

# Decision Support System for the Syr Darya River Basin

U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT

## PROJECT SUMMARY

The Syr Darya River's water resources are over-extended throughout the Central Asian region, and water allocation systems among the four riparian countries needed modernization and a more robust information management system. Riverside Technology, inc. developed a decision support system for the Syr Darya River basin that greatly assists in water allocation and planning throughout the region.

LOCATION  
Kyrgyzstan, Tajikistan,  
Uzbekistan, Kazakhstan

Period  
2001 – 2003

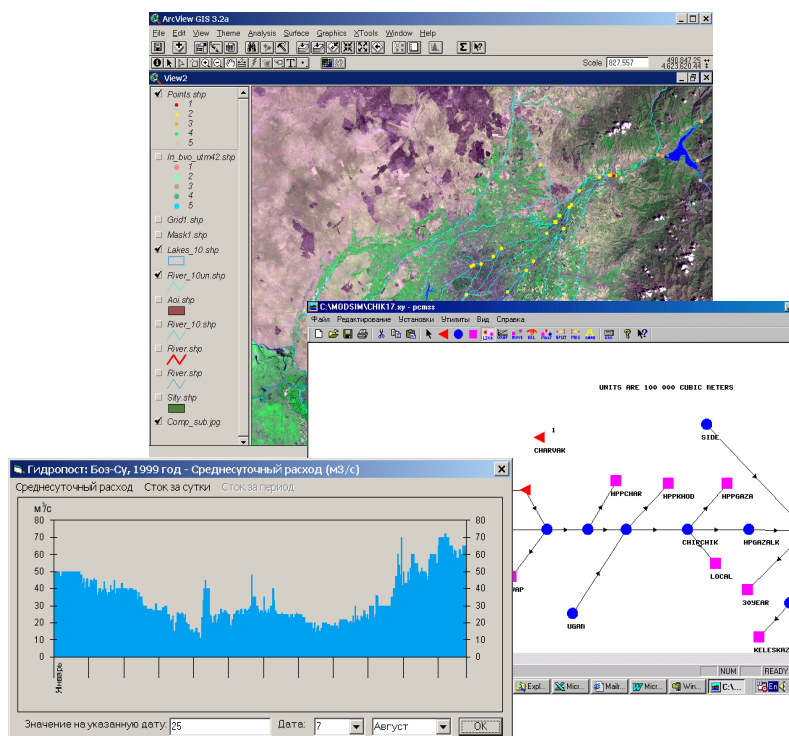
## PROJECT DETAILS

Since the break-up of the Soviet Union, deterioration of water regulating structures, migration of trained personnel, and reduced capacity for information management has damaged the effectiveness of the water control and allocation systems for the Aral Sea basin. Central Asia's Syr Darya River basin and the four riparian countries (Kyrgyzstan, Tajikistan, Uzbekistan, Kazakhstan) face a multitude of water policy, management, and technical challenges related to the sharing of the river's water resources.

PA Consulting Group asked Riverside Technology, inc. (Riverside) to design a decision support system (DSS) to improve the capacity for planning, controlling, and allocating water resources in the Syr Darya River basin.

The DSS directly addresses the lack of reliable and verifiable water data and the disagreements among the riparian countries regarding water distribution efficiencies and on-farm water requirements. The DSS improved flow measurement and control, and contains information for the countries reducing the potential for water allocation conflicts.

The DSS was developed by Riverside hydrologists and DSS specialists with a team of local specialists. The fundamental design for the DSS includes an attribute database encompassing the entire Syr Darya River basin that interfaces with a water resource allocation model. There is also an interface to a geographical information system (GIS) component for presentation of model results.



## RELATED PROJECTS

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### CORPORATE

2950 E. Harmony Rd.

Suite 390

Fort Collins, CO 80528

(970) 484-7573

### D.C. AREA OFFICE

1010 Wayne Ave.

Suite 500

Silver Spring, MD 20910

(240) 638-3345

www.riverside.com