The Western Coalition of Arid States

W E S T C A S

Testimony
(Submitted for the Record)

Of

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On

The 35th Anniversary of the Clean Water Act: Successes and Future Challenges

Before

The
House of Representatives
Committee on Transportation and Infrastructure

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The Voice of Water Quality in the Arid West
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INTRODUCTION

Mr. Chairman, Members of the Committee, the Western Coalition of Arid States (WESTCAS) is submitting this testimony for the record for your hearing on the 35th Anniversary of the Clean Water Act: Successes and Future Challenges.

WESTCAS is a coalition of approximately 125 water and wastewater districts, cities, towns, and professional organizations that focuses on water quality and water quantity issues in the eight States of Arizona, California, Colorado, Idaho, Nevada, New Mexico, Oregon, and Texas. Our mission since 1992 has been to work with Federal, state, and regional water quality and quantity agencies to promote scientifically sound laws, regulations, funding, and policies that protect public health and the environment in the arid West.

I. The 1972 Clean Water Act and the Uniqueness of our Area

When the Federal Amendments to the Water Pollution Control Act of 1972 (P.L. 92-500) were enacted, the western states immediately recognized the potential for issues regarding the application of a "one-size fits all" approach to water pollution control. The ensuing promulgation of national guidance for water quality standards and criteria and development of national effluent guidelines and limitations quickly began to demonstrate differences between the western and eastern regions of the United States. The subset of western states that are located in the arid West began to recognize significant issues resulting from the new law. Issues arose, due to the unique hydrology of the arid West, and the fact that the law's protection of "navigable waters" and its goal to make waters "fishable and swimmable" just didn't readily apply to the bulk of the arid West's "waters", the majority of which were typically dry watercourses. In the arid West, there were few waters that were capable of supporting a fishery, and fewer waters that were "navigable" when compared to the rest of the Nation. Nevertheless, the arid West states assisted the implementation of the new law, largely by ascribing to a "thence tributary to" methodology that traced ephemeral watercourses through a myriad of "thence tributary to" routing to a watercourse that was perennial (and even possibly "navigable in fact").

During the late 1970's the State of New Mexico in particular, assisted in the assertion of U.S. Environmental Protection Agency (EPA) jurisdiction over discharges to ephemeral watercourses from uranium mines and mills in the Grants Mineral Belt of New Mexico. In a series of National Pollutant Discharge Elimination System (NPDES) permit adjudicatory hearings, expert witnesses from New Mexico supported the "tributary rule" and documented the application of the Commerce Clause, to gain a court finding for EPA jurisdiction over discharges to ephemeral watercourses that were ultimately tributary to "navigable waters". The western states aided in establishing EPA jurisdiction, despite the unique arid West climate and hydrology.

The Arid West has the following types of waters, which flow from a variety of sources.

- Ephemeral watercourses: flow only in response to precipitation events;
- Perennial watercourses: flow year around due to groundwater base flow, tributaries, springs, and mountain snow runoff in the Spring;
- Effluent-dependent watercourses: receive the majority of flow from wastewater treatment plant effluent discharges;
- Intermittent watercourses: flow is interrupted due to channel bed loss or hydrologic and geologic influences;
- Natural lakes and ponds: water can be perennial or ephemeral, e.g. playa lakes;
- Man-made reservoirs and water conveyance structures: developed for the purpose of water storage and/or flood control, with water releases managed for various uses;
- Groundwater: water contained in a saturated zone beneath the earth's surface; and
- Reuse water: Wastewater effluent that has been reclaimed as a result of treatment, and is subject to reuse for a variety of uses.

Much of the arid West region receives less than 20 inches of annual precipitation, with some areas receiving as few as 4 inches annually (e.g. Las Vegas, Nevada). The western states have a history of routinely experiencing severe and prolonged drought. The western states have experienced drought for the past 8 years, and the drought is continuing. Today, the lack of water in the arid West is impacting compliance with both federal and state regulatory requirements regarding water quality and quantity, with ramifications for population growth, agriculture, and the natural ecology of the waters of the West.

II. Our Challenges Since 1972

Since 1972, the states in the arid West region worked diligently with the EPA to implement P.L. 92-500 i.e. the Clean Water Act. Our WESTCAS members in the arid West that fall under the permit jurisdiction of the Act have spent hundreds of millions of dollars in compliance efforts, especially in the area of infrastructure upgrades, permit monitoring and reporting, and design and construction of new wastewater treatment facilities. However, the 35-year Clean Water Act process has been primarily one of addressing moving targets, with EPA continuing to promulgate new requirements and making existing requirements more stringent. By and large, our arid West members have stayed on the path toward full regulatory compliance, but have not been without issues, significant personnel expense, and infrastructure investment. Sometimes despite the efforts, water quality compliance efforts were not successful.

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Since 1982, the end of the first decade of the Clean Water Act, federal infrastructure funding assistance has steadily diminished. As a result, a greater financial burden has fallen on the entities responsible for wastewater collection and treatment. In this regard, the following factors should be noted regarding the arid West:

- The rapid population growth in the arid West is challenging local governments, including county, municipal, tribal, and special districts, to provide quality utility services for water and wastewater due to the growing number of existing and new customers, their increasing water demands, and the volumes of wastewater requiring treatment;
- Existing utility infrastructure is typically: aged, and in need of upgrade or replacement, over-loaded, undersized, and constructed of materials that have not proven to have the life expectancy anticipated at the time of original installation or construction;
- Homeland security concerns have increased the costs associated with utility system surveillance, security protection, and response/mitigation planning for acts of terrorism and sabotage;
- The population growth in the Arid West has a significant demographic proportion of retired and aged citizens who are typically on a fixed and/or limited income, and who cannot afford the escalating utility costs that water and wastewater utilities must attempt to distribute to the local customer base;
- Funding mechanisms for water and wastewater infrastructure are constrained to a handful, and although local utilities understand that customers in the utility service area should bear the burden of full cost pricing, increased utility rates alone cannot generate the capital required to maintain, replace, or construct needed infrastructure;
- To-date, annual appropriations for the EPA state revolving loan funds for both drinking water and wastewater infrastructure have been inadequate to meet the growing national infrastructure demands; and
- Federal funding has been steadily decreasing, especially over the past 3 years, and the needs of water and wastewater utilities have outgrown the funding levels of the Clean Water State Revolving Loan Funds.

In addition to infrastructure challenges, WESTCAS members in the arid West recognize: that despite the tremendous expenditures on wastewater treatment for municipal and industrial effluent sources, such point source discharges to "waters of the U.S." typically only account for 10 to 15 percent of the water quality violations that are reported for a states' receiving waters. The majority of water quality standards violations in the arid West are due to non-point source contributions, which are not subject to regulation, but rather are only addressed with voluntary "best management practices". Although recent EPA watershed initiatives may eventually address this problem, currently the entities

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responsible for point source discharges are paying the majority of the cost of water pollution control, while the majority of the non-point source water pollution problems remain non-regulated while contributing to the financial burdens.

During the first two decades of the Clean Water Act, the required State biennial reports on the status of water quality (Section 305 b. reports) appeared to document that the Clean Water Act was indeed a success. At the very least, the majority of our western waters were not diminishing in quality, despite the constant increase in population growth and increase in effluents discharged. However, over time the affects of: population growth, infrastructure needs, diminishing dilution water in the receiving waters due to diversions and drought, and the evolving stringency of permit requirements, have led to an apparent increase in water quality issues, as easily seen in the bi-annual listing of impaired waters (i.e. Section 303. d. list) that requires development of total maximum daily loads (TMDLs). According to EPA in their national report to Congress for the 2002 reporting cycle, 45% of assessed rivers and streams, 47% of lakes, ponds and reservoirs, and 32% of bays and estuaries were reported as impaired.

The 303.d list does not distinguish violations of water quality standards resulting from non-point sources, such as physical parameters like temperature or turbidity from violations from point sources, such as toxic pollutants. All of the violations are reported to demonstrate water quality impairment, regardless of the significance of their source or true impact. The resulting 303.d list is a compilation of statistical information that does not "qualify" the water quality impairments. The statistical water quality picture, in many instances, has been painted to represent a negative situation, when in fact the problems may not be that severe. Especially in the arid West where sediment and turbidity are a natural hydrologic phenomenon, and lower, drought-impacted surface water flows may result in shallow water depths and temperature violations. The listing and TMDL processes do not sufficiently take into account the unique hydrologic characteristics of the arid West, nor the anthropogenic influences of water diversions, water conveyances, and other hydrologic modifications such as dams, flood control structures, and water storage reservoirs.

Storm water is another water quality issue that has implications for the arid West. Pollutants from storm water need to be addressed with application of Best Management Practices implemented through an enforceable permitting program. However, storm water discharges to "waters of the U.S." which are normally dry streams, i.e. ephemeral watercourses, may pose substantially different environmental risks than do the same discharges to perennial surface waters. States must have the ability to manage storm water pollution using a tailored approach that reflects the different risk posed by discharges to ephemeral watercourses. Over-regulation should be avoided when considering discharges to ephemeral watercourses in the Arid West.

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EPA has begun to work cooperatively with the states to develop and implement a TMDL program that provides flexibility to: accommodate state and local conditions, addresses funding needs in a realistic manner, recognizes a watershed approach to establishing TMDLs, and encourages incentive-based approaches, such as pollution trading programs and voluntary compliance before applicable mandatory measures are taken. The states, tribal governments, and EPA face unique coordination challenges regarding water quality issues as they relate to cross-jurisdictional flow regimes between state and tribal lands. Although the Western state Governors endorse government-to-government communications, EPA (as well as the states) needs to promote effective consultation, coordination, and communication. EPA's efforts in these areas should be given a higher priority to address the needs of the arid West.

However, in the implementation of the Clean Water Act provisions, the states should retain primary jurisdiction over related water resource allocation decisions, including how to most appropriately balance state water resource needs with the Clean Water Act objectives. Pending Clean Water Act amendments portend threats to the well-developed federal /state relationships over the definition of "waters of the U.S.". These proposed amendments should be considered cautiously, and it is the view of WESTCAS that a refinement of the definition of "waters of the U.S." is not required to adequately protect water quality in the U.S.

One final challenge we face is that since the Clean Water Act was passed in 1972 are the numerous other Federal Environmental Statutes have also been enacted into law. The rubric of the: Clean Water Act, Safe Drinking Water Act, and the Endangered Species Act and the regulated communities ensuing interplay with the EPA, the Department of the Interior and the U.S. Army Corps of Engineers is important for the Committee to further examine as your consider future changes to the Clean Water Act.

III. The Coordination of Federal Environmental Statutes

The Clean Water Act does not stand alone in protecting the nations' waters from non-point source pollution. Other ongoing programs at federal, state, and local levels must be adequately funded and coordinated with, not superseded by, the Clean Water Act. Non-point source pollution requires the development of watershed-oriented water quality management plans to reduce pollutant loading to western waters. Watersheds encompass a variety of land uses and activities, including those managed by federal and state agencies, which can impair surface and ground water. According to a 1996 GAO Report, federal agencies manage between 30% and 80% of the land in the western states. Accordingly, as part of these watersheds, federal agencies must be provided with the resources necessary to comply with the requirements of watershed management plans, developed under the vested responsibility of the states to control and reduce pollution.

In particular, state-administered programs, when coupled with various programmatic authorized funding from disparate statutes e.g. Clean Water Act (CWA), Safe Drinking Water Act (SDWA), the Farm Bill and the Water Resource Development Act (WRDA), and other incentives and support, can provide significant and continuing opportunity for major environmental protection. Federal water policies must recognize that the state programs, if enhanced through federal efforts, could provide a firm foundation for sound national, non-point source pollution policy. In particular, implementation of agriculture and forestry conservation programs in the pending Farm Bill should give priority to restoration of waters impaired by non-point source pollution.

In addition to the issues associated with non-point source pollution, as the Committee knows, there are a myriad of federal statutes, agencies, and budgets that affect water quantity and quality. Although there is continuous talk regarding streamlining the federal agencies programs with regard to water, little progress has been made to-date. Thus, our WESTCAS members in the arid West continue to urge Congressional action beyond authorizations to include appropriations for the backlog of water projects and programs under the purview of the Bureau of Reclamation and the Corps of Engineers. The bulk of these water projects includes: water infrastructure that is vital to the water supply in the western states, and that significantly impact the arid West. In addition, programmatic funding for federal agencies such as the U.S. Geological Survey must be increased to provide the invaluable research and date services provided in the areas of water resources, geologic, and biological sciences. Increased support for USGS monitoring, surface and ground water resource measurements, data interpretation and report publication is crucial to the present and future management of water resources in the arid West. But, likewise, water-related funding for programs managed by: the Fish and Wildlife Service, Bureau of Land Management, Natural Resource Conservation Service, National Oceanic and Atmospheric Administration, National Aeronautical and Space Administration, Environmental Protection Agency, Forest Service, and numerous other agencies must be optimized and managed to create an integrated web of federal programs that prudently support water resource management in the United States.

IV. New Water Quality and Quantity

As the arid West is grappling with burgeoning population growth, and decreasing water supplies exacerbated by a long-term drought and the prospect of climate change affecting future water supplies, there is increasing demand for new sources of water. In this regard, reclaiming and recycling wastewater effluent is playing a essential role in enabling the reuse of water. Moreover, the Clean Water Act reauthorization should include new emphasis on water reuse and encourage reuse of treated wastewater as a component of water quality improvement and efficient water resource management. This action, coupled with the Bureau of Reclamation programs regarding water reclamation, recycling, and reuse under their Title XVI program should be more aggressively supported and funded with appropriations.

Water supply management in the West requires elaborate systems for moving waters across natural drainage divides. In many cases, these systems transfer non-native waters into separate and distinct water bodies. Generally, adequate state authorities are in place to protect the existing environment of these ecosystems from the potential adverse impacts of such water transfers. Consistent with Section 101 (g) of the Clean Water Act, the federal government should not intercede in state water allocations and management decisions. Federal permits should not be required for such inter-basin water transfers. However, where such water transfers result in water quality impacts, the states should manage the impacts as they deem appropriate, using appropriate state legal authorities.

Water scarcity (relative to demand) is a reality to much of the West, but reservoir storage, inter-basin transfers, groundwater development, water rights transfers, conservation, and other measures have allowed population growth to continue. However, in some areas for the first time legal and physical limitations are appearing on the planning horizon. In the future, the arid West may not be able to sustain unlimited growth and still maintain the current quality of life. Difficult political choices will be necessary regarding future economic and environmental uses of water and the best way to encourage the orderly transition to a new equilibrium. Among other things, these new realities require evaluation of the relationship between water policies and growth.

The ability to encourage and have the spectrum of parties, engaged in greater water resources planning, is an important incentive for Congress to bring to the table. The recently passed Water Resources Development Act for the U.S. Army Corps of Engineers is an important step in this regard. Regional planning and the encouragement to bring thoughtful solutions to problems we face is the best path forward. This was brought home to WESTCAS recently when we went back and took a look at the recommendations of the National Water Commission in 1973. Having a sound planning approach and good data, which the Federal agencies can assist in developing, helps with the decision making regarding the direction for use of scarce funding.

V. The Role of Water Quality Research

It is vital that any legislation amending the Clean Water Act be drafted to contain a title regarding water research. Research regarding: water quality criteria and standards; wastewater collection and treatment technologies; wastewater reuse and recycling technologies; represent just a partial list of scientific and technical research needed to address fundamental questions and support fundamental decision-making needed in Clean Water Act regulatory programs. Research is often over-looked and often budgets dedicated to research are pilfered to support other EPA programs.

For example, in a recent edition of "Inside EPA's Water Policy Report, Vol. 16, No. 20, October 1, 2007 EPA announced: that they had recently released a draft plan for conduction research on endocrine-disrupting chemicals (EDCs) that could lay the

foundation for the agency to develop its first-ever EDC water quality criteria designed to protect both aquatic life and human health, a growing concern for state regulators. However, an article following this announcement stated:

> "EPA has been forced to drop key components of its research on endocrine-disrupting chemicals (EDCs) and instead focus on core research due to increasing demand from various program offices and a lack of resources…"

Water quality research is vital to the underpinning of any regulatory program. WESTCAS members know that wastewater treatment requirements are largely based on national water quality criteria that were based on aquatic species and flow regimes not necessarily representative of low flowing rivers, ephemeral rivers, and effluent-dominated rivers typical of the arid West. In order to properly consider regional differences in aquatic species and hydrology, methodologies and criteria must be developed through sound, scientific research studies that can support site-specific water quality standards. WESTCAS has historically served as a dominant supporter of such research, and was successful in supporting the establishment of the Arid West Water Quality Research Project (AWWQRP) in 1995. The legislation resulted in a $5 million federal appropriation (P.L. 103-327) and the establishment of an Assistance Agreement between EPA and Pima County, Arizona. The establishment of the Agreement provided significant opportunity for: Pima County, EPA Region 9, and others throughout the arid West to work cooperatively to conduct scientific research necessary to develop appropriate water quality criteria and standards for the arid regions and improve the scientific basis for regulating wastewater and storm water in the arid and semi-arid west.

This research progressed since 1995 through 2006, when continuing research funding was not forthcoming. The extensive work products derived from the research work have been delivered to EPA, and it appears that EPA Headquarters is making some effort to derive either proposed rule-making, or at the least guidance to enable the application of the research results. WESTCAS strongly supports the timely utilization of the results of this research, and encourages future funding for water quality research of this nature.

Another important component of research is for the federal government to be encouraged to reach out to the private sector regarding the innovative technologies and solutions that are taking place not only in this country, but around the world on water resource problems. WESTCAS, through our Associates, has been exposed to some of the best cutting-edge applications of innovative technology taking place in our part of the country. The uniqueness of the arid West has presented environmental, engineering and technology challenges. The experience addressing those challenges, and the knowledge gained, could benefit the rest of the country as concerns with Global Climate Change grow. We believe the engineering, environmental consulting and private sector financial community have a lot to contribute to how we address the sustainability challenges of the future.

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VI. The Pathway to Sustainability

In their publication entitled: "Water Needs and Strategies for a Sustainable Future", the Western Governors' Association in June 2006 raised five topics with their analyses and recommendations. They included: Water Policy and Growth; State Needs and Strategies to Meet Future Demands; Water Infrastructure Needs and Promising Strategies to Meet Them; Resolution of Indian Water Rights; and Preparations for Climate Change Impacts. These topics, (excluding resolution of Indian Water Rights) are impacted by the contents and administration of the Clean Water Act. From an arid West perspective: the demand for water supply in the west, coupled with explosive population growth, long-term drought, and the potential impact of climate change, creates a significant challenge with respect to the management of water quantity and quality, the provision of needed water infrastructure, and the protection of public health and the environment. The most promising pathway to sustainability is to engage EPA in a partnership with all of the other federal agencies relevant to water resource management, in order to develop and implement meaningful strategies, programs, and projects to ensure sustainable water quantity and quality. In implementing both the Clean Water Act and the Safe Drinking Water Act, EPA must work with other federal agencies, state agencies, local government, and other entities and organizations to address the issues from the "bottom-up" as well as the "top-down". Without a joint partnership, collaboration, and significant participation, the western states and especially those in the arid West will not succeed in meeting needs for sustainable water quantity and quality.

CONCLUSION

In conclusion I would like to make three suggestions as you move forward with efforts on examining the Clean Water Act: 1) WESTCAS believes it is important for the Committee to hold six field hearings around the country – one in each of the four corners and one for the Great Lakes and one for the Gulf Coast. By doing so we believe that any future changes will avoid the "one size fits all" approach and recognize the unique nature of the arid West and other parts of the country; 2) Request from each presenter before the Committee the three improvements they would recommend to the original Act (and why) to give the Committee a better way to categorize the nature of change that might be necessary; 3) Take advantage of the wealth of information, including the science, that has been developed as a result of the passage of the Clean Water Act. It is important to bring all of the federal agencies, and by this we mean all of them, not just the natural resource agencies, to give the Committee the best picture of what the Future Challenges are for the West from their perspective. Given the large amount of land held by the federal government in the West, and the federal footprint everywhere in the country, this is an important factor to understand and embrace with regard to future planning and sustainable growth.

Thank you again for the opportunity to provide this testimony for the record