

## Leaving Lviv, bidding farewell to long-time colleague

After eight years, CH2M HILL's work in Lviv, Ukraine, came to a close, and a 32-year veteran of the firm retired.

At 67, Kris Buros, who has spent the lion's share of his career working in far-flung locales worldwide, recently returned to Colorado after crowning his career with a unique post-Soviet Union water utilities and public participation program.

### USAID funds work in Ukraine

The firm's work in Ukraine was funded by the U.S. Agency for International Development through a series of contracts beginning in 1995. The thrust of the work was to help cities in the former communist state modernize water and wastewater infrastructure and educate the public on the importance of participating in local decision-making, a concept foreign to locals who, throughout the communist reign, were seldom asked their opinion on community planning and governance.

Since the Soviet Union began to crumble in the 1980s, water infrastructure was in serious disrepair. With few exceptions, that continues to be the case as Ukraine struggles with economic woes and its transformation to a free-market society.

### Aging water system provides challenges

Lviv, the Lion City, dates back to the 13th century and today has 850,000 residents. Its water-distribution system, built over the past 100 years, is fraught with problems. Leaky pipes, antiquated equipment and high energy use plague water systems in Lviv and other municipalities throughout the country. Currently, water in Lviv is available only six hours a day.

Buros brought to the project technical expertise and free-market experience. His office was staffed with about 25 Ukrainian professionals who have worked since 1999 with eight of the country's water and wastewater utilities, called vodokanals.

Training staff in strategic planning, management, capital investment and energy reduction were among the initiatives Buros and the Lviv staff provided to these utility systems. In 1995 and 1996, the office designed and built a modern pump station in Lviv and then worked with other vodokanals to help carry out demonstration projects which reduced energy usage and system water losses. These pilot projects were

then publicized to vodokanals throughout the country. In addition, the project office provided training to over 1,000 people in more than 60 cities.

### Children lead the way to water awareness

But with financial woes at the center of the problems, water conservation and public participation became a top priority. And where better to start than with school children, who take their new-found knowledge home to family members.

"Many schools in Ukraine have developed interest in after-school optional programs that deal with various community issues," said Christopher Crowley, USAID mission director. "A comprehensive and systematic water education program for 13- to 14-year-old students was described by a number of teachers as being very important."

Partnering with local teachers, Buros and his Ukrainian colleagues developed a thorough, 180-page eighth-grade teacher's guide for a course on water for future consumers.

"This guide promotes not only learning about various water issues but encourages students to take independent action such as practicing water conservation with their families and community, holding public forums and supporting improvements to the local vodokanal," Crowley said in the foreword to the teacher's guide.

Published in 2002, *Everything about Water for the Future Consumer* provides lessons ranging from water as a resource to water meters and consumer billing. The book, funded by USAID and prepared by CH2M HILL, is printed in Ukrainian and distributed throughout the country.

### Water for a song

Lyrics to the tune of a Ukrainian folk song were written that drives home the message of water conservation. The Drip-Drip Song, performed by Ukrainian children at public forums, closes with:

*To have clean and wholesome water always available to us  
We need to cherish it as the most precious treasure*



Kris Buros and his wife, Sheila, picnic in Ukraine.



Lviv team in the courtyard of the Lviv Vodokanal (Buros at right with U.S. flag)

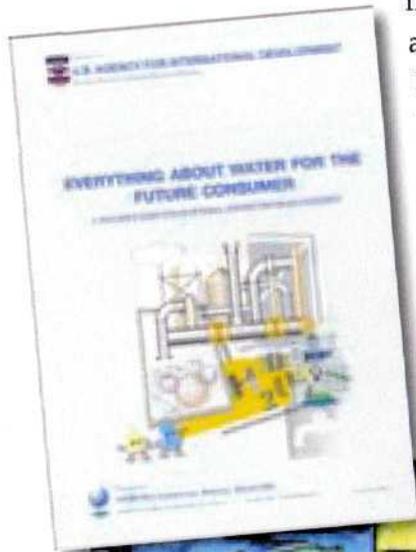
### Career spans years, continents

If the Lviv work were the only project Buros had been involved with, the water conservation song might make for a fitting swan song. But his work in Ukraine is a mere sampling of his long and impressive career. In 1971, after a stint in the U.S. Navy and a few years with a construction company, Buros joined Black, Crow & Eidsness, a Florida-based engineering company that CH2M HILL acquired six years later. Buros became the Water Resources Division manager in Gainesville, Fla., a post he held for 15 years.

Since then, he has worked in the Caribbean, Europe, Africa, the Middle East, Asia and several former Soviet states. He has traveled to more than 90 countries and has helped clients with projects ranging from desalination to funding applications through the World Bank, including a \$20 million loan for Lviv. Buros is an accomplished lecturer, has authored dozens of articles and technical papers and has held several leadership roles in professional organizations.

In Ukrainian, "we bid a fond farewell to a top-notch colleague":

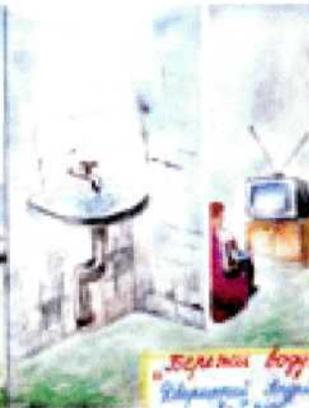
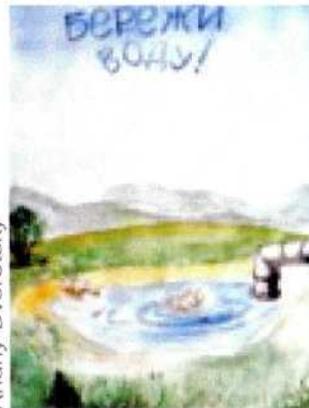
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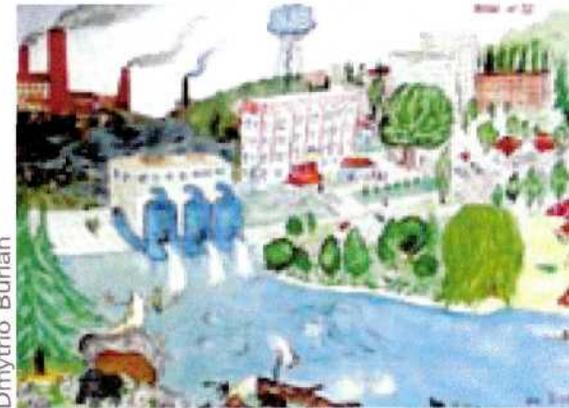
Ksenia Boyko



Andriy Dvoretzky



Dmytrio Burian



Artwork by 13- and 14-year-old Ukrainian children introduces each chapter of *Everything about Water for the Future Consumer*. The teaching aid, which CH2M HILL developed for USAID, provides lesson plans for eighth graders about such topics as water pollution, water conservation, and water uses.