



# New Mexico Regional Water Plan Projects, Programs & Policies Lists May 2017 Discussion White Paper

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What is the process for updating the lists of Projects, Programs and Policies?

## Background

As part of the process for preparing the Regional Water Plans (ISC, 2016-2017), each region developed a list of projects, programs, and policies, also referred to as the “PPP lists”. Each lists detailed specific projects, programs or policies that the region is actively pursuing to address the gap between supply and demand, to improve system efficiency, to better understand the water resources, and to protect the existing supplies. Projects included in the Regional Water Plans have the potential to score higher in the process of seeking funding from the Water Trust Board (WTB). The WTB funds some of the projects included in the PPP lists, but not all types of projects.

The lists have not been ranked or prioritized, and represent the projects that the regional stakeholders were interested in pursuing as of 2016. Some of the projects listed provide details with cost estimates (about 62 percent) and other programs are more general in nature. The PPP lists were prepared by each Regional Water Planning Steering Committee and other stakeholders to reflect their interest and intent. The recommendations made by the steering committee and other stakeholders have not been evaluated or approved by NMISC.

Each region used different methods of categorizing their PPPs, all of which are valid. For purposes of comparing “apples to apples” and informing the state water planning process, each PPP was assigned to a subcategory with consistent names (i.e. Watershed Restoration instead of Forest Restoration; Riparian Restoration instead of River Restoration) and each was categorized based on one of eight strategy approaches. A compilation of the 2,635 PPPs from the 16 regions is shown in Table 1 based on different strategies approaches:

**Improve System Efficiency** -Changes to existing infrastructure for agricultural and public water systems and wastewater systems; Increasing storage of reservoirs; Water Banking; Canal Lining (where seepage supplies other water users); Water Planning

**Protect Existing Supplies**-Improvements to current wastewater systems (replacing septic tanks) to protect water quality; Watershed and Riparian Restoration, Dam Safety; Stormwater System Infrastructure, Environmental Flows, Erosion Control; Water planning; Water Quality Protection; Water quality treatment of existing supplies; Water Rights Protection

**Increase Water Supply**-Projects that would result in a reduction in the predicted gap between supply and demand (for non-agricultural sector) by increasing the amount of water available to a water system such as Aquifer Storage and Recovery (ASR). Projects that utilize water otherwise not relied upon by the water system; Desalination of water (including Produced Water from Oil & Gas) that is not otherwise associated with a declared groundwater basin such that use of the water would not impact existing water rights; Drilling new wells that expand the capacity of the water supply; Import water from another groundwater basin or surface water supply; Return flow credit for treated effluent that was not otherwise utilized by the water system; Transferring water rights (through purchase, lease or water banking) from agriculture to Municipal and Industrial; Using treated effluent for ASR projects; Community Cisterns

**Reduce Demand**-Projects that would result in a reduction in the predicted gap between supply and demand (for non-agricultural sector) by reducing the current or predicted demand such as all water conservation programs for public water systems (audits, fixing leaks, rebate programs, roof catchment); water conservation for agricultural systems where the project does not increase the consumptive use such as lining ditches where the water seeped into a deep unsaturated zone or laser leveling that reduces the incidental depletions of on-farm irrigation; metering wells or changes in crops or irrigation methods; reducing evaporative losses, using treated effluent instead of potable water on turf or other landscape;

**Improve Understanding of Water Resources**-Data Collection/Hydrologic Studies including groundwater and geologic mapping, database & GIS development, groundwater models, water quality testing, water level monitoring, weather data collection; Water Planning

**Drought Mitigation**-Projects or programs that provide temporary solutions to a drought emergency, such as shortage sharing agreements, emergency drought restrictions for public water supplies, drilling back-up wells, conjunctive use strategies to rest the aquifer and rely on renewables when available, thereby increasing the capacity of the well fields; water banking rather than a permanent transfer of water rights to address the temporary shortage

**Public Outreach/Stakeholder Involvement** -Development of water authority or water board, programs to pursue implementation of projects such as water conservation; public education about any aspect of water planning, improving relationships

**Water Policy**-Policies that address management of water resources including economic strategies, restrictions on water use

The vast majority of the projects by cost and number are for water or wastewater system infrastructure for both public and agricultural water systems to improve the operations and efficiency. Protecting existing supplies, particularly through watershed restoration and stormwater protection also represents a large number of the projects.

**Table 1. Summary of PPPs from 16 Regions.**

Strategy Approach	Total Cost	Number of PPP	PPPs with Cost	Percent of PPPs with Cost Provided
Improve System Efficiency	\$2,166,163,835	1412	868	61%
Protect Existing Supplies	\$1,429,199,908	705	509	72%
Increase Water Supply	\$342,528,413	135	85	63%
Reduce Demand	\$326,810,762	180	87	48%
Improve Understanding of Water Resources	\$13,941,345	151	64	42%
Drought Mitigation	\$10,350,000	15	3	20%
Miscellaneous	\$4,391,000	6	3	50%
Public Outreach/Stakeholder Involvement	\$1,017,000	17	5	29%
Water Policy		14	0	0%
<b>Total</b>	<b>\$4,294,402,263</b>	<b>2635</b>	<b>1624</b>	<b>62%</b>

The PPP lists indicate whether a project is system specific or regional in nature, and each plan identified Key Collaborative Projects. Many of the key collaborative projects (Table 2) focused on protecting existing supplies (watershed restoration, stormwater protection) and improving understanding of water resources (data collection, improved groundwater models).

The lists help water managers and decision makers better understand the specific needs of the state with regard to water resources. Details of the most commonly proposed strategies by region are shown in Table 3. Because the needs of each region will evolve as projects, programs and policies are developed, the PPP list needs to be updated.

**Table 2. Summary of Key Collaborative Projects for all 16 Regions.**

Strategy Approach	Total PPP	Number of Regions
Protect Existing Supplies	55	15
Improve Understanding of Water Resources	42	15
Reduce Demand	21	9
Improve System Efficiency	21	12
Increase Water Supply	10	6
Water Policy	6	4
Public Outreach/Stakeholder Involvement	6	4
Drought Mitigation	6	4
<b>Total Key Collaborative Projects</b>	<b>167</b>	

## **Concerns and Recommendations to the State in Regional Water Plans**

Region 13: Estancia Basin: The steering committee is concerned about the PPP list, that defining specific projects will result in confining the region to receiving funding only for the specified projects (ISC, 2016b). Historically, over the last two decades, the EBWPC has collaborated on assessing big-picture water planning problems and possible strategies to address the problems, such as the declining water table in the closed groundwater basin. Projects from an ICIP list or other specific water system needs (like drilling an emergency well for a community), while important, do not need to obtain approval from a regional water planning entity such as the EBWPC.

Region 7 Taos: During a steering committee meeting (ISC, 2016a) the subject of the use of the PPP was discussed. One representative noted that the PPP list would be used to develop and implement projects and it was helpful to have a list of partners that could help in this effort. Legislators representing the area would also be using the PPP list to determine needs of the region and it was also noted that projects listed in the RWP will be able to receive extra points on their Water Trust Board applications.

## **Factors for Consideration in Updating the PPP lists**

**Water Trust Board Funding**-The original intent of the PPP lists was to identify projects that could qualify for funding from the WTB. However, the WTB only funds projects from the following 5 categories (WTB, 2016):

**Storage, conveyance or delivery of water to end users**-System wide improvements, including new and rehabilitated pipeline and distribution, wells, pump stations, tanks (including SCADA), and storage reservoirs and dams undertaken by water systems and acequias. This does not include Dry Dams: Applicants seeking funding for construction or reconstruction of a dam for the purpose of flood control should apply under the Flood Prevention project category. This category does not include Water Meter projects -those should apply under the Water Conservation project category.

**Implementation of federal Endangered Species Act collaborative programs**-Eligible projects include those that meet terms of federal Endangered Species Act. The Water Trust Board will fund those elements directly related to habitat restoration. This does not include Projects not intended to meet the federal definition of Endangered Species Act or where the funds are primarily intended for recreational purposes, such as a walking paths.

**Restoration and management of watersheds**-Watershed health is a public health and safety issue and watershed restoration encompasses a suite of activities from forest thinning to riparian restoration projects to consideration of soil and substrate conditions. Projects that address long-term maintenance and overarching watershed restoration will be considered. Projects solely

intended to monitor the efficacy of watershed restoration and maintenance are considered eligible for funding as long as it is part of a written long-term maintenance plan

**Flood prevention**-Flood Protection Dams (often referred to as ‘dry dams’) or Projects built to protect human safety and property from flooding. This does not include dams constructed primarily for the storage of water, regardless of their potential for breaches. These projects should apply under the Water Storage, Conveyance and Delivery category.

**Water conservation or recycling, treatment or reuse of water**-System wide improvements that include the treatment of wastewater effluent to bring it to NMED reuse standards specifically for a reuse project; water meters and conservation projects. This does not include projects that are intended primarily to treat or process wastewater with no component for reuse or maintenance and replacement of meters with no demonstrated conservation component.

Approximately ten percent of the projects on the PPP lists are not included in a WTB category, including projects involving data collection, hydrologic studies, education, and water banking.

WTB applications are filed in September of the preceding fiscal year and recommended for funding during in May for the following fiscal year. Thus, updates to the PPP lists would need to occur before September each year.

**Update Process:** The PPP lists included in the final regional water plans were developed over a period of two years (2015-2016) through steering committee meetings and information provided by stakeholders. Projects did not require approval during water planning meetings, and as stated earlier, no lists were prioritized. Several questions arise when considering the update process:

- 1) What approaches should be used to update the PPP lists?
  - Do the Steering Committees need to develop their own process for adding projects to the list?
  - Do the Steering Committees need to agree on what projects are added to the list?
  - Or, is it feasible for individual stakeholders to add projects to the PPP lists as they see fit?
- 2) Should each region have a designated individual or subcommittee that maintains the lists and provides it to the WTB each September?
- 3) Do the updated PPPs need to be posted to the ISC website?

If the lists are useful to the regions for reasons other than the WTB funding, each region could decide what information is necessary and the format for hosting the list.

### **Stakeholder Input**

To capture your feedback on the above questions and more, please complete the survey by June 15, 2017 which is available at: <https://www.surveymonkey.com/r/RWP-PPP-Lists>

**Acknowledgements:**

This white paper was prepared by Amy C Lewis, Hydrologist, in consultation with ISC and OSE Staff.

**References**

WTB, 2016. <http://www.nmfa.net/wp-content/uploads/2012/07/Revised-WTB-Project-Management-Policies-7-6-2016-final.pdf>

ISC, 2016a Taos Regional Water Plan 2015-2016 Summary of Meeting #3. . Interstate Stream Commission Regional Water Planning Program April 28, 2016.

ISC, 2016b. Estancia Basin Regional Water Plan, State of New Mexico Interstate Stream Commission, Office of the State Engineer. November 2016.

Table 3. Details of most common PPPs by region and category.

Planning Region Number	RegionName	Sum Of Cost	Number of PPPs	Costs Provided	Percent with Cost Estimate	Water System Infrastructure (M)	Wastewater System Infrastructure	Water System Infrastructure (A)	Stormwater System Infrastructure	Riparian Restoration	Wastewater Reuse	Watershed Restoration	Drill New Well	Dam Safety	Water Conservation (M)	Water Treatment System (M)	Transfer Water Rights	Desalination	Increase Storage	Metering	Water Treatment System Infrastructure (M)	Regional Water System	Regional Wastewater System	Dam Rehabilitation	Data Collection/Hydrologic Studies
1	Northeast New Mexico	\$184,777,500	99	20	20%	107,109,000				2,310,000	68,450,000				6,500,000	290,000									68,500
2	San Juan	\$333,398,278	154	130	84%	211,645,976	112,561,155	1,514,000	2,256,318	1,443,509		3,367,320								60,000					250,000
3	Jemez y Sangre	\$266,265,742	206	156	76%	162,781,330	44,330,447	2,089,716	5,733,400	720,000		855,000	18,217,159	1,853,000	771,000	3,270,064	515,000			2,779,626		10,900,000	10,000,000		1,400,000
4	Southwest New Mexico	\$149,851,354	260	196	75%	78,446,745	6,978,400	14,263,848	5,105,500	390,000	12,160,300	17,680,000	7,428,061		4,562,500		1,250,000			260,000					1,300,000
5	Tularosa/Salt Basins	\$331,940,874	101	45	45%	93,528,157	75,000	175,000,000	175,000		13,771,800	198,320	2,190,000		36,400,000	1,468,707		8,500,000							564,390
6	Northwest New Mexico	\$586,801,998	205	148	72%	429,688,839	108,337,845	1,090,000	10,468,022	662,141	6,800,000	7,700,000	16,738,051	5,000,000						142,100					175,000
7	Taos	\$123,662,966	279	106	38%	49,790,512	53,652,000	7,886,647	435,000	3,338,234		5,097,573	420,000				1,450,000			943,000					290,000
8	Mora/San Miguel/Guadalupe	\$263,381,231	337	132	39%	73,984,765	19,016,103	31,305,050	15,397,100	17,842,774	3,806,498	41,345,659	6,133,764	6,531,878	17,413,782		8,889,630	5,000,000	1,230,773				9,000,000		333,455
9	Colfax	\$216,633,034	116	103	89%	134,417,050	39,496,000	3,335,768	4,710,000	1,000,000	2,055,000	3,030,096	2,490,000	21,121,120		350,000	4,050,000								478,000
10	Lower Pecos Valley	\$287,383,189	161	97	60%	138,778,085	67,874,929		37,853,600	1,750,000	3,690,000	1,100,000	100,000	20,500,000						4,786,575	10,950,000				
11	Lower Rio Grande	\$524,567,769	288	213	74%	205,122,889	244,811,550	300,000	54,869,130		1,400,000		6,046,200			1,200,000	4,520,000			695,000					1,742,000
12	Middle Rio Grande	\$564,466,868	178	89	50%	110,198,700	137,666,706	6,870,000	205,235,049	19,150,000	3,750,000	58,807,413			1,450,000	5,300,000	13,464,000								200,000
13	Estancia Basin	\$145,711,570	33	30	91%	1,595,000	980,000	135,000,000	3,362,000		1,089,570	900,000	825,000		10,000					565,000					485,000
14	Rio Chama	\$168,784,503	109	86	79%	19,168,535	20,525,000	1,264,550	2,000,000	101,878,496		2,476,000		1,758,900		5,903,022	500,000		10,000,000	30,000					660,000
15	Socorro/Sierra	\$20,063,616	44	28	64%	13,064,016	500,000	2,600,000	914,100	1,150,000		140,500	875,000		40,000					630,000					
16	Lea County	\$126,711,772	65	45	69%	29,506,852	40,215,000		11,945,000		26,587,420		8,370,000		32,500		750,000			1,300,000					730,000
Total		\$4,294,402,263	2635	1624	62%	1,858,826,451	897,020,135	382,519,579	360,459,219	151,635,154	143,560,588	142,697,881	69,833,235	56,764,898	49,766,000	35,195,575	26,499,000	17,389,630	15,000,000	13,422,074	10,950,000	10,900,000	10,000,000	9,000,000	8,676,345

