

UPPER KINGS BASIN WATER FORUM

Resolution 2008-01

Concerning Development, Maintenance and Management of the Kings Basin Integrated Groundwater and Surface water Model (IGSM) and Management of the Associated Data

Recitals

Whereas, Kings Basin Advisory Panel (BAP) was formed in 2001 for regional cooperation to address the overdraft problem in the Kings Groundwater Basin and develop implementable solutions;

Whereas, the BAP was composed of Kings River Conservation District (KRCD), Alta Irrigation District, Consolidated Irrigation District, and Fresno Irrigation District, sought technical, facilitation, and financial support from the California Department of Water Resources (DWR), and signed a Memorandum of Understanding (MOU) that defined how they would work together to manage existing supplies and develop new supplies for the Kings Region, and;

Whereas, the BAP made significant progress by working together to define the water resources problems but realized that the involvement of other stakeholders in the basin would be necessary if regional solutions were to be developed. As a result of these early efforts, the BAP solicited wider stakeholder participation and the Upper Kings Basin Water Forum (UKBWF) was formed in 2004 to coordinate water resources planning in the upper portion of the Kings Groundwater Basin, and;

Whereas, the UKBWF, a broad coalition of regional agricultural, municipal, and community interests, embarked on developing an Integrated Regional Water Management Plan (IRWMP) for the Upper Kings Basin. As a result of the activities of the UKBWF with the assistance of DWR, the Integrated Groundwater and Surface water Model was developed for the entire Kings Groundwater Basin (Kings IGSM or Model) and the IRWMP was developed, and;

Whereas, in 2008 the UKBWF was successful in acquiring grant funds under Proposition 50 funding through DWR/State Water Resources Control Board for 2 groundwater management projects for UKBWF participants and is preparing to apply for grant funds under Proposition 84 funding for additional projects, and;

Whereas, it has come to the attention of the UKBWF that a policy and guidelines need to be developed concerning the use of the Model and its associated data, and;

Whereas, such Model should reside at a single location under an established protocol for custody to ensure accuracy and consistency as developed by all UKBWF participants, and;

Whereas, the Model should also be protected from misuse and unreasonable manipulations based on unreasonable assumptions that could lead to misinformation,

NOW THEREFORE BE IT RESOLVED:

1. The application and use of the Kings Basin Integrated Groundwater and Surface water Model (Kings IGSM or Model) and the availability of associated data and future use and development of the Model will be guided by Exhibit A,
2. UKBWF assigns sole responsibility for custody, operation, and maintenance of the Model and its related code and data sets to KRCD as Gatekeeper,
3. UKBWF participants, including KRCD, will have access to Model operation by submitting requests to KRCD , but will not have direct access to model code or data sets,
4. Requests for operation of the Model by entities other than UKBWF participants must be sponsored by a UKBWF participant and submitted to KRCD,
5. The requesting participant will be responsible for the costs associated with performing the work and analysis. The results of the modeling scenario analysis will be the property of the requesting participant.

Roseann Galvan (City of Selma) made the motion to adopt the Resolution. Motion was seconded by Hank Urbach (Kings River Conservancy).

PASSED AND ADOPTED by the Upper Kings Basin Water Forum this 2nd day of October, 2008.

APPROVED:



David Orth
General Manager
Kings River Conservation District

EXHIBIT A

Guidelines on use of the Kings Integrated Groundwater and Surface water Model (Kings IGSM) and its supporting data

Purpose and Background

The purpose of this document is to provide a process for use of the Kings Integrated Groundwater and Surface water Model (the Kings IGSM or the Model) for analysis of water management strategies by the Upper Kings Basin Water Forum (UKBWF) participants, and/or use of the Kings IGSM data.

The Kings IGSM is an integrated hydrologic computer model that simulates the over land conditions, such as the land use, cropping pattern, agricultural water use, crop irrigation, rainfall, runoff, deep percolation; groundwater conditions, such as the pumping and recharge; as well as the stream flow conditions in the Kings Groundwater Basin. The Model has been developed in a cooperative process between the UKBWF participants, the City of Fresno, and Department of Water Resources. Kings River Conservation District (KRCD) was the lead agency on behalf of the UKBWF that managed the development of the Model. The previous Technical and Data (TAD) Workgroup oversaw the collection and compilation of the data, model development process, calibration, and initial applications. The Model was developed by WRIME (WRIME, 2006). During the course of development of the Model, the data collected for the Kings Groundwater Basin was compiled and received by KRCD and WRIME with an understanding and agreement that the agencies' data will remain confidential and will not be used outside of the Model and will not be published in its raw or electronic format. The UKBWF participants shall maintain the rights and control of the use and accessibility of the data within the jurisdiction of each entity, including and beyond the use of the Model. The Kings IGSM stores the data from all agencies and entities in a relational database that includes the data on hydrologic, hydrogeologic, land use, water use conditions, and river and reservoir operations in the basin.

Requests for Model Data

KRCD is the custodial organization (Gatekeeper) that will be responsible for maintenance, upkeep, and upgrades to the Model. KRCD has selected WRIME, Inc., the original developer of the Model, as the contractor in fulfilling this responsibility.

Requests for Model data shall be made according to the following policy guidelines:

1. All data request(s) should be submitted for consideration to KRCD in writing, including a purpose statement for use of data.
2. All Model data are treated as confidential. Therefore, KRCD will coordinate and obtain necessary authorizations from the source agency which provided the data.
3. UKBWF participants shall have access to their own data that was used in the development and operation of the Model and have the right to deny release of the raw data to others.
4. KRCD shall direct WRIME, Inc. to work through KRCD or directly with the requesting agency to prepare and provide the data.

5. The requesting agency shall be responsible for the cost to furnish the data.

Use and Application of the Model for Analysis of Water Management Scenarios

Requests for additional modeling analysis shall be made in writing to KRCD, according to the following policy guidelines:

1. Any UKBWF participant can make requests to perform analysis using the Model. The type of analysis, along with assumptions and input data shall be coordinated with KRCD.
2. The requesting agency will be responsible for the costs associated with performing the analysis.
3. If the analysis is of confidential nature, KRCD will direct WRIME, Inc. to work directly with the requesting agency in a confidential framework.
4. The results of the modeling scenario analysis will be property of the agency that paid for the analysis, and the agency can choose how/when/if it wants to release the results.
5. The modeling analysis will be made utilizing the supporting data from the entire Kings Basin area. All assumptions that are changed will be identified.
6. The UKBWF Technical and Data Committee will review all draft results from the use of the Model. Before they are released to the public or published, they must be approved by the Committee in order to: 1) assure quality Model interpretations, 2) determine if there are anomalies or inconsistencies in Model output, 3) determine if the assumptions are disclosed, 4) determine if the claims are accurate, and 5) assure that the impacts to other UKBWF members are considered. In addition, all impacted UKBWF members will be invited to participate in the Committee's review.
7. Any discussion of Model results among Committee members or other UKBWF participants does not constitute authorization to release results. All discussions concerning modeling results are to be kept internal.
8. Future Model Development and Use:
 - A. Future Model development for member use may include user interface and processing tools to decrease cost and increase individual member use.
 - B. These developments will raise additional security, Model accessibility, and information release issues.
 - C. These issues will require future consideration and resolution.

Comments, disputes or grievances may be made in writing to KRCD. Any comments received regarding the use and availability of the data will be reviewed by KRCD. If there is a reason to believe that data is not provided by KRCD because it was considered to be of a sensitive nature then agency should obtain data directly from the source.