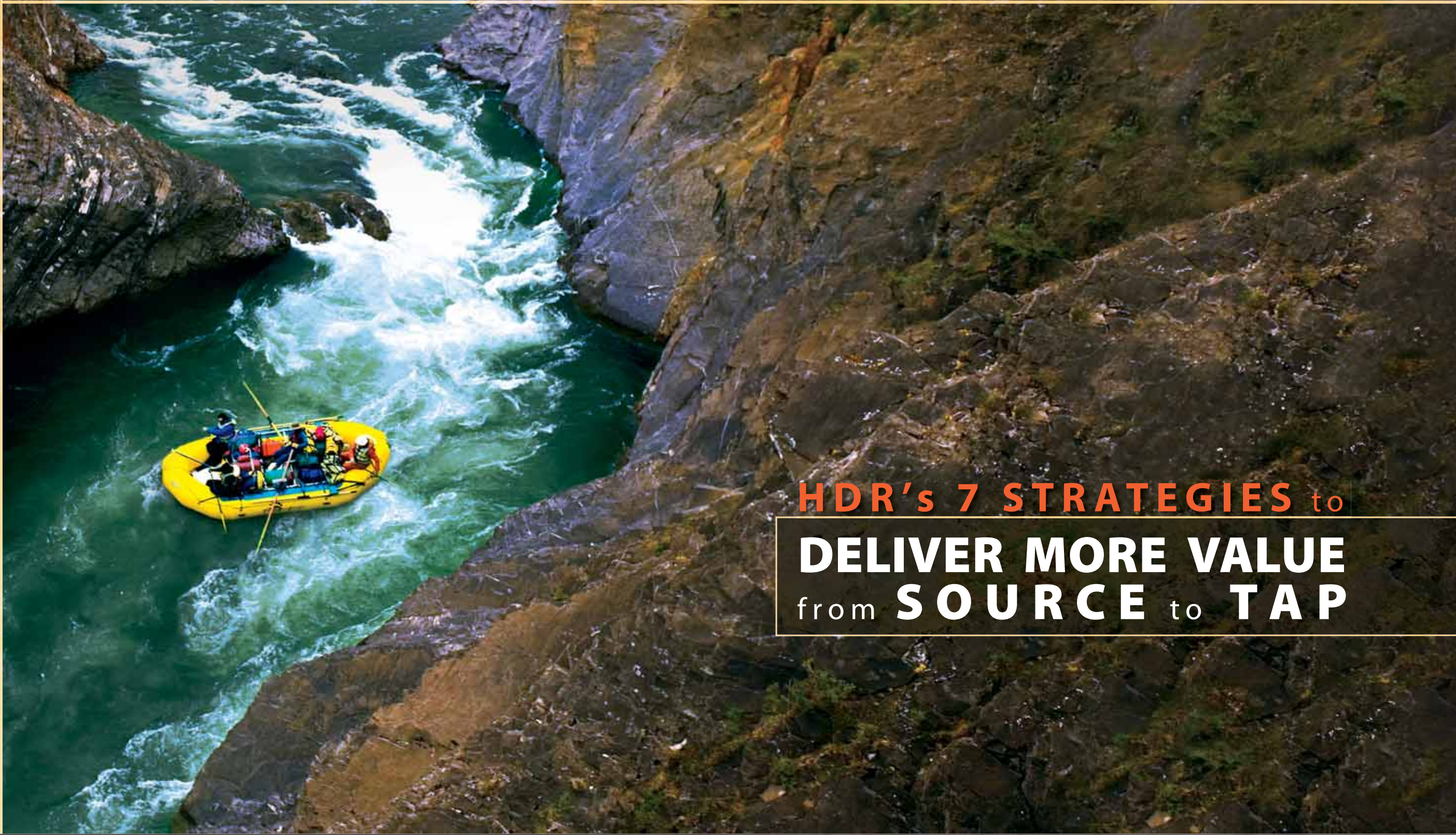


NAVIGATING CHALLENGING WATERS



HDR's 7 STRATEGIES to DELIVER MORE VALUE from SOURCE to TAP

The critical issues facing water providers have changed dramatically in recent years. Funding considerations, source water concerns, regulatory compliance, efficient operations, aging infrastructure and regional cooperation challenge water systems of all sizes. To see real progress toward solving these issues, new strategies are needed that deliver more value from source to tap.

HDR's nationally-respected drinking water experts developed seven key strategies to help navigate these challenging times. Applying these proven planning techniques and innovative design approaches can position your organization for a more reliable and financially secure future. For more information, contact us at water@hdrinc.com.

1

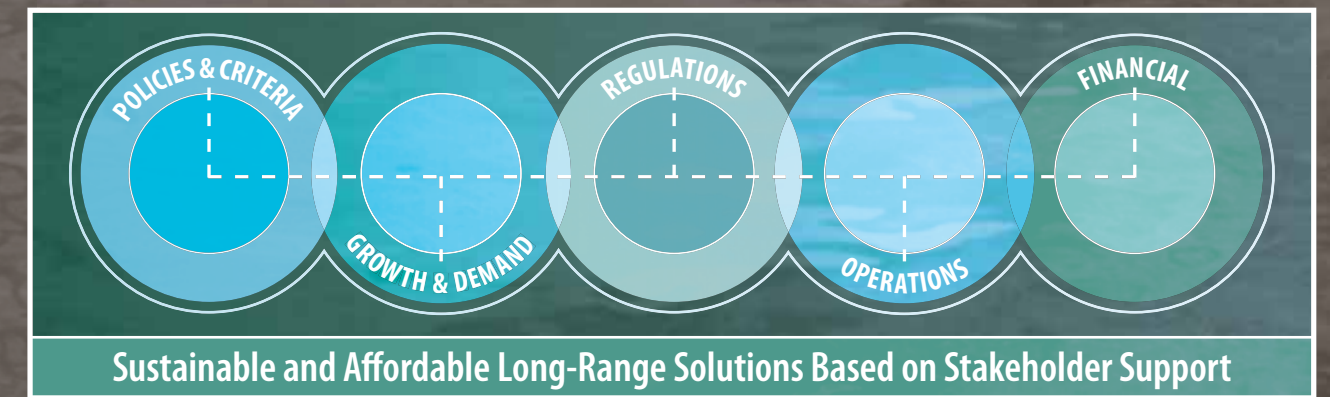
integrated WATER PLANNING

Establish a system-wide vision and goals to maximize value and minimize risk.

Integrated Water Planning

In today's environment, utilities must consider a wider array of alternatives to meet their needs. HDR focuses on maximizing opportunities throughout a water system, as well as building consensus within all utility departments, to meet system needs and future demands. Our approach will optimize operations while prioritizing strategies that return the most for your investment. Costs and risks are minimized to produce a responsible and credible management plan that stakeholders can support.

INTEGRATED WATER RESOURCES PLAN



2

proactive SUPPLY DEVELOPMENT

Protect water resources now to ensure reliable supply and promote public health.

Proactive Supply Development

Ensuring a reliable supply and developing new water sources challenges water providers of all sizes in every geographic region. Each situation is different and requires a custom approach backed by expertise and experience. HDR's approach focuses on the unique relationships, source water characteristics and desired goals to identify opportunities and implement solutions that meet the various political, government and community needs.



Lake Tapps - A new water supply for the Pacific Northwest

3

forward-looking REGULATORY COMPLIANCE

Plan for the future to cost-effectively meet conflicting requirements.

Forward-looking Regulatory Compliance

As the regulatory framework becomes more complex, meeting all the rules becomes a difficult balancing act. Technologies that resolve one water quality problem may interfere with other treatment techniques. HDR's approach looks to understand the impacts of upcoming regulations and the unintended consequences of making changes. Planning ahead facilitates finding the most cost-effective approach to regulatory compliance and identifying available funding sources.



A new UV (Crypto-killer) disinfection system treating Columbia River water

4

customized INFRASTRUCTURE MANAGEMENT

Apply capital planning and condition assessment tools to pinpoint and fund highest value projects.

Customized Infrastructure Management

With the help of HDR's Asset Management Tools program, our experts focus on delivering practical programs that control the cost of asset ownership while improving system reliability. Our customized strategies pay dividends across utilities' systems by focusing resources on the 'right' assets, defining sustainable and justifiable long-term asset renewal budgets and developing meaningful asset valuations that can reduce risk and ultimately lower bond rates.



5

21st century WATER TREATMENT

Think ahead and consider new technologies and tactics to deliver a sustainable facility.

21st Century Water Treatment

Emerging contaminants and more stringent rules in this economic environment leave utilities at a crossroads with complex treatment and plant operation decisions. HDR has a focused approach to developing customized facility plans, incorporating new technologies where necessary and collaborating with plant staff to design new or upgraded improvements that solve water quality issues and improve overall system performance.



Nanofiltration for DBP precursor removal

6

alternative DELIVERY METHODS

Employ new processes to enhance project delivery and maximize your investments.

Alternative Delivery Methods

Alternative delivery methods like design-build (D-B), construction management at risk (CMAR) and general contractor/construction manager (GC/CM) offer owners new approaches for controlling costs and schedules while protecting their investments. HDR's approach begins with one key strategy - establishing an integrated team that includes the owner, consultants, designers, contractors and vendors, and that supports open communication to quickly resolve project issues.



Integrated project delivery teams work together to control costs and schedules

7

system-wide OPTIMIZATION

Identify and execute improvements to increase efficiencies and lower operating costs.

System-wide Optimization

Utilities are faced with operating increasingly complex systems while reducing costs. HDR's system-wide optimization strategies incorporate a comprehensive array of targeted evaluations, providing the basis for best management practices that reduce waste, focus allocation of resources and increase operational flexibility to deliver long-term cost savings and improve overall system efficiency.

SYSTEM-WIDE OPTIMIZATION

