A Big Earth Data Platform for Three Poles

**Data set of simulation results of key hydrological variables in Zhangye basin of Heihe River Basin (1990-2012)**

1、Description

This project is based on the gsflow model of USGS to simulate the surface groundwater coupling in Zhangye basin in the middle reaches of Heihe River. The space-time range and accuracy of the simulation are as follows:
Simulation period: 1990-2012;
Simulation step: day by day;
The spatial scope of simulation: Zhangye basin;
The spatial accuracy of simulation: the underground part is 1km × 1km grid (5 layers, the total number of grids in each layer is 150 × 172 = 25800, among which the active grid 9106); the surface part is based on the hydrological response unit (HRU) (588 in total, each HRU covers an area of several square kilometers to dozens of square kilometers).
The data include: surface infiltration, actual evapotranspiration, average soil moisture content, surface groundwater exchange, shallow groundwater level, simulated daily flow of Zhengyi gorge, simulated monthly flow of Zhengyi gorge, groundwater extraction and river diversion

2、Keywords

Theme：Underground water level,Soil,Evapotranspiration,Soil water content,Ground Water,Infiltration,Hydrology
Discipline：Terrestrial Surface
Places：Heihe River Basin,
Time：1990-2012

3、Data details

1.Scale：1000000

2.Projection：32647

3.Filesize：149.0MB

4.Data format：EXCEL

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：39.81 | - |
| west：98.942 | - | east：100.919 |
| - | south：38.446 | - |

5、Time frame:1990-07-27 03:40:00+00:00--2013-07-11 16:40:00+00:00

6、Reference method

References to data:

ZHENG Yi. Data set of simulation results of key hydrological variables in Zhangye basin of Heihe River Basin (1990-2012). A Big Earth Data Platform for Three Poles, doi:10.3972/heihe.070.2014.db2015

References to articles:

Wu, B., Zheng, Y.\*, Tian, Y., Wu, X., Yao, Y., Han, F., Liu, J., Zheng, C. (2014). Systematic assessment of the uncertainty in integrated surface water-groundwater modeling based on the probabilistic collocation method, Water Resources Research., 50, 5848–5865, doi:10.1002/2014WR015366.

7、Supporting project information

8、Data resource provider

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