SEDIMENTAL JOURNEY

James A. Bailard, P.E.

The Matilija Dam, in Ventura County, Calfornia, has been blocking the downstream rush of sediment to coastal beaches for half a century, but a plan to remove the dam would release enough sediment to curb beach erosion for the next 20 years, depending on the method chosen for sediment transport.

The Matilija Dam is located in California on the north fork of Matilija Creek, a major tributary of the Ventura River. Completed in 1946, the dam now impounds an estimated 5 million m^3 of sediment, of which 2.3 million m^3 is believed to be of beach quality. The accumulation of sediment behind the dam has decreased the rate of sediment supply to the coastline and has contributed to beach erosion in Ventura County. An area of particular concern is Surfers Point, just down the coast from the mouth of the Ventura. Beach erosion in this area has destroyed a public bikeway and portions of a public parking lot.

JON MOORE, NOBLE CONSULTANTS

EROSION ALONG *Surfers Point has wreaked havoc on a bike path and a parking facility near Seaside Park, in Ventura County, California. The Ventura River,* left side of image, *empties into the Pacific Ocean next to the Ventura County Fairgrounds and the park.*

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FROM COMPETITORS TO PARTNERS

David Elvin

Small firms are joining forces—and sharing information—to gain a competitive edge.

When Fred Cooper Consulting Engineers won a contract as the certifying engineer on a half-billion-dollar U.S. Army chemical stockpile disposal project in Umatilla, Oregon, the 13-member firm called on an unlikely quarter to beef up its licensed staff: they hired the competition.

One of the companies over which Cooper had prevailed, Dana Engineering, of Kennewick, Washington, proposed signing on as a subconsultant. Cooper agreed. "We teamed with Dana because of their strong expertise," says Carl Zietz, the senior vice president of Cooper, which is based in Portland, Oregon. Although the Umatilla project represented the first collaboration between the two firms, they have been working together ever since and formed a successful joint venture for a similar army project in Pine Bluff, Arkansas.

Embracing a competitor as a business partner may be somewhat disconcerting for small firms, at least initially. There is natural concern about what a fellow team member—who remains a potential competitor for future projects—might do with sensitive internal information. But in most cases firms report that collaboration arrangements offer a competitive edge that is well worth the risk of sharing resources.

"A lot of firms are willing to try new things to get work, including submitting a proposal with a competitor," says James Laurila, the senior project manager in the Greenfield, Massachusetts, office of Dufresne-Henry. Laurila says collaborating has enabled his 10-person office to compete head-to-head against much larger consulting firms for regional projects.

Cooperative arrangements for small firms typically take the form of subconsulting agreements or joint venture partnerships. "Teams tend to work more fluidly in the engineering world because P.E.'s have a certain ethic: You work in your profession first and in a company second," says Sue Dyer, the president of Orgmetrics, a Livermore, California, firm that specializes in dispute prevention and resolution. "There's a lot of research that shows engineers are not as tied to business as they are to an interesting project. Give them a good problem to solve, and they don't care whom they work for."

The key to a successful team is choosing fellow participants wisely. Dyer says compatible team members usually share common approaches to management but possess different technical capabilities. This creates a kind of vertical integration that expands the skill set of the team while helping to reduce concerns about sharing information. Dyer says, "You can be more open about internal resources in a vertical integration because you have come together to expand your markets." Vertical integration is particularly desirable on design/build projects, in which the team manages all of the activities that would otherwise be handled separately by a design professional and a construction firm under traditional design/bid/build contracting.

Successful teams clearly define the relationships between their participants, including management, task responsibilities, investments, and the distribution of revenue. Agreements for subcontracting and joint ventures concluded on the basis of standard forms (available at *[www.pubs.asce.org/contract.html]*) can help team members begin to address the wide range of concerns that they may encounter.

Teams are often formed on the basis of informal relationships and word of mouth. Thurl Amick, a founder of AOS, Inc., a survey firm specializing in Global Positioning System (GPS) services in Greer, South Carolina, says, "We rely on the longtime contacts that we've developed with other companies in the region. So when a project comes up, we know whom to get in touch with."

Increasing contacts with clients can be an important benefit of forming a team, according to Jerry Guerra, a principal with ZweigWhite, a design and construction management consulting firm in Natick, Massachusetts. "Being in a good team relationship can help you get your foot in the door with a client with whom you've previously been unable to establish a relationship," says Guerra. "If one of your team partners has a solid relationship with that client, it could be just the 'in' you need to establish your own relationship."

Another benefit of teamwork is the sharing of financial risks. Paul Hogan of Boston-based Hogan & Gordon LLP, which specializes in legal services for small design and construction companies, says partners should look for "errors

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