Table S1 The water budget of Pingtung Plain in 1999.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | ***Aquifer 1*** | | | ***Aquifer 2*** | | | ***Aquifer 3-1*** | |
|  | ***Flow in*** | | ***Flow out*** | ***Flow in*** | | ***Flow out*** | ***Flow in*** | | ***Flow out*** |
| ***Sources/Sinks(m3/day)***  STORAGE | 3,987,571.26 | | -33,969.48 | 30,058.92 | | -148.02 | 33,888.42 | | -0.45 |
| CONSTANT HEAD | 118,524.15 | | -8,794 | 361,489.81 | | -4,424.23 | 352,342.06 | | -38.60 |
| WELLS | 569,279.16 | | -3,014,694.19 | 24,643.41 | | -1,280,297.81 | 34,720.31 | | -1,183,564.56 |
| Total Source/Sink | 4,675,374.57 | | -3,057,457.68 | 416,192.14 | | -1,284,870.06 | 420,950.79 | | -1,183,603.60 |
| ***Zone Flow(m3/day)***  FLOW RIGHT FACE | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| FLOW FRONT FACE | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| FLOW LOWER FACE | 174,863.77 | | -1,792,774.20 | 133,546.35 | | -888,669.99 | 0 | | 0 |
| FLOW LEFT FACE | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| FLOW UPPER FACE | 0 | | 0 | 1,795,044.10 | | -171,243.61 | 889,090.70 | | -126,438.18 |
| FLOW BACK FACE | 0 | | 0 | 0 | | 0 | 0 | | 0 |
| Total Zone Flow | 174,863.77 | | -1,792,774.20 | 1,928,590.45 | | -1,059,913.60 | 889,090.70 | | -126,438.18 |
| ***TOTAL FLOW*** | 4,850,238.34 | | -4,850,231.88 | 2,344,782.59 | | -2,344,783.66 | 1,310,041.49 | | -1,310,041.78 |



Figure S1 The sensitivity analysis of dispersivity: (a) aquifer F1, (b) aquifer F2, (c) aquifer F3-1



Figure S2 The associated zones of dispersivities: (a) aquifer F1, (b) aquifer F2, (c) aquifer F3-1 (the zones indicated with “\*” are the high sensitive zones)