STA 27+00, steady-state analysis, existing conditions
Total Flow: 3.9 acre ft/yr/1000 ft

Hydraulic Conductivity (Kh) and Anisotropy Ratio (Ky/Kx)
Material #1 Hyd K Fn: 7 Sand w/ 0-2% CL or 3-7% ML, Ks=14 ft/day (5x10E-3 cm/s) Ky/Kx Ratio: 0.25
Material #2 Hyd K Fn: 5 Clay Ks=0.028 ft/day (1x10E-5 cm/s) Ky/Kx Ratio: 0.25
Material #3 Hyd K Fn: 7 Sand w/ 0-2% CL or 3-7% ML, Ks=14 ft/day (5x10E-3 cm/s) Ky/Kx Ratio: 0.25

Note: Cutoff wall impact is determined using a simplified cross section at STA 70+00 and STA 353+00 in conjunction with STA 27+00 and STA 217+00 to best represent the actual conditions present. El. 15 through El. 32 were used to run our model.
STA 70+00, steady-state analysis, existing conditions
Total Flow: 2.6 acre ft/yr/1000 ft

Horizontal Hydraulic Conductivity (Kh) and Anisotropy Ratio (Kv/Kh)

Material #1 Hyd K Fn: 21 Sand w/ 0-2% CL or 3-7% ML, Ks=14 ft/day (5x10E-3 cm/s) Ky/Kx Ratio: 0.25
Material #2 Hyd K Fn: 18 Clay Ks=0.028 ft/day (1x10E-5 cm/s) Ky/Kx Ratio: 0.25
Material #3 Hyd K Fn: 21 Sand w/ 0-2% CL or 3-7% ML, Ks=14 ft/day (5x10E-3 cm/s) Ky/Kx Ratio: 0.25
Material #4 Hyd K Fn: 18 Clay Ks=0.028 ft/day (1x10E-5 cm/s) Ky/Kx Ratio: 0.1

Note: Cutoff wall impact is determined using a simplified cross section at STA 70+00 and STA 353+00 in conjunction with STA 27+00 and STA 217+00 to best represent the actual conditions present. El. 15 through El. 32 were used to run our model.
STA 217+00, steady-state analysis, existing conditions
Total Flow: 129 acre ft/yr/1000 ft
Ref: URS model 217+00 from Sac Levees report 2007

Silty sand Kx = 11.2 ft/day, kx/ky = 4
WSE 34.5 (NAVD88)
Sandy Silt Kx = .56 ft/day, kx/ky = 1
Weather Clay Blanket Kx = .028 ft/day, kx/ky = 4
Total Head Contours
Sand-silty sand Kx = .56 ft/day, kx/ky = 4
Gravel Kx = 283 ft/day, kx/ky = 10

Horizontal Distance (feet) (x 1000)

Note: Cutoff wall impact is determined using a simplified cross section at STA 70+00 and STA 353+00 in conjunction with STA 27+00 and STA 217+00 to best represent the actual conditions present. El. 15 through El. 32 were used to run our model.
STA 353+00, steady-state analysis, existing conditions
Total Flow: 13.4 acre ft/yr/1000 ft

Horizontal Hydraulic Conductivity (K_h) and Anisotropy Ratio (K_y/K_x)

Material #1 Hyd K Fn: 9 Sand w/ 0-2% CL or 3-7% ML, K_s=14 ft/day (5x10E-3 cm/s)  Ky/Kx Ratio: 0.25
Material #2 Hyd K Fn: 7 Silt K_s=0.56 ft/day (2x10E-4 cm/s)  Ky/Kx Ratio: 1
Material #3 Hyd K Fn: 5 Clay K_s=0.028 ft/day (1x10E-5 cm/s)  Ky/Kx Ratio: 0.1
Material #4 Hyd K Fn: 9 Sand w/ 0-2% CL or 3-7% ML, K_s=14 ft/day (5x10E-3 cm/s)  Ky/Kx Ratio: 0.25
Material #5 Hyd K Fn: 8 Drainage Rock K_s=2800 ft/day (10 cm/s)  Ky/Kx Ratio: 1

Note: Cutoff wall impact is determined using a simplified cross section at STA 70+00 and STA 353+00 in conjunction with STA 27+00 and STA 217+00 to best represent the actual conditions present. El. 15 through El. 32 were used to run our model.
STA 70+00, steady-state analysis, adjacent levee, with wall
Total Flow: 0.4 acre ft/yr/1000 ft

Horizontal Hydraulic Conductivity (K_h) and Anisotropy Ratio (K_v/K_h)

Material #1 Hyd K Fr: 10  Sand w/ 0.2% CL or 3.7% ML, K_s=14 ft/day (5x10E-3 cm/s)  Ky/Kx Ratio: 0.25
Material #2 Hyd K Fr: 7  Clay K_s=0.028 ft/day (1x10E-5 cm/s)  Ky/Kx Ratio: 0.25
Material #3 Hyd K Fr: 10  Sand w/ 0-2% CL or 3.7% ML, K_s=14 ft/day (5x10E-3 cm/s)  Ky/Kx Ratio: 0.25
Material #4 Hyd K Fr: 7  Clay K_s=0.028 ft/day (1x10E-5 cm/s)  Ky/Kx Ratio: 0.1
Material #5 Hyd K Fr: 8  Silt K_s= 0.028 ft/day (1x10E-5 cm/s)  Ky/Kx Ratio: 0.25
Material #7 Hyd K Fr: 11  Cutoff wall K_s = 0.0028 ft/day (1.0x10-6 cm/sec)  Ky/Kx Ratio: 1

Note: Cutoff wall impact is determined using a simplified cross section at STA 70+00 and STA 353+00 in conjunction with STA 27+00 and STA 217+00 to best represent the actual conditions present. El. 15 through El. 32 were used to run our model.
STA 353+00, steady-state analysis, adjacent levee, with wall
Total Flow: 8.4 acre ft/yr/1000 ft

Horizontal Hydraulic Conductivity (KH) and Anisotropy Ratio (Kv/Kh)

Material #1 Hyd K Fr: 9 Sand w/ 0-2% CL or 3-7% ML, Ks=14 ft/day (5x10E-3 cm/s) Ky/Kx Ratio: 0.25
Material #2 Hyd K Fr: 7 Silt Ks=0.56 ft/day (2x10E-4 cm/s) Ky/Kx Ratio: 1
Material #3 Hyd K Fr: 5 Clay Ks=0.028 ft/day (1x10E-5 cm/s) Ky/Kx Ratio: 0.1
Material #4 Hyd K Fr: 9 Sand w/ 0-2% CL or 3-7% ML, Ks=14 ft/day (5x10E-3 cm/s) Ky/Kx Ratio: 0.25
Material #6 Hyd K Fr: 10 Cutoff wall Ks = 0.0028 ft/day (1.0x10-6 cm/sec) Ky/Kx Ratio: 1

Note: Cutoff wall impact is determined using a simplified cross section at STA 70+00 and STA 353+00 in conjunction with STA 27+00 and STA 217+00 to best represent the actual conditions present. El. 15 through El. 32 were used to run our model.
STA 70+00, boundary conditions
Transient analysis, existing conditions
STA 70+00, transient analysis, existing conditions
Time Step: 2 (Winter)

Horizontal Hydraulic Conductivity (Kh) and Anisotropy Ratio (Kv/Kh)

Material #1 Hyd K Fn: 21 Sand w/ 0-2% CL or 3-7% ML, Ks=14 ft/day (5x10E-3 cm/s) Ky/Kx Ratio: 0.25
Material #2 Hyd K Fn: 18 Clay Ks=0.028 ft/day (1x10E-5 cm/s) Ky/Kx Ratio: 0.25
Material #3 Hyd K Fn: 21 Sand w/ 0-2% CL or 3-7% ML, Ks=14 ft/day (5x10E-3 cm/s) Ky/Kx Ratio: 0.25
Material #4 Hyd K Fn: 18 Clay Ks=0.028 ft/day (1x10E-5 cm/s) Ky/Kx Ratio: 0.1
Material #5 Hyd K Fn: 19 Silt Ks= 0.028 ft/day (1x10E-5 cm/s) Ky/Kx Ratio: 0.25

1/200 AEP WSE = 41.7'

Total Head Contours

Horizontal Distance (feet) (x 1000)