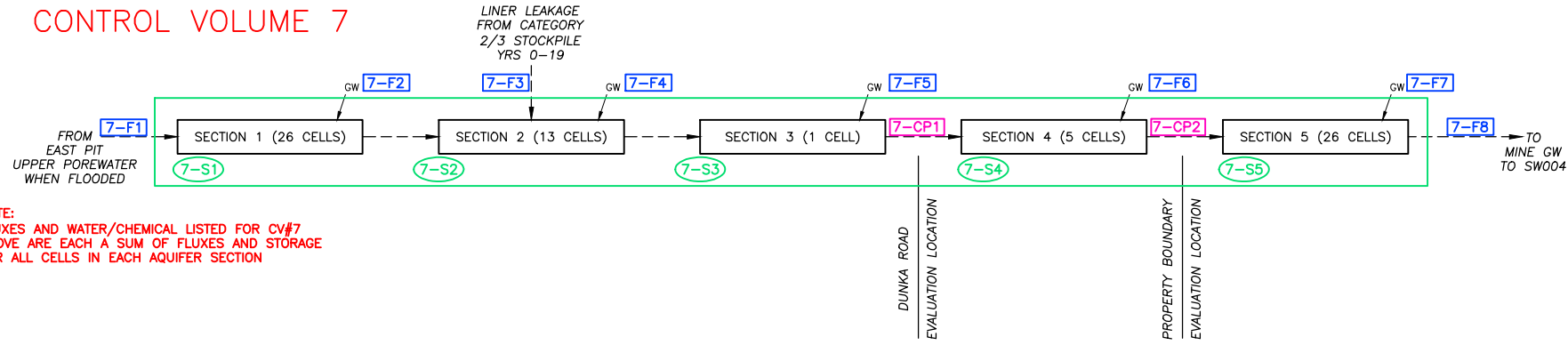


TYPICAL BACKFILL DETAILED MODEL (ONE PER BACKFILL CATEGORY)



TYPICAL WALL ROCK DETAILED MODEL (ONE PER WALL ROCK CATEGORY)

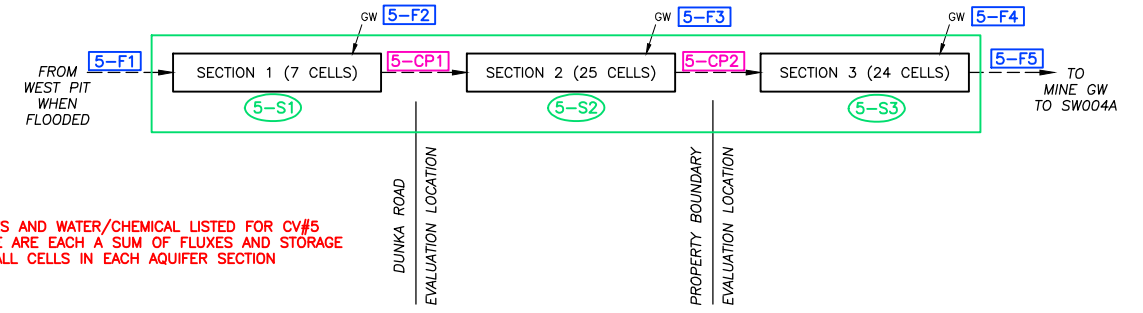
CONTROL VOLUME 7



NOTE:
FLUXES AND WATER/CHEMICAL LISTED FOR CV#7
ABOVE ARE EACH A SUM OF FLUXES AND STORAGE
FOR ALL CELLS IN EACH AQUIFER SECTION

EAST PIT AND CATEGORY 2/3 STOCKPILE SURFICIAL FLOWPATH

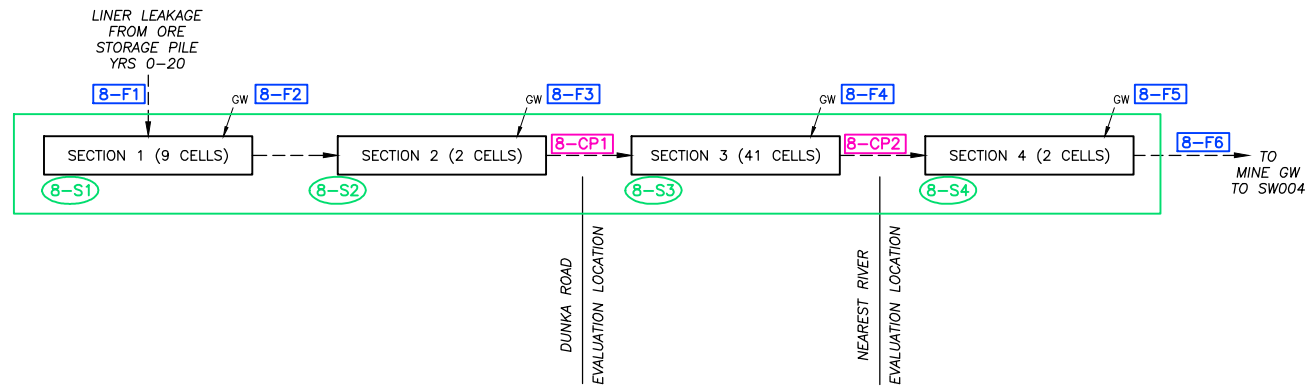
CONTROL VOLUME 5



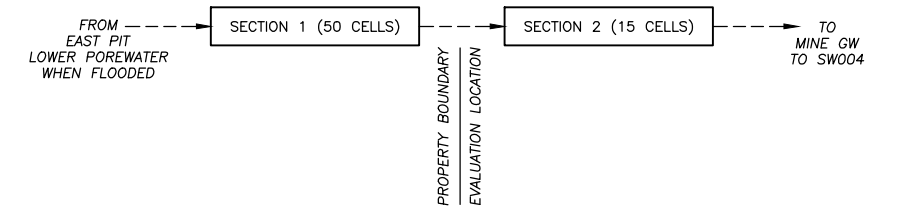
NOTE:
FLUXES AND WATER/CHEMICAL LISTED FOR CV#5
ABOVE ARE EACH A SUM OF FLUXES AND STORAGE
FOR ALL CELLS IN EACH AQUIFER SECTION

WEST PIT SURFICIAL FLOWPATH

CONTROL VOLUME 8

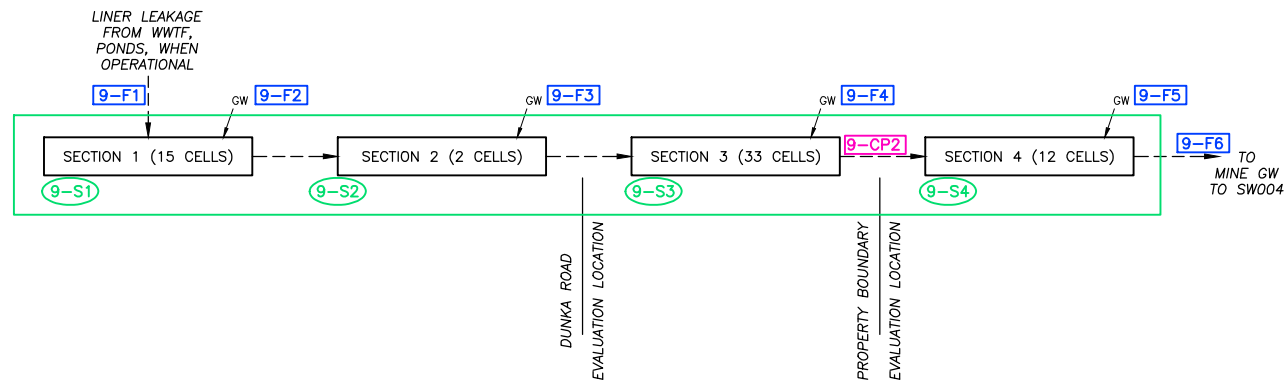


ORE SURGE PILE SURFICIAL FLOWPATH

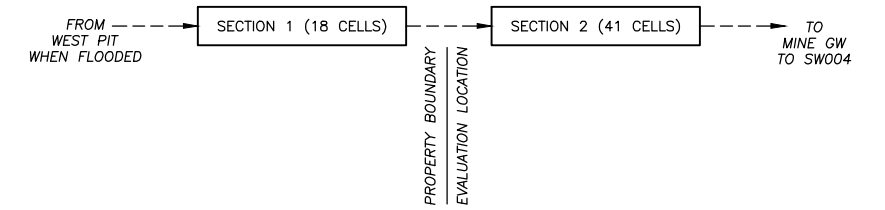


EAST PIT BEDROCK FLOWPATH

CONTROL VOLUME 9

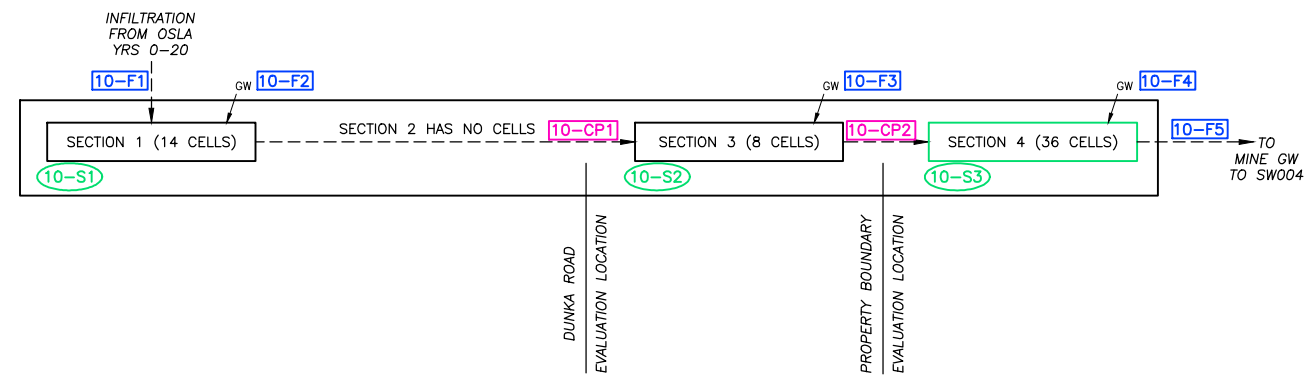


WWTF SURFICIAL FLOWPATH

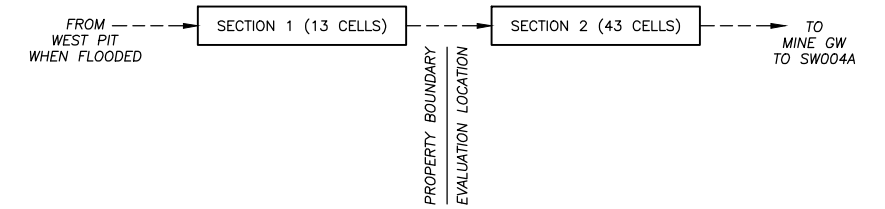


WEST PIT BEDROCK FLOWPATH TO SW-004

CONTROL VOLUME 10



OSLA SURFICIAL FLOWPATH



WEST PIT BEDROCK FLOWPATH TO SW-004A

