# Appendix D
# Hydraulic Model Flow Projection Summaries & Model Land Use and Wastewater Loading Calculations

## CHULA VISTA MASTER PLAN HYDRAULIC MODELS
## FLOW PROJECTIONS

| Model | Average Flow | |
|---|---|---|
| | Existing | Buildout |
| North-West | 10.213 | 11.802 |
| East Telegraph | 2.605 | 2.462 |
| Poggi Canyon/Date-Faivre | (1) | 3.470 |
| Salt Creek | (1) | 5.107 |
| Bayfront Parcels Not in Models | 0.225 | 0.314 |
| | | **23.155 mgd** |

(1) Existing models for Poggi Canyon/Date-Faivre, and Salt Creek were not developed as part of this master plan

## NORTH-WEST MASTER PLAN MODEL
## BUILDOUT FLOW PROJECTIONS

**Basis**

- Land Use Projections - Master Plan XP-SWMM Model (Ult Flow .xls) from City Parcel Database
- Model extent includes all City Sewer Basins except:
  - Salt Creek, Poggi Canyon, Telegraph Canyon east of Hilltop Rd
- Unit Generation Rates - From Calibrated North-West XP-SWMM Model

| | | |
|---|---|---|
| Residential EDU = | 195 gpd | Low Generation North-West Model Calibration |
| Commercial Ac = | 800 gpd | |
| Industrial Ac = | 1,400 gpd | |
| Institutional Ac = | 0 | |
| Park Ac = | 0 | |
| Residential EDU = | 230 gpd | High Generation North-West Model Calibration |
| Commercial Ac = | 800 gpd | |
| Industrial Ac = | 1,400 gpd | |
| Institutional Ac = | 0 | |
| Park Ac = | 0 | |
| Residential EDU = | 215 | Poggi Canyon XP-SWMM Model Calibration |
| Commercial Ac = | 1,500 gpd | |
| Industrial Ac = | 1,500 gpd | |
| Institutional Ac = | 1,500 gpd | |
| Park Ac = | 500 gpd | |

**Flow Projections**

| | Modeled Flow | | House Counts | | Total Flow |
|---|---|---|---|---|---|
| Low Model = | **10.003 mgd** | + | 0.281 mgd | = | **10.284 mgd** |
| High Model = | **11.521 mgd** | + | 0.281 mgd | = | **11.802 mgd** |
| Poggi Model = | **12.960 mgd** | + | 0.281 mgd | = | **13.241 mgd** |

**North-West Master Plan Model**
**Buildout Development Projections**

| Unit | Generation Rate | |
|---|---|---|
| Residential EDU | 230 | gpd/EDU |
| Commercial acre | 800 | gpd/ac |
| Industrial acre | 1400 | gpd/ac |
| Institutional acre | 0 | gpd/ac |
| Park acre | 0 | gpd/ac |

Total Model Flow = 11.521 mgd

| Node | Single Family Units | Multi Family Units | Commercial Area (acres) | Industrial Area (acres) | Institutional Area (acres) | Park Area (acres) | Res EDUs | Res flow gen rate (gpd/EDU) | Comm flow gen rate (gpd/acre) | Indust flow gen rate (gpd/acre) | Instit flow gen rate (gpd/acre) | Park flow gen rate (gpd/acre) | Residential Flow (gpd) | Residential Flow (cfs) | Comm/Ind/Instit/Park Flow (gpd) | Comm/Ind/Instit/Park Flow (cfs) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| '1043' | 1024 | 669 | 0.1 | 0.0 | 17.4 | 34.9 | 1525.75 | 230 | 800 | 1400 | 0 | 0 | 350,922.5 | 0.54 | 83.9 | 0.00 |
| '1074' | 126 | 395 | 4.4 | 4.0 | 3.2 | 0.0 | 422.25 | 230 | 800 | 1400 | 0 | 0 | 97,117.5 | 0.15 | 9,077.8 | 0.01 |
| '1080' | 569 | 1197 | 85.6 | 46.0 | 28.6 | 17.6 | 1466.75 | 230 | 800 | 1400 | 0 | 0 | 337,352.5 | 0.52 | 132,846.0 | 0.21 |
| '1384' | 239 | 4 | 1.3 | 0.0 | 0.0 | 0.0 | 242 | 230 | 800 | 1400 | 0 | 0 | 55,660.0 | 0.09 | 1,054.6 | 0.00 |
| '1984' | 171 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 171 | 230 | 800 | 1400 | 0 | 0 | 39,330.0 | 0.06 | 0.0 | 0.00 |
| '2042' | 807 | 547 | 35.8 | 0.0 | 18.7 | 23.9 | 1217.25 | 230 | 800 | 1400 | 0 | 0 | 279,967.5 | 0.43 | 28,653.7 | 0.04 |
| '2165' | 430 | 0 | 0.3 | 0.0 | 10.1 | 0.1 | 430 | 230 | 800 | 1400 | 0 | 0 | 98,900.0 | 0.15 | 213.2 | 0.00 |
| '2210' | 714 | 1382 | 18.9 | 4.4 | 9.6 | 1.9 | 1750.5 | 230 | 800 | 1400 | 0 | 0 | 402,615.0 | 0.62 | 21,207.1 | 0.03 |
| '225' | 157 | 0 | 5.1 | 0.0 | 0.0 | 0.0 | 157 | 230 | 800 | 1400 | 0 | 0 | 36,110.0 | 0.06 | 4,114.9 | 0.01 |
| '2262' | 220 | 139 | 0.9 | 0.0 | 5.0 | 5.0 | 324.25 | 230 | 800 | 1400 | 0 | 0 | 74,577.5 | 0.12 | 681.1 | 0.00 |
| '2355' | 582 | 0 | 12.5 | 0.0 | 18.5 | 0.0 | 582 | 230 | 800 | 1400 | 0 | 0 | 133,860.0 | 0.21 | 9,992.8 | 0.02 |
| '2549' | 548 | 702 | 20.1 | 0.0 | 1.0 | 16.1 | 1074.5 | 230 | 800 | 1400 | 0 | 0 | 247,135.0 | 0.38 | 16,063.2 | 0.02 |
| '2637' | 66 | 245 | 0.0 | 0.0 | 1.5 | 0.0 | 249.75 | 230 | 800 | 1400 | 0 | 0 | 57,442.5 | 0.09 | 0.0 | 0.00 |
| '2650' | 757 | 675 | 11.5 | 0.4 | 0.0 | 0.0 | 1263.25 | 230 | 800 | 1400 | 0 | 0 | 290,547.5 | 0.45 | 9,728.8 | 0.02 |
| '2678' | 363 | 0 | 0.1 | 0.0 | 0.0 | 5.4 | 363 | 230 | 800 | 1400 | 0 | 0 | 83,490.0 | 0.13 | 92.5 | 0.00 |
| '2778' | 196 | 794 | 12.5 | 15.8 | 0.0 | 0.0 | 791.5 | 230 | 800 | 1400 | 0 | 0 | 182,045.0 | 0.28 | 32,152.8 | 0.05 |
| '2874' | 132 | 77 | 78.8 | 4.9 | 0.0 | 0.0 | 189.75 | 230 | 800 | 1400 | 0 | 0 | 43,642.5 | 0.07 | 69,885.6 | 0.11 |
| '2903' | 29 | 251 | 1.2 | 0.0 | 0.4 | 0.0 | 217.25 | 230 | 800 | 1400 | 0 | 0 | 49,967.5 | 0.08 | 991.2 | 0.00 |
| '2982' | 132 | 993 | 0.3 | 1.9 | 0.6 | 0.0 | 876.75 | 230 | 800 | 1400 | 0 | 0 | 201,652.5 | 0.31 | 2,934.0 | 0.00 |
| '3142' | 0 | 0 | 4.9 | 4.8 | 0.0 | 0.0 | 0 | 230 | 800 | 1400 | 0 | 0 | 0.0 | 0.00 | 10,677.3 | 0.02 |
| '3169' | 0 | 0 | 0.0 | 105.8 | 0.0 | 16.8 | 0 | 230 | 800 | 1400 | 0 | 0 | 0.0 | 0.00 | 148,090.2 | 0.23 |
| '324' | 327 | 0 | 0.3 | 0.0 | 8.2 | 0.0 | 327 | 230 | 800 | 1400 | 0 | 0 | 75,210.0 | 0.12 | 218.7 | 0.00 |
| '3294' | 0 | 0 | 0.0 | 27.1 | 0.0 | 0.0 | 0 | 230 | 800 | 1400 | 0 | 0 | 0.0 | 0.00 | 37,949.0 | 0.06 |
| '3352' | 86 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 86 | 230 | 800 | 1400 | 0 | 0 | 19,780.0 | 0.03 | 0.0 | 0.00 |
| '3371' | 501 | 0 | 12.3 | 0.0 | 33.8 | 9.3 | 501 | 230 | 800 | 1400 | 0 | 0 | 115,230.0 | 0.18 | 9,846.7 | 0.02 |
| '3450' | 44 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 44 | 230 | 800 | 1400 | 0 | 0 | 10,120.0 | 0.02 | 0.0 | 0.00 |
| '3474' | 153 | 73 | 16.5 | 0.1 | 4.6 | 0.0 | 207.75 | 230 | 800 | 1400 | 0 | 0 | 47,782.5 | 0.07 | 13,405.4 | 0.02 |
| '3514' | 33 | 0 | 0.0 | 0.0 | 8.0 | 0.0 | 33 | 230 | 800 | 1400 | 0 | 0 | 7,590.0 | 0.01 | 0.0 | 0.00 |
| '3570' | 150 | 38 | 14.9 | 0.2 | 0.8 | 0.0 | 188.5 | 230 | 800 | 1400 | 0 | 0 | 43,355.0 | 0.07 | 12,179.4 | 0.02 |
| '3578' | 1488 | 832 | 122.1 | 1.0 | 10.3 | 0.0 | 2112 | 230 | 800 | 1400 | 0 | 0 | 485,760.0 | 0.75 | 99,077.6 | 0.15 |
| '3588' | 54 | 0 | 0.2 | 0.0 | 0.0 | 0.0 | 54 | 230 | 800 | 1400 | 0 | 0 | 12,420.0 | 0.02 | 135.6 | 0.00 |
| '3872' | 83 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 83 | 230 | 800 | 1400 | 0 | 0 | 19,090.0 | 0.03 | 3.7 | 0.00 |
| '3922' | 536 | 398 | 6.1 | 0.0 | 3.7 | 0.0 | 634.5 | 230 | 800 | 1400 | 0 | 0 | 191,935.0 | 0.30 | 4,903.4 | 0.01 |
| '4001' | 465 | 142 | 16.5 | 0.0 | 11.9 | 0.0 | 571.5 | 230 | 800 | 1400 | 0 | 0 | 131,445.0 | 0.20 | 13,205.0 | 0.02 |
| '4074' | 368 | 3 | 3.3 | 0.3 | 0.0 | 0.0 | 370.25 | 230 | 800 | 1400 | 0 | 0 | 85,157.5 | 0.13 | 3,017.5 | 0.00 |
| '4097' | 139 | 32 | 3.4 | 0.5 | 0.0 | 0.0 | 163 | 230 | 800 | 1400 | 0 | 0 | 37,490.0 | 0.06 | 3,412.2 | 0.01 |
| '4189' | 114 | 0 | 0.0 | 46.1 | 0.0 | 0.0 | 114 | 230 | 800 | 1400 | 0 | 0 | 26,220.0 | 0.04 | 64,531.6 | 0.10 |
| '4233' | 3 | 0 | 24.0 | 22.0 | 0.0 | 24.0 | 3 | 230 | 800 | 1400 | 0 | 0 | 690.0 | 0.00 | 49,988.2 | 0.08 |
| '4328' | 486 | 265 | 38.2 | 17.8 | 0.0 | 0.0 | 684.75 | 230 | 800 | 1400 | 0 | 0 | 157,492.5 | 0.24 | 55,394.4 | 0.09 |
| '4474' | 53 | 0 | 122.6 | 0.2 | 0.0 | 0.5 | 53 | 230 | 800 | 1400 | 0 | 0 | 12,190.0 | 0.02 | 98,324.3 | 0.15 |
| '4508' | 567 | 1257 | 29.7 | 13.3 | 143.9 | 5.9 | 1509.75 | 230 | 800 | 1400 | 0 | 0 | 347,242.5 | 0.54 | 42,373.9 | 0.07 |
| '4512' | 304 | 1205 | 41.9 | 3.3 | 0.0 | 0.0 | 1207.75 | 230 | 800 | 1400 | 0 | 0 | 277,782.5 | 0.43 | 38,137.0 | 0.06 |
| '4567' | 152 | 0 | 10.5 | 6.5 | 8.2 | 0.0 | 152 | 230 | 800 | 1400 | 0 | 0 | 34,960.0 | 0.05 | 17,494.2 | 0.03 |
| '4595' | 1816 | 14 | 3.2 | 0.0 | 41.1 | 19.6 | 1826.5 | 230 | 800 | 1400 | 0 | 0 | 420,095.0 | 0.65 | 2,539.5 | 0.00 |
| '4631' | 221 | 314 | 16.2 | 0.0 | 12.2 | 0.0 | 456.5 | 230 | 800 | 1400 | 0 | 0 | 104,995.0 | 0.16 | 12,975.1 | 0.02 |
| '4722' | 433 | 1265 | 82.0 | 17.2 | 9.5 | 0.0 | 1381.75 | 230 | 800 | 1400 | 0 | 0 | 317,802.5 | 0.49 | 89,611.1 | 0.14 |
| '475' | 461 | 0 | 0.0 | 0.0 | 0.0 | 1.5 | 461 | 230 | 800 | 1400 | 0 | 0 | 106,030.0 | 0.16 | 0.0 | 0.00 |
| '4753' | 2306 | 1016 | 8.0 | 1.7 | 4.0 | 9.4 | 3068 | 230 | 800 | 1400 | 0 | 0 | 705,640.0 | 1.09 | 8,846.0 | 0.01 |
| '4856' | 249 | 252 | 7.1 | 33.6 | 1.7 | 0.0 | 438 | 230 | 800 | 1400 | 0 | 0 | 100,740.0 | 0.16 | 52,696.5 | 0.08 |
| '4867' | 8 | 307 | 12.9 | 0.0 | 0.0 | 0.0 | 238.25 | 230 | 800 | 1400 | 0 | 0 | 54,797.5 | 0.08 | 10,355.6 | 0.02 |
| '4940' | 198 | 231 | 18.5 | 2.7 | 0.9 | 0.0 | 371.25 | 230 | 800 | 1400 | 0 | 0 | 85,387.5 | 0.13 | 18,579.8 | 0.03 |
| '4952' | 106 | 320 | 54.1 | 32.9 | 0.0 | 0.0 | 346 | 230 | 800 | 1400 | 0 | 0 | 79,580.0 | 0.12 | 89,372.0 | 0.14 |
| '5036' | 678 | 202 | 2.9 | 0.1 | 11.4 | 4.3 | 829.5 | 230 | 800 | 1400 | 0 | 0 | 190,785.0 | 0.30 | 2,415.7 | 0.00 |
| '5110' | 4 | 0 | 18.6 | 10.7 | 0.0 | 0.0 | 4 | 230 | 800 | 1400 | 0 | 0 | 920.0 | 0.00 | 29,856.0 | 0.05 |
| '5121' | 763 | 892 | 28.6 | 12.1 | 7.4 | 0.0 | 1432 | 230 | 800 | 1400 | 0 | 0 | 329,360.0 | 0.51 | 39,882.3 | 0.06 |
| '5291' | 552 | 469 | 20.9 | 0.0 | 4.2 | 1.0 | 903.75 | 230 | 800 | 1400 | 0 | 0 | 207,862.5 | 0.32 | 16,732.6 | 0.03 |
| '5298' | 102 | 392 | 21.6 | 3.3 | 7.1 | 3.8 | 396 | 230 | 800 | 1400 | 0 | 0 | 91,080.0 | 0.14 | 21,935.4 | 0.03 |
| '5348' | 375 | 681 | 16.3 | 0.0 | 3.1 | 0.0 | 885.75 | 230 | 800 | 1400 | 0 | 0 | 203,722.5 | 0.32 | 13,049.7 | 0.02 |
| '5359' | 1211 | 442 | 9.2 | 0.3 | 45.2 | 0.0 | 1542.5 | 230 | 800 | 1400 | 0 | 0 | 354,775.0 | 0.55 | 7,729.6 | 0.01 |
| '5391' | 108 | 431 | 10.0 | 0.0 | 18.3 | 0.0 | 431.25 | 230 | 800 | 1400 | 0 | 0 | 99,187.5 | 0.15 | 7,969.1 | 0.01 |
| '5613' | 2324 | 118 | 2.4 | 0.5 | 98.6 | 8.2 | 2412.5 | 230 | 800 | 1400 | 0 | 0 | 554,875.0 | 0.86 | 2,616.7 | 0.00 |
| '5879' | 449 | 0 | 25.7 | 12.5 | 1.5 | 1.1 | 449 | 230 | 800 | 1400 | 0 | 0 | 103,270.0 | 0.16 | 38,096.7 | 0.06 |
| '5883' | 279 | 0 | 1.0 | 1.2 | 2.0 | 5.0 | 279 | 230 | 800 | 1400 | 0 | 0 | 64,170.0 | 0.10 | 2,464.1 | 0.00 |
| '6279' | 903 | 89 | 11.0 | 2.2 | 56.1 | 31.0 | 969.75 | 230 | 800 | 1400 | 0 | 0 | 223,042.5 | 0.35 | 11,902.7 | 0.02 |
| '735' | 201 | 0 | 0.2 | 0.0 | 0.0 | 10.5 | 201 | 230 | 800 | 1400 | 0 | 0 | 46,230.0 | 0.07 | 149.7 | 0.00 |
| '7609' | 815 | 0 | 0.1 | 0.0 | 0.4 | 12.9 | 815 | 230 | 800 | 1400 | 0 | 0 | 187,450.0 | 0.29 | 84.1 | 0.00 |
| '791' | 180 | 37 | 0.5 | 0.0 | 0.0 | 0.0 | 207.75 | 230 | 800 | 1400 | 0 | 0 | 47,782.5 | 0.07 | 469.0 | 0.00 |
| '869' | 395 | 0 | 7.9 | 0.0 | 72.3 | 0.0 | 395 | 230 | 800 | 1400 | 0 | 0 | 90,850.0 | 0.14 | 6,338.3 | 0.01 |

Metro Inter-Agency Formula
Sewage Flows FY 2003
Chula Vista [page 1 of 2]

| Formula: | + | + | + | + | + | + | + | + | - | + |
|---|---|---|---|---|---|---|---|---|---|---|
| | Holliister & Main | "J" St | "G" ST | Otay Rio | Lagoon Drive | Bay Blvd North | Bay Blvd South | Gunpowder Point | Acacia Ave (SV TO CV) | Combined Housecounts |
| EDU > > > | Meter (CV1) | Meter (CV2) | Meter (CV3) | Meter (CV4) | 0.011 mgd | 108.00 | 16.00 | 51.00 | 4.00 | 935.27 |
| July | 139.612 | 211.421 | 74.547 | 0.858 | 0.341 | 0.864 | 0.129 | 0.411 | 0.029 | 6.827 |
| August | 141.690 | 214.775 | 75.222 | 0.872 | 0.341 | 0.864 | 0.129 | 0.411 | 0.029 | 6.827 |
| September | 136.257 | 194.439 | 69.924 | 0.879 | 0.330 | 0.864 | 0.129 | 0.411 | 0.029 | 6.827 |
| October | 139.719 | 200.917 | 70.683 | 0.782 | 0.341 | 0.864 | 0.129 | 0.411 | 0.029 | 6.827 |
| November | 136.023 | 195.098 | 67.250 | 0.055 | 0.330 | 0.864 | 0.129 | 0.411 | 0.029 | 6.827 |
| December | 123.176 | 185.147 | 71.008 | 0.028 | 0.341 | 0.864 | 0.129 | 0.411 | 0.029 | 6.827 |
| January | 147.611 | 189.083 | 70.333 | 0.010 | 0.341 | 0.864 | 0.129 | 0.411 | 0.029 | 6.827 |
| February | 140.498 | 171.626 | 63.112 | 0.030 | 0.308 | 0.864 | 0.129 | 0.411 | 0.029 | 6.827 |
| March | 157.467 | 188.897 | 69.554 | 0.022 | 0.341 | 0.864 | 0.129 | 0.411 | 0.029 | 6.827 |
| April | 150.260 | 180.671 | 65.591 | 0.109 | 0.330 | 0.864 | 0.129 | 0.411 | 0.029 | 6.827 |
| May | 157.880 | 188.177 | 67.588 | 0.146 | 0.341 | 0.864 | 0.129 | 0.411 | 0.029 | 6.827 |
| June | 151.364 | 183.600 | 67.557 | 0.474 | 0.330 | 0.864 | 0.129 | 0.411 | 0.029 | 6.827 |
| Total (VG) | 1715.757 | 2303.851 | 831.367 | 4.068 | 4.015 | 10.253 | 1.548 | 4.933 | 0.350 | 81.930 |
| mgd | 4.701 | 6.312 | 2.278 | 0.011 | 0.011 | 0.028 | 0.004 | 0.014 | 0.001 | 0.224 |

Housecount & Acres
= 0.281 mgd

Metro Inter-Agency Formula
Sewage Flows FY 2003
Chula Vista [page 2 of 2]

| + | + | + | + | + | + | + | + | = | = | |
|---|---|---|---|---|---|---|---|---|---|---|
| E. Flower Street Meter (CV5) | Plaza Bonita-1 Meter (CV6) | Plaza Bonita-2 Meter (CV7) | Las Flores Dr Meter (CV8) | N. Fifth Ave Meter (CV9) | Acacia Ave Meter (CV10) | Otay Lakes Rd Meter (CV11) | Proctor Valley Meter (CV12) | Subtotal Chula Vista To Spr. Val. | TOTAL MG | TOTAL MGD |
| 2.152 | 3.981 | 36.162 | 2.875 | 11.280 | 18.425 | 9.461 | 3.995 | 95.129 | 517.501 | 16.694 |
| 2.196 | 3.792 | 35.150 | 3.001 | 11.389 | 17.754 | 9.620 | 4.299 | 93.999 | 528.294 | 17.042 |
| 2.115 | 3.939 | 32.963 | 2.683 | 10.826 | 16.503 | 9.779 | 4.145 | 89.642 | 492.666 | 15.922 |
| 2.139 | 4.289 | 35.895 | 2.499 | 11.156 | 14.261 | 10.088 | 4.039 | 91.164 | 505.001 | 16.290 |
| 2.045 | 3.650 | 35.400 | 2.382 | 10.866 | 15.149 | 9.998 | 4.459 | 90.769 | 490.920 | 15.364 |
| 2.154 | 3.552 | 36.336 | 2.466 | 10.891 | 15.882 | 10.325 | 4.653 | 93.057 | 474.152 | 15.295 |
| 2.128 | 3.528 | 34.891 | 2.580 | 10.931 | 15.588 | 10.526 | 4.827 | 91.797 | 500.570 | 16.147 |
| 1.939 | 3.149 | 31.240 | 2.253 | 9.999 | 15.198 | 9.969 | 4.695 | 85.238 | 462.107 | 15.504 |
| 2.213 | 3.409 | 33.842 | 2.497 | 11.092 | 16.439 | 8.849 | 5.162 | 90.301 | 507.077 | 16.357 |
| 2.015 | 3.173 | 32.358 | 2.320 | 10.498 | 16.795 | 7.373 | 7.648 | 88.978 | 487.334 | 15.244 |
| 2.031 | 3.468 | 34.684 | 2.434 | 10.609 | 16.754 | 7.637 | 6.857 | 91.272 | 506.797 | 16.348 |
| 2.088 | 3.081 | 34.138 | 2.361 | 10.368 | 16.007 | 7.244 | 6.984 | 89.049 | 493.769 | 15.459 |
| 25.215 | 43.011 | 413.059 | 30.251 | 129.927 | 194.753 | 110.860 | 61.743 | 1000.398 | 5966.185 | 16.346 |
| 0.069 | 0.118 | 1.132 | 0.083 | 0.356 | 0.534 | 0.304 | 0.169 | 2.987 | 16.346 | OK |

Contract Capacity (mgd): 19.843 Capacity Usage: 82.4%

## EAST TELEGRAPH CANYON SEWER BASIN
## BUILDOUT FLOW PROJECTIONS

### Basis

- Land Use Projections - MP XP-SWMM Model (Flow Template Ult+10.xls) from City Parcel Database
- Unit Generation Rates - From Calibrated Telegraph Cyn XP-SWMM Model (Flow Template Ult+10.xls)

| | |
|---|---|
| Residential EDU = | 150 gpd |
| Commercial Ac = | 1,415 gpd |
| Park Ac = | 0 gpd |
| Elem School Site = | 5,094 gpd |
| High School Site = | 22,641 gpd |

- EDU Conversions

| | |
|---|---|
| SF Residential = | 1.00 |
| MF Residential = | 0.75 |
| Comm/Indust/Instit = | 9.43 |
| Park = | 0.00 |
| Elementary School Site = | 33.96 |
| High School Site = | 150.94 |

### Flow Projections

| | |
|---|---|
| Flow = | **2.462 mgd** |

## SALT CREEK SEWER BASIN
## BUILDOUT FLOW PROJECTIONS

**Basis**

- Land Use Projections - Master Plan XP-SWMM Model (Salt Flow .xls) from City TAZ data
- Unit Generation Rates - From Calibrated Poggi Canyon XP-SWMM Model (Ult Flow East Only Rev.xls)

| | |
|---|---|
| Residential EDU = | 215 gpd |
| Non-Residential Ac = | 1,500 gpd |
| Park Ac = | 500 gpd |

- EDU Conversions

| | |
|---|---|
| SF Residential = | 1.00 |
| MF Residential = | 0.75 |
| Comm/Indust/Instit = | 6.98 |
| Park = | 2.33 |

**Flow Projections**

| | |
|---|---|
| From City = | **5.107 mgd** |
| From County = | 0.857 mgd |
| Total = | 5.964 mgd |

## BAYFRONT PARCELS NOT INCLUDED IN MASTER PLAN MODELS
## BUILDOUT FLOW PROJECTIONS

**Basis**

- Land Use Projections - City Parcel Data Base
- Unit Generation Rates - From Calibrated Poggi Canyon XP-SWMM Model (Ult Flow East Only Rev.xls)

| | |
|---|---|
| Residential EDU = | 215 gpd |
| Non-Residential Ac = | 1,500 gpd |
| Park Ac = | 500 gpd |

- EDU Conversions

| | |
|---|---|
| SF Residential = | 1.00 |
| MF Residential = | 0.75 |
| Comm/Indust/Instit = | 6.98 |
| Park = | 2.33 |

| **Land Use Summary** | | **Flow Projections** |
|---|---|---|
| Commercial Ac = | 107.930 (excludes USF&W Pacels) | 161,895 |
| Industrial Ac = | 40.770 | 61,155 |
| Vacant = | 55.810 (excludes USF&W Pacels) | 83,715 |
| SF Residential DUs = | 32.000 | 6,880 |
| | | **0.314 mgd** |