

SOUTHERN NEVADA  
WATER AUTHORITY

STATE OF NEVADA



COLORADO RIVER COMMISSION  
OF NEVADA

**March 19, 2013**

**Statement of  
Southern Nevada Water Authority (SNWA)  
and  
Colorado River Commission of Nevada (CRCN)**

**to the  
House Appropriations Committee  
Subcommittee on Agriculture, Rural Development,  
Food and Drug Administration and Related Agencies**

**Presented by  
Patricia Mulroy, General Manager, SNWA  
and  
Jayne Harkins, P.E., Executive Director, CRCN**

**Support for Fiscal Year 2014 Continued Federal Funding for the  
Colorado River Basin Salinity Control Program  
under USDA's Environmental Quality Incentives Program (EQIP)**

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Waters from the Colorado River are utilized by approximately 40 million people for municipal and industrial purposes and used to irrigate approximately 4 million acres in the United States. Natural and man-induced salt loading of the Colorado River creates environmental and economic damages. The U.S. Bureau of Reclamation (Reclamation) has estimated the currently *quantifiable* damages at about \$376 million per year. Modeling by

Reclamation indicates that the *quantifiable* damages will rise to approximately \$577 million per year by the year 2030 without continuation of the Colorado River Basin Salinity Control Program (Program). Congress authorized the Program in 1974 to offset increased damages caused by continued development and use of the waters of the Colorado River. The USDA portion of the Program, as authorized by Congress and funded and administered by the Natural Resources Conservation Service (NRCS) under the Environmental Quality Incentives Program (EQIP), is an essential part of the overall effort. A funding level of \$17M to \$18M annually is required to prevent further degradation of the quality of the Colorado River and increased downstream economic damages.

In enacting the Colorado River Basin Salinity Control Act in 1974, Congress directed that the Colorado River Basin Salinity Control Program should be implemented in the most cost-effective way. The Program is currently funded under EQIP through NRCS and under Reclamation's Basinwide Program. The Act requires that the seven basin states (Basin States) cost share 30 percent of the overall effort (Basin Funds). Historically, recognizing that agricultural on-farm improvements were some of the most cost-effective strategies, Congress authorized a program for the United States Department of Agriculture (USDA) through amendment of the Act in 1984. With the enactment of the Federal Agriculture Improvement and Reform Act of 1996 (FAIRA), Congress directed that the Program should continue to be implemented as part of the newly created Environmental Quality Incentives Program. Since the enactment of the Farm Security and Rural Investment Act (FSRIA) in 2002, there have been, for the first time in a number of years, opportunities to adequately fund the Program within EQIP. In 2008, Congress passed the Food, Conservation and Energy Act (FCEA). The FCEA addressed the cost sharing required from the Basin Funds. In so doing, the FCEA named the cost sharing

requirement as the Basin States Program (BSP). The BSP will provide 30 percent of the total amount that will be spent each year by the combined EQIP and BSP effort.

The Program, as set forth in the Act, is to benefit Lower Basin water users hundreds of miles downstream from the sources of salinity in the Upper Basin. The salinity of Colorado River waters increases from about 50 mg/L at its headwaters to more than 700 mg/L in the Lower Basin. There are very significant economic damages caused downstream by high salt levels in the water. EQIP is used to improve upstream irrigation efficiencies which in turn reduce leaching of salts to the Colorado River. There are also local benefits from the Program in the form of soil and environmental benefits, improved water efficiencies, lower fertilizer and labor costs. Local producers submit cost-effective applications under EQIP in Colorado, Utah and Wyoming and offer to cost share in the acquisition of new irrigation equipment. The mix of funding under EQIP, cost share from the Basin States and efforts and cost share brought forward by local producers has created a most remarkable and successful partnership.

After longstanding urgings from the Basin States and directives from Congress, NRCS has recognized that this Program is different from small watershed enhancement efforts common to EQIP. In the case of the Colorado River salinity control effort, the watershed to be considered stretches more than 1,400 miles from the Colorado River's headwater in the Rocky Mountains to the terminus in the Gulf of California in Mexico. Each year the NRCS State Conservationists for Colorado, Utah and Wyoming prepare a three-year funding plan for the salinity efforts under EQIP. The Colorado River Basin Salinity Control Forum (Forum) supports this funding plan which recognizes the need for \$17.3M in FY 2014. This includes the funds needed for both farm and technical assistance. State and local cost-sharing is triggered by the federal appropriation. The states and local producers are able and anxious to participate in the Program. The Forum

appreciates the efforts of NRCS leadership and the support of this Subcommittee in implementing the Program.

The Forum is composed of gubernatorial appointees from Arizona, California, Colorado, Nevada, New Mexico, Utah and Wyoming and is charged with reviewing the Colorado River's water quality standards every three years. In so doing, it adopts a Plan of Implementation consistent with these standards. The level of appropriation requested in this testimony is in keeping with the adopted Plan of Implementation. If adequate funds are not appropriated, significant damages from the higher salinity concentrations in the water will be more widespread in the United States and Mexico.

Concentration of salt in the Colorado River causes approximately \$376 million in quantified damages and significantly more in unquantified damages in the United States and results in poor water quality for United States users. Damages occur from:

- a reduction in the yield of salt sensitive crops and increased water use to meet the leaching requirements in the agricultural sector,
- increased use of imported water and cost of desalination and brine disposal for recycling water in the municipal sector.
- a reduction in the useful life of water pipe systems, water heaters, faucets, garbage disposals, clothes washers, and dishwashers, and increased use of bottled water and water softeners in the household sector,
- an increase in the cost of cooling operations and the cost of water softening, and a decrease in equipment service life in the commercial sector,
- an increase in the use of water and the cost of water treatment, and an increase in sewer fees in the industrial sector,

- a decrease in the life of treatment facilities and pipelines in the utility sector, and
- difficulty in meeting wastewater discharge requirements to comply with National Pollutant Discharge Elimination System permit terms and conditions, and an increase in desalination and brine disposal costs due to accumulation of salts in groundwater basins.

Over the years, NRCS personnel have developed a great working relationship with farmers within the Colorado River basin. Maintaining salinity control achieved by implementation of past practices requires continuing education and technical assistance from NRCS personnel. Additionally, technical assistance is required for planning and design of future projects. Lastly, the continued funding for the monitoring and evaluation of existing projects is essential to maintaining the salinity reduction already achieved.

In summary, implementation of salinity control practices through EQIP has proven to be a very cost effective method of controlling the salinity of the Colorado River and is an essential component to the overall Colorado River Basin Salinity Control Program. Continuation of EQIP with adequate funding levels will prevent the water quality of the Colorado River from further degradation and significantly increased economic damages to municipal, industrial and irrigation users.



SOUTHERN NEVADA  
WATER AUTHORITY

STATE OF NEVADA



COLORADO RIVER COMMISSION  
OF NEVADA

March 29, 2013

Statement of  
Southern Nevada Water Authority (SNWA)  
and  
Colorado River Commission of Nevada (CRCN)

to the  
House Appropriations Committee  
Subcommittee on Energy and Water Development

Presented by  
Patricia Mulroy, General Manager, SNWA  
and  
Jayne Harkins, P.E., Executive Director, CRCN

Support for Fiscal Year 2014 Continued Federal Funding for the  
Colorado River Basin Salinity Control Program  
under Reclamation's Basinwide Program

Waters from the Colorado River are utilized by approximately 40 million people for municipal and industrial purposes and used to irrigate approximately four million acres in the United States. Natural and man-induced salt loading of the Colorado River creates environmental and economic damages. The U.S. Bureau of Reclamation (Reclamation) has estimated the current *quantifiable* damages at about \$376 million per year. Congress authorized the Colorado River Basin Salinity Control Program (Program) in 1974 to offset increased damages caused by continued development and use of the waters of the Colorado River. Modeling by Reclamation indicates that the *quantifiable* damages would rise to approximately \$577 million by the year 2030 without continuation of the Program. Congress directed the Secretary of the Interior to implement a comprehensive program for minimizing salt contributions to the Colorado River. Reclamation serves as the lead federal agency in implementing the Program. **Reclamation** primarily institutes salinity control through its **Basinwide Program**. Funding levels have fallen behind in recent years, and a funding level of **\$15.4 million** is required in FY2014 to prevent further degradation

of the quality of the Colorado River with a commensurate increase in downstream economic damages.

The Environmental Protection Agency (EPA) has identified that more than 60 percent of the salt load of the Colorado River comes from natural sources. The majority of land within the Colorado River Basin is federally owned and administered. In implementing the Colorado River Basin Salinity Control Act (Act) in 1974, Congress recognized that most of the salt load in the Colorado River originates from federally owned lands. Title I of the Act deals with the United States' commitment to the quality of waters being delivered to Mexico. Title II of the Act deals with improving the quality of the water delivered to users within the United States. This testimony deals specifically with the Title II efforts.

In the early years of the Program, Reclamation implemented salinity control through large projects which were funded with specific line item amounts. In 1995, Congress amended the Act and created Reclamation's Basinwide Program. Under the Basinwide Program, Reclamation funds competitive proposals which will decrease the salt load to the Colorado River. Most of the received proposals target off-farm irrigation distribution systems such as canals and laterals. The lining or piping of canals and laterals prevents leakage into the groundwater and the dissolution and transportation of salts to the Colorado River and its tributaries. It is more efficient for Reclamation to perform the off-farm distribution system improvements prior to the USDA Natural Resources Conservation Service (NRCS) treating the on-farm acres with salinity control practices (i.e., Reclamation should pipe a canal or lateral prior to NRCS installing a pressurized sprinkler system on the farm). Shortfalls in recent Basinwide Program funding levels have led to inefficiencies in the implementation of the overall Program. The funding amounts identified above and in the graph below are required to get the Basinwide Program back on pace with the overall Program implementation needs.

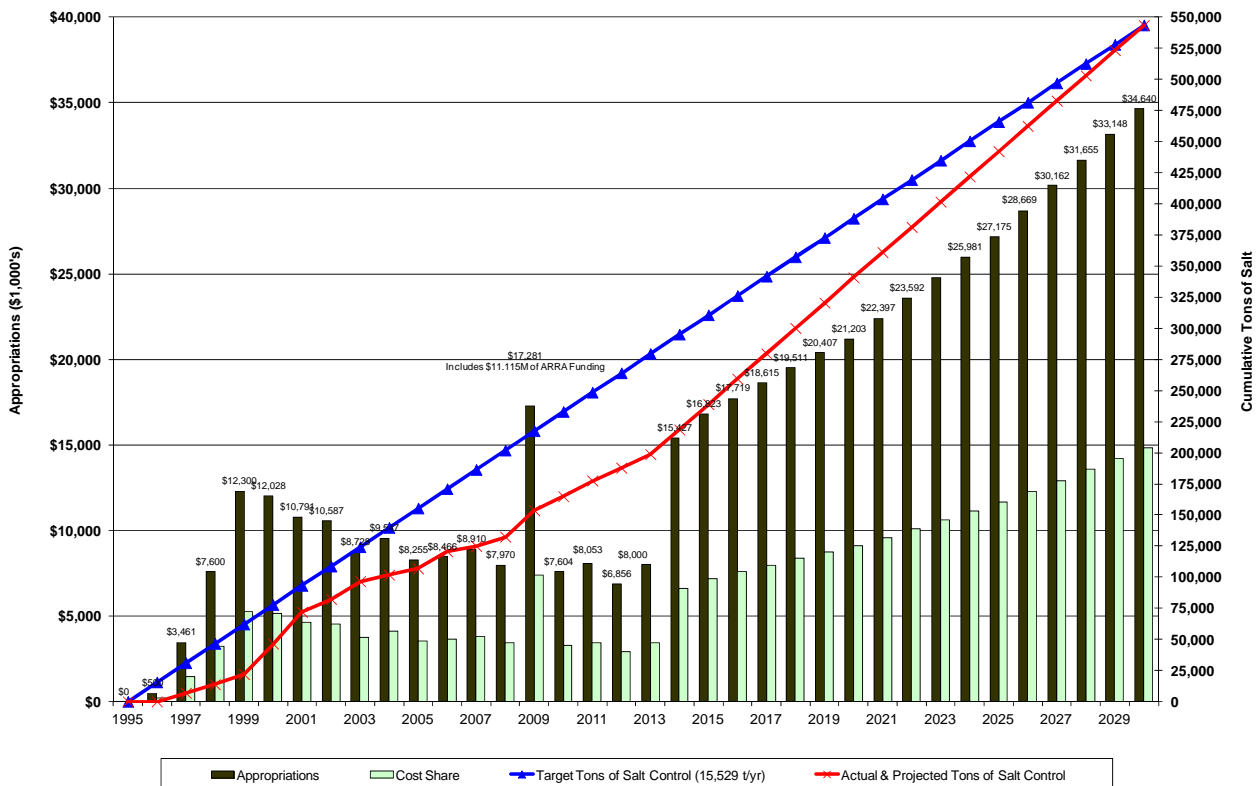
Concentration of salt in the Colorado River causes approximately \$376 million in quantified damages and significantly more in immeasurable damages in the United States and results in poor water quality for United States users. Damages occur from:

- a reduction in the yield of salt sensitive crops and increased water use to meet the leaching requirements in the agricultural sector;
- increased use of imported water and cost of desalination and brine disposal for recycling water in the municipal sector;
- a reduction in the useful life of water pipe systems, water heaters, faucets, garbage disposals, clothes washers, and dishwashers, and increased use of bottled water and water softeners in the household sector;
- an increase in the cost of cooling operations and the cost of water softening, and a decrease in equipment service life in the commercial sector;
- an increase in the use of water and the cost of water treatment, and an increase in sewer fees in the industrial sector;
- a decrease in the life of treatment facilities and pipelines in the utility sector; and

- difficulty in meeting wastewater discharge requirements to comply with National Pollutant Discharge Elimination System permit terms and conditions, and an increase in desalination and brine disposal costs due to accumulation of salts in groundwater basins.

The Colorado River Basin Salinity Control Forum (Forum) is composed of gubernatorial appointees from the Basin States (Arizona, California, Colorado, Nevada, New Mexico, Utah and Wyoming). The Forum is charged with reviewing the Colorado River’s water quality standards for salinity every three years. In so doing, it adopts a Plan of Implementation consistent with these standards. The Plan of Implementation, as adopted by the Basin States and approved by EPA, calls for 368,000 tons of additional salinity control measures to be implemented by Reclamation by 2030 or approximately 20,000 tons of new control each year. Based on current cost levels, Reclamation’s funding under its Basinwide Program needs to be \$15.4 million in FY2014. The level of appropriation requested in this testimony is in keeping with the adopted Plan of Implementation. If adequate funds are not appropriated, significant damages from the higher salt concentrations in the water will be more widespread in the United States and Mexico.

**Basinwide Program: Controlling 20,286 tons salt/per year  
Beginning FY 2014**



The graph above shows the historic funding levels for Reclamation’s Basinwide Program from formation through FY2013 and needed funding levels for FY2014 through FY2030. The black

bars indicate the appropriated amount and the green bars indicate the commensurate cost share. The blue line designates the initial target of salinity control while the red line specifies the actual control up through FY2013 and the required control from FY2014 through FY2030.

In summary, implementation of salinity control practices through Reclamation's Basinwide Program has proven to be a very cost effective method of controlling the salinity of the Colorado River and is an essential component to the overall Colorado River Basin Salinity Control Program. Continuation of adequate funding levels for salinity within this program will prevent the water quality of the Colorado River from further degradation and also prevent significant increases in economic damages to municipal, industrial and irrigation users. A modest investment in source control pays huge dividends in improved drinking water quality to nearly 40 million Americans.



SOUTHERN NEVADA  
WATER AUTHORITY

STATE OF NEVADA



COLORADO RIVER COMMISSION  
OF NEVADA

**April 18, 2013**

**Statement of  
Southern Nevada Water Authority (SNWA)  
and  
Colorado River Commission of Nevada (CRCN)**

**to the  
House Committee on Appropriations  
Subcommittee on Interior, Environment, and Related Agencies**

**Presented by  
Patricia Mulroy, General Manager, SNWA  
and  
Jayne Harkins, P.E., Executive Director, CRCN**

**Support for Fiscal Year 2014 Continued Federal Funding for the  
Colorado River Basin Salinity Control Program  
under the Bureau of Land Management's Soil, Water and Air Program**

Waters from the Colorado River are used by nearly 40 million people for municipal and industrial purposes, and are also used to irrigate approximately four million acres in the United States. Natural and man-induced salt loading to the Colorado River creates environmental and economic damages. The U.S. Bureau of Reclamation (Reclamation) has estimated the current quantifiable damages at about \$376 million per year. Congress authorized the Colorado River Basin Salinity Control Program (Program) in 1974 to offset increased damages caused by continued development and use of the waters of the Colorado River. Modeling by Reclamation indicates that the quantifiable damages would rise to approximately \$577 million by the year 2030 without continuation of the Program. Congress directed the Secretary of the Interior to implement a comprehensive program for minimizing salt contributions to the Colorado River from lands administered by the **Bureau of Land Management** (BLM). BLM funds these efforts through its **Soil, Water and Air Program**. BLM's efforts are an essential part of the overall effort. A funding level of \$5.2 million for general water quality improvement efforts within the

Colorado River Basin and an additional **\$1.5 million** for salinity specific projects in FY 2014 is requested to prevent further degradation of the quality of the Colorado River and increased downstream economic damages.

The Environmental Protection Agency (EPA) has identified that more than 60 percent of the salt load of the Colorado River comes from natural sources. The majority of land within the Colorado River Basin is federally owned, much of which is administered by BLM. In implementing the Colorado River Basin Salinity Control Act (Act) in 1974, Congress recognized that most of the salt load in the Colorado River originates from federally owned lands. Title I of the Act addresses the United States' commitment to the quality of waters being delivered to Mexico. Title II of the Act deals with improving the quality of the water delivered to users within the United States. This testimony deals specifically with the Title II efforts.

In 1984, Congress amended the Act and directed that the Secretary of the Interior develop a comprehensive program for minimizing salt contributions to the Colorado River from lands administered by BLM. In 2000, Congress reiterated its directive to the Secretary and requested a report on the implementation of BLM's program (Public Law 106-459). In 2003, BLM employed a Salinity Coordinator to increase BLM efforts in the Colorado River Basin and to pursue salinity control studies and implement specific salinity control practices. With a significant portion of the salt load of the Colorado River coming from BLM administered lands, the BLM portion of the overall program is essential to the success of the effort. Inadequate BLM salinity control efforts will result in significant additional economic damages to water users downstream.

Concentration of salt in the Colorado River causes approximately \$376 million in quantified damages and significantly more in immeasurable damages in the United States and results in poor water quality for United States users. Damages occur from:

- a reduction in the yield of salt sensitive crops and increased water use to meet the leaching requirements in the agricultural sector;
- increased use of imported water and cost of desalination and brine disposal for recycling water in the municipal sector;
- a reduction in the useful life of water pipe systems, water heaters, faucets, garbage disposals, clothes washers, and dishwashers, and increased use of bottled water and water softeners in the household sector;
- an increase in the cost of cooling operations and the cost of water softening, and a decrease in equipment service life in the commercial sector;
- an increase in the use of water and the cost of water treatment, and an increase in sewer fees in the industrial sector;
- a decrease in the life of treatment facilities and pipelines in the utility sector; and

- difficulty in meeting wastewater discharge requirements to comply with National Pollutant Discharge Elimination System permit terms and conditions, and an increase in desalination and brine disposal costs due to accumulation of salts in groundwater basins.

The Colorado River Basin Salinity Control Forum (Forum) is composed of gubernatorial appointees from the Basin States (Arizona, California, Colorado, Nevada, New Mexico, Utah and Wyoming). The Forum is charged with reviewing the Colorado River's water quality standards for salinity every three years. In so doing, it adopts a Plan of Implementation consistent with these standards. The level of appropriation requested in this testimony is in keeping with the adopted Plan of Implementation. If adequate funds are not appropriated, significant damages from the higher salt concentrations in the water will be more widespread in the United States and Mexico.

In summary, implementation of salinity control practices through BLM's Soil, Water and Air Program has proven to be a cost effective method of controlling the salinity of the Colorado River and is an essential component to the overall Colorado River Basin Salinity Control Program. Continuation of adequate funding levels for salinity control within this program will assist in preventing further degradation of the water quality of the Colorado River and significant increases in economic damages to municipal, industrial and irrigation users. A modest investment in source control pays huge dividends in improved drinking water quality to nearly 40 million Americans.



SOUTHERN NEVADA  
WATER AUTHORITY

STATE OF NEVADA



COLORADO RIVER COMMISSION  
OF NEVADA

April 25, 2013

**Statement of  
Southern Nevada Water Authority (SNWA)  
and  
Colorado River Commission of Nevada (CRCN)**

**to the  
Senate Appropriations Committee  
Subcommittee on Agriculture, Rural Development,  
Food and Drug Administration, and Related Agencies**

**Presented by  
Patricia Mulroy, General Manager, SNWA  
and  
Jayne Harkins, P.E., Executive Director, CRCN**

**Support for Fiscal Year 2014 Continued Federal Funding for the  
Colorado River Basin Salinity Control Program  
under USDA's Environmental Quality Incentives Program (EQIP)**

Waters from the Colorado River are utilized by approximately 40 million people for municipal and industrial purposes, and also are used to irrigate approximately four million acres in the United States. Natural and man-induced salt loading of the Colorado River creates environmental and economic damages. The U.S. Bureau of Reclamation (Reclamation) has estimated the current quantifiable damages at about \$376 million per year. Modeling by Reclamation indicates that the quantifiable damages will rise to approximately \$577 million per year by the year 2030 without continuation of the Colorado River Basin Salinity Control Program (Program). Congress authorized the Program in 1974 to offset increased damages caused by continued development and use of the waters of the Colorado River. The United States Department of Agriculture (USDA) portion of the Program, as authorized by Congress and funded and administered by the Natural Resources Conservation Service (NRCS) under the Environmental Quality Incentives Program (EQIP), is an essential part of the overall effort. A funding level of **\$17M to \$18M** annually is required to prevent further degradation of the quality of the Colorado River and increased downstream economic damages.

In enacting the Colorado River Basin Salinity Control Act (Act) in 1974, Congress directed that the Program should be implemented in the most cost-effective way. The Program is currently

funded under EQIP through NRCS and under Reclamation's Basinwide Program. The Act requires that the seven basin states (Basin States) cost-share 30 percent of the overall effort (Basin Funds). Historically, recognizing that agricultural on-farm improvements were some of the most cost-effective strategies, Congress authorized a program for the USDA through amendment of the Act in 1984. With the enactment of the Federal Agriculture Improvement and Reform Act of 1996, Congress directed that the Program should continue to be implemented as part of the newly-created Environmental Quality Incentives Program. Since the enactment of the Farm Security and Rural Investment Act in 2002, there have been, for the first time in a number of years, opportunities to adequately fund the Program within EQIP. In 2008, Congress passed the Food, Conservation and Energy Act (FCEA), which addressed the cost-sharing required from the Basin Funds. In so doing, the FCEA named the cost-sharing requirement as the Basin States Program (BSP). The BSP will provide 30 percent of the total amount that will be spent each year by the combined EQIP and BSP effort.

The Program, as set forth in the Act, is to benefit Lower Basin water users hundreds of miles downstream from the sources of salinity in the Upper Basin. The salinity of Colorado River waters increases from about 50 mg/L at its headwaters to more than 700 mg/L in the Lower Basin. There are very significant economic damages caused downstream by high salt levels in the water. EQIP is used to improve upstream irrigation efficiencies, which in turn reduce leaching of salts to the Colorado River. There also are local benefits from the Program in the form of soil and environmental benefits, improved water efficiencies, reduced fertilizer use, and lower labor costs. Local producers submit cost-effective applications under EQIP in Colorado, Utah and Wyoming and offer to cost-share in the acquisition of new irrigation equipment. The mix of funding under EQIP, cost-share from the Basin States, and efforts and cost-share brought forward by local producers has created a most remarkable and successful partnership.

After longstanding urgings from the Basin States and directives from Congress, NRCS has recognized that this Program is different from small watershed enhancement efforts common to EQIP. In the case of the Colorado River salinity control initiative, the watershed to be considered stretches more than 1,400 miles from the Colorado River's headwaters in the Rocky Mountains to the terminus in the Gulf of California in Mexico. Each year, the NRCS State Conservationists for Colorado, Utah and Wyoming prepare a three-year funding plan for the salinity efforts under EQIP. The Colorado River Basin Salinity Control Forum (Forum) supports this funding plan which recognizes the need for \$17.3M in FY 2014. This includes the funds needed for both farm and technical assistance. State and local cost-sharing is triggered by the federal appropriation. The states and local producers are able and anxious to participate in the Program. The Forum appreciates the efforts of NRCS leadership and the support of this Subcommittee in implementing the Program.

The Forum is composed of gubernatorial appointees from Arizona, California, Colorado, Nevada, New Mexico, Utah and Wyoming, and is charged with reviewing the Colorado River's water quality standards every three years. In so doing, it adopts a Plan of Implementation consistent with these standards. The level of appropriation requested in this testimony is in keeping with the adopted Plan of Implementation. If adequate funds are not appropriated, significant damages from the higher salinity concentrations in the water will be more widespread in the United States and Mexico.

Concentration of salt in the Colorado River causes approximately \$376 million in quantified damages and significantly more in immeasurable damages in the United States and results in poor water quality for United States users. Damages occur from:

- a reduction in the yield of salt sensitive crops and increased water use to meet the leaching requirements in the agricultural sector;
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- an increase in the use of water and the cost of water treatment, and an increase in sewer fees in the industrial sector;
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- difficulty in meeting wastewater discharge requirements to comply with National Pollutant Discharge Elimination System permit terms and conditions, and an increase in desalination and brine disposal costs due to accumulation of salts in groundwater basins.

Over the years, NRCS personnel have developed a great working relationship with farmers within the Colorado River basin. Maintaining salinity control achieved by implementation of past practices requires continuing education and technical assistance from NRCS personnel. Additionally, technical assistance is required for planning and design of future projects. Lastly, the continued funding for the monitoring and evaluation of existing projects is essential to maintaining the salinity reduction already achieved.

In summary, implementation of salinity control practices through EQIP has proven to be a very cost effective method of controlling the salinity of the Colorado River and is an essential component to the overall Colorado River Basin Salinity Control Program. Continuation of EQIP with adequate funding levels for salinity control within this program will assist in preventing further degradation of the water quality of the Colorado River and significant increases in economic damages to municipal, industrial and irrigation users. A modest investment in source control pays huge dividends in improved drinking water quality to nearly 40 million Americans.



SOUTHERN NEVADA  
WATER AUTHORITY

STATE OF NEVADA



COLORADO RIVER COMMISSION  
OF NEVADA

May 1, 2013

Statement of  
Southern Nevada Water Authority (SNWA)  
and  
Colorado River Commission of Nevada (CRCN)

to the  
Senate Committee on Appropriations  
Subcommittee on Energy and Water Development

Presented by  
Patricia Mulroy, General Manager, SNWA  
and  
Jayne Harkins, P.E., Executive Director, CRCN

Support for Fiscal Year 2014 Continued Federal Funding for the  
Colorado River Basin Salinity Control Program  
under Reclamation's Basinwide Program

Waters from the Colorado River are utilized by approximately 40 million people for municipal and industrial purposes and are used to irrigate approximately four million acres in the United States. Natural and man-induced salt loading of the Colorado River creates environmental and economic damages. The U.S. Bureau of Reclamation (Reclamation) has estimated the current *quantifiable* damages at about \$376 million per year. Congress authorized the Colorado River Basin Salinity Control Program (Program) in 1974 to offset increased damages caused by continued development and use of the waters of the Colorado River. Modeling by Reclamation indicates that the *quantifiable* damages would rise to approximately \$577 million per year by 2030 without continuation of the Program. Congress directed the Secretary of the Interior to implement a comprehensive program for minimizing salt contributions to the Colorado River. Reclamation serves as the lead federal agency in implementing the Program. **Reclamation** primarily institutes salinity control through its **Basinwide Program**. Funding levels have fallen behind in recent years, and a funding level of **\$15.4 million** is required in fiscal year 2014 to

prevent further degradation of the quality of the Colorado River and increased downstream economic damages.

The Environmental Protection Agency (EPA) has identified that more than 60 percent of the salt load of the Colorado River comes from natural sources. The majority of land within the Colorado River Basin is federally owned and administered. In implementing the Colorado River Basin Salinity Control Act (Act) in 1974, Congress recognized that most of the salt load in the Colorado River originates from federally owned lands. Title I of the Act deals with the United States' commitment to the quality of waters being delivered to Mexico. Title II of the Act deals with improving the quality of the water delivered to users within the United States. This testimony deals specifically with the Title II efforts.

In the early years of the Program, Reclamation implemented salinity control through large projects which were funded with specific line item amounts. In 1995, Congress amended the Act and created Reclamation's Basinwide Program. Under the Basinwide Program, Reclamation funds competitive proposals which will decrease the salt load of the Colorado River. Most of the received proposals target off-farm irrigation distribution systems such as canals and laterals. The lining or piping of canals and laterals prevents leakage into the groundwater and the dissolution and transportation of salts to the Colorado River and its tributaries. It is more efficient for Reclamation to perform the off-farm distribution system improvements prior to the United States Department of Agriculture Natural Resources Conservation Service (NRCS) treating the on-farm acres with salinity control practices (i.e., Reclamation should pipe a canal or lateral prior to NRCS installing a pressurized sprinkler system on the farm). Shortfalls in recent Basinwide Program funding levels have led to inefficiencies in the implementation of the overall Program. The funding amounts identified above and in the graph below are required to get the Basinwide Program back on pace with the overall Program implementation needs.

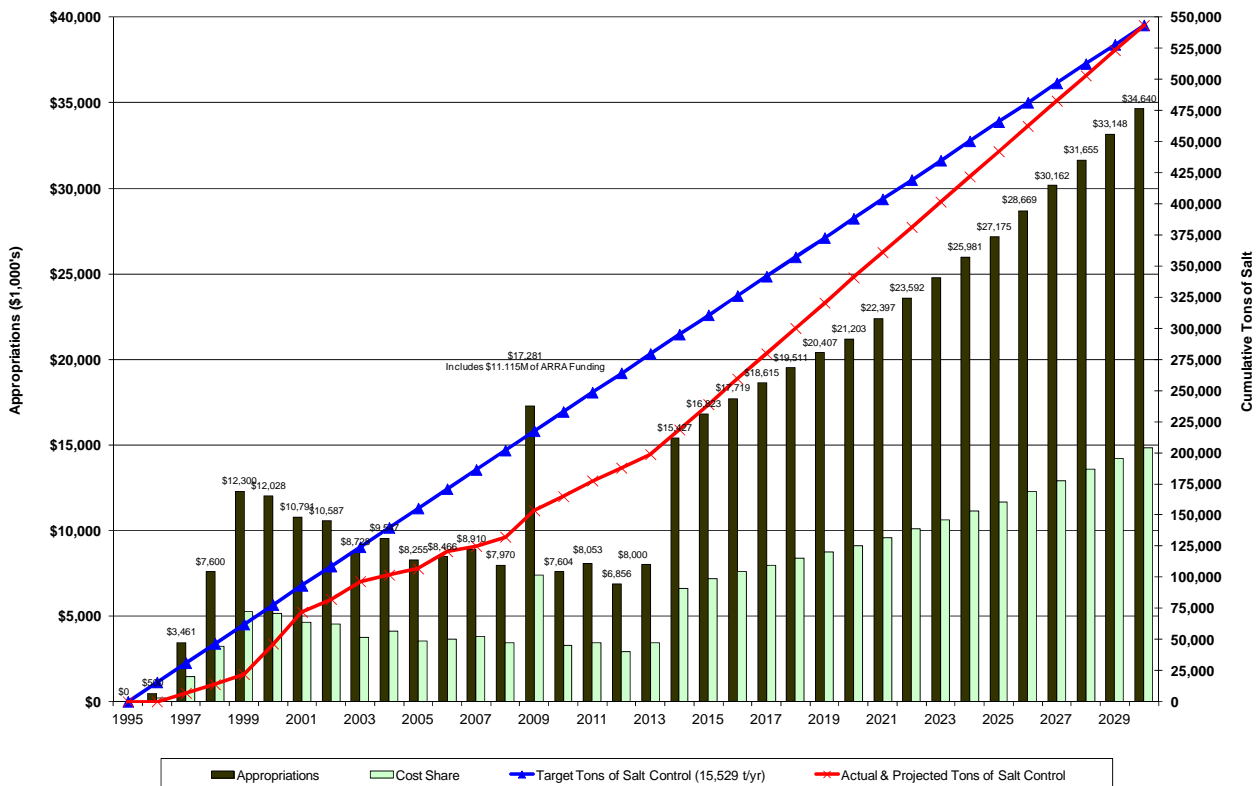
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- difficulty in meeting wastewater discharge requirements to comply with National Pollutant Discharge Elimination System permit terms and conditions, and an increase in desalination and brine disposal costs due to accumulation of salts in groundwater basins.

The Colorado River Basin Salinity Control Forum (Forum) is composed of gubernatorial appointees from the Basin States (Arizona, California, Colorado, Nevada, New Mexico, Utah and Wyoming). The Forum is charged with reviewing the Colorado River’s water quality standards for salinity every three years. In so doing, it adopts a Plan of Implementation consistent with these standards. The Plan of Implementation, as adopted by the Basin States and approved by EPA, calls for 368,000 tons of additional salinity control measures to be implemented by Reclamation by 2030 or approximately 20,000 tons of new control each year. Based on current cost levels, Reclamation’s funding under its Basinwide Program needs to be \$15.4 million in FY 2014. The level of appropriation requested in this testimony is in keeping with the adopted Plan of Implementation. If adequate funds are not appropriated, significant damages from the higher salt concentrations in the water will be more widespread in the United States and Mexico.

**Basinwide Program: Controlling 20,286 tons salt/per year  
Beginning FY 2014**



The graph above shows the historic funding levels for Reclamation’s Basinwide Program from formation through FY 2013 and needed funding levels for FY 2014 through FY 2030. The black

bars indicate the appropriated amount and the green bars indicate the commensurate cost share. The blue line designates the initial target of salinity control while the red line specifies the actual control up through FY 2013 and the required control from FY 2014 through FY 2030.

In summary, implementation of salinity control practices through Reclamation's Basinwide Program has proven to be a very cost effective method of controlling the salinity of the Colorado River and is an essential component to the overall Colorado River Basin Salinity Control Program. Continuation of adequate funding levels for salinity within this program will prevent further degradation of the water quality of the Colorado River and will also prevent significant increases in economic damages to municipal, industrial and irrigation users. A modest investment in source control pays huge dividends in improved drinking water quality to nearly 40 million Americans.



SOUTHERN NEVADA  
WATER AUTHORITY

STATE OF NEVADA



COLORADO RIVER COMMISSION  
OF NEVADA

May 1, 2013

**Statement of  
Southern Nevada Water Authority (SNWA)  
and  
Colorado River Commission of Nevada (CRCN)**

**to the  
Senate Committee on Appropriations  
Subcommittee on Interior, Environment, and Related Agencies**

**Presented by  
Patricia Mulroy, General Manager, SNWA  
and  
Jayne Harkins, P.E., Executive Director, CRCN**

**Support for Fiscal Year 2014 Continued Federal Funding for the  
Colorado River Basin Salinity Control Program  
under the Bureau of Land Management's Soil, Water and Air Program**

Waters from the Colorado River are used by nearly 40 million people for municipal and industrial purposes, and also are used to irrigate approximately four million acres in the United States. Natural and man-induced salt loading to the Colorado River creates environmental and economic damages. The U.S. Bureau of Reclamation (Reclamation) has estimated the current quantifiable damages at about \$376 million per year. Congress authorized the Colorado River Basin Salinity Control Program (Program) in 1974 to offset increased damages caused by continued development and use of the waters of the Colorado River. Modeling by Reclamation indicates that the quantifiable damages would rise to approximately \$577 million per year by 2030 without continuation of the Program. Congress directed the Secretary of the Interior to implement a comprehensive program for minimizing salt contributions to the Colorado River from lands administered by the **Bureau of Land Management** (BLM). BLM funds these efforts through its **Soil, Water and Air Program**. BLM's efforts are an essential part of the overall effort. A funding level of \$5.2 million for general water quality improvement efforts within the

Colorado River Basin and an additional **\$1.5 million** for salinity specific projects in fiscal year 2014 is requested to prevent further degradation of the quality of the Colorado River and increased downstream economic damages.

The Environmental Protection Agency (EPA) has identified that more than 60 percent of the salt load of the Colorado River comes from natural sources. The majority of land within the Colorado River Basin, much of which is administered by BLM, is federally owned. In implementing the Colorado River Basin Salinity Control Act (Act) in 1974, Congress recognized that most of the salt load in the Colorado River originates from federally owned lands. Title I of the Act addresses the United States' commitment to the quality of waters being delivered to Mexico. Title II of the Act deals with improving the quality of the water delivered to users within the United States. This testimony deals specifically with the Title II efforts.

In 1984, Congress amended the Act and directed that the Secretary of the Interior develop a comprehensive program for minimizing salt contributions to the Colorado River from lands administered by BLM. In 2000, Congress reiterated its directive to the Secretary and requested a report on the implementation of BLM's program (Public Law 106-459). In 2003, BLM employed a Salinity Coordinator to increase BLM efforts in the Colorado River Basin and to pursue salinity control studies and implement specific salinity control practices. With a significant portion of the salt load of the Colorado River coming from BLM administered lands, the BLM portion of the overall program is essential to the success of the effort. Inadequate BLM salinity control efforts will result in significant additional economic damages to water users downstream.

Concentration of salt in the Colorado River causes approximately \$376 million in quantified damages and significantly more in immeasurable damages in the United States and results in poor water quality for United States users. Damages occur from:

- a reduction in the yield of salt sensitive crops and increased water use to meet the leaching requirements in the agricultural sector;
- increased use of imported water and cost of desalination and brine disposal for recycling water in the municipal sector;
- a reduction in the useful life of water pipe systems, water heaters, faucets, garbage disposals, clothes washers, and dishwashers, and increased use of bottled water and water softeners in the household sector;
- an increase in the cost of cooling operations and the cost of water softening, and a decrease in equipment service life in the commercial sector;
- an increase in the use of water and the cost of water treatment, and an increase in sewer fees in the industrial sector;
- a decrease in the life of treatment facilities and pipelines in the utility sector; and

- difficulty in meeting wastewater discharge requirements to comply with National Pollutant Discharge Elimination System permit terms and conditions, and an increase in desalination and brine disposal costs due to accumulation of salts in groundwater basins.

The Colorado River Basin Salinity Control Forum (Forum) is composed of gubernatorial appointees from the Basin States (Arizona, California, Colorado, Nevada, New Mexico, Utah and Wyoming). The Forum is charged with reviewing the Colorado River's water quality standards for salinity every three years. In so doing, it adopts a Plan of Implementation consistent with these standards. The level of appropriation requested in this testimony is in keeping with the adopted Plan of Implementation. If adequate funds are not appropriated, significant damages from the higher salt concentrations in the water will be more widespread in the United States and Mexico.

In summary, implementation of salinity control practices through BLM's Soil, Water and Air Program has proven to be a cost effective method of controlling the salinity of the Colorado River and is an essential component to the overall Colorado River Basin Salinity Control Program. Continuation of adequate funding levels for salinity control within this program will assist in preventing further degradation of the water quality of the Colorado River and significant increases in economic damages to municipal, industrial and irrigation users. A modest investment in source control pays huge dividends in improved drinking water quality to nearly 40 million Americans.