

Recently Proposed Elimination of Funding for the USGS MODFLOW Development Program

BACKGROUND:

1. MODFLOW is a major achievement of the Department of Interior-USGS-Water Resource Division's software development work. Hydrologists and engineers in the US and around the world depend daily on the MODFLOW software package for simulating the flow of groundwater in the subsurface.
2. Important economic and regulatory decisions are often based on MODFLOW simulations.
3. MODFLOW and predecessor software together represent over 40 years of dedicated coding, maintenance and support work by widely-respected USGS scientists.
4. MODFLOW is relied upon internally as a standard tool for the everyday conduct of many USGS hydrologic studies.
5. MODFLOW has been carefully documented and released freely for anyone in the world to use and the response for decades now has been tremendous.
6. MODFLOW is foundational in the ranks of hydrologic computing in that both private and public interests trust its coding and solution methods.
7. The broad and intensive testing of the freely-available MODFLOW code through its routine use outside of the USGS for decades provides a powerful foundation for identifying and fixing unintended errors in the code that a private effort would be challenged to match.
8. The MODFLOW Program is currently active and has recently released Version 6, with many innovative advances that will be valuable for the profession and restructuring that will enhance its usefulness in the future.
9. In May 2017, 240 groundwater modelers from around the world gathered in Golden Colorado for the MODFLOW and More conference. No other software in the hydrologic sciences has this level of attention.

REASON FOR THIS COMMUNICATION:

In the Spring of 2017, The Executive branch of the US federal government recommended that the MODFLOW development and maintenance program (7 full-time equivalents, ~\$1,000,000 per year) be eliminated from the Department of Interior-USGS budget.

AN UNCERTAIN FUTURE FOR MODFLOW WILL HAVE NEGATIVE IMPACTS:

Elimination of funding for this program dedicated to developing and maintaining MODFLOW will have substantial, long-term negative impacts on the ability of hydrologic professionals in the US to do the work needed to assess water resources.

WHAT CAN WE DO?

The program has not yet been eliminated, so at this point all that can be done is to make sure legislators know that MODFLOW is not just any software program and has great value to both the public and private sectors. A time-honored approach to supporting specific government programs when they are considered for elimination is for taxpayers to contact each of their representatives and senators. Those of us who have and continue to benefit from MODFLOW can express support for the MODFLOW development and maintenance program at the USGS. It is likely that legislators will agree to have it restored in the budget if they know that taxpayers care about this item in the budget.