

## **Appendix A: 2020 UWMP Checklist**

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x	x	Chapter 1	10615	A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities.	Introduction and Overview	Chapter 3 Chapter 4 Chapter 7
x	x	Chapter 1	10630.5	Each plan shall include a simple description of the supplier's plan including water availability, future requirements, a strategy for meeting needs, and other pertinent information. Additionally, a supplier may also choose to include a simple description at the beginning of each chapter.	Summary	Section 1.1
x	x	Section 2.2	10620(b)	Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.	Plan Preparation	Section 1.2
x	x	Section 2.6	10620(d)(2)	Coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	Plan Preparation	Section 1.3 Section 1.4 Section 1.5 Table 1-2
x	x	Section 2.6.2	10642	Provide supporting documentation that the water supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan and contingency plan.	Plan Preparation	Section 1.5 Appendix B
x		Section 2.6, Section 6.1	10631(h)	Retail suppliers will include documentation that they have provided their wholesale supplier(s) - if any - with water use projections from that source.	System Supplies	n/a
	x	Section 2.6	10631(h)	Wholesale suppliers will include documentation that they have provided their urban water suppliers with identification and quantification of the existing and planned sources of water available from the wholesale to the urban supplier during various water year types.	System Supplies	n/a
x	x	Section 3.1	10631(a)	Describe the water supplier service area.	System Description	Section 2.1
x	x	Section 3.3	10631(a)	Describe the climate of the service area of the supplier.	System Description	Section 2.2
x	x	Section 3.4	10631(a)	Provide population projections for 2025, 2030, 2035, 2040 and optionally 2045.	System Description	Section 2.6 Table 2-5
x	x	Section 3.4.2	10631(a)	Describe other social, economic, and demographic factors affecting the supplier's water management planning.	System Description	Section 2.4
x	x	Sections 3.4 and 5.4	10631(a)	Indicate the current population of the service area.	System Description and Baselines and Targets	Table 2-5
x	x	Section 3.5	10631(a)	Describe the land uses within the service area.	System Description	Section 2.3 Table 2-3
x	x	Section 4.2	10631(d)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System Water Use	Section 3.1.1 Table 3-1 Section 3.1.2 Table 3-2 Section 3.1.3 Table 3-3 Section 3.1.4 Table 3-4 Table 3-5 Section 3.2 Table 3-7 Section 3.3 Table 3-9 Section 3.4 Table 3-10
x	x	Section 4.2.4	10631(d)(3)(C)	Retail suppliers shall provide data to show the distribution loss standards were met.	System Water Use	Section 3.2 Table 3-7
x	x	Section 4.2.6	10631(d)(4)(A)	In projected water use, include estimates of water savings from adopted codes, plans, and other policies or laws.	System Water Use	Section 3.4 Table 3-10 Table 3-11

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x	x	Section 4.2.6	10631(d)(4)(B)	Provide citations of codes, standards, ordinances, or plans used to make water use projections.	System Water Use	Section 3.4
x	optional	Section 4.3.2.4	10631(d)(3)(A)	Report the distribution system water loss for each of the 5 years preceding the plan update.	System Water Use	Table 3-7
x	optional	Section 4.4	10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the supplier.	System Water Use	Table 3-10 Section 3.6
x	x	Section 4.5	10635(b)	Demands under climate change considerations must be included as part of the drought risk assessment.	System Water Use	Section 3.5 Table 3-13 Section 5.2 Table 5-7
x		Chapter 5	10608.20(e)	Retail suppliers shall provide baseline daily per capita water use, urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.	Baselines and Targets	Section 3.7 Table 3-14
x		Chapter 5	10608.24(a)	Retail suppliers shall meet their water use target by December 31, 2020.	Baselines and Targets	Section 3.7 Table 3-14
	x	Section 5.1	10608.36	Wholesale suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their retail water suppliers achieve targeted water use reductions.	Baselines and Targets	n/a
x		Section 5.2	10608.24(d)(2)	If the retail supplier adjusts its compliance GPCD using weather normalization, economic adjustment, or extraordinary events, it shall provide the basis for, and data supporting the adjustment.	Baselines and Targets	n/a
x		Section 5.5	10608.22	Retail suppliers' per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use of the 5-year baseline. This does not apply if the suppliers base GPCD is at or below 100.	Baselines and Targets	Section 3.7
x		Section 5.5 and Appendix E	10608.4	Retail suppliers shall report on their compliance in meeting their water use targets. The data shall be reported using a standardized form in the SBX7-7 2020 Compliance Form.	Baselines and Targets	Section 3.7 Table 3-14
x	x	Sections 6.1 and 6.2	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought.	System Supplies	Section 5.1.2
x	x	Sections 6.1	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought, <i>including changes in supply due to climate change</i> .	System Supplies	Section 5.1.2
x	x	Section 6.1	10631(b)(2)	When multiple sources of water supply are identified, describe the management of each supply in relationship to other identified supplies.	System Supplies	Section 4.8 Section 4.9.1
x	x	Section 6.1.1	10631(b)(3)	Describe measures taken to acquire and develop planned sources of water.	System Supplies	Section 4.7 Table 4-5
x	x	Section 6.2.8	10631(b)	Identify and quantify the existing and planned sources of water available for 2020, 2025, 2030, 2035, 2040 and optionally 2045.	System Supplies	Section 4.8 Table 4-6 Table 4-7
x	x	Section 6.2	10631(b)	Indicate whether groundwater is an existing or planned source of water available to the supplier.	System Supplies	Section 4.2
x	x	Section 6.2.2	10631(b)(4)(A)	Indicate whether a groundwater sustainability plan or groundwater management plan has been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	System Supplies	n/a
x	x	Section 6.2.2	10631(b)(4)(B)	Describe the groundwater basin.	System Supplies	n/a

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x	x	Section 6.2.2	10631(b)(4)(B)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the supplier has the legal right to pump.	System Supplies	n/a
x	x	Section 6.2.2.1	10631(b)(4)(B)	For unadjudicated basins, indicate whether or not the department has identified the basin as a high or medium priority. Describe efforts by the supplier to coordinate with sustainability or groundwater agencies to achieve sustainable groundwater conditions.	System Supplies	n/a
x	x	Section 6.2.2.4	10631(b)(4)(C)	Provide a detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five year.	System Supplies	n/a
x	x	Section 6.2.2	10631(b)(4)(D)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System Supplies	n/a
x	x	Section 6.2.7	10631(c)	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	System Supplies	Section 4.6
x	x	Section 6.2.5	10633(b)	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	System Supplies (Recycled Water)	Section 4.4 Section 4.4.1 Table 4-1 Table 4-2
x	x	Section 6.2.5	10633(c)	Describe the recycled water currently being used in the supplier's service area.	System Supplies (Recycled Water)	Section 4.4.1 Table 4-2 Section 4.4.2
x	x	Section 6.2.5	10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System Supplies (Recycled Water)	Section 4.4.3 Table 4-3
x	x	Section 6.2.5	10633(e)	Describe the projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected.	System Supplies (Recycled Water)	Section 4.4.3 Table 4-4
x	x	Section 6.2.5	10633(f)	Describe the actions which may be taken to encourage the use of recycled water and the projected results of these actions in terms of acre-feet of recycled water used per year.	System Supplies (Recycled Water)	Section 4.4.4 Table 4-3
x	x	Section 6.2.5	10633(g)	Provide a plan for optimizing the use of recycled water in the supplier's service area.	System Supplies (Recycled Water)	Section 4.4.4
x	x	Section 6.2.6	10631(g)	Describe desalinated water project opportunities for long-term supply.	System Supplies	Section 4-5
x	x	Section 6.2.5	10633(a)	Describe the wastewater collection and treatment systems in the supplier's service area with quantified amount of collection and treatment and the disposal methods.	System Supplies (Recycled Water)	Section 4.4.1 Table 4-1 Table 4-2
x	x	Section 6.2.8, Section 6.3.7	10631(f)	Describe the expected future water supply projects and programs that may be undertaken by the water supplier to address water supply reliability in average, single-dry, and for a period of drought lasting 5 consecutive water years.	System Supplies	Section 4-7 Table 4-5
x	x	Section 6.4 and Appendix O	10631.2(a)	The UWMP must include energy information, as stated in the code, that a supplier can readily obtain.	System Suppliers, Energy Intensity	Section 4.10 Table 4-11
x	x	Section 7.2	10634	Provide information on the quality of existing sources of water available to the supplier and the manner in which water quality affects water management strategies and supply reliability	Water Supply Reliability Assessment	Section 5.1.1
x	x	Section 7.2.4	10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water Supply Reliability Assessment	Chapter 7 (and subsections)

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x	x	Section 7.3	10635(a)	Service Reliability Assessment: Assess the water supply reliability during normal, dry, and a drought lasting five consecutive water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next 20 years.	Water Supply Reliability Assessment	Section 5.1.2 Table 5-4 Table 5-5 Table 5-6
x	x	Section 7.3	10635(b)	Provide a drought risk assessment as part of information considered in developing the demand management measures and water supply projects.	Water Supply Reliability Assessment	Section 5.2 Table 5-7
x	x	Section 7.3	10635(b)(1)	Include a description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts 5 consecutive years.	Water Supply Reliability Assessment	Section 6.4
x	x	Section 7.3	10635(b)(2)	Include a determination of the reliability of each source of supply under a variety of water shortage conditions.	Water Supply Reliability Assessment	Section 5.1.2 Table 5-1 Table 5-2 Table 5-3
x	x	Section 7.3	10635(b)(3)	Include a comparison of the total water supply sources available to the water supplier with the total projected water use for the drought period.	Water Supply Reliability Assessment	Table 5-7
x	x	Section 7.3	10635(b)(4)	Include considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.	Water Supply Reliability Assessment	Section 5.2
x	x	Chapter 8	10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	Water Shortage Contingency Planning	Chapter 6
x	x	Chapter 8	10632(a)(1)	Provide the analysis of water supply reliability (from Chapter 7 of Guidebook) in the WSCP	Water Shortage Contingency Planning	Section 6.3
x	x	Section 8.10	10632(a)(10)	Describe reevaluation and improvement procedures for monitoring and evaluation the water shortage contingency plan to ensure risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented.	Water Shortage Contingency Planning	Section 6.9
x	x	Section 8.2	10632(a)(2)(A)	Provide the written decision- making process and other methods that the supplier will use each year to determine its water reliability.	Water Shortage Contingency Planning	Section 6.4
x	x	Section 8.2	10632(a)(2)(B)	Provide data and methodology to evaluate the supplier's water reliability for the current year and one dry year pursuant to factors in the code.	Water Shortage Contingency Planning	Section 6.4
x	x	Section 8.3	10632(a)(3)(A)	Define six standard water shortage levels of 10, 20, 30, 40, 50 percent shortage and greater than 50 percent shortage. These levels shall be based on supply conditions, including percent reductions in supply, changes in groundwater levels, changes in surface elevation, or other conditions. The shortage levels shall also apply to a catastrophic interruption of supply.	Water Shortage Contingency Planning	Section 6.5
x	x	Section 8.3	10632(a)(3)(B)	Suppliers with an existing water shortage contingency plan that uses different water shortage levels must cross reference their categories with the six standard categories.	Water Shortage Contingency Planning	n/a
x	x	Section 8.4	10632(a)(4)(A)	Suppliers with water shortage contingency plans that align with the defined shortage levels must specify locally appropriate supply augmentation actions.	Water Shortage Contingency Planning	Section 6.5
x	x	Section 8.4	10632(a)(4)(B)	Specify locally appropriate demand reduction actions to adequately respond to shortages.	Water Shortage Contingency Planning	Section 6.5

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x	x	Section 8.4	10632(a)(4)(C)	Specify locally appropriate operational changes.	Water Shortage Contingency Planning	Section 6.5
x	x	Section 8.4	10632(a)(4)(D)	Specify additional mandatory prohibitions against specific water use practices that are in addition to state-mandated prohibitions are appropriate to local conditions.	Water Shortage Contingency Planning	Section 6.5
x	x	Section 8.4	10632(a)(4)(E)	Estimate the extent to which the gap between supplies and demand will be reduced by implementation of the action.	Water Shortage Contingency Planning	Section 6.10 Table 6-1
x	x	Section 8.4.6	10632.5	The plan shall include a seismic risk assessment and mitigation plan.	Water Shortage Contingency Plan	Section 6.12
x	x	Section 8.5	10632(a)(5)(A)	Suppliers must describe that they will inform customers, the public and others regarding any current or predicted water shortages.	Water Shortage Contingency Planning	Section 6.7
x	x	Section 8.5 and 8.6	10632(a)(5)(B) 10632(a)(5)(C)	Suppliers must describe that they will inform customers, the public and others regarding any shortage response actions triggered or anticipated to be triggered and other relevant communications.	Water Shortage Contingency Planning	Section 6.7
x		Section 8.6	10632(a)(6)	Retail supplier must describe how it will ensure compliance with and enforce provisions of the WSCP.	Water Shortage Contingency Planning	Section 6.6
x	x	Section 8.7	10632(a)(7)(A)	Describe the legal authority that empowers the supplier to enforce shortage response actions.	Water Shortage Contingency Planning	Section 6.1
x	x	Section 8.7	10632(a)(7)(B)	Provide a statement that the supplier will declare a water shortage emergency Water Code Chapter 3.	Water Shortage Contingency Planning	Section 6.1
x	x	Section 8.7	10632(a)(7)(C)	Provide a statement that the supplier will coordinate with any city or county within which it provides water for the possible proclamation of a local emergency.	Water Shortage Contingency Planning	Section 6.1
x	x	Section 8.8	10632(a)(8)(A)	Describe the potential revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	Section 6.8
x	x	Section 8.8	10632(a)(8)(B)	Provide a description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	Section 6.8
x		Section 8.8	10632(a)(8)(C)	Retail suppliers must describe the cost of compliance with Water Code Chapter 3.3: Excessive Residential Water Use During Drought	Water Shortage Contingency Planning	Section 6.8
x		Section 8.9	10632(a)(9)	Retail suppliers must describe the monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance.	Water Shortage Contingency Planning	Section 6.9
x		Section 8.11	10632(b)	Analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.	Water Shortage Contingency Planning	Section 6.4
x	x	Sections 8.12 and 10.4	10635(c)	Provide supporting documentation that Water Shortage Contingency Plan has been, or will be, provided to any city or county within which it provides water, no later than 30 days after the submission of the plan to DWR.	Plan Adoption, Submittal, and Implementation	Section 6.11
x	x	Section 8.14	10632(c)	Make available the Water Shortage Contingency Plan to customers and any city or county where it provides water within 30 after adopted the plan.	Water Shortage Contingency Planning	Section 6.11
	x	Sections 9.1 and 9.3	10631(e)(2)	Wholesale suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and supplier assistance program.	Demand Management Measures	n/a

Retail	Wholesale	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	Subject	2020 UWMP Location (Optional Column for Agency Review Use)
x		Sections 9.2 and 9.3	10631(e)(1)	Retail suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand Management Measures	Chapter 7
x		Chapter 10	10608.26(a)	Retail suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets (recommended to discuss compliance).	Plan Adoption, Submittal, and Implementation	Section 1.5 Appendix B
x	x	Section 10.2.1	10621(b)	Notify, at least 60 days prior to the public hearing, any city or county within which the supplier provides water that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. Reported in Table 10-1.	Plan Adoption, Submittal, and Implementation	Section 1.4 Table 1-2
x	x	Section 10.4	10621(f)	Each urban water supplier shall update and submit its 2020 plan to the department by July 1, 2021.	Plan Adoption, Submittal, and Implementation	Section 1.7
x	x	Sections 10.2.2, 10.3, and 10.5	10642	Provide supporting documentation that the urban water supplier made the plan and contingency plan available for public inspection, published notice of the public hearing, and held a public hearing about the plan and contingency plan.	Plan Adoption, Submittal, and Implementation	Section 1.3 Section 1.4 Section 1.5 Section 1.6 Appendix B
x	x	Section 10.2.2	10642	The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water.	Plan Adoption, Submittal, and Implementation	Section 1.6 Appendix B
x	x	Section 10.3.2	10642	Provide supporting documentation that the plan and contingency plan has been adopted as prepared or modified.	Plan Adoption, Submittal, and Implementation	Section 1.6 Appendix B
x	x	Section 10.4	10644(a)	Provide supporting documentation that the urban water supplier has submitted this UWMP to the California State Library.	Plan Adoption, Submittal, and Implementation	Section 1.7
x	x	Section 10.4	10644(a)(1)	Provide supporting documentation that the urban water supplier has submitted this UWMP to any city or county within which the supplier provides water no later than 30 days after adoption.	Plan Adoption, Submittal, and Implementation	Section 1.7
x	x	Sections 10.4.1 and 10.4.2	10644(a)(2)	The plan, or amendments to the plan, submitted to the department shall be submitted electronically.	Plan Adoption, Submittal, and Implementation	Section 1.7
x	x	Section 10.5	10645(a)	Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Section 1.8
x	x	Section 10.5	10645(b)	Provide supporting documentation that, not later than 30 days after filing a copy of its water shortage contingency plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Section 6.11
x	x	Section 10.6	10621(c)	If supplier is regulated by the Public Utilities Commission, include its plan and contingency plan as part of its general rate case filings.	Plan Adoption, Submittal, and Implementation	n/a
x	x	Section 10.7.2	10644(b)	If revised, submit a copy of the water shortage contingency plan to DWR within 30 days of adoption.	Plan Adoption, Submittal, and Implementation	Section 6.11

## **Appendix B: Notification and Public Hearing Outreach**

- City/County Notification
- Public Hearing Outreach
- Public Comments and Responses

**Entities who received Notification Letter**

Nevada County  
Placer County  
Yuba County  
City of Grass Valley  
City of Nevada City  
City of Lincoln  
Placer County Water Agency  
Yuba Water Agency

6 B Estates Water Association  
Ali Lane Mutual Water Association  
Big Oak Valley Mutual Water Company  
Blackford Ranch Water Association  
Carmody Special Water District  
Chicago Park Water Association  
Chili Hill Farms Water Association  
Clear Creek Water Association  
Cole Country Water Users Association  
Countryside Ranch Water Association  
Fawn Hill Drive Water Association  
Flying R Ranch Water Association  
Footehold Estates Water Association  
Gold Blossom-Rivera Mutual Water Association  
Greenpeace Water Association  
HDA Association  
Iron Mountain Mutual Water Company  
Lake Vera Mutual Water Company  
Little Greenhorn Creek Water Association  
Meadow Hill Water Association  
Melody Oaks Mutual Water Company  
Moonshine Water Company  
Mount Vernon Estates Mutual Water Company  
Mustang Valley Mutual Water Company  
Oakcreek Water Association  
Ophir Prison Estates Mutual Water  
Perimeter Road Pipeline  
Quail Hill Acres Rd & Water Systems Association  
Redbud Water Association  
Ridge View Woodlands Mutual Water Company  
Rough & Ready Ranch Estates Mutual Water Company  
Rudd Road Pipeline Association  
Running Water Inc.  
Saddleback North Water Group  
Saddleback Water Association  
Sierra Foothills Water Association  
Sky Pines Mutual Water Association  
Streeter Road Water Association  
Vian Water Association  
Wilkes Pipeline Association



# Nevada Irrigation District

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December 11, 2020

Jennifer Hanson, City Manager  
City of Lincoln  
600 6th Street  
Lincoln, CA 95648

Dear Jennifer Hanson,

The Nevada Irrigation District (NID) has begun the process of updating its Agricultural Water Management Plan (AWMP) and its Urban Water Management Plan (UWMP) as required by the California Water Code. Because NID is both a municipal drinking water supplier and an agricultural raw water supplier, it is completing both documents which are required to be updated every five years.

The Agricultural Water Management Plan requires an agricultural water provider to present information about its agricultural water customers, water usage, conservation efforts, and other management elements. The AWMP must be adopted by the NID Board of Directors by April 1, 2021.

The Urban Water Management Plan requires all municipal water providers to project its supply and demand over the next 20 years, describe its conservation efforts and impacts, consider drought impacts, describe its water shortage contingency plan, consider indoor and outdoor water budgets, as well as other elements to report progress. The plan is a summary of the water provider's key performance indicators for the next 20 years to support its capabilities to meet customer's demands. The UWMP must be adopted by the NID Board of Directors by July 1, 2021.

NID is notifying you, our customers, and other stakeholders that we have initiated our 2020 AWMP and UWMP update process. As part of the process, NID will hold two public meetings for each plan in the spring to allow public review prior to Board consideration.

Please contact me if you have any questions regarding this notification or NID's AWMP and UWMP update process.

Sincerely,

Doug Roderick, P.E.  
Interim Engineering Manager



# Nevada Irrigation District

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December 11, 2020

Catrina Olson, City Manager  
City of Nevada City  
317 Broad Street  
Nevada City, CA 95959

Dear Katrina Olson,

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Please contact me if you have any questions regarding this notification or NID's AWMP and UWMP update process.

Sincerely,

Doug Roderick, P.E.  
Interim Engineering Manager



# Nevada Irrigation District

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December 11, 2020

Tim M. Kiser, City Manager  
City of Grass Valley  
125 East Main Street  
Grass Valley, CA 95945

Dear Tim M. Kiser,

The Nevada Irrigation District (NID) has begun the process of updating its Agricultural Water Management Plan (AWMP) and its Urban Water Management Plan (UWMP) as required by the California Water Code. Because NID is both a municipal drinking water supplier and an agricultural raw water supplier, it is completing both documents which are required to be updated every five years.

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Sincerely,

Doug Roderick, P.E.  
Interim Engineering Manager



# Nevada Irrigation District

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December 11, 2020

Kevin Mallen, CAO  
Yuba County  
915 Eighth Street #115  
Marysville, CA 95901

Dear Kevin Mallen,

The Nevada Irrigation District (NID) has begun the process of updating its Agricultural Water Management Plan (AWMP) and its Urban Water Management Plan (UWMP) as required by the California Water Code. Because NID is both a municipal drinking water supplier and an agricultural raw water supplier, it is completing both documents which are required to be updated every five years.

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NID is notifying you, our customers, and other stakeholders that we have initiated our 2020 AWMP and UWMP update process. As part of the process, NID will hold two public meetings for each plan in the spring to allow public review prior to Board consideration.

Please contact me if you have any questions regarding this notification or NID's AWMP and UWMP update process.

Sincerely,

Doug Roderick, P.E.  
Interim Engineering Manager



# Nevada Irrigation District

---

December 11, 2020

Todd Leopold, CEO  
Placer County  
775 North Lake Blvd.  
Tahoe City, CA 96145

Dear Todd Leopold,

The Nevada Irrigation District (NID) has begun the process of updating its Agricultural Water Management Plan (AWMP) and its Urban Water Management Plan (UWMP) as required by the California Water Code. Because NID is both a municipal drinking water supplier and an agricultural raw water supplier, it is completing both documents which are required to be updated every five years.

The Agricultural Water Management Plan requires an agricultural water provider to present information about its agricultural water customers, water usage, conservation efforts, and other management elements. The AWMP must be adopted by the NID Board of Directors by April 1, 2021.

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Sincerely,

Doug Roderick, P.E.  
Interim Engineering Manager



# Nevada Irrigation District

---

December 11, 2020

Allison Lehman, CEO  
Nevada County  
950 Maidu Avenue  
Nevada City, CA 95969

Dear Allison Lehman,

The Nevada Irrigation District (NID) has begun the process of updating its Agricultural Water Management Plan (AWMP) and its Urban Water Management Plan (UWMP) as required by the California Water Code. Because NID is both a municipal drinking water supplier and an agricultural raw water supplier, it is completing both documents which are required to be updated every five years.

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Sincerely,

Doug Roderick, P.E.  
Interim Engineering Manager



# Nevada Irrigation District

---

December 11, 2020

Andy Fecko, General Manager  
Placer County Water Agency  
P.O. Box 6570  
Auburn, CA 95604

Dear Andy Fecko,

The Nevada Irrigation District (NID) has begun the process of updating its Agricultural Water Management Plan (AWMP) and its Urban Water Management Plan (UWMP) as required by the California Water Code. Because NID is both a municipal drinking water supplier and an agricultural raw water supplier, it is completing both documents which are required to be updated every five years.

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Sincerely,

Doug Roderick, P.E.  
Interim Engineering Manager



# Nevada Irrigation District

---

December 11, 2020

Willie Whittlesey, General Manager  
Yuba Water Agency  
1220 F Street  
Marysville, CA 95901

Dear Willie Whittlesey,

The Nevada Irrigation District (NID) has begun the process of updating its Agricultural Water Management Plan (AWMP) and its Urban Water Management Plan (UWMP) as required by the California Water Code. Because NID is both a municipal drinking water supplier and an agricultural raw water supplier, it is completing both documents which are required to be updated every five years.

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Sincerely,

Doug Roderick, P.E.  
Interim Engineering Manager

**Entities who received Press Release**

Wildlife.ca/gov

USDA.gov

Yubariver.org

Placer County Agricultural Commissioner

Nevada County Agricultural Commissioner

Nevada County Farm Bureau

Placer County Farm Bureau

LWWA.org

Sen.ca

wildlife.ca.org

The Union

Bear Yuba Land Trust (BYLT)

NID Agricultural Customers



**Contact: Tomi Riley**  
**(530) 271-6845**  
***Rileyt@nidwater.com***

## **FOR IMMEDIATE RELEASE**

### **NID Preparing Agricultural and Urban Water Management Plans Due to the State in 2021**

**(Grass Valley, CA December 11, 2020)** – The Nevada Irrigation District (NID) is preparing its 2020 Agricultural Water Management Plan (AWMP) and 2020 Urban Water Management Plan (UWMP) as required by the California Water Code. Because NID is both a municipal drinking water supplier and an agricultural raw water supplier it submits both documents.

The Urban Water Management Plan (UWMP) requires all municipal water providers to project its supply and demand over the next 20 years, describe its conservation efforts and impacts, consider drought impacts, describe its water shortage contingency plan, consider indoor and outdoor water budgets, as well as other elements to report progress. The plan is functionally a summary of the water provider's key performance indicators for the next 20 years to support its capabilities to meet its customer's demands. The plan is due to the state every five years, with the next plan due June 30, 2021.

The Agricultural Water Management Plan (AWMP) is similar to the Urban Water Management Plan as both are state-mandated reports due every five years. The AWMP requires an agricultural water provider to present information about its agricultural water customers, water usage, conservation efforts, and other management elements. The AWMP is also due to the state every five years, with the next plan due July 1, 2021.

NID wants our customers and other stakeholders to know that NID has initiated its 2020 AWMP and UWMP update process. As part of the process, NID will hold two public meetings for each plan to allow public input prior to Board adoption consideration. Draft copies of each plan will be available for review in the spring of 2021.

For additional information about the Nevada Irrigation District's AWMP and UWMP update process, please visit [NIDwater.com](http://NIDwater.com)

**NOTICE OF PUBLIC HEARING**

78769

The Nevada Irrigation District  
 Notice of Public Hearing on the  
 2020 Urban Water Management Plan  
 Wednesday, July 14 at 9:00 a.m.  
 Via Zoom  
**LEGAL NOTICE**

The California Water Code requires every urban water supplier providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually (AFY) to adopt and submit an Urban Water Management Plan (UWMP) every five years to the California Department of Water Resources

The core requirements for the UWMP include an overview description of reliability of supplies, projected supplies and the strategy for meeting water needs; a description of existing and planned supply sources; estimates of past, present and projected water use; 5-year drought risk assessment; a description of the water shortage contingency plan/conservation program; and description of water conservation demand management measures already in place and planned.

After the public hearing is held, the NID Board of Directors will consider adopting the UWMP.

Due to COVID-19, the meeting will be held via Zoom. Full details and instructions for how to access the meeting will be provided on the Board meeting agenda posted to [nidwater.com](http://nidwater.com) at least 72 hours before the meeting.

The public draft 2020 Urban Water Management Plan is available for review on NID's website at <https://www.nidwater.com/ag-urban-water-management-plans>.  
**PUBLISHED IN LINCOLN NEWS MESSENGER: JULY 1, 8, 2021**

The above space is reserved for Court/County Filed Date Stamp

**PROOF OF PUBLICATION**  
**(2015.5 C.C.P.)**

**STATE OF CALIFORNIA**  
**County of Placer**

I am a citizen of the United States and employed by a publication in the County aforesaid. I am over the age of eighteen years, and not a party to the mentioned matter. I am the principal clerk of **The Lincoln News Messenger**, a newspaper of general circulation, in the **City of Lincoln**, which is printed and published in the **County of Placer**. This newspaper has been judged a newspaper of general circulation by the Superior Court of the State of California, in and for the **County of Placer**, on the date of November 13, 1951, (Case Number 16996). The notice, of which the attached is a printed copy (set in type not smaller than nonpareil) has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

**JULY 1, 8**

I certify, under penalty of perjury, that the foregoing is true and correct.



**Terry Clark**

Dated in Lincoln, California

**JULY 8, 2021**

**PROOF OF PUBLICATION**  
**LINCOLN NEWS MESSENGER**  
 553 F Street  
 Lincoln, CA 95648

**NEVADA COUNTY  
PUBLISHING COMPANY**

Grass Valley, CA

**AFFIDAVIT OF PUBLICATION**

**THE UNION**

**Customer Account #:** 1174302

**Reference:** Notice of Public Hearing      mail

**Legal Account**

NEVADA IRRIGATION DISTRICT,  
1036 WEST MAIN STREET  
GRASS VALLEY, CA 95945

**Attn:** Kris Stepanian

**County of Nevada, State of Calif.** The undersigned, **Bailee Liston**, being the principal clerk of the **Nevada County Publishing Co.** declares that the **Nevada County Publishing Co.** now is, and during all times herein named, was a corporation duly organized and existing under the laws of the State of California, and now is, and during all times herein named was the printer of

**THE UNION**, a newspaper of general circulation, as defined by section 6000 of the Government Code of the State of California, printed and published daily (Sundays excepted) in the City of Grass Valley, County of Nevada, State of California, and that affiant is the principal clerk of said Nevada County Publishing Co.

That the printed advertisement hereto annexed was published in the said UNION, for the full required period of **2** time(s) commencing on **06/30/21**, and ending on **07/07/21**, all days inclusive.

I certify, under penalty of perjury, the foregoing is true and correct.

Signed: \_\_\_\_\_

*Bailee Liston*

Legals Advertising Clerk

## Proof and Statement of Publication

Ad #: 0000698680-01

**The Nevada Irrigation District  
Notice of Public Hearing on the  
2020 Urban Water Management Plan  
Wednesday, July 14 at 9:00 a.m.  
Via Zoom**

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The public draft 2020 Urban Water Management Plan is available for review on NID's website at <https://www.nidwater.com/ag-urban-water-management-plans>

**Publish June 30th & July 7th 2021**

**Ad #0000698680**

Nevada Irrigation District  
Response to Public Comments to the  
2020 Urban Water Management Plan

MASTER RESPONSE TO COMMENTS THAT DID NOT RAISE A SPECIFIC ISSUE WITH THE 2020 URBAN WATER MANAGEMENT PLAN.

Nevada Irrigation District acknowledges and appreciates the time and thought that went into each comment letter submitted during the public review and comment period for the 2020 Urban Water Management Plan. All of the comment letters received for the draft UWMP have been incorporated into the public record for the UWMP, which will be considered when the Board of Directors deliberates regarding whether to approve the UWMP.

NID has provided unique responses to each comment that pertain to specific issues within the UWMP document. However, some comment letters do not comment on any of the specific analyses or provisions of the UWMP, nor do they pertain to the accuracy or adequacy of the document overall. NID is deferring responses to the more general observations contained in the comment letters listed below to a more appropriate forum, such as the Plan For Water review.

June 23, 2021

NID Board of Directors  
c/o General Manager Jennifer Hansen  
1036 East Main Street  
Nevada City, CA 95949  
Re: Comments on the NID 2020 UWMP

Dear General Manager, Staff and NID Board,

Thank you for the opportunity to comment on the NID 2020 Urban Water Management Plan. I was pleased to see that the population growth figures were not inflated as much as usual, and the analysis is less skewed than in the past. There is still difficulty in determining where the numbers that lead to the demand and supply assertions originate, and there is no clear path to understanding how those values lead to your conclusions. Additionally measurement of raw water and how it is used, seems vague and arbitrary so as to be a confounding factor in any conclusions. Since this is an Urban Water Management Plan, why doesn't it focus on potable water use? Adding in raw water use without separating the two systems causes confusion and fails to distinguish tier 1 and tier 2 priorities.

- Page 27, Section 3.1.4 Raw Water Retail Customers; speaks to the issue of lack of ability to measure raw water demand and use. "As stated earlier, the actual amount used is unknown as each customer manages their own raw water use strategies."

The issue of environmental flows seems to be a problem for NID to understand and accept as a cost of doing business. (Page 7, paragraph 2)

"A pending new Federal Energy Regulatory Commission (FERC) license will also add significant environmental in-stream flow requirements that depending on the year type, could increase unrecoverable flow requirements from the existing 7,665 acre-feet up to 59,527 acre-feet. Total 2020 demands were 161,678 acre feet. Overall water demands are projected to increase up to 35 percent through 2040 to a range of approximately 175,000-218,000 acre-feet per year. Without the new FERC requirements, projected demands only increase three percent, up to approximately 166,000 acre-feet."

It seems like this report is saying that environmental in-stream flow requirements are largely responsible for the increase in water use over the next 20 years. In the initial draft, NID asserted a 50% increase in water demand. (This was picked up by a local newspaper journalist to fear-monger and call for Centennial dam again.) This is irresponsible and inaccurate. Based on past growth, (Table 3.5) raw water use increased 0.34% annually from 2014 to 2020 and based on that growth would only increase 7% in the next 20 years. Table 3.9 shows that treated use would also

increase 7%. When numbers are thrown about with little explanation or continuity, confusion abounds.

There seems to be little understanding on the part of NID that when you dam a river, there will be mitigations because of the severe damage to the river ecology. This Special District claims watershed stewardship in its Mission Statement, yet complains and whines when that commitment is actualized. NID itself negotiated and agreed to these flows. In-stream flow mitigations have been delayed for nearly a decade while the fisheries continue to degrade. Bear River fishery below Rollins dam has been severely damaged by the lack of ramping of flows. This has continued even though these in-stream flows are recoverable. It is time to initiate ramping and stewardship in this run of Bear River. Mitigations delayed are mitigations denied!

Even though this is an urban water management plan, the report focuses on raw water use right from the beginning (Pages 6 and 7) as over 90% of sales are for raw water. The treated water customers however constitute 80% of the NID customer base. These customers deserve the assurance that treated “urban” water is not at risk. This report fails to differentiate urban treated water from raw water in the Water Supply Reliability and Drought Risk Assessment and to include groundwater in the analysis. This methodology defeats the purpose of the Urban Water Management Plan as it relates to potable water and raw water.

Here is an excerpt from the Urban Water Management Plan Guidebook, page 9; “Potable and Non-Potable Planning Tool (P-NP Planning Tool). This workbook tool is the Planning Tool that allows for separate reporting and calculations of potable and non-potable use and supplies. Results from this tool can be used to populate the optional potable/non-potable Submittal Tables.” The tools are there; please use them. **4.2.6.4 Optional Planning Tool – Projected Use**

- Page 28, Table 3-10 Summarized Projected Water Demands (AFY) and Table 3-11. Reliability Analysis Normal Year Demand Projections Water Demands (AFY) Please separate out the treated water from the raw water to meet the objectives of urban water analysis.
- Page 29, Table 3-12. Reliability Analysis Dry Year Demand Projections Water Demands (AFY) Please separate out the treated water from the raw water to meet the objectives of urban water analysis.

## 4.2 GROUNDWATER (page 33 of document)

“Most of the Sierra Nevada foothills located in the District’s service area have a fractured rock groundwater system (CABY, 2020), including granitic and metavolcanic (USGS, 1984). NID views the fractured rock groundwater system as low yielding and unreliable for a District supply source. The District does not utilize groundwater as an existing or planned source of water supply or recharge due to limited groundwater availability. The majority of the District’s service area has no groundwater aquifer per California Department of Water Resources Bulletin 118 with the exception of the very small portion of the District’s service area in Lincoln, which is on the eastern boundary of the Sacramento River Basin, North American Sub-Basin. Although NID has no groundwater facilities and does not use groundwater, NID is a member of the local groundwater sustainability agency, the West Placer Groundwater Sustainability Agency. NID is aware there are private wells in the area used for domestic purposes, but NID does not track private groundwater well inventory or use at this time.”

This single paragraph dismissing groundwater as “low yielding and unreliable for a District supply source” is unresponsive to the analysis effort. The direction given to utilize groundwater as part of a comprehensive Water Budget constitutes a major component of the affected environment. Discounting groundwater is akin to raising a building without a foundation. NID does not understand water if they don’t understand the connection between surface and ground water. Seepage from groundwater is the source of springs and local river headwaters that fill diversions and storage facilities.

The Rise Gold Corporation has investigated local groundwater as part of their efforts to reopen the Idaho-Maryland Mine within the NID District. They are currently creating an Environmental Impact Report. Here is an excerpt from page 27, *Groundwater Hydrology and Water quality analysis report 3-31-2020*

“Upper division water from higher-elevation watersheds is conveyed through both Upper Wolf Creek and South Fork Wolf Creek watersheds by NID through irrigation canals including the DS canal, Cascade canal, and the Rattlesnake canal. NID estimates that leakage from its canals is approximately 15 percent of the water conveyed through the system (NID 2013). Fifteen percent of this demand is about 24,750 afy, or ....Based on these figures, the average rate of seepage from the NID canal system into the subsurface across the entire service area is about 0.7 inches. This value is very small compared to the average annual rainfall of 25.81 inches.

*(The annual average rainfall for Grass Valley, CA is 55 inches/year.)*

Previous evaluations conducted in the region (EMKO 2011) and estimates conducted for this study (see Section 3.5.1) suggest that the rate of groundwater recharge overall in the Grass Valley area is approximately 10 to 12 inches per year, or about 20 percent of the total rainfall amount. Thus, the total recharge over the

287,000 acre NID service area is **approximately 240,000 to 290,000 AF/YR**. Comparing the amount of leakage from the NID canal system with the estimated amount of rainfall that recharges groundwater indicates that the leakage from the canals contributes only about 10 percent of the total groundwater recharge in the area.”

These numbers suggest that groundwater recharge provides an amount **exceeding projected surface water demand**. This important information illuminates a portion of the later discussion about Climate Change in NID UWMP section 4.9.2 Climate Change Impacts. (page 47)

“Local climate change impacts will likely affect current supply source options. There are approximately 52,000 parcels in the District’s service area. Only approximately 25,000 receive NID treated or raw water. It is assumed the remaining 25,000 parcels are served by fractured rock wells or are undeveloped. A prolonged drought, or increased winter runoff could reduce the amount of water that percolates into the rock fractures, reducing the amount of fractured rock groundwater. This in turn could cause private wells to be insufficient for use. Failing wells will likely cause an increase in the NID customers and subsequent demands, as existing residences will need to connect to the water system. Some of these users may be too far from existing infrastructure making it potentially cost prohibitive to connect, however, the District does expect new customers in the “soft service areas”, which are areas near existing infrastructure.”

NID makes an assumption that groundwater will diminish more rapidly than surface water due to climate change. This may not be the case as groundwater may prove to be the better storage option with much less evaporation and fortified by canal leakage. Just because NID does not sell groundwater does not mean that it does not provide reliability and resilience to the integrated water system as a whole. In fact it is part of the stewardship of watersheds to protect and enhance groundwater per the NID Mission Statement.

Another groundwater concern related to the possible reopening of the Idaho-Maryland Mine is in regards to dewatering mine shafts, pumping infiltrating groundwater, and the additional use of both raw and potable water in service to mine operations. The mining company plans to pump out 2,500 acre feet during the first 6 months to drain the shaft, (Groundwater and Hydrology Analysis Report for the Idaho Maryland Mine by EMKO for Rise, page 13) and 1,375 acre feet (page 15) annually to maintain it. That comes to 3,188 acre feet pumped out of the groundwater the first year along with purchasing 47 AF/Y raw water and 6.4 AF/Y treated water. Over a period of 35 years, the volume of groundwater taken from the groundwater public trust would fill Scotts Flat Reservoir to capacity. Diminishing groundwater will diminish water volume transferred into the surface water system.

### 4.3 Stormwater

The District currently has a policy to not actively collect stormwater runoff as presented in the current stormwater policy (District Policy #6655). However, based on current system configurations, the District may incidentally divert stormwater into the canal system due to uncontrolled runoff outside of NID's control.

1. Does the District provide direction and assistance for customers desiring to collect storm water?

### 4.4 Wastewater and Recycled Water

2. As treated water use increases, why doesn't recycled water supply increase proportionately?
3. Because recycled water has already been counted as treated water demand, why is it counted once again as a water source?

Page 54, paragraph 1, NID UWMP is incorrect and does not address the intent of determining Urban Water Supply Reliability.

"Table 5-4 indicates there is ample supply during normal hydrologic years. However, as shown in Tables 5-5 and 5-6, demand exceeds supplies during single dry year and multiple dry year scenarios. This illustrates the highly variable reliability of a snowpack-based supply system during drought periods. There are numerous management and operational efforts available to NID to address supply shortfall during drought periods. Demand reductions, carryover storage strategies, system operational strategies, supplemental supplies, increased storage, and others are all options to evaluate in creating the District's future water resources management supply strategy in the Plan for Water process."

- Tables 5-4, 5-5, and 5-6 need to separate out the treated water demand from the raw water demand. Please redo these tables using the optional tables, 4.3 on page 97, UWMP Guidebook 2020. This will separate values for treated and raw water, thus showing the true availability of urban supply and demand.

The important perspective offered in the UWMP is to determine the potable water supply and demand. Urban demand does not exceed supply in any year and in fact is less than 10% of the total District demand. A 35% shortfall for total demand leaves a 55% surplus based upon Urban demand alone.

Additionally, the over 90% of water that is used in the raw water canal system offers a huge reserve and flexibility to insure that the treated water system and a large portion of the raw water system have many options for future supply and

demand strategies. Including raw water, which is over 90% of local demand, skews the table so as to make it meaningless for determining urban demand. Total demand is important to the District and looking at this element is appropriate when done in a transparent and well defined manner.

Page 69

## **7.2 Metering**

“The District is fully metered and all treated water connections are billed based on the volume of water used. The metered connections allow the District to better monitor customer use during drought conditions when tracking is required. NID is actively replacing automatic meter reading (AMR) meters with automatic metering infrastructure (AMI) meters. Existing AMR meters are replaced when components fail, and currently 9,800 meters have been replaced. The AMI meters will allow real time water use comparisons and leak reporting. It is anticipated that District customers will have access to their usage through NID’s website. NID projects that the meter replacement program will be completed in the next five years.”

The District is not fully metered because raw water, over 90% of the demand expressed in this report, is not metered or even accurately measured. It is revealing to note that the huge raw water demand is put forward as at risk while the treated water component is ignored until advantageous. The District is not fully metered.

Thank you for the opportunity to comment on this document.

*Dianna Suarez*

**NID Response to:  
Diane Suarez**

Table 3-10. NID elects to show all of its demands and uses for its supplies in order to fully represent the demand to supply analysis. The treated water demands are listed separately in the table.

Table 3-12. NID elects to show all of its demands and uses for its supplies in order to fully represent the demand to supply analysis. The treated water demands are listed separately in the first portion of Table 3-10.

4.3 Stormwater. NID does not currently provide assistance to customers regarding stormwater collection.

4.4 Wastewater and Recycled Water. Not all new treated water customers are served by one of the three wastewater treatment plants in the service area, and therefore a direct relationship is not assumed. As noted in Section 4.4.3, increased wastewater flow is dependent upon the respective WWTP agency to expand their plant capacities. Until such projects are conducted, NID assumes the existing average discharge is the available supply.

Recycled water is counted as a source because it is water that is re-introduced into the system by choice of the WWTP agency and is available for appropriation.

Tables 5-4, 5-5, and 5-6. NID elects to show all of its demands and uses for its supplies in order to fully represent the demand to supply analysis. The District's Water Shortage Contingency Plan addresses different measures for treated water versus raw water customers during the various levels of supply to demand shortages.

7.2 Metering. This section refers to one of the six mandatory demand management measures for treated water suppliers per Water Code Section 10631. By reference, Water Code Section 527 identifies "all municipal and industrial service connections" as the subject connection types. This section in the UWMP does not apply to raw water customers.

The remaining comments address long term planning issues that can be reviewed in the Plan for Water process.



**CITY OF GRASS VALLEY**  
**Community Development Department**  
Thomas Last, Community Development Director  
125 East Main Street  
Grass Valley, CA 95945

**Building Division**  
530-274-4340  
**Planning Division**  
530-274-4330  
530-274-4399 fax

July 1, 2021

Doug Roderick – Via Email  
Nevada Irrigation District  
1036 W. Main Street  
Grass Valley, CA 95945

RE: Draft 2020 Urban Water Management Plan

Dear Mr. Roderick,

The City of Grass Valley has the following comments on the draft UWMP:

1. Page 7 includes a detailed description of the City of Lincoln's growth projections. There appears to be no such level of detail for the City of Grass Valley.
2. Page 8 includes a broad description of projected land uses for Nevada County, but no such description for Grass Valley's General Plan growth projections.
3. Table 2-2 on page 9 includes missing information on City-approved projects (Dorsey Market Place for 172 apts., 104,350 sq. ft. of retail, and 8,500 sq. ft. of office; Loma Rica the entire Specific Plan was approved, and we should review that land use plan vs. just the first phase of development listed in the UWMP). Berriman Ranch has been approved for the first 42 homes, which are going to be served by the City via agreement with NID. Ridge Village, which includes 10 additional lots from a recently approved map is a total of 34 homes.
4. The City would like to review and better understand the growth assumptions used on pages 12-14, and in Table 2-4. This may help answer the first two questions.

Since it might be more efficient to meet and discuss these comments, I can meet with you or your consultant to review them in more detail. Please let me know if you have any questions. You can reach me at (530) 274-4711 or email at [toml@cityofgrassvalley.com](mailto:toml@cityofgrassvalley.com).

Sincerely,

Thomas Last  
Community Development Director

CC: Tim Kiser, Grass Valley City Manager via email

**NID Response to:**

**Thomas Last, Community Development Director, City of Grass Valley**

The UWMP utilized demand projections from each wholesale agency if provided. In development of the UWMP NID reached out to the City of Grass Valley to coordinate the City's water demand projections for use in the UWMP. Unfortunately, NID was unable to obtain demand projections from the City in time for inclusion in the UWMP. NID will continue to work with the City going forward to further refine demand projections as specific developments are initiated.

To: NID Board and Staff  
Regarding: NID 2020 UWMP comments  
Date: July 2, 2021

From: Otis Wollan  
Placer County Resident, and former 5 term PCWA Director  
NID Stakeholder, as proposed NID projects impact my Placer County property directly  
President, American River Watershed Institute

Thanks to NID for providing the opportunity for input to the Draft 2020 Urban Water Management Plan. NID Staff and Board have acknowledged that neither the 2020 Agricultural Water Management Plan nor this draft 2020 Urban Water Management Plan are being seriously considered as planning documents, but have been considered “compliance reports” by NID Staff. The substantive planning issues are constantly being deferred to the Plan for Water. So rather than digging into the details presented in this draft, I will be addressing substantive planning issues that while mentioned here and in previous documents will not be dealt with in depth and completely until the Plan for Water which will restart this Fall.

NID’s urban demand is well under a tenth of the raw water demand. NID has a long way to go to reduce its per capita urban demand to meet the State’s projected urban per capita demand of 50 gallons per capita per day. But NID does measure this water accurately, and is moving toward modern meters and management that will enable accurate measurement and implementation of conservation methods. All of this will be hard work, but the problem is solvable, and there is good information about where NID is and how to solve the problem. NID’s raw water demand is well over 90% of its deliveries, and the information provided in the UWMP and the Agricultural Water Management Plan (AWMP) that preceded it show that the substantive issues in supply and demand are in raw water. Since the raw water supply for treated water is ample, NID does not have to rely on urban conservation measures to provide for future growth in the urban sector. So, I would like to focus comments here on fundamental questions that arise from NID’s raw water supply and demand.

In table 3-4, the total raw water “customer duty” is stated as about 140,000 acre-feet. From the AWMP, NID states the total number of irrigated acres is about 32,000 acres. Dividing one by the other shows the per acre use is about  $4\frac{1}{3}$  AF/acre. State of California guidelines state that application should not exceed  $2\frac{1}{2}$  AF/acre. Further, I provided extensive comment challenging the 32,000 acre figure in my comments to the AWMP, noting that the NID methodology for establishing that number of irrigated acres is fundamentally flawed, is contradicted by a recent study using object-based image analysis (OBIA, specifically Lidar) that was field verified, and that the figure of 32,000 could be overstated by a factor of 2. What that means is that the applied ag water in NID’s service area could exceed state standard by a factor of 3 or more. NID simply has no way of verifying this accurately. (see previously submitted detail from my AWMP comments).

The point I am making is that NID actually knows very little detailed and accurate information about raw water use, except for quantity in the aggregate. And knowing something at that gross level does not provide any basis for planning, which needs to be fixed so that the Plan for Water can actually be a useful exercise and guide NID’s future.

There is a major difference between the AWMP and the UWMP. In the AWMP Section 8, NID's Engineering Manager certifies that NID "measures customer deliveries." In the UWMP, in Section 3.1.4, NID states that "actual raw water customer usage is difficult to quantify on an individual basis as customers order a maximum volume of water, but the actual amount diverted is based on customer practices." The only thing NID knows about customer practices is gleaned from the self-reported customer questionnaire (refer to comments on the lack of veracity of this methodology, as previously submitted in my AWMP comments).

Section 3.1.4 goes on to say that "raw water system loss, including carriage water, seepage, evaporation, stockwater, theft, and other unknown uses, is therefore included in the total raw water retail customer duty." Combined with the admission that NID knows almost nothing about how raw water customers are using their water or even how much they divert, one can only conclude that NID has little idea what is happening to the raw water below the gross aggregate volume measurements.

A good example of how this can vary can be seen in PCWA's experience with "carriage water", which at PCWA was usually referred to as "tailwater". PCWA began using remote telemetry to measure precisely the amount of tailwater that was being lost at the end of its canal system, which in many ways is similar to NID's raw water canal system. This accurate measurement helped to some degree toward better regulation by the ditch tenders, but the real dramatic improvement occurred when PCWA fully automated the ditch system by placing gates at the top of the canal that delivered water governed by the real time telemetry at the end of the canal. In an informal discussion with PCWA's previous manager, and verified by a conversation this month with PCWA's current District 5 Director, the raw water saved through automation was approximately 15,000 AF, or about 15% of the aggregate raw water amount. Modern efficiency measures in just this one area of "carriage water", or tailwater, saved the Agency 15% of its raw water supply.

How much is NID losing in each of these areas: carriage water, seepage, evaporation, stockwater, theft, and other unknown uses? Simply stated, NID does not know, nor in many cases does it have the data gathering capacity to make an informed estimate.

Yet that one case of carriage water is small potatoes compared to the potential savings within the customer use, about which NID acknowledges it knows very little. Like PCWA, NID probably delivers  $\frac{1}{3}$  less water down the canals than is contracted for, because customers over buy, or use on an as needed basis rather than as continual delivery that is inherent in miner's inch delivery. Too many questions arise:

- How much are customers actually diverting?
- How much are customers over buying?
- How many acres of what crops actually are being irrigated?
- Is water running off the customer's property?
- Is the customer over watering?
- What is the conservation potential for crops if efficient irrigation systems were used?
- How much would that cost? Would NID subsidize or incentivise efficiency?
- How much turf is being irrigated?
- What would a turf replacement program save? What would it cost?
- What would a xeriscaping program yield in saved water? At what cost?
- What does NID know about pond management?

- Which canals are seeping water how fast? (can't know that if you don't know accurately what the customers are diverting.)
- Could the worst leaking canals be lined or piped?
- What would each customer be willing to agree to if you have a menu of options? And a suite of options for subsidizing efficiency methodologies? (Can't know that if you don't audit them and have the conversation.)
- What customers could implement a pressurized system of delivery, and would they be willing to buy water by volume rather than by miner's inch contract for gravity flow?
- How much theft is going on?
- How could NID reduce evaporation?
- What in the world is "other unknown uses"?

This drought provides numerous opportunities. Chief among them is auditing your raw water customers so you can begin to understand what is happening out there, and can begin to plan and implement strategies that are based in truth and knowledge, not vague guesses. A whole new set of value propositions needs to be developed for your customers: what is the value exchange for the customer taking sincere interest in smart water use that benefits the whole community? What assurances can NID offer to those willing to take leadership? What trust can be developed between the customer and NID, so customers are willing to make a real value exchange instead of over buying to protect themselves from some random NID conservation mandate of 20 or 35 or 50% across the board in response to shortage and drought?

At the front of the line should be the commercial agricultural customer who files the IRS Schedule F. What are their real needs? How can NID assure the real farmers that their needs will get met, and they won't get smacked with an across the board conservation mandate? What programs are in place to help farmers be efficient? What value propositions is NID prepared to offer?

In the AWMP, NID states "It is not locally cost effective for the District to finance capital improvements to agricultural customers because due to the District's water rights and supply infrastructure fixed costs, there are no incremental cost savings from potential local on-farm capital improvements." This is just leaving our farmers out of the loop. This ignores the will of the people in our communities who almost unanimously support commercial farming in our area. It ignores the priorities and policies of the county Boards and planners. NID needs to become an ally of its customers, and primary among them the commercial farmers, where, not incidentally, lies the greatest potential for near term significant savings of water if there can ever be a mutual trust between NID and the customer that their water needs for agricultural commerce will be assured and met.

This is a serious threat to NID's water rights security. Simply by reading the comments to the Centennial Dam NOI and NOP exercises, and the water rights protests to the Centennial dam filing with the SWRCB, NID must realize that many of these stakeholders are faulting NID on very fundamental issues. Namely, does NID use its water beneficially? How can NID document that? Or can it be documented that NID actually doesn't know if the water is being used beneficially or not, because NID doesn't measure volume or assess/audit uses or waste or....? Is NID willfully violating DWR guidelines and standards for measurement and beneficial water

use and conservation? Does NID believe it will fare well before the SWRCB in its water rights application if it cannot make a better showing than it has done in these “compliance exercises” of the AWMP or the UWMP that we have seen this year? These documents clearly indicate major deficiencies in the District’s ability to measure volume at the farm gate, or assess the efficient and beneficial use of the water behind the farmgate, or even accurately access or even determine the cause of delivery inefficiencies. NID’s water security lies not in its effort to increase its already ample supplies through huge new facilities like Centennial Dam, but in its ability to demonstrate beneficial use of its existing water before it becomes a target. The real work is making the existing system reliable and resilient in the face of an uncertain future.

Big problems in NID’s previous decade of planning are evident in demand planning. In both the 2010 and 2015 plans, NID grossly overestimated growth and future demand. The 2020 documents seem to be pointing to a more realistic level of growth. But the wildly inaccurate demand projections of the past are instructive, because quite likely they are the source of the adamant proposal for a new 225,000 AF dam. With wildly inflated demand, such large projects are the only way to provide supply. Here are comments I made to the 2015 NID UWMP on Section 3 and System Water Use, cited here in italic:

*While this plan is ostensibly an urban water use plan, significant insights are provided in this section on what NID calls “agricultural irrigation.”*

*2015 Table 3.2 indicates current demand for agricultural irrigation is 115,989 AF. This level of use is then projected to increase by almost 50% by the year 2020.*

<i>2015 Table 3.3</i>	<i>2015 demand increases 46% by 2020 (a % factor of 10 versus 2020)</i>
	<i>2020 demand increases 4.5% by 2025</i>
	<i>2025 demand increases 2.6% by 2030</i>
	<i>2030 demand increases 3.6% bt 2035</i>
	<i>2035 demand increases 3.2% by 2040</i>

*The increase in demand from 2015 to 2020 needs explanation. Is this because usage dropped in the fourth year of a drought? If so, it is revealing, because NID had no active conservation program in the raw water division, but only minimal and passive public education programs. Did this apparent low use of raw water result in any reduction in the quality of life in our region? Was there any reduction to commercial agriculture? Were the reduced levels a result of more efficient use on rural estate landscaping? These distinctions need to be studied with real data that can provide a basis for future planning and future conservation and efficiency programs.*

*What is more curious is that the comparable table in NID’s 2010 UWMP has this same anomaly in usage. 2010 UWMP Table 3.12 noted a similar spike in use from 2010 of 129,894 to 2015 180,046 or 39% increase. This increase didn’t happen, even though 2010, 2011 and 2012 were all higher than normal water years (according to 2015 URMP Figure 5.1) . If the predicted 39% increase in agricultural irrigation use did not happen between 2010 and 2015 as predicted in the 2010 URMP, what makes NID think the 46% increase in agricultural irrigation will happen in the next five years as predicted in the 2015 URMP? These projections indicate the tremendous level of elasticity that exists in the use of raw water. NID’s best opportunity for managing water use wisely in the future lies in this category of agricultural irrigation. This entire category is mis-named, as most of the water in this category is not commercial agriculture. It is rural estate landscape water which is labeled “irrigated pasture.” It is undeniable that rural*

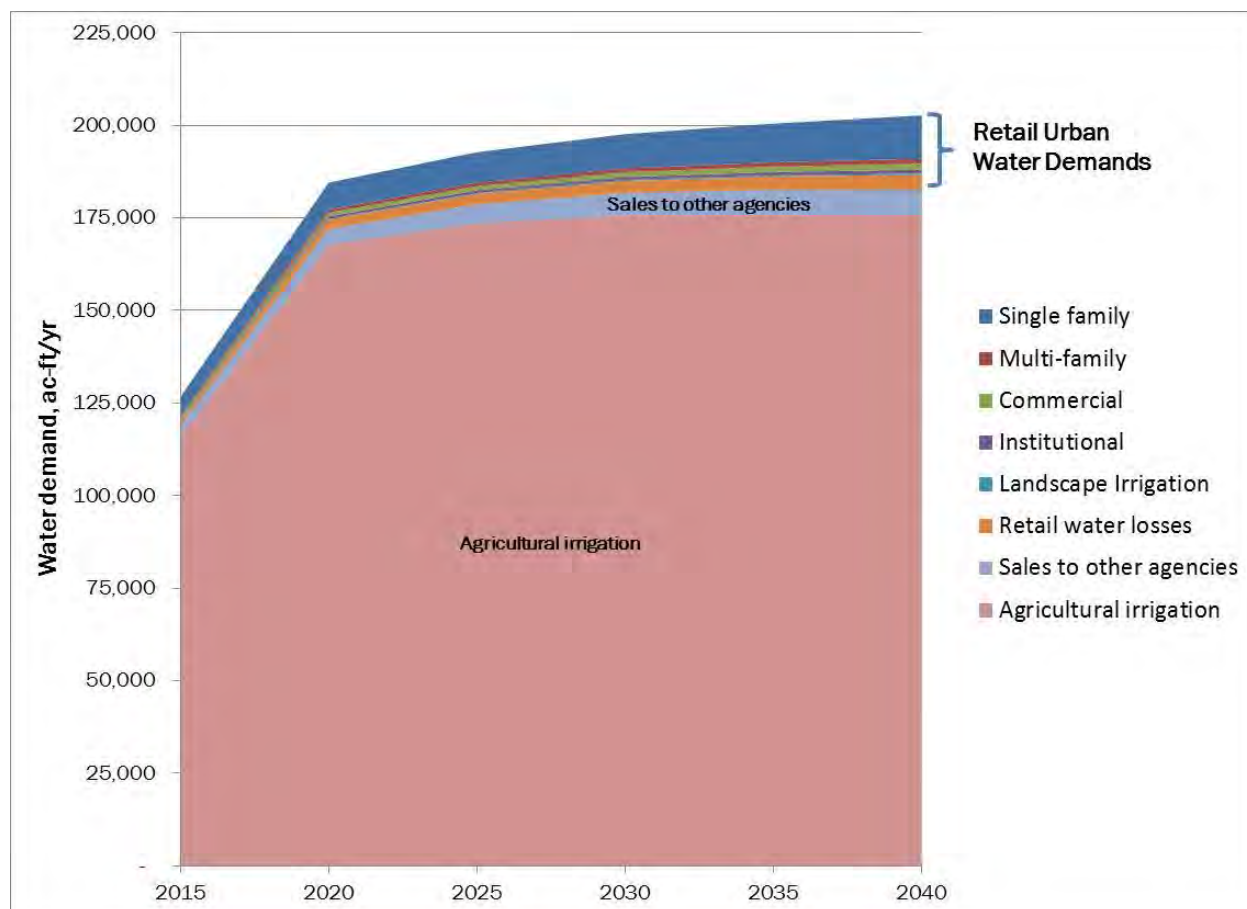
*development and water use in the past half century has seen the demise of most commercial grazing, and its conversion to rural estate suburban housing. Most of this water should be categorized as urban water use, and analyzed in detail in this Urban Water Management Plan. It should be managed as urban landscape water, and brought up to the same standards of measurement (and metering) as urban treated water, and the same suite of conservation measures for landscaping should be applied as are used for urban treated water. The blanket term “agricultural irrigation” is being mis-used to describe all raw water applications. Suburban landscaping is not agriculture. Truly commercial agriculture should be addressed in the Ag Water Plan, and suburban landscaping should be included in this UWMP*

*2015 Table 3.2 plans to expand agricultural irrigation by 5% from 2020 176,626 to 2040 184,271. It is essential to discern ag water from rural estate landscape water. How much of this increase will be commercial agriculture? How much will be increased rural estate suburban landscape water?*

*In addition, 2015 Table 3.2 provides a challenge to NID’s claim that increased storage capacity is needed in the future. Total projected volume in 2020 of 184,704 AF increases in 2040 to 211,930 AF. However, as noted above, the huge elasticity of “agricultural irrigation” calls these figures into question. Is the agricultural irrigation figure accurate, or is it overstated 39% (2010 UWMP) or 46% (2015 UWMP)?*

*[from public comment letter to the 2015 NID UWMP by Otis Wollan, et al]*

Here is what that unrealistic demand forecast looked like as it appeared in NID documents:



It is a good sign that NID has moderated its excessive demand projections in this 2020 UWMP. What NID has never mentioned, however, is that there is a realistic scenario that demand for water, and especially raw water, may decrease. Our regional NRCS agricultural advisor has indicated that several areas of agriculture are in decline, particularly grazing. Demand from commercial agriculture may decrease (see also notes previously submitted on the 2020 NID AWMP in the section on OBIA). Demand for raw water from suburban lifestyle growth in our rural areas may also decline, as many hopeful home builders are having a very difficult time getting fire insurance. The potential of fire catastrophe will affect us in the future. While we hope it will never happen here, it would be instructive to see what has occurred in both urban and raw water demand in the Paradise, CA area. I personally have seen long term residents moving out because of the newly realized fire dangers to our community. NID should consider in the Plan for Water that a very possible scenario for the future is no growth in demand, and even reduction of demand in worst case scenarios.

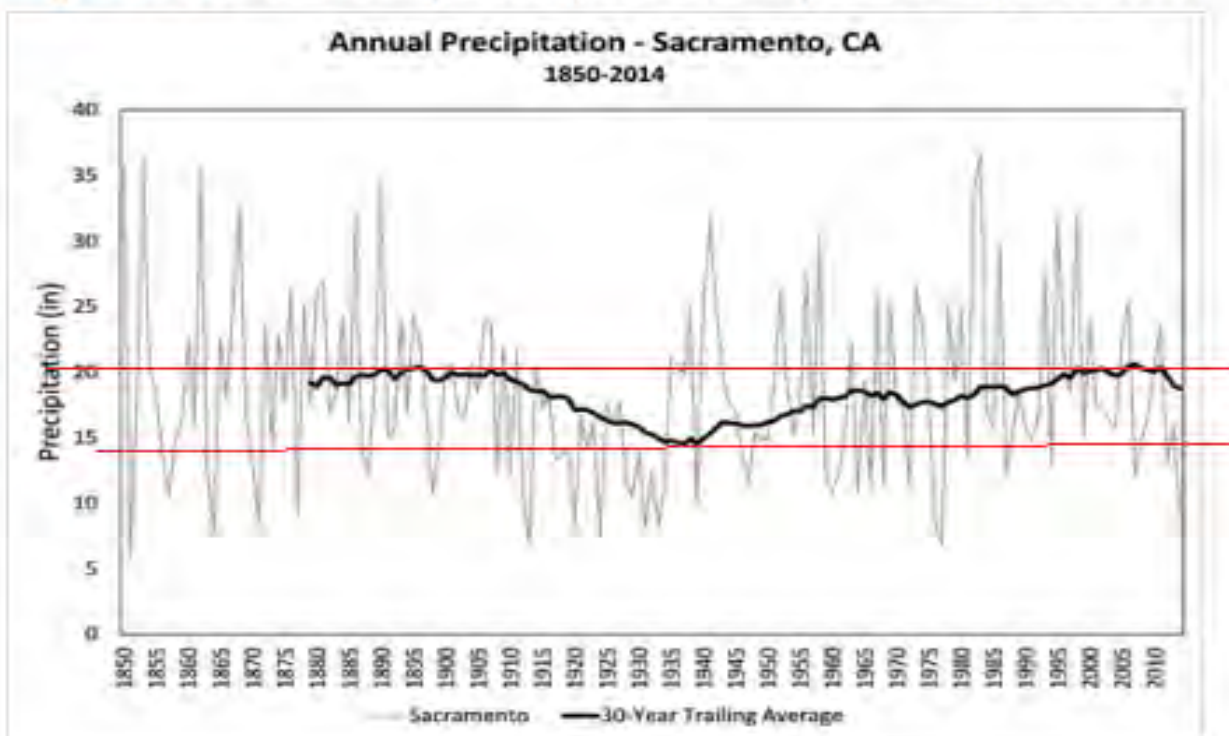
**Climate Change and water supply.** Not only does NID overstate demand, it may very well be overstating supply as well, especially when forecasting the future with climate change scenarios. Overestimating supply is quite dangerous, especially when adamantly advocating for a new 225,000 AF reservoir. Building a reservoir and not being able to fill it is disastrous. There are several areas that I think NID needs to be mindful of when projecting supply. I have made a

hobby of studying climate change for my entire adult life, stimulated first in a course on Ecoscience taught by Paul Erlich in 1968. Here are some of the observations.

Current advice on climate change scenarios offered by the State of California is in my view suspect, because it is oversimplified and omits several pieces of the puzzle that point to much higher levels of uncertainty. Uncertainty may be the only certainty about climate change. Here are two uncertainties that the State has not recommended for consideration, but should, and NID should consider.

The first precedes any thought about climate change. That is the cycle of drought, and especially the cycle of megadrought. It is curious that these are not more the center of our attention. The Colorado River Compact was based on hydrology that was at the top of the drought cycle before 1920, and the shortages and conflicts have all stemmed from the original over estimation of supply. We know the hydrology of the past hundred fifty years.

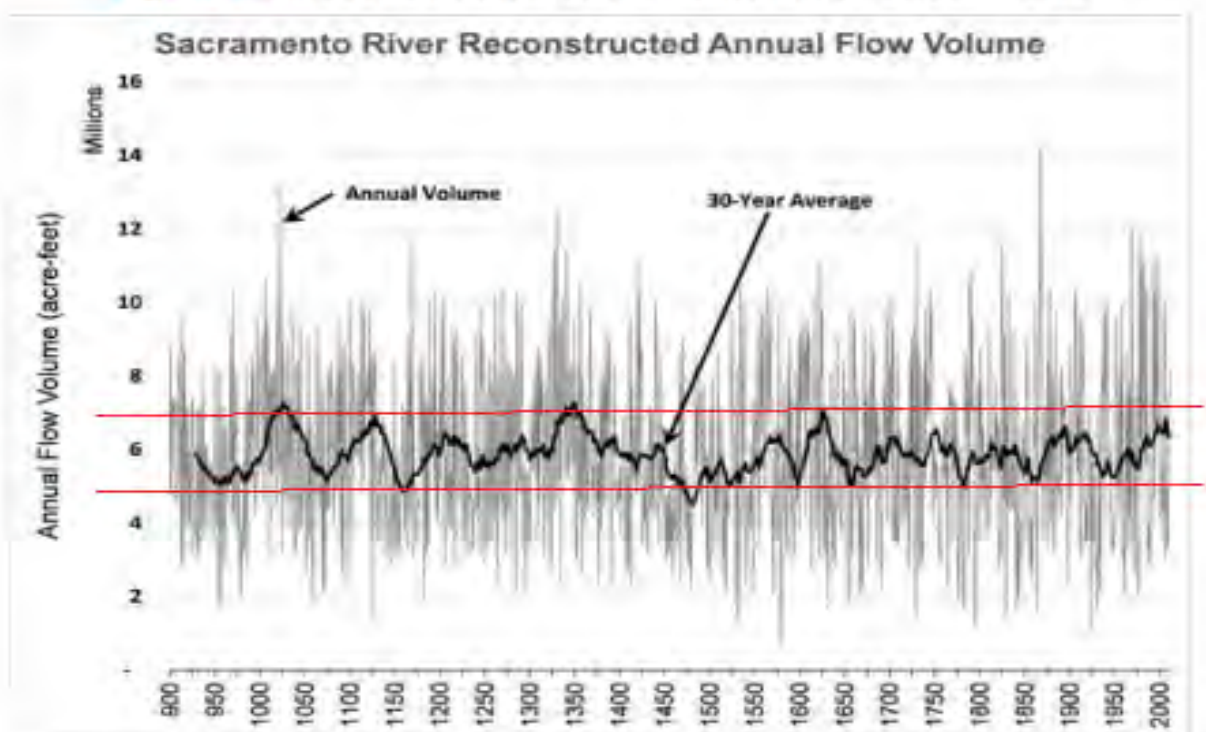
**Figure 3-3 Annual Precipitation, Sacramento, California, 1850-2014**



Data sources: California Department of Water Resources 2014a

The hydrology that I have seen from NID does not adequately take into account the years 1910-1935. Has NID chosen as its hydrologic baseline a time period of more recent years that will inflate the supply projections?

Tree rings provide a history that is much longer, and it is in understanding the drought cycle from the thousand year perspective that suggests an even more dramatic possibility--- millennial drought cycles in addition to the centennial drought cycles. It is the deep drought period in the Middle Ages, which is referred to as an anomaly, that some more recent data which considers the previous several thousand years may prove to be a repeated millennial cycle.

**Figure 3-6 Reconstructed Sacramento River Streamflows**

Source: Meko et al. 2014

What all of this investigation into the hydrology of the past several thousand years within the 10,000 year Holocene is pointing to is this:

- Decadal drought cycles
- Centennial drought cycles
- Millennial drought cycles

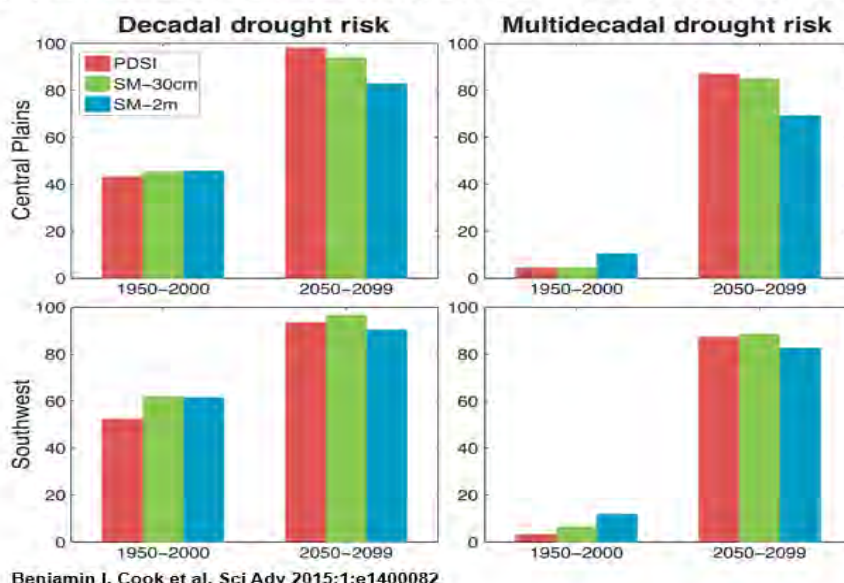
It turns out that choosing your baseline hydrologic period is a non-trivial exercise. It is humbling. It is only within the past year or so that we are beginning to see water articles on the possibility of mega-drought. Much of that literature is coming from our Southwestern drought that is well into its second decade--- a possible millennial megadrought that is over-riding the patterns of both decadal and centennial drought cycles. If NID is relying on supply projections just the past fifty years, those projections will be inaccurate by at least 30%, and far more if megadrought is considered. This is sobering data when planning appropriate supply storage, as it may never fill for years on end when you need it most.

Considering these drastic drought cycles is not an outlier in peer reviewed science. As published in Science Advances: from NOAA and NASA: Unprecedented 21st century drought risk in the American Southwest, Benjamin I. Cook<sup>1,2\*</sup>, Toby R. Alt<sup>3</sup> and Jason E Smerdon<sup>2</sup>

**Abstract:** *In the Southwest and Central Plains of Western North American, climate change is expected to increase drought serenity in the coming decades. These regions nevertheless experienced extended Medieval-era droughts that were more persistent than any historical event, providing crucial targets in the paleoclimate record for benchmarking the severity of future drought risks. We use an empirical drought reconstruction and three soil moisture metrics*

from 17 state-of-the-art general circulation models to show that these models project significantly drier conditions in the later half of the 21st century compared to the 20th century and earlier paleoclimatic intervals. This desiccation is consistent across most of the models and moisture balance variables, indicating a coherent and robust drying response to warming despite the diversity of models and metrics analyzed. Notably, future drought risk will likely exceed even the driest centuries of the Medieval climate Anomaly (1100-1300 CE) in both moderate (RCP w.5) and high (RCP 8.5) future emissions scenarios, leading to unprecedented drought conditions during the last millennium.

**Fig. 5 Risk (percent chance of occurrence) of decadal (11-year) and multidecadal (35-year) drought, calculated from the multimodel ensemble for PDSI, SM-30cm, and SM-2m.**



Benjamin I. Cook et al. Sci Adv 2015;1:e1400082

ScienceAdvances  
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Published by AAAS

While these lofty studies of the past millennia and the future projections for the next hundred years are dizzying to say the least, there is a simple important takeaway for our local water agencies when planning for the future. There are lots of uncertainties when planning for the future, and some of them have huge impact. Pondering these offers some takeaways:

- It is wise to first take care of the existing infrastructure to make sure it is reliable and resilient.
- It is wise to first make sure that every drop of the existing demand is used efficiently.
- It is wise to know the customers and the existing uses thoroughly and to understand where there is flexibility, and where there is rigid demand.

I hope NID is able to reflect on these scenarios, and that it informs the approach to a Plan for Water.

“Hot Drought” is the second issue that NID needs to include in its climate change scenarios. This new concept in drought comes again from studies on the Colorado River, first published in the Bulletin of the American Meteorological Society, January 2014 edition in an article entitled “River of Doubt: The Uncertain Colorado in a Changing Climate”. The story here is that in the

years 2000-2010 of relatively normal precipitation, the temperatures that averaged 2 degrees Centigrade above normal were creating hydrologic condition that mimicked the precipitation drought of 1955-1965. This has been labeled “hot drought”, where the higher temperatures trigger a complex of conditions that reduce watershed runoff. Those conditions are:

- Rain melts snow (rain-on-snow events)
- Sublimation from snow
- Evapotranspiration from plants and soils
- Evaporation of surface water
- Longer growing season for vegetation
- More rain less snowpack
- Positive feedbacks amplifying these impacts

Hot drought plus precipitation drought has brought these issues to the forefront, and we are now reading about the Colorado River water shortage in the daily news.

But hot drought is not limited to the Colorado River. Roger Bales of UC Merced has studied hot drought in the Sierra, and this data is available for use in scenarios in the Plan for Water. This year is an example of hot drought conditions and impacts right in front of our eyes in this moment. NID should partner with PCWA to make a connection with Roger Bales at UC Merced, who has worked with PCWA for decades, to develop a scenario approach that specifically addresses Hot Drought and its range of impacts for watershed yield of the Yuba and Bear.

Climate change planning takeaways. When NID undertakes the next round of planning which will include developing climate change scenarios, it will be important to rethink the assumptions and take a more comprehensive view than previously implemented. From the outside, it appears that NID is again taking the “mandate compliance” approach it has taken toward the AWMP and the UWMP. To get the more comprehensive future scenarios, I urge NID to:

- Partner with PCWA to extend their climate modeling to the Drum Spaulding and Yuba Bear systems
- Partner with PCWA to ensure that a Hot Drought scenario is developed following the counsel of Roger Bales et al at UC Merced
- Partner with PCWA to include a megadrought scenario based on millennial tree ring history.

### **Summary and Recommendations for Plan for Water.**

The Plan for Water should anticipate likely major system changes that will change the water supply paradigm, for example, the relatively near term acquisition of the PG&E Drum Spaulding system by an NID/PCWA JPA. Planning for this should include the financial side; this should include acquisition costs and how NID plans to use its future modest borrowing capacity (will it be used for maintenance, emergencies, capital improvements, or acquisitions such as this?).

Then, the single biggest need within NID seems to be the nearly total gap of good data on raw water use. Until NID understands the customer need, any planning exercise is lacking a target. NID must understand what the individual raw water customer does with the water currently, and what conservation strategies might be implemented on an individual customer basis. This will require auditing many or most of the raw water customers. Without this data, a planning

exercise is meaningless, as it can't determine the goal/target of meeting the needs of the customers.

Once the true demand is known, the full range of demand side and supply side options should be developed.

**Demand Side:**

- First and foremost, audit the raw water customers with individual conservation strategies. A miner's inch is 9 gallons a minute, equivalent to flushing a toilet every ten seconds; each miner's inch sold is a goldmine for conservation.
- Develop policies that can support commercial agriculture.
- Ramp into true market values for "lifestyle water uses" for raw water customers.
- Implement telemetry on all canals.
- Automate canal conveyance, like PCWA.
- Implement urban conservation, including DMM's that NID has not addressed:
  - Toilet replacement rebates
  - Turf reduction buyout
  - High efficiency landscape watering systems
  - Complete rollout of sophisticated metering with customer feedback capacity
  - Conservation rate structures

**Supply side:**

- Optimize existing systems:
  - Raising Rollins dam, or Silver Lake dam, or other system reservoirs
  - Raising Fordyce dam, anticipating acquisition and ownership of this PG&E facility
  - Raising Camp Far West, in partnership with SSWD
- Meadow restoration, like Bear Valley and Norden
- Watershed function restoration, like forest management for water yield
- Watershed function protection, like forest management for fire safety
- Analyze possible biomass utilization technologies and integration with hydropower system
- Analyze carbon sequestration potential of NID and JPA watersheds
- Assess groundwater recharge potential, and possible partnerships and markets
- Fully assess conjunctive use with partnerships in the American River Sub-basin

NID has such great potential, but seems to be constrained by its insular culture. The work of developing a Plan for Water from a new paradigm that leapfrogs NID's current perspective of a century old agriculturally based irrigation water provider will be central to a successful future for our community. Neighboring water agencies have made much of that leap into the future, and I sincerely wish NID well on this journey.

**NID Response to:**  
**Otis Wollan**

Comment Noted. The Comment does not specifically address edits or questions regarding the adequacy or accuracy of the document. NID will address more general inquiries concerning long range District planning in the Plan for Water process.

From: [Susan Sanford](#)  
To:  
Cc: [NID Info](#)  
Subject: water restrictions  
Date: Sunday, July 04, 2021 4:53:38 PM

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**CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or on clicking links from unknown senders.**

Dear Nevada Irrigation District and Nevada City City Council members,

As a native Californian, now in my 60s, I am intimately aware of the need to conserve water. I have been a diligent practitioner of water-saving for a very long time.

Percentage reductions in water use are only part of the mosaic because another factor is at least as important: household size.

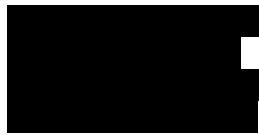
I would find it more helpful to see a chart of water use targets for household size, rather than a percentage. For those of us who have been dogged water conservationists in our homes and gardens for decades, it's a huge challenge to figure out where else to cut back.

Long term planning might be well served by learning what people are doing, or want to do, re: watering to grow food and/or reduce fire danger.

As we all know, water in California is a very complex and multi-generational dance.

Thanks for your consideration,  
Susan

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Susan Sanford



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**NID Response to:**  
**Susan Sanford**

Comment Noted. The pending State Water Use Objectives will dictate indoor and outdoor irrigation treated water use.



## FOOTHILLS WATER NETWORK

July 2, 2021

Jennifer Hanson, General Manager  
Chris Bierwagen, Division II, President, Board of Directors  
Ricki Heck, Division I, Board Member  
Karen Hull, Division III, Board Member  
Laura L. Peters, Division IV, Board Member  
Rich Johansen, Division V, Board Member

Nevada Irrigation District  
1036 West Main Street  
Grass Valley, CA 95945

*Submitted via e-mail: [info@nidwater.com](mailto:info@nidwater.com)*

Re: Comments on the 2020 Update of the Urban Water Management Plan

Dear Ms. Hanson, President Bierwagen, and Directors Heck, Hull, Peters, and Johansen,

The Foothills Water Network (the Network) is a coalition of non-governmental organizations<sup>1</sup> concerned with watershed management issues in the American, Bear, and Yuba River watersheds. While the Network is pleased to have the opportunity to comment on the June 14, 2021 version of the 2020 Draft Urban Water Management Plan (UWMP) it is necessary to note that reconciling the information provided in the October 2020 Water Planning Projections, the 2020 Agricultural Water Management Plan (AWMP) and this Draft Urban Water Management Plan is unfortunately convoluted. As pointed out in the public workshops held on June 23 and 24, 2021, the Plan for Water public process will ultimately need to reconcile the various documents, other perspectives and implications, and provide a much more clear discussion, explanation, and presentation of the assumptions used, their alternatives, sensitivity of the derived numbers to them, and linking them together thoroughly and accurately. Unfortunately, publication of multiple versions of the UWMP including this and the June 7, 2021 version and resulting corrections, adds confusion rather than helping clarify and build confidence in the results.

### **I. Introduction**

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<sup>1</sup> Foothills Water Network includes American Rivers, American Whitewater, California Outdoors, California Sportfishing Protection Alliance, Friends of the River, Gold Country Fly Fishers, Northern California Council of Fly Fishers International (formerly Northern California Council Federation of Fly Fishers), Sierra Club, South Yuba River Citizens League, and Trout Unlimited.

With this UWMP and the recently adopted 2020 AWMP, NID is entering the new era of water management and planning required by numerous legislative and regulatory initiatives still being developed since the previous 2015 reports. The Network appreciates NID's recent and continued efforts to include the public and provide adequate review time and opportunities for questions and discussion. However, as the public is encouraged to participate, the need for carefully prepared and presented information increases. The following comments are intended in good faith and in support of NID's ongoing efforts to inform and engage the public in understanding the water planning challenges our community and NID face.

These comments will address the importance of the Plan for Water, better understanding of in-stream flows, the need for clear and complete information, the value of conforming to regional information standards, and recommend that the resolution to adopt the UWMP include language similar to the adoption resolution for the AWMP.

### **NID's commitment to the Plan for Water public process**

The Network appreciates the commitment NID is making to the Plan for Water public process described in the last paragraph of Section 1.1, in references to it throughout the UWMP and AWMP, and as described on the NID website. Together, these statements outline the beginnings of a challenging work plan for the Plan for Water public process.<sup>2</sup> The many deferrals to the Plan for Water process in the UWMP highlight the Network's concern with the UWMP especially after the June 14 revisions. As reinforced in the public workshops, the Network expects that all of the planning numbers and assumptions published as part of and since the October 2020 Water Planning Projection (WPP) documents will be reconsidered and validated as part of the Plan for Water public process. To be clear, the Network considers all of the assumptions and values published since October 2020 to be placeholders for further analysis, validation, and understanding.

The Network has been advocating for the Plan for Water public process, or similar stakeholder process, to help inform NID of the numerous options and decisions before it in meeting the challenges of climate change, changing economics, and assuring the beneficial uses of water.<sup>3</sup> The Network expects the Plan for Water to fulfill its ambitious intentions and will monitor and engage in the process to assure that it does.

For example, the Water Planning Projection (WPP) documents process allowed stakeholders and the public to have a common understanding and confidence in the numbers, modeling, and methodology. The UWMP numbers and report undercut that progress. Similar to the conclusions in the AWMP process, NID should return to these assumptions and modeling before the Plan for Water continues and

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<sup>2</sup> Plan for Water recommendations stated in the UWMP: Latent Demand analysis, p. 10; Raw water use analysis and future unit demands, p. 11; Further analyze customers and population growth when the 2020 census data is available, p. 18; Revisit outdoor water use budgets after outdoor guidance is issued, p. 19; Revisit FERC flows and implementation once the license is "finalized" and implementation is started; Section 4.7 Future Water projects. "The District does anticipate studying the expansion of reservoir capacity...".

<sup>3</sup> see the South Yuba River Citizens League's April 26, 2018 and the Network's May 21, 2018 letters to NID relating to the Raw Water Master Plan process (now the Plan for Water public process).

the resolution to adopt this UWMP should contain similar language to this affect as the resolution to adopt the AWMP does.<sup>4</sup>

### **Correct understanding of new in-stream flow requirements**

NID was intimately involved in developing the in-stream flows that will be part of the new Federal Energy Regulatory Commission (FERC) license for the Yuba-Bear project.<sup>5</sup> The statement in section 3.3, “In-stream flow requirements are flows the District must leave in the respective streams, using the District’s supplies,” is misleading. The understanding by NID at the time the flows were developed was that not all of these flows are taken from NID’s static storage as the statement implies; these flows, especially in Wet and Above Normal years and significant portions of the Below Normal and even lower water year types are fulfilled, at least in part, by water spilled when storage is full or from planned voluntary releases for power generation.

As recommended in the Network’s October 19, 2020 comment letter regarding the *Water Planning Projection Documents*, NID should model a scenario that includes median climate change hydrology, Final Environmental Impact Statement projected future FERC flow requirements, and *existing* NID demand which would allow comparison of the relative impact on NID water supply operations of the new FERC flow requirements and projected demand increases under climate change hydrology.

While the new in-stream flows are a challenging change to account for and to understand correctly, the Network suggests NID enthusiastically embrace the improvements in riverine habitats and recreation that its new license will help create. The Network’s point of view is that our rivers and watershed are whole unto themselves and we as a community extract our needs for water and energy from them while benefitting from a healthy river. Without a healthy river system and larger watershed, there is less reliable water and energy for our community and for the downstream benefits that support our watershed’s health.

Please refer to the List of Acronyms and Abbreviations in the UWMP for definitions of acronyms used in this letter.

## **II. General Concerns**

In general it is not clear how NID is approaching the UWMP as it relates to new and emerging requirements for improved integrated water management planning. Some of the lack of clarity is the result of a rapidly changing regulatory framework and the deficiencies of responsible state agencies; however, it is in just such an environment that NID must be particularly clear and explicit about its purpose and approach to any given document, like the AWMP and UWMP. Is it a plan or a report? Is it both? Is its main purpose to demonstrate compliance or to provide a definitive and sound basis for further planning, or all of those?

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<sup>4</sup> NID 2020 AWMP Appendices Final April 30.pdf, Appendix B: 2020 AWMP Adopted Resolution

<sup>5</sup> NID negotiated in good faith for more than 10 years with State and Federal agencies, PG&E, neighboring water agencies, and the Foothills Water Network within the relicensing process for the Yuba-Bear Project to establish essential flows for all stakeholders, including NID customers and the environment. NID proposed the new flows in their Final License Application to FERC. Flows were negotiated and agreed to based on existing infrastructure.

While these questions are addressed tangentially in the UWMP and were partly addressed in the June 23 and 24 workshops, it is still far from clear. Also of particular concern is the inability for different audiences to follow the information within the UWMP or from one document to another and understand explicitly new or changed information so that as comprehension evolves, it can be reexamined from different points of view. Amongst many techniques that can aid in clarity and continuity, the Executive Summary, or in the rubric of the 2020 UWMP Guidebook,<sup>6</sup> the “Lay Description” is of paramount importance. It is in this opening section that the writer has the opportunity to ground the reader in the writer’s intent, approach, structure and guidance for stepping into the detail of the document.

As NID continues the Plan for Water public processs, the presentation of technical information needs to improve. Correct and accurate numbers, sensible assumptions, and logical conclusions are of little value if they cannot be easily conveyed and understood. Following are a number of critiques and suggestions for this and future water planning reports and plans with some examples.

### **The UWMP is difficult to follow**

It is the technical writer’s obligation to consider their audiences and provide different levels of information for each of them while maintaining consistency and accuracy. Critical in each type or level of information is providing the reader consistent and complete references, cross references, and explanations for each piece of information or conclusion proposed and presented. The reader must be provided explicit references from any given value in a table or text to its origin and derivation so it can be quickly reviewed and understood. The writer must guide the reader through the material such that it builds on itself in a cohesive way so the reader is left with the satisfying feeling of, “I get it” rather than confusion.

A first example of this is the lack of any explanation provided for the numerous changes made from the June 7 version to the June 14 version. Without explanation, these changes undermine the readers’ confidence in the analysis before even beginning to attempt to follow the thread of assumptions and analysis. If mistakes are made and corrected, they should be described and explained. Candidness is the foundation of confidence.

For instance, the UWMP states on page 32 in the Water Supply Characterization section that, “The average runoff supply does not include supplies from the Bear River and the South Yuba River. The District is likely to receive some water from the Bear and SY sources in dry years. Due to the uncertainty of the supply available from these two sources, it has not been quantified in this UWMP.” This is a significant revelation from the October 2020 WPP documents and deserves a candid explanation for the sake of credibility. The reader is left with a disconcerting question in their mind of “Why not?” Nowhere else in the document is ‘uncertainty’ used as a reason for not making assumptions from which conclusions are proposed. Of course this will be addressed in the Plan for Water.

The UWMP is also difficult to usefully analyze because of incomplete or irreconcilable information or description. For instance, if one wishes to calculate the GPCD for a given customer category in order to compare one to another or to ‘standards’, the number of connections is not always given, such as in the

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<sup>6</sup> State of California, Natural Resources Agency DEPARTMENT OF WATER RESOURCES, Division of Regional Assistance, Water Use Efficiency Branch, Urban Water Management Plan Guidebook 2020, FINAL March 2021.

cases of Broadview Heights, Lake Vera Water Company, City of Grass Valley, or Nevada City or are inconsistent, such as the 219 Treated Water Retail Multi Family accounts indicated in table 2-4 and section 2.5.1 and the 175 units described in Section 3.1.1.

It is also challenging to extract important information out of the descriptive text, such as the unit demand factors in Section 3.1.1, and apply them to information in tables such as Table 2-4. Including all the useful information in the tables with references to other tables or text for detail is helpful as is complete and accurate table titles and headings that indicate, at least with a footnote, where values such as Annual Growth Rate in table 2-4 are derived, shown, and discussed. Please help the reader by providing complete and accurate titles, definitions, and cross-references in the text, tables, and in footnotes in a consistent and thorough way.

The lack of references, context, and discussion provided for the required ‘Unconstrained Demand’ and ‘Single Dry Year’ analyses are examples of the need to be explicit about the source and purpose of a report element. These analyses are regulatory requirements and are not particularly useful in terms of actual planning without understanding their regulatory intent. Being clear in the text or in footnotes about why and how this information is developed and presented would help the reader not familiar with the regulatory requirements understand that the numbers shown are an intermediate step and not a conclusion unto themselves.

### **The UWMP falls short as a compliance report**

As a compliance report it is difficult to correlate this UWMP to the 2020 UWMP Guidebook or other suppliers’ UWMPs. NID is an important part of our region’s and state’s ongoing efforts to integrate water planning information and plans. In the future, the Network recommends organizing the UWMP in the way the Guidebook or other guidance recommends. It is helpful to be able to refer to common nomenclature and organizational elements between plans as part of regional and statewide planning. Although NID’s circumstances are relatively complex, the Network commends the format and approach exemplified by the California Water Service UWMP format and approach.<sup>7</sup> The City of Lincoln’s UWMP is also a good example of presenting information that conforms to the regulatory standard.<sup>8</sup>

### **III. Conclusion**

Thank you for considering these comments and for providing the opportunity for discussing and clarifying the UWMP in the two public workshops in June. The Network appreciates the challenges NID faces and supports your efforts at public engagement. As the Plan for Water public process unfolds, it is critical that information developed and presented be readily understandable by a variety of audiences by providing thorough and explicit references and cross-references within and between documents as well as helpful explanations. The Network intends that the critiques and examples provided help NID develop future documents and reports.

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<sup>7</sup> <https://www.calwater.com/conservation/uwmp-review/>

<sup>8</sup> <http://www.lincolncalifornia.gov/Home/Components/News/News/2780/73?backlist=%2f>

Additionally, the Network requests that the UWMP adoption resolution include the language in paragraph 2 of the recently adopted AWMP resolution which states, “The District will review, and amend as appropriate, supply and demand assumptions at the beginning of the Plan for Water Process to better understand available water supply and corresponding demands.”<sup>9</sup>

Thank you for the opportunity to submit these comments on the 2020 Urban Water Management Plan. The Network looks forward to engaging with NID on the Plan for Water process.

Respectfully submitted,

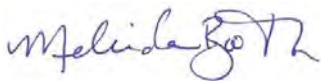


Foothills Water Network



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<sup>9</sup> NID 2020 AWMP Appendices Final April 30.pdf, Appendix B: 2020 AWMP Adopted Resolution

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**NID Response to:  
Foothill Water Network**

Bear River/Yuba River flows. As discussed in the AWMP and UWMP workshop process, due to provisions in the PG&E Coordinated Operations Agreement, hydrologic variability, and the fact that the District is not the senior water right holder, the historical runoff data evaluated to estimate the District's average runoff supply does not include supplies from the Bear River and the South Yuba River. NID will investigate these water sources in more detail in the Plan for Water.

The remaining comments address long term planning issues and will be addressed in the Plan for Water process.

URBAN WATER MANAGEMENT PLAN  
PUBLIC COMMENTS – WORKSHOP  
June 24, 2021

**Otis Wollan**

You know I did spend 20 years on the Board of PCWA, and President of American Rivers Watershed Institute, at the current moment. There are a couple of differences between the Raw Water Master Plan and the Urban Water Master Plan draft as we're seeing it. One is in the in the Ag Water Management Plan, you stated, particularly in an appendix that all raw water is measured, and my comments on this is, no, in fact, it's not. And in this Urban Water Management draft, I'm saying actual raw water customer usage is difficult to quantify, because basically it varies by customer according to customer practices. So, basically, you're only able to measure the raw water in the aggregate, and not by the individual user, nor by carriage water, or seepage, or evaporation, or stock water, or theft, or another category called unknown uses. And particularly this year we have a tremendous opportunity, because most of that water, I mean, they're great opportunities for carriage water. PCWA saved a tremendous amount of water spots apparently 15,000 acre-feet of water by just managing and measuring tail water very accurately and putting baffles and measuring how much water was being introduced at the top end of the canals. So there's a lot of opportunities there. But on the customer's side, that's where the real opportunity is. And here with the, the only way you can get to that is by doing audits of the of the actual uses, of the actual customers. Actually knowing your customer, actually knowing what they need and not what they just contract to buy. If we have another dry year next year, you're going to have to really make arrangements with literally every customer. So I really urge NID to begin auditing this year, really. A strategic approach to understand what the benefits would be by auditing your customer base.

There was another difference that was interesting, previously, when I would suggest doing audits and making special arrangements for commercial agriculture, because all of us support commercial agriculture, and we want to make a distinction between genuine commercial agriculture and landscape uses, or turf, or water features, or all kinds of other things that are where people are using raw water for. And in this report, actually, you suggest in the drought plan that you actually have an exemption for commercial agriculture, and that might be based on an IRS Schedule F, and that you could actually make a distinction between commercial agriculture and other uses. This is a tremendous opportunity because you can't treat large volume commercial agriculture; you can't paint them with the same brush. It doesn't work. You really have to meet their individual needs and their demands, and you can only do that if you know them very well and have really audited the circumstance. If you do a blanket 30 or 50 reduction it can be devastating, but if you know what the farmer needs and can make an

assurance that we're going to back commercial agriculture, that gets us over a big hump. And there's a lot of water to be saved. So it's really just urging the entity to take up the opportunity to learn your customers really, really, well, because that's where the savings in water can really happen.

And I urge you to maybe take up a program of auditing the commercial agriculture folks as a pre-exemption, before they have to file an exemption to a blanket thirty percent or fifty percent reduction. Begin immediately with making that distinction so we know that we can meet the needs of local agriculture. Because it was true in the 20-years I was on PCWA, and it's true for all of you sitting on the Board. Everyone in our community wants to see commercial agriculture successful, and the only way we can do that is with really clear knowledge of what's happening there. So, I think that's the fundamental message that I wanted to convey.

There's some progress, I think you're making some progress on the demand numbers, and look forward to furthering that. I really look forward to the Plan for Water because the momentum of looking at both the Ag Water Management Plan and the Urban Water Management Plan as simply compliance documents to a State mandate, has really damaged your ability to see them as opportunities. As I also noted in my comments to the Ag Water Management Plan, PCWA uses these exercises as genuine planning exercises and they include an appendix that explains to DWR how it is in compliance with their mandate. But the body of the document is actually meat of planning, it's the real thing. So I urge you, in the future, to pick this up, and hopefully, that in the Plan for Water, we will see that really extensive planning effort take effect.

So again, thanks for the opportunity, and hopefully we can be helpful in the future and continue to comment and help to refine the approaches that you're taking.

URBAN WATER MANAGEMENT PLAN  
PUBLIC COMMENTS - WORKSHOP  
June 23, 2021

**Traci Sheehan**

Good morning everyone, Traci Sheehan, Foothills Water Network. I really appreciate all the work that's been put into this and the conversation and discussion this morning has been really encouraging, so thank you. I like the direction that you're moving in. I want to touch on two main points having to do with the Plan for Water, and then, also information I've heard having to do with the environmental flows and the FERC re-licensing.

So first of all, for folks who don't know, the Foothills Water Network was founded back in 2003, in response to the idea that there would be re-licensing with three different agencies. Basically PCWA in the Middle Fork, YWA and YRDP, the Yuba River, and then also Yuba Bear, with NID and PG&E. The network was formed because there was an understanding that all of these systems are interlinked, so one system takes a hit, another system takes a hit. And because we are involved with these processes, since about 2003, I think, we learned a lot about all of these watersheds. But we were also afforded the opportunity to learn a lot of technical expertise, from hydrology, to water rights, to just how the system works. It's really interesting, and I'd love to talk about it another day, but the beginning of relicensing we didn't really understand even how the systems were plumbed. People were arguing on maps, of how the canals were connected. So we have come really far as a community, and having an understanding on these issues.

So the first thing I want to touch on has to do with what we call "minimum in-stream flows." I really appreciate that Greg explained that we're kind of convoluting three different issues. We call them "minimum in-stream flows" for FERC re-licensing, I'm not your Delta person, I'm not going to touch on that today, and it's not part of the Urban Water Management Plan that I know of, but I would like to touch on these "minimum in-stream flows" because they've come up as an issue before.

I really appreciate what Dustin said on the resource issues, you know the licenses and the minimum in-stream flows that NID has now, are based on the original license, and that license started in the 1960's, way before we had modern environmental regulations or an understanding of what resources needed. So, you are operating under that same license requirement, way back before we understood what the resource needs were. An important piece of this is, really, what are the environmental flows. And many times I sit in the room and I simply hear folks. I'm trying to get a dashboard understanding of how the environmental flows, or minimum in-stream flows, here I'm correcting myself, how the minimum in-stream flows impact supply. And one thing to know is, that it's not, people often describe this as if you're taking water out of like a stagnant bathtub or reservoir, but it's actually not the case. Because when we negotiated the flows, we came, and we wanted to look at, if our interest is resource protection and your interest is power generation and water supply how can we negotiate this? The environmental flow, the minimum in-stream flows, include power generation. Water flows that happen during power generation, it includes, when you're in a normal year, or a wet year, when you're just spilling, when the bathtub is just filling, those flows are included in the environmental minimum in-stream flows.

There's more than that, but those are just two basic ones that come to mind. And, I think that's critical to understand because you can't simply just say 'okay we're minusing this out of a stagnant reservoir', there are other inputs there, so that's one thing to keep in mind.

The other part is also process, so while it isn't a collaborative negotiation, that process is driven by a draft license application that NID sends to FERC. So NID proposes the flow regime, and NID proposed the minimum in-stream flows, and then those were negotiated. My understanding is that we all came to agreement, that's what I can remember now. So that's all I can do in my 60 seconds of our 10-years of minimum in-stream flows. But I would love to sit down with anyone and get into the details. There are so many times when I hear these generalizations and I wish I could respond, so I'm glad they're part of the Urban Water Management Plan and I can discuss those now.

So the second thing on the overall plan, I really believe the, Network believes, that the focus here really is on the Plan for Water, and I've heard that from folks, and part of the presentation, so I really appreciate it. As you're calling the Plan for Water we had a lot more time in the beginning to look at the hydrology, there were stakeholders involved, and this is very different, the way this has rolled out is different.

We knew that there would be gaps in the modeling, so we anticipated that. This is not a criticism, but it just brings me back to the fact that we need to look beyond this and look to the Plan for Water to look at, and to reaffirm, and to really dig into those assumptions again. Some of the gaps that I see, and again these are anticipated, these supply numbers do not include the runoff from the Bear and Yuba Rivers. It doesn't include it. We often forget to highlight that, and that was something we said we would address in the Plan for Water. It also doesn't have solid numbers on demand, we talked today a little bit about latent demand. We also need to think about census, and the fact that the growth projections included here, and in the last Urban Water Management Plan, and possibly the Plan for Water, actually, are based mainly on the Department of Finance numbers. And those numbers, while they show growth for the County, they don't show growth in NID's service area only. And so it can be confusing if you're thinking about development in Truckee versus really what's happening just within the service area.

So those are a few more that come to mind. In closing, I would really like to thank NID for holding these extra public hearings, and including the public. You know in the past, NID, I think held one public hearing and that's all that's required for the Urban Water Management Plan. So I think it's really critical to hold these additional meetings, and hold them in this format with the workshops and let the public be more included. So that's all I have to say. Thanks so much

**Ricki Heck**

Traci I don't know if you're still on the line but I really wanted to understand again, get my brain around that you're saying, that there were no runoff numbers from the Bear River included in these assumptions. Is that what you said?

**Traci Sheehan**

Thank you, Yes, and it says that in it, and it said it in the (oh sorry), yes so the runoff from the Bear and Yuba are not included. And that is true of the Water Planning Projections as well. And it's a big thing that we wanted to revisit as the Plan for Water. the Urban Water Management Plan does say that in dry years water will be available from the Bear and Yuba, but it's not quantified.

**Ricki Heck**

So then my question then, back to Chip, is, first of all, I'm going to ask Chip a couple questions. So is that true, that these numbers do not show runoff from the Bear or Yuba River?

**Chip Close**

Yes, that's correct. There's a multitude of answers, but let's start with the easy ones. There are many players within the Bear River and the South Yuba systems. We all coordinate flows, and we all have pieces in there. We all have overlapping water rights, it's very complicated, and the District, in its past, has never quantified those amounts. Our water rights weren't super great in those arenas, but there's still some there, we never went through the finality of finding out what those are. The Plan for Water process and the TM papers that we started, and the hydrology studies with HDR, begin studying that, and we will be bringing those back as we move into the Plan for Water process. We will try to quantify those for future references, and they were included in the initial study on how much unimpaired flows are available. So that HDR study also included the Bear, included the Yuba, it also included some of the small tributaries like Deer Creek; those weren't in our models in the past either. So Traci is correct, they are not in this document. We make a reference to that. We know there's water available, we just don't know how much, because we haven't quantified it in the past. Moving forward, for planning purposes, we intend to include them in the future.

**Ricki Heck**

Okay, now that leads me to this other question; so are the Bear and the Yuba included in the unimpaired flow requirements that we're getting from FERC? So in other words, we're not counting it in supply, are they counting it as part of their demand? Do you know what I mean? Is there a disconnect there?

**Chip Close**

I was not involved in the FERC negotiation, however, I do know that HDR was integral in developing the model in which all of these in-stream flow agreements were based upon. So there was elements of each one of those reaches that were used in determining what these, as Traci puts, at minimum in-stream flows, were, how they were developed. It all came out of that model. It had a bunch of nodes in it for the Bear River. It had nodes in it for the Yuba River, and it basically looked at all the unimpaired flows. I don't think it was as specific enough to just have NID solely, it was a model that includes the entire watershed. And so I think that's where we're eager to move into the Plan for Water, and right review that with you all once again so you get a full understanding of where we're at, and moving forward we'll put all that information in our planning.

**Karen Hull**

Traci's other comment on the composition of minimum in-stream flows would be worth understanding at a Board level.

**Chris Bierwagen**

I think she makes a good point that they were negotiated, they were agreed on, and we inherited that. We don't know any of that conversation. I mean we don't know any of the right backgrounds, we don't know the details of how they got there. We inherited that so I don't disagree.

**Karen Hull**

It just seems like some of our conversation we may not be talking about the same right, or impact, and understanding what exactly is included. How much is water, additional water, versus water that's flowing in the system anyway?

**Chris Bierwagen**

I would very much like to ask you the question that Rich just asked, what is the science behind additional in-stream flows? Is it just that we think it's a great idea, is there science?

**Traci Sheehan**

I don't think that I can represent all the science behind it, but yes, there was science involved. Especially from the resource agencies and it's something that they have to send to FERC, and be very clear on because FERC can dismiss it, and FERC has dismissed monitoring plans, many plans, studies that just never happen. And then, this is all from a conservation perspective you know, I'm speaking frankly, but it's true, when you enter into re-licensing, certain interests will ask 'well let's study this, let's study fish, or yellow-legged frog', and we have a very hard time getting the studies. And it might be more of a FERC issue, or maybe the licensees issue, but from study to monitoring those plans, those flows are very hard to come by. What I'm trying to say is the bar is high, and it's negotiated, but if you'd be interested in understanding the resource issues connected with the yellow-legged frog, there are experts. For example, Amy Lind at the Forest Service, who could tell you a lot about it, and I think the yellow-legged frog was one of the key ones in Yuba-Bear.

**Diana Suarez**

Diana Suarez, Colfax, along the Bear River. Thank you to the Board and welcome to the new General Manager. I wasn't going to comment, but you are talking about monitoring, and the increased flows, and I go down to the river around three times a week, and I create videos, and I create monthly flow reports, and I have shared some of those with at least a Director or two. I share them with the State and what I have noticed is through talking to the anglers that fish at Bear, the fishery has gone downhill in the past 20 years, 10 years. I've had people tell me they used to catch a limit in the first couple hours, now they can't catch a limit all day. It's the trout, it's the frogs, so I started going down about a year and a half ago and checking the flows, and what was the major problem was the lack of ramping. We get to the season where the little trout are in the side channels, and the frogs, then NID will drop the water, and it'll all die and stink. The ramping is from the 60s, and the ramping is in the new FERC license, and has been waiting almost a decade. It used to be a drop of a foot in 24-hours. The new standard is a drop of a foot at the gauging station in three weeks. That's the difference, it gives the trout, the little trout, and a chance to get out of the little pools and into the main stem of the river, gives the frogs a chance to develop where they can pop out of the pools.

I've documented the connection between the surface water and the groundwater and how those two interact to enhance the life that is along the river. Adequate flows are very important and they don't even have to be that high. If you look in the final Environmental Impact Statement for the FERC license, in some of your minimum in-stream flows, you see weighted available habitat for the trout in the mature species is only down to 35 percent in a lot of these flows. It's only in the normal and wet years where the habitat is up in the 80's. So, you've got the trout living in 35 percent of what they could have, the juvenile trout have a much better habitat range in the lower flows, and the frogs do well as long as the

flows are stable. I've been monitoring the flows this spring because the recommendation in the Environmental Impact Statement is a stable flow. And they have been stable, and the frogs and the trout are doing well this spring. My hope is that you will care about the river, care about the environment, and enhance this fishery back to where it used to be. It used to be something that everybody was proud of. It's devastated right now due to the lack of stewardship along the Bear River below Rollins Reservoir, and above Combie.

This is also a stretch where NID does not lose the minimum in-stream flows because they are recoverable in Combie Reservoir. So, I would encourage the Board to adopt some of the recommended mitigations in the FERC license for the health and stewardship of the watersheds. Thank you.

URBAN WATER MANAGEMENT PLAN  
COMMENTS RECEIVED AT THE  
JULY 14, 2021 PUBLIC HEARING

**Diana Suarez:**

Hi, thank you very much, President Beerwagon, and I thank the board for this enlightening discussion and this wonderful presentation. I had a written comment here, but you've addressed a lot of my statements. I did express difficulty in determining where the numbers that lead to the raw water demand and supply assertions originate. The discussion was very enlightening for me, and I thank you very much. One of the things that I did ask that wasn't covered so far is I ask to please separate out the treated water demand from the raw water demand for the reliability analyses in order to meet the objectives of the urban water supply and demand in tables three ten three eleven three, twelve, five-four, five-five, and five-six. The response I got was, "NID elects to" blah blah blah. In other words, no, we don't want to, and I think it could have been a better response in tables five-four, five-five, and five-six. The columns simply include supply-demand, and the methodology is non-responsive and leaves out a key component to an Urban Water Management Plan. In fact, the next sentence affirms that quote "the District's water shortage contingency plan addresses different measures for treated water versus raw water customers." I think it's an important point to make and an important addition to your analysis. Finally, the universal response quote "the remaining comments address long-term planning issues that can be reviewed in the Plan for Water." That's understandable, but maybe a little bit more, well here, I'll just read what I had written, "this Plan for Water process has been a panacea for loose ends and unanswered questions for years," no worries, it will be in the Plan for Water.

I think a verbal assurance to the population on what issues are important and what issues will be brought forward would help. You know, it's a kind of a turn-off when someone writes an 11-page comment, and they get a one-sentence response. However, I am grateful for the responses I did receive, but I did also get this no worries, it will be in the Plan for Water, and I think, at the very least, the major issues must be delineated, acknowledged, and brought forward in a demonstrable way to guarantee the stakeholders that these issues are important to the District, and there is a process and methodology in place to find the answers and address the issue, and I look forward to this wonderful change in attitude with gratitude. I think you guys are doing a great job, and I appreciate it.

There was another issue I had reducing legitimate planning documents to compliance-only reports smacks of reluctance to do the hard work of progressing to modern, sophisticated platforms. So, hopefully, the Plan for Water will help us engage in a comprehensive water budget and integrated, truly integrated water management with new leadership; the future is bright. I am encouraged by the enlightened discussions at the board meetings and a willing supportive community to tackle these opportunities collectively and collaboratively. And I would like to point out one statement that I made in this document quote "NID is committed to controlling its own water resources in a self-determining manner." From a larger perspective, I would like to quote the Foothill Water Network "The Network's point of view is that our rivers and watersheds are whole unto themselves, and we as a community extract our needs for water and energy from them while benefiting from a healthy river. Without a healthy river system and a larger watershed, there is less reliable water and energy for our community and for the downstream benefits that support our watershed's

health. Best wishes to you guys. I really do think you're doing a good job, and I look forward to working with you in the future. Thank you.

**Diana Gamzon:**

I'm the executive director of the Nevada County Cannabis Alliance. We are the local trade association that represents the legal industry through education and public policy initiatives. As a key stakeholder here in the County, we have not had any outreach by NID on the plans related to cannabis for this Urban Water Management Plan despite our request to meet to participate in this process. So we want to ensure that all stakeholders are engaged in this process, and we will follow up with NID to ensure that we are part of this discussion. And specifically, we would like to discuss what was brought up today about the proposal to classify legal cannabis as an industrial industry, so I will follow up about that. We look forward to engaging. Thank you, and we appreciate everyone's hard work on this

**Chip Close, NID Operations Manager:**

I appreciate the comments from Diana. If I could take a second, she specified or requested that the District separate treated water usage and demands from ag water usage demand, especially and specifically for shortages. I think that's what I heard from her, and I just wanted to let her know that we tend to agree. We attempted to do that during the last drought in 2015 and submitted that to the State for proof that we had ample enough supplies to include our treated water customers for multiple years, and the State denied us reviewing it that way. They said you have to include all your users as a whole when doing your availability analysis. So, that's the reason why we have to combine them in these documents. That's per the State's direction. We do, in table 3.9, clearly spell out the top half of that label as treated water. The bottom half is raw water, and then stream-flows at the bottom of that, so we do have them, but just for our planning purposes and drought contingency planning. The State wants us to combine them together.

July 14, 2021

Hello and Good morning to the Board and everyone else, Dianna Suarez, Colfax

I would like to address the response to public comments in the Urban Water Management Plan document. I will start with the response to **my** comments:

- I expressed difficulty in determining where the numbers that lead to the demand and supply assertions originate.
  - Page 27, Section 3.1.4 Raw Water Retail Customers; speaks to the issue of lack of ability to measure raw water demand and use. “As stated earlier, the actual amount used is unknown as each customer manages their own raw water use strategies.”

*There was no response and no additional information in the document. Where do these numbers come from? How does the District affirm the accuracy of these numbers?*

- I asked to please separate out the treated water demand from the raw water demand for the reliability analyses, in order to meet the objectives of the **Urban** Water supply and demand, in tables 3-10, 3-11, 3-12, 5-4, 5-5, and 5-6 . The response was, “NID elects to... blah blah blah”. *In other words, **No, we don’t want to.** Followed by, “The treated water demands are listed separately in the table.” Unfortunately, this is not true. The columns in tables 3-10, 3-11, 3-12 are: Retail, wholesale, unrecoverable environmental, and total. A subscript states that **retail** includes treated and raw water customers, and all system losses. Given the numbers in table 3-9, these computations could have been accomplished. Is it up to the reader to do the math?*
- Tables 5-4, 5-5, and 5-6 columns simply include supply, demand, and difference. This methodology is non-responsive and leaves out a key component to an **Urban** Water Management Plan. In fact the next sentence affirms that “The District’s Water Shortage Contingency Plan addresses **different** measures for treated water versus raw water customers.” *It almost seems a deliberate strategy to blur the lines between human drinking water; and irrigation, rural landscaping, and system losses. This lack of attention to detail precludes a more comprehensive **understanding** of the system, needed to face future demand challenges.*

- And finally, is the universal response, **“The remaining comments address long term planning issues that can be reviewed in the Plan for Water process.”** I understand that this sentence is meant to address:
  - Lack of ability to accurately measure raw water demand and use
  - Lack of integrated water management to include groundwater and environmental water
  - All 11 pages of Otis Wollan’s comments
  - And all 6 pages of the Foothill Water Network’s comments

*This Plan for Water process has been a panacea for loose ends and unanswered questions for years now. “No worries, it will be in the Plan for Water.” I sincerely hope this is true, however history has illuminated this bait and switch tactic.*

When NID proposed Centennial Dam on Bear River, we asked, “Does the District have the financial resources to complete this major infrastructure project?” The answer was, “This will be explained and analyzed in the DEIR.” Another question was, “Is there enough water in the system to fill this facility?” The answer was, “This will be explained and analyzed in the DEIR.” What about alternative storage opportunities? The same answer, DEIR. Well, the DEIR for Centennial never materialized. And all those questions were never publically addressed. Maybe, if the District had taken counsel with the public, and did the work transparently, we would all be in a better place today.

There is a certain element of dismissive arrogance in a one sentence response to an 11 page comment, a 6 page comment, and most comments. At the very least, the major issues must be delineated, acknowledged, and brought forward in a demonstrable way, to guarantee the stakeholders that these issues are important to the District, and that there is process and methodology in place to find the answers and address the issues. I look forward to a change in attitude with gratitude.

Reducing legitimate planning documents to compliance-only reports smacks of reluctance to do the hard work of progressing to modern sophisticated platforms like a Comprehensive Water Budget, Farm-gate technology to account for tailwater waste and reintroduction into the groundwater system, raw water customer audits, and an Environmental Water Management Plan to complete the integrated water management system. With new leadership the future is bright. I am encouraged by the enlightened discussions at the Board meetings, and a willing, supportive community to tackle these opportunities collectively and collaboratively.

“NID is committed to controlling its own water resources in a self-determining manner”, from a larger perspective, and I quote Foothill Water Network, “The Network’s point of view is that our rivers and watersheds are whole unto themselves and we as a community extract our needs for water and energy from them while benefitting from a healthy river. Without a healthy river system and larger watershed, there is less reliable water and energy for our community and for the downstream benefits that support our watershed’s health.”

Thank you, *Dianna Suarez*

## **Appendix C: 2020 UWMP and WSCP Adoption Resolution**



# RESOLUTION NO. 2021-24 OF THE BOARD OF DIRECTORS OF THE NEVADA IRRIGATION DISTRICT

## **ADOPTING, FILING, AND IMPLEMENTING THE NEVADA IRRIGATION DISTRICT URBAN WATER MANAGEMENT PLAN UPDATE**

**WHEREAS**, the California Legislature enacted Assembly Bill 797 (Water Code Section 10610 et seq., known as the Urban Water Management Planning Act) during the 1983-84 Regular Session, and as amended subsequently, which mandates that every supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000-acre feet of water annually, prepare an Urban Water Management Plan (UWMP), the primary objective of which is to plan for the conservation and efficient use of water; and

**WHEREAS**, the District is a supplier of water providing urban water to over 19,000 connections; and

**WHEREAS**, the UWMP shall be periodically reviewed at least once every five years, and that the District shall make any amendments or changes to its UWMP which are indicated by the review; and

**WHEREAS**, California Water Code requires that UWMP be adopted, after public review and hearing, and filed with the California Department of Water Resources by July 1, 2021; and

**WHEREAS**, the District has prepared and circulated a draft Urban Water Management Plan for public review and review by the Counties and Cities within the District's service area, and other interested parties, and a properly noticed public hearing pursuant to Government Code 6066 regarding said UWMP was held by the District's Board of Directors on July 14, 2021.

**WHEREAS**, the District shall file said Plan with the California Department of Water Resources.

**NOW, THEREFORE BE IT RESOLVED**, by the Board of Directors of the Nevada Irrigation District as follows:

- 1) The District is committed to developing a plan for the implementation of water efficiency improvements to be implemented in the next five to ten years with specific metrics;

Resolution 2021-24 - Adopting, Filing and Implementing the Nevada Irrigation District  
Urban Water Management Plan Update  
Page 2 of 2

- 2) The District will review, and amend as appropriate, supply and demand assumptions at the beginning of the Plan for Water process to better understand available water supply and corresponding demands;
- 3) The Urban Water Management Plan, 2020 Update, is hereby adopted and ordered filed with the District;
- 4) The Secretary of the Board of Directors is hereby authorized and directed to file the Urban Water Management Plan, 2020 Update, with the California Department of Water Resource;
- 5) The General Manager is hereby authorized and directed to implement the Urban Water Management Plan, 2020 Update, which includes water shortage contingency analysis and recommendations to the Board of Directors regarding the necessary procedures, rules, and regulations to carry out effective and equitable water conservation and water recycling programs;
- 6) The General Manager shall recommend to the Board of Directors additional procedures, rules and regulations to carry out effective and equitable allocation of water resources.

**PASSED AND ADOPTED** by the Board of Directors of the Nevada Irrigation District at a regular meeting held on the 14<sup>th</sup> day of July 2021 by the following vote:

<b>AYES:</b>	Directors: Heck, Hull, Johansen, Peters, Bierwagen
<b>NOES:</b>	Directors: None
<b>ABSENT:</b>	Directors: None
<b>ABSTAINS:</b>	Directors: None

  
\_\_\_\_\_  
President of the Board of Directors

**Attest:**

  
\_\_\_\_\_  
Secretary to the Board of Directors

## **Appendix D: NID Conservation Information**

# Community Outreach





# FREE

# Irrigation Workshop

## **Learn :**

- *What is a miners inch of water;*
- *How much water do you actually need;*
- *How to design an effective irrigation system;*
- *How to efficiently schedule your irrigation;*
- *When and how much water to apply;*
- *How to check for soil moisture;*
- *How to check the pressure on your system;*
- *How to make your irrigation water apply uniformly;*
- *How to conserve water*

**Friday  
June 26, 2015  
8 am to 2 pm**

**Or**

**Saturday  
June 27, 2015  
8 am to 2 pm**

Workshop will be held  
at a private ranch in  
**Auburn CA**  
Call for details

**\*\*\*Participants Must Preregister\*\*\***



**Bring a chair, sack lunch, walking shoes and sunscreen**  
Light refreshments will be provided

**For information or to register please contact:  
530-273-6185 Ext 286 or [tipton@nidwater.com](mailto:tipton@nidwater.com)**

**Space Is Limited To 30 Participants Per Class**



*Fabulous Tour of Agriculture in Nevada County!! Lunch Included!*

# Tour of Nevada County Agriculture June 11th



You are invited to an outstanding educational tour of the proposed Parker Dam site. We will tour a water treatment plant as well as learn about NID water services upgrades for Nevada County.

**Contact :**  
346-8146 or  
[ncfb.manager@gmail.com](mailto:ncfb.manager@gmail.com)  
for more information

**Cost: \$20 for Farm Bureau Members-\$30 for non members,  
Online @ [nevadacountyfarmbureau.com](http://nevadacountyfarmbureau.com)**

***Reserve your space by June 6, 2015 -SPACE IS LIMITED -  
Reservations are REQUIRED***

**Check in at 8:30 am @ Bear River High School**

**Saturday  
April 16, 2016  
9 am to Noon**

Workshop will be held at  
a private ranch in  
**Penn Valley CA**  
Call for details

**SPONSORED BY:**



Nevada County  
Resource Conservation District  
Your partner in conservation & agriculture

**University of California**  
Agriculture and Natural Resources

# Irrigated Pasture Management Workshop

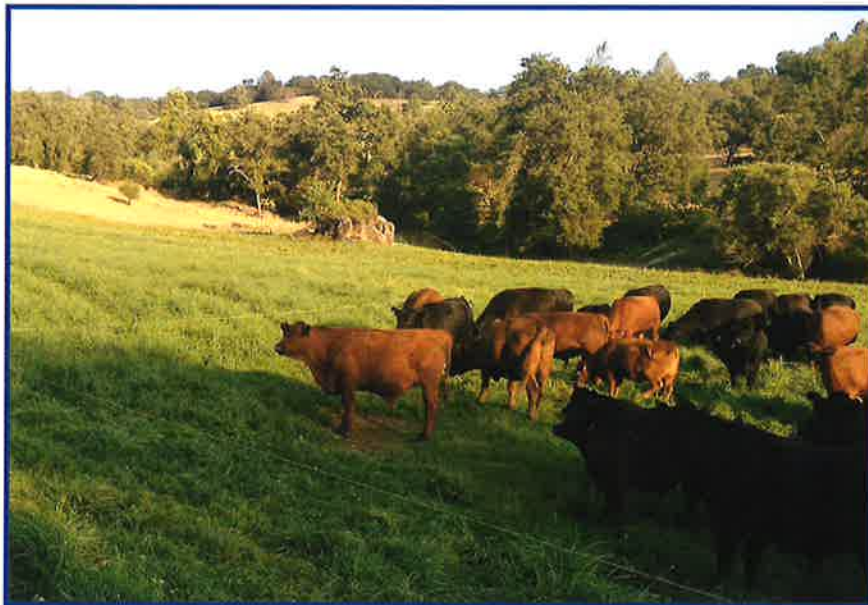
*Learn how to maintain your pasture and improve water management and system efficiency. This workshop features indoor and outdoor presentations.*

**Topics include :**

- Understanding the physical and biological characteristics of your soil
- Estimating soil moisture
- Types of sprinkler and flood pasture irrigation
- Irrigation management and scheduling to improve efficiency
- Fertilization strategies
- Irrigated pasture forages commonly planted
- Grazing management practices for irrigated pastures

*Featuring presenter Roger Ingram,  
UCCE County Director and Farm Advisor*

**\*\*\*Participants Must Preregister\*\*\***



**Bring a chair, walking shoes and sunscreen**  
**Light refreshments will be provided**

**For information or to register please contact:**  
**530-273-6185 Ext 286 or [tipton@nidwater.com](mailto:tipton@nidwater.com)**

*Space Is Limited*

**Saturday  
April 29, 2017  
9 am to Noon**

**Workshop will be held  
at a private ranch in  
Penn Valley CA**

**Call for details**

**SPONSORED BY:**



**Nevada County  
Resource Conservation District**  
Your partner in conservation & agriculture

**University of California**  
Agriculture and Natural Resources

# **Irrigated Pasture Management Workshop**

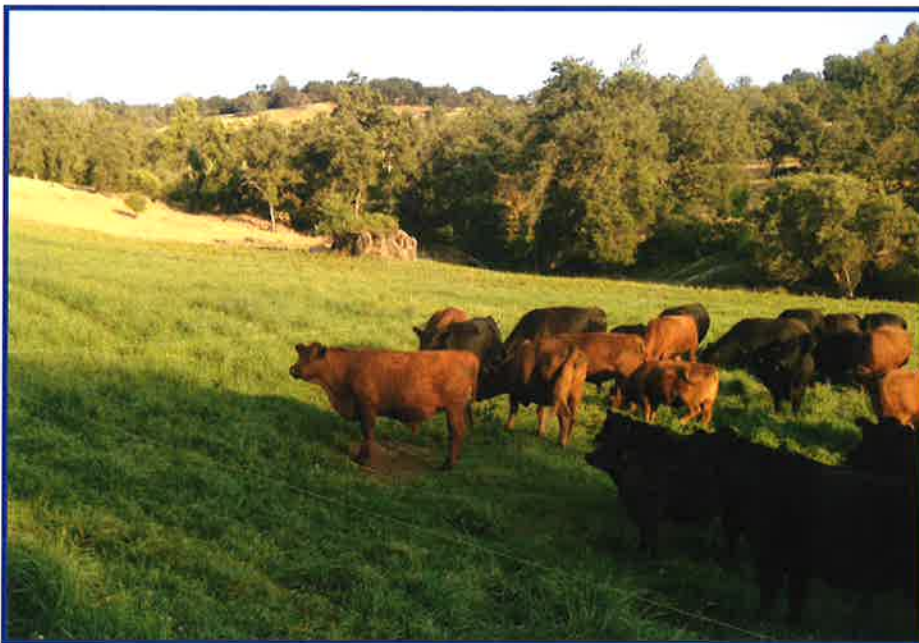
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*Featuring presenter Roger Ingram,  
UCCE County Director and Farm Advisor*

**\*\*\*Participants Must Preregister\*\*\***



**Bring a chair, walking shoes and sunscreen**

**Light refreshments will be provided**

**For more information or to register please call 530-798-5530**  
**Register online @ [www.ncrcd.org](http://www.ncrcd.org) or email [sabrina.nicholson@ncrcd.org](mailto:sabrina.nicholson@ncrcd.org)**

**Space Is Limited**



**SATURDAY**

**September 30th, 2017**

Clean Up 9am-11am | CreekFest 11am-2pm

**McBean Park, Lincoln**

*Join us!*

DEMONSTRATIONS & EXHIBITS  
VENDORS | ARTS & CRAFTS  
BOUNCE HOUSES & FACE PAINTING  
FOOD | GAMES & PRIZES



WILDLIFE  
HERITAGE  
FOUNDATION

[www.wildlifeheritage.org/creekfest](http://www.wildlifeheritage.org/creekfest)

**8th Annual**



S U S T A I N A B L E

# FOOD & FARM

C O N F E R E N C E

**February 9-11, 2018**

Grass Valley, California

**FEATURING:**

Joel Salatin

Regenerative Farming & Ranching

Elizabeth & Paul Kaiser

No Till, High Yield Organic Farming

Daphne Miller, M.D.

Healthy Soil, Healthy You

**20**  
Food & Farm  
Workshops

**Farm  
Tours**

**In-Depth  
Lectures**

[www.FoodandFarmConference.com](http://www.FoodandFarmConference.com)



*"...a world class event  
at a fraction of the cost  
that many conferences  
of its caliber usually  
charge."*

- Joel Salatin

**Who:** The **Sustainable Food & Farm Conference** is organized by Sierra Harvest and a committee of local farmers and ranchers. In its 8th year, the conference is expected to draw over 500 attendees from Northern California and beyond, including farmers, ranchers, gardeners, homesteaders and foodies.

**Why:** The **Sustainable Food & Farm Conference** brings together internationally acclaimed keynote speakers and local experts to expand and strengthen the sustainable farming movement, to help farmers create more successful businesses, and to foster a sense of community among those engaged in the sustainable food and farming movement.

### **Value of Sponsorship:**

- Have your logo on conference marketing materials.
- Advertise your products and services to this targeted audience.
- Attract new customers and connect with existing customers through a vendor booth at the Food and Farm Expo.
- Support farm conference scholarships for local farmers.
- Show your support for the local sustainable agricultural movement.
- Help us keep admission prices affordable.
- Free tickets for both days of the conference.



# AgTech 2018 Micro Conference

Connecting people, ideas and  
resources at the intersection  
of agriculture and technology

For complete details and  
registration information, visit:  
[nctechconnection.org/agtech18](http://nctechconnection.org/agtech18)

**FREE OF CHARGE**

**February 9 - 12:30-5pm**  
(registration opens at 11am)

**104 New Mohawk Road,  
Nevada City 95959**

**Thank you  
to our sponsors!**

**BRIARPATCH  
FOOD CO OP**



## **KEYNOTE SPEAKER:**

**GABRIEL YOUTSEY**, Chief Innovation Officer at University of California, Agriculture and Natural Resources

## **PRESENTERS:**

**WILLA LEONG**, Attorney: Royse Law Firm

**ROBERT TSU**, California State Broadband Coordinator

**JOHN SELEP**: Founder of AgTech Innovation Partners

## **PANELISTS:**

**STEVEN DAVIS** (Moderator): CEO at I W N, Inc.

**MOLLY NAKAHARA**: Sierra Harvest, Farm Institute  
Director & owner, Dinner Bell Farm

**CHRIS CLABAUGH**: Co-founder Grass Valley Growing

**DAN MACON**: Uc Cooperative Extension

**SUSIE SUPTHIN**, Director: Tahoe Food Hub

**ERIC BLEAU**, Manager: Blue Oaks Ranch



# **2nd Annual** **BUILDING FAIR**

**Concept to Creation**  
***"Success from Start to Finish"***

**Friday - June 2, 2017**

**9:00am - 1:00pm**

**Rood Government Center  
950 Maidu Ave, Nevada City, CA**

**Sponsored By**  
**County of Nevada**  
**Nevada County Contractors' Association (NCCA)**  
**Nevada County Association of Realtors (NCAOR)**

County & Local Agencies \* Building Material Suppliers/Equipment Rentals  
Building Contractors \* Construction Lenders \* Design Professionals  
Septic/Well \* Industry Representatives \* Utility Companies  
Manufactured Housing \* Insurance \* Solar Companies and many more...

**Special Presentations, Booths, Opportunity Drawings,**

**Food Trucks and much more... Fair Admission is FREE**

**For more information contact the Nevada County Building Department at  
(530) 265-1222 or email at [BuildingDept@co.nevada.ca.us](mailto:BuildingDept@co.nevada.ca.us)**

# IRRIGATED PASTURE MANAGEMENT WORKSHOP

*Learn how to maintain your pasture and improve water management and system efficiency. This workshop features indoor and outdoor presentations.*

Topics include:

- Understanding the physical and biological characteristics of your soil
- Estimating soil moisture
- Types of sprinkler and flood pasture irrigation
- Irrigation management and scheduling to improve efficiency
- Fertilization strategies
- Irrigated pasture forages commonly planted
- Grazing management practices for irrigated pastures

**\*\* Participants Must Pre-register \*\***



*Featuring presenter Dan Macon,  
UCCE Livestock and Natural Resources Advisor*

For more information or to register  
please contact Kaycee Strong  
530-273-6185 ext. 244 [strongk@nidwater.com](mailto:strongk@nidwater.com)

**Saturday  
May 19, 2018  
8am-11:30 am**

Workshop will be held at a  
private ranch in

**Penn Valley, Ca**

*Call for details*

**SPONSORED BY:**



**NID**



Nevada County  
Resource Conservation District  
[www.ncrcd.org](http://www.ncrcd.org)

**University of California**  
Agriculture and Natural Resources

***Bring a chair, walking  
shoes and sunscreen.***

***Light refreshments will  
be provided.***

# 2018 BUILDING FAIR

3RD ANNUAL

*BUILDING BLOCKS FOR SUCCESS*

Friday  
**June 1st**  
12 to 4

SAVE  
THE  
DATE!



SPONSORED BY



**Meet experts from all  
trades of construction,  
real estate, material  
suppliers & much more!**

- ★ **INFORMATION HUB**
- ★ **PROJECT IDEAS**
- ★ **DEMOS**
- ★ **FOOD VENDORS**

**LOCATION: 950 MAIDU AVE, NEVADA CITY, CA 95959**

**For questions regarding the event, please contact the Nevada County Building  
Department at 530.265.1222 or [buildingdept@co.nevada.ca.us](mailto:buildingdept@co.nevada.ca.us)**



# Community Wildfire Preparedness Day

May 5, 2018 -12-4pm - 950 Maidu Avenue, Nevada City

LIVE Fire Demonstrations by PHOS-CHeK Fire Retardant

Pet Microchipping

Learn to be Firewise

BBQ Lunch

Fire Engine Display

American Red Cross

Photos with Smokey Bear

American Red Cross

Live Music by The Public Safety Band

\$500 Grant to the Firewise Community signing in the most guests!



SPONSORED BY:



Photo: Lobo Fire, October 2017



The STEAM Expo is presented by the Nevada County Superintendent of Schools office in order to promote 21<sup>st</sup> Century STEAM education in our county and to link these educational goals with career opportunities provided by local businesses and organizations.

**Date:** Saturday, April 7, 2018

**Location:** Main Street Center, Nevada County Fairgrounds

**Time:** 9 a.m. – 3 p.m.    **Cost:** FREE - all ages welcome    **Info:** [nevcoexpo.org](http://nevcoexpo.org)

***See AWESOME student projects from nearly every Nevada County school!***

**Here are just some of the other things you can enjoy . . .**

Play with robots \* Experience virtual reality \* Get a free bike tune-up

Make a bike-powered smoothie \* Program a Sphero

Deepen your environmental awareness \* Look at critters through a microscope

See works of visual and performing art \* Try musical instruments

Sign up for a library card \* Check out STEAM books from the library

Use green screen technology \* Use a catapult \* Create a hot air balloon

Create a Magic Mirror \* Use Mousebots \* Make marble runs

Use a Van de Graff generator \* Participate in a robotics cone stacking challenge

Use a 3D printer \* Learn about river science \* Learn about astronomy

Create your own art \* Purchase delicious food and beverages from local vendors



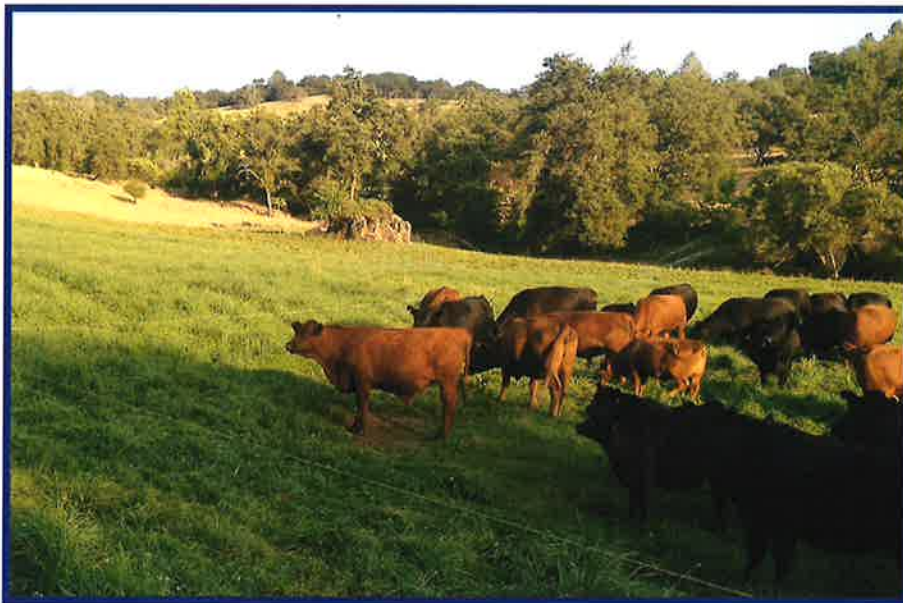
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**\*Participants Must Pre-register\***

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- Fertilization stages
- Commonly planted irrigated pasture forages
- Grazing management practices on irrigated pastures



**Featuring presenter Dan Macon,  
UCCE Livestock and Natural Resources Advisor**

For more information or to register  
please contact Kaycee Strong  
530-273-6185 ext. 244 [strongk@nidwater.com](mailto:strongk@nidwater.com)

**Saturday**

**May 4, 2019**

**8 am—11:30 am**

Workshop will be held at a  
private ranch in

**Penn Valley, Ca**

*Call or email for details*

**SPONSORED BY:**



**NID**



Nevada County  
Resource Conservation District  
[www.ncrcd.org](http://www.ncrcd.org)

**University of California**  
Agriculture and Natural Resources

***Bring a chair, walking  
shoes and sunscreen.***

***Light refreshments will  
be provided.***

**9TH ANNUAL**



**S U S T A I N A B L E**

# **FOOD & FARM**

**C O N F E R E N C E**

**February 8-10, 2019**

GRASS VALLEY, CALIFORNIA

## **FEATURING:**

**Doniga Markegard**

Regenerative Rancher

**Jeff Lowenfels**

Mycorrhizal Fungi Soil Food Web Expert

**Dru Rivers & Paul Muller**

Full Belly Farm Collaborative Farmers

**20**

**Food & Farm  
Workshops**

**Farm  
Tours**

**In-Depth  
Lectures**



**foodandfarmconference.com • 530.265.2343**



***"...a world class event  
at a fraction of the cost  
that many conferences  
of its caliber usually  
charge."***

**- Joel Salatin**  
*2018 Keynote Speaker*

**Who:** The **Sustainable Food & Farm Conference** is organized by Sierra Harvest and a committee of local farmers and ranchers. In its 9th year, the conference is expected to draw over 600 attendees from Northern California and beyond, including farmers, ranchers, gardeners, homesteaders and foodies.

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- Advertise your products and services to this targeted audience.
- Attract new customers and connect with existing customers through a vendor booth at the Food and Farm Expo.
- Support farm conference scholarships for farmers.
- Show your support for the local sustainable agricultural movement.
- Keep admission prices affordable.
- Free tickets for both days of the conference.

Join us at Nevada  
County's premiere  
home, garden and  
lifestyle expo as  
we celebrate

*34 years!*

THIS YEAR'S  
FOCUS  
Fire  
Safety

Reach your best  
prospects and  
connect with  
your customers at  
Nevada County's  
Premiere Home,  
Garden and  
Lifestyle Expo!

**Sat. April 13<sup>th</sup>, 2019 • 10-5**  
**Sun. April 14<sup>th</sup>, 2019 • 10-4**

Grass Valley, California  
Nevada County Fairgrounds

THE UNION'S 34<sup>th</sup> ANNUAL  
**HOME  
GARDEN  
& Lifestyle  
SHOW**

**Build Your Business in just 2 days!**

- Meet motivated consumers
- Generate immediate sales and qualified leads
- Introduce new products and services
- Conduct market research
- Build brand awareness
- Maximize your marketing budget by allowing the power of The Union's significant household reach to drive leads

**How The Union markets your presence at our show:**

- Extensive print advertising campaign in The Union
- Online advertising on theunion.com
- Social media marketing
- Radio advertising plus live radio broadcast from the Home Show
- Banners and posters in local and surrounding areas
- Print advertising in popular regional publications
- Special Home, Garden & Lifestyle publication distributed in The Union a few days prior to show, and given to attendees at the event
- Email marketing to subscribers and past show attendees
- Posters/flyers at vendors business locations

**Featuring:**

- Sponsorship opportunities available
- Demonstration Stage
- Bonsai Club Exhibit
- Live Entertainment
- Delicious Food Court
- Free Admission

**Special focus on being Fire Wise**

Please promote your products or services  
that fit the theme if you have them.



## Build your business at Western Nevada County's **ONLY** home and garden expo

- Exposure to thousands of area homeowners
- Listing on [theunion.com/homeshow](http://theunion.com/homeshow) – includes business name and link to website
- 25% off advertising in Home, Garden & Lifestyle publication
- Free vendor listing in publication that includes your product/service description
- Opportunities to participate in additional marketing for your business at no cost to you – including live radio broadcast, business profiles and more

THIS YEAR'S  
FOCUS  
Fire  
Safety

To apply  
for vendor space,  
download  
application at  
[theunion.com/homeshow](http://theunion.com/homeshow) or  
email Mary Anne  
Davis at [mdavis@theunion.com](mailto:mdavis@theunion.com) or  
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## NID: Customers Are Saving Water

January 14, 2015

**Contact:**

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**FOR IMMEDIATE RELEASE:**

GRASS VALLEY – Nevada Irrigation District General Manager Rem Scherzinger on Wednesday (Jan. 14) thanked NID water users for significant savings of water during the 2014 drought year.

“Year-end figures show that our treated water users reduced their use by 16.5 percent from 2013 levels,” Scherzinger announced at Wednesday’s meeting of the NID Board of Directors. “Our savings is about 10 percent more than the state average. District customers know the drought is serious and are doing their part.”

While expressing concern over the recent stretch of dry weather, Scherzinger said December’s wet weather allowed NID to boost storage in district reservoirs. He said current storage is at 69 percent of capacity.

NID’s 10 reservoirs are now holding nearly 180,000 acre-feet of water, which is up about 25,000 acre-feet from this time last year.

Scherzinger said it appears likely that drought conditions will continue through 2015. He is still asking all customers to maintain their conservation efforts until the drought is over.

In other business, the NID board:

- learned that the Federal Energy Regulatory Commission (FERC) has tentatively approved the district’s environmental studies for the federal relicensing of the NID Yuba-Bear Hydroelectric Project, but that NID’s new license may not be issued until certain progress is made on relicensing studies of the Yuba County Water Agency. NID’s original 50-year license lapsed in 2013 and the project continues to operate under a temporary license.
- agreed to budget funds toward the planning of a waterline extension project on Brewer Road, Armstrong Road and Iron Horse drive in southern Nevada County where 15 landowners have petitioned and agreed to share in the costs of bringing treated water service to their neighborhood.

The next regular meeting of the NID Board of Directors will be held at 9 a.m. on Wednesday, Jan. 28, at the NID Business Center in Grass Valley. NID board meetings are open to the public.

**Filed under:**

[NID Drought News / Updates](#), [Press Releases](#) by NID Administrator

## NID: Water Storage Good, Concern Over Dry Spell

January 28, 2015

**Contact:**

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**FOR IMMEDIATE RELEASE:**

**NID: Water Storage Good, Concern Over Dry Spell**

GRASS VALLEY – With January poised to close as the driest January in 128 years of record-keeping, the Nevada Irrigation District is preparing for another year of drought.

“We had a very good December and we were able to put some water in the bank, but January has been one of the driest ever,” said NID Water Operations Manager Chip Close on Wednesday (Jan. 28) in a water supply update to the NID Board of Directors.

The month of December produced 141 percent of average precipitation at NID’s Bowman Reservoir (elev. 5,650 ft.) but the region has remained dry through January, which is normally one of the wettest months of the year.

Carryover storage from last year and the large December storms allowed NID to build water storage to 183,900 acre-feet, which is 112 percent of average for the date and 69 percent of capacity.

“In the past two years, February and March have been our wettest months, so we’re hoping for some significant precipitation,” said Close. “But it’s looking more and more likely that we’re in for another drought year.”

The most troubling statistic, Close said, is a thin mountain snowpack that holds just 29 percent of average water content. In the annual Feb. 1 snow survey, conducted Monday (Jan. 26), NID snow surveyors measured five mountain snow courses, recording an average water content of six inches when the average Feb. 1 water content is 20 inches.

Close said the State Water Board has advised water purveyors, including NID, that if the drought persists, water right curtailment orders along with other mandatory actions may be reinstated to allocate limited water supplies.

The previous curtailment order, issued last May 27, ordered agencies, including NID, to stop diverting water from streams and rivers into storage so more water could flow to downstream areas. NID officials remain concerned that some water the district would normally store will have to run through the NID system to other areas.

Close said NID has begun planning for dry year operations and continues to encourage all customers to reduce water use by 20 percent or more.

In other business, NID directors:

- awarded a \$1.07 million design-build contract to Syblon Reid Construction, Inc. for the installation of new valves and piping at the outlet of the dam at Bowman Reservoir. The work is the second phase of a project to repair and upgrade a damaged old outlet that dates to the dam's construction in 1925-26.

The next regular meeting of the NID Board of Directors will be held at 9 a.m. on Feb. 11 at the NID Business Center in Grass Valley. NID board meetings are open to the public.

-30-

Filed under:

[NID Drought News / Updates](#), [Press Releases](#) by NID Administrator

## NID: Weekend Storm Boosts Water Storage

February 11, 2015

**Contact:**

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**FOR IMMEDIATE RELEASE:**

**NID: Weekend Storm Boosts Water Storage**

GRASS VALLEY – The weekend storms of Feb. 6-9 brought an average 7 inches of precipitation to Nevada Irrigation District high alpine watershed and boosted NID water storage by about 18,000 acre-feet (an acre-foot equals one acre covered one foot deep).

While the storms produced significant precipitation, it was not enough to ease ongoing drought concerns, NID Water Operations Manager Chip Close reported at Wednesday's (Feb. 11) meeting of the NID Board of Directors.

NID continues to ask all customers to reduce water use by 20 percent. This is the same amount requested by Gov. Brown, who in 2014 declared a drought emergency and this year extended the declaration for second year, to May 2016.

Close said that with several weeks remaining in the rainfall year, conditions could improve. He noted that NID normally waits until April 1 to make determinations on water availability for the coming irrigation season.

NID will be mailing its annual irrigation water applications next week (mid-February) and will ask customers to consider voluntary water reductions for the year. Close said customers who take reductions would not lose priority in future years.

Although this year's storms have been few and far between, they have produced 92 percent of average precipitation and have boosted NID reservoirs to 78 percent of total capacity.

The area of most concern to NID water planners is a thin mountain snowpack, which is the result of this year's warmer than average storms. The district's Feb. 1 snow survey showed just 29 percent of average water content in the mountain snowpack. The March and April snow surveys are expected to provide a much clearer picture on this year's water supplies.

For now, NID is continuing its dry year planning and is operating its water systems very conservatively, holding as much water as possible in storage, said Close.

**In other business, NID directors:**

- awarded a \$444,600 contract to Olympus and Associates, Inc. of Reno for the interior and exterior repainting of two large steel water storage tanks near Nevada City. The firm submitted the lowest bid among three received by the district. Officials noted that painting and maintaining NID's 42 steel storage tanks is a considerable ongoing expense.

The next regular meeting of the NID Board of Directors will be held at 9 a.m. on Feb. 25 at the NID Business Center in Grass Valley. NID board meetings are open to the public.

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## **NID Measures 16% of Average Water Content in Mountain Snowpack**

February 27, 2015



This Feb. 24 aerial photo shows little snow on NID mountain watershed. Pictured is the Canyon Creek watershed looking upstream toward Faucherie and French reservoirs.

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**FOR IMMEDIATE RELEASE:**

(with photo)

**NID Measures 16% of Average Water Content in Mountain Snowpack**

**GRASS VALLEY** – In snow surveys taken Tuesday (Feb. 24), the Nevada Irrigation District measured 16 percent of average water content in the mountain snowpack that supplies the NID water system.

“The results are disappointing but not surprising given the weather patterns we have seen,” said NID Water Resources Superintendent Sue Sindt, who noted the region could be facing a fourth straight dry year.

“There is still time for the weather to change and add to the snowpack, but at this time the lack of snow remains a concern for the district,” she said.

Sindt noted that Gov. Brown’s statewide drought declaration remains in effect for a second year and that NID is continuing to ask all water customers to reduce water use by 20 percent.

In this week’s official March 1 snow surveys, NID snow surveyors measured water content in the snowpack on six designated snow courses ranging in elevation from 4,850 feet to 7,800 feet. The five higher elevation snow courses held an average water content of 4.7 inches, which compares to the March 1 average water content of 28.8 inches.

NID's highest course, Webber Peak, at 7,800 feet, had 27.7 inches of snow with a water content of 11.3 inches. The English Mountain snow course (7,100 ft.) had 12.6 inches of snow with a water content of 5.7 inches.

Webber Lake (7,000 ft.) had 14.9 inches of snow with a water content of 5.9 inches. Findley Peak (6,500 ft.) had a snowpack of 1.8 inches and a 0.7-inch water content. Bowman Reservoir (elev. 5650 ft.) had no snow. There also was no snow on the lower elevation Chalk Bluff snow course on the Deer Creek watershed.

This year's precipitation at Bowman Reservoir measured 38.01 inches, or 82 percent of average, as of Feb. 24, but this year's storms have been warmer than usual and have not built a deep snowpack.

NID is continuing its conservative water management to bolster water storage for the coming summer season. As of Feb. 24, the district's reservoirs held 201,500 acre-feet of water, which is 79 percent of capacity.

The NID Board of Directors is expected to review this season's water availability on Mar. 25 and determine what levels of the district's Drought Contingency Plan may have to be enacted this year.

A member of the California Cooperative Snow Survey, NID conducts four official snow surveys each year, in February, March, April and May. Results of the snow surveys are used to predict water availability locally and statewide.

-30-

Filed under:

# With Scant Snowpack, NID Considers Drought Plan

March 12, 2015

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FOR IMMEDIATE RELEASE:

With Scant Snowpack,  
NID Considers Drought Plan

GRASS VALLEY – With the mountain snowpack at near-record low levels, Directors of the Nevada Irrigation District are formulating plans for implementation of the district's Drought Contingency Plan.

In a water supply update to the NID Board on Wednesday (Mar. 11), NID General Manager Rem Scherzinger said that with minimal snowpack runoff to replenish them, NID's mountain reservoirs are expected to drop rapidly this year.

Although precipitation at Bowman Reservoir (elev. 5,650 ft.) is 79 percent of average, this winter's warm storms have produced more rain than snow. NID relies on the snowpack as an added reservoir, Scherzinger said.

NID's March 1 snow surveys found an average snowpack water content of just 4.7 inches, which is 16 percent of the March 1 historical average of 28.8 inches.

District officials are awaiting actions by the State Water Board, which on Mar. 17 may call for mandatory conservation measures for urban water users throughout the state along with tracking and reporting requirements for water agencies.

During last year's water shortage, NID called for all water users to voluntarily reduce water usage by 20 percent, the same amount as called for in Gov. Brown's 2014 drought emergency declaration. The 20 percent reduction measures remain in effect locally and statewide.

NID Water Operations Manager Chip Close said staff will follow this month's Water Board directives and prepare recommendations for the NID Board's next meeting on Mar. 25. Last year, NID enacted Stage II of its drought plan; this year Stage III mandatory conservation measures could become necessary.

On a related note, the district in early March mailed its annual applications to about 4,500 seasonal irrigation water users. As they have the past two years, a number of these customers have agreed to reduce their water allotments for the year.

Close clarified what appeared to be conflicting information in the application packet. "We want all of our customers to know that if they give up some water this year to help us through the drought, they will not lose their priority to receive their normal amounts in years to come," he explained.

NID is continuing its dry year operating plan, running its water systems very conservatively, and holding as much water as possible in storage, said Close.

In other business, NID directors:

- held a public workshop as part of a process to update the district's strategic plan. Several members of the public were invited to join NID directors and staff in the planning discussion.

The next regular meeting of the NID Board of Directors will be held at 9 a.m. on Mar. 25 at the NID Business Center in Grass Valley. NID board meetings are open to the public.

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# NID Adopts Drought Plan; Calls for 20% Conservation

March 25, 2015

Contact: Rem Scherzinger (530) 273-6185 or: Dave Carter (530) 265-NEWS FOR IMMEDIATE RELEASE:

Directors of the Nevada Irrigation District on Wednesday (Mar. 25) adopted a series of drought measures that include limits on outdoor watering and a call for continued 20 percent reductions in water use by all district customers.

In a presentation to the NID Board of Directors, Water Operations Manager Chip Close recommended a package of conservation measures designed to meet requirements adopted Mar. 17 by the State Water Board and to ensure that NID has adequate carryover water storage going into next year in case the drought continues into a fifth year.

## Urban Water Use

Drought measures in effect for users of piped, treated water include:

- Outdoor watering no more than three days per week, with no watering during the heat of the day (10 a.m. to 6 p.m.).
- No watering until 48 hours after a rain.
- No drinking water service in restaurants unless requested.
- Hotel and motel guest option of not having towels and linens changed daily.
- No water use that creates unnecessary runoff.
- Use of shutoff nozzle on hoses.
- No washing down of sidewalks
- Fountains must recycle water

NID and other water purveyors are being required to provide the State Water Board with monthly reports on water use, conservation compliance and enforcement efforts.

## Irrigation Water Use

Drought measures in effect for users of canal water include:

- Voluntary reductions of 20 percent or more with mandatory reductions possible later in the year if conservation goals are not being met.
- New and increased irrigation water sales are limited to the smallest amount of water necessary for the customer's beneficial use.
- All customers are encouraged to use efficient irrigation practices.

- The irrigation season, which normally runs Apr. 15-Oct. 14, could be shortened this year depending on water availability.

In a water supply update, Water Resources Superintendent Sue Sindt said this year's water outlook is slightly worse than last year. She said the mountain snowpack is only about 6 percent of average water content for this time of year and that seasonal runoff is anticipated to be only 20-25 percent of average.

Officials credited district customers with reducing water use by an overall 16.4 percent during the 2014 drought and said an equal level or more will be needed to get through this year.

Close said that continued conservation, tight measurement and controls on the canal system, and the purchase of an available 20,000-25,000 acre-feet of additional water from the Pacific Gas and Electric Company will help meet the district's water supply needs for this year and next.

For drought information and helpful water efficiency advice, please see NID's website at [www.nidwater.com](http://www.nidwater.com). Water waste may be reported through an online form or by telephone, (530) 271-6799.

Filed under:

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## **NID: Snowpack at 4% of Average, Lowest Water Content in 94 Years**

April 3, 2015



This April 1 aerial photo shows little snow on NID mountain watershed. Pictured is the Canyon Creek watershed looking downstream from French Reservoir to Faucherie, Sawmill and Bowman reservoirs in the distance.

Contact:  
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**FOR IMMEDIATE RELEASE:**  
(with photo)

**NID: Snowpack at 4% of Average, Lowest Water Content in 94 Years**

**GRASS VALLEY** – In snow surveys taken Wednesday (Apr. 1), the Nevada Irrigation District measured 4 percent of average water content in the mountain snowpack that supplies the NID water system.

“This is the lowest April 1 snowpack in our 94 years of records,” said NID Water Resources Superintendent Sue Sindt. “Needless to say, it is not a record that we are very excited about.”

NID snow surveyors found an average water content of 1.5 inches on five mountain snow courses, which compares to the April 1 average of 33.7 inches. Two of the courses had no snow; the deepest snow, 14.5 inches, was found at 7800 feet on Webber Peak, NID's highest course.

A year ago, the April 1 average water content was measured at 12.1 inches. Sindt said NID's previous low measurement was in 1934 with 9.1 inches.

"Fortunately, the district's water storage is slightly above average but that is not expected to last long with the limited amount of runoff from the snowpack," she said.

Gov. Brown on Wednesday called on California's urban water users to reduce water use by at least 25 percent, up from the 20 percent level in his 2014 drought declaration and the 20 percent level NID is currently seeking from customers.

The NID Board of Directors last month implemented Stage III drought contingency plans for treated water users and Stage II plans for irrigation water users. District officials are now evaluating what changes may be warranted to meet the new requirements.

This year's precipitation at Bowman Reservoir reached 40.62 inches, or 69 percent of average, as of Apr. 1. The last three months – January, February and March – produced only 10.46 inches, 31 percent of average.

The almost non-existent snowpack is attributed to a warmer than usual weather pattern that has brought more rain than snow.

A member of the California Cooperative Snow Survey, NID conducts four official snow surveys each year, in February, March, April and May. The April 1 snow survey is generally regarded as the best measure of water supplies for the coming year. Results of the snow surveys are used to predict water availability locally and statewide.

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# NID Prepares for State Mandated Water Conservation Effort

April 9, 2015

Contact:  
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FOR IMMEDIATE RELEASE:

More Water Use Reductions Expected

NID Prepares for State Mandated Water Conservation Effort

GRASS VALLEY – In response to Gov. Brown's Apr. 1 call for statewide mandatory urban water use reductions, the Nevada Irrigation District is planning to adjust its existing water conservation efforts to comply as necessary.

In his drought emergency announcement, the governor directed the State Water Resources Control Board to implement mandatory water reductions in cities and towns across California. He estimated a 25 percent reduction would save 1.5 million acre-feet of water over the coming nine months.

In a report to the NID Board of Directors on Wednesday (Apr. 8), NID General Manager Rem Scherzinger said NID and its customers may be expected to conserve even more. He said the State Water Board looked at water use patterns throughout the state and may call on some areas, including NID, to reduce water use by 35 percent as a way to balance the overall goal with other areas that already use less water.

Scherzinger said the district is working with the State Board to find a solution that is more equitable for the district and its customers.

He said the district is also working toward compliance with other proposed requirements, particularly a call for local agencies to adjust their rate schedules to implement conservation pricing, which is seen as an effective way to realize water use reductions.

The governor's declaration applies to nearly 20,000 NID customers who use piped, treated water. It does not apply to approximately 5,000 agricultural customers who use NID irrigation water, although all customers are urged to reduce usage as much as possible.

Since early 2014, NID has been urging customers to reduce water use by 20 percent. Scherzinger said NID customers responded very well to last year's drought condition, reducing water use by 16.4 percent from 2013 levels, and that continued conservation is needed until the drought ends.

The greater Sacramento region, including Nevada and Placer counties, has consistently led the state in water use reductions over the past year.

This week's welcome storms produced about a foot of snow at NID's Bowman Reservoir and will provide a slight boost in runoff this spring, but will have little impact when it comes to ending the four-year drought, the general manager said.

The next regular meeting of the NID Board of Directors will be held at 9 a.m. on Wednesday, Apr. 22, at the NID Business Center in Grass Valley. NID board meetings are open to the public.

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# Community Drought Briefing, NID Hosts Forum on This Year's Water Issues

May 6, 2015

Contact: Rem Scherzinger  
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FOR IMMEDIATE RELEASE:

Community Drought Briefing  
NID Hosts Forum on This Year's Water Issues

GRASS VALLEY – Water issues facing the community during this fourth year of drought will be explored during a special community meeting hosted by the Nevada Irrigation District.

The NID Community Drought Briefing will be held on Thursday, May 21, at 5:30 p.m. in the Grass Valley Veterans Memorial Building, 255 South Auburn Street, in Grass Valley.

Community and water industry leaders from around Nevada and Placer counties have been invited to attend the meeting, which is also open to the public.

"We are facing some very severe cutbacks under the drought rules adopted by the State Water Board," said NID General Manager Rem Scherzinger. "The district and its customers are being ordered to reduce our urban water usage by 36 percent (from 2013 levels)," he said.

"How can we meet this year's challenges, remain prepared for next year and be better prepared for future droughts? We want to share information and hear from our community."

NID officials will present the latest information on water storage, precipitation, drought contingency planning, the state's water right curtailments, conservation targets, and a look at long-range water storage options for the future. A question and answer session is planned.

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# NID Urges Customers to Reduce Water Use by 36%

May 13, 2015

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**FOR IMMEDIATE RELEASE:**

## NID Urges Customers to Reduce Water Use by 36%

GRASS VALLEY – To meet regulations handed down by the State Water Board, the Nevada Irrigation District is asking its over 44,000 urban water users in Nevada and Placer counties to reduce their water usage by 36 percent (from 2013 levels).

“Our customers did a really good job last year, saving 16 percent,” NID Water Operations Manager Chip Close said at Wednesday’s (May 13) meeting of the NID Board of Directors. “If we can conserve that much again this year, we’ll be close to the target.”

The Water Board’s strict emergency conservation measures, issued May 5, come as California endures a fourth year of drought. The measures include fines for water wasters and fines for water suppliers who do not meet conservation targets.

Close said NID is monitoring and reporting its water usage to the state and will focus on water conservation education as opposed to heavy handed fines. He said the District plans to step up its public outreach efforts to promote water conservation.

Although the 2014/15 precipitation season has brought 69 percent of average precipitation to NID mountain watershed, much of the precipitation fell early in the season, and fell as rain rather than snow. The May 1 snowpack was the lowest on record at just 5 percent of average.

“We rely on the snowpack,” said Close. “This has been a rain-driven year. Without the snowpack our water supply curve is trending down much earlier than usual.”

Meanwhile, the United States Drought Monitor has placed the entire Northern Sierra region in the exceptional drought category, the most serious category, which extends through much of the state.

NID’s 5,000 irrigation water customers are not facing the same State mandated restrictions as treated water users but are encouraged to reduce water usage as much as possible. Close said the district has received reduction commitments of nearly 3,000 acre-feet from irrigation water users already this year.

In an average year, NID carries over about 150,000 acre-feet of water for the next year. This year, with increased conservation and purchases of additional water from the Pacific Gas and Electric Company, NID is aiming for at least 111,000 acre-feet of carryover storage for 2016.

NID’s ability to store additional water in its reservoirs is also being affected by the Water Board’s May 1 curtailment order that prohibits post-1914 “junior” water right holders from diverting water from streams and rivers. NID holds numerous post-1914 water rights but also holds numerous pre-1914 “senior” rights, some of which are among the oldest in the state. Senior water right holders have been given notice that they, too, may face curtailment later in the year.

Local water users are encouraged to visit the NID website, [www.nidwater.com](http://www.nidwater.com)., for information and helpful links on the drought and water conservation.

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# NID Outlines Plans for Getting Through Drought

May 22, 2015



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**FOR IMMEDIATE RELEASE:**

**Community Forum**

**NID Outlines Plans for Getting Through Drought**

**GRASS VALLEY** – In a community forum on Thursday (May 21), leaders of the Nevada Irrigation District outlined plans to ensure adequate supplies of water to district customers as the region endures a fourth year of drought.

More than 100 people attended the NID Community Drought Briefing at the Grass Valley Veterans Memorial Building. NID staff provided overviews of NID's background and role in the community, current water supply, state drought regulations and the need for water conservation.

Manager of Water Operations Chip Close said regulations imposed on May 5 by the State Water Board require NID and its customers to reduce residential water use by 36 percent from 2013 baseline levels. District customers saved 16.4 percent last year.

Close said the district has been operating its water systems very conservatively and that water storage is near average for this time of year. However, a record low snowpack is producing negligible runoff to replenish reservoirs as they are drawn down this summer.

Through conservation and purchases of additional water supplies from the Pacific Gas and Electric Company, NID is aiming to preserve a minimum 110,000 acre-feet of water storage at the end of this year. The district carries over 140,000 acre-feet in the average year.

General Manager Rem Scherzinger said costs to purchase additional water, combined with significant revenue losses to the district from reduced water sales, would have serious financial impacts on the district. As a result, district officials are considering a conservation water rate that could be implemented later this year.

The briefing also included a discussion by NID legal counsel Dustin Cooper, who provided an overview of NID's water rights and how they are being impacted by the state's drought regulations.

NID Water Efficiency Coordinator Aurora Tipton spoke of water conservation options and methods available to customers and said the district is preparing additional materials to help customers measure their levels of conservation.

In a question and answer session following the hour-long presentation, Scherzinger was asked to compare this year to the near-record drought of 1977 that brought the need for 50 percent use reductions. "We've been working this very carefully and from all angles over the past four years," he said. "We have more water in storage, our water systems are more efficient and we know more about water conservation. We are much better prepared than we were in 1977."

A resolution adopting a water conservation plan for the coming year is expected to be considered at Wednesday's (May 27) meeting of the NID Board of Directors.

The NID website contains valuable tips and links on efficient water use. See the Conservation tab at [www.nidwater.com](http://www.nidwater.com).

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# NID Adopts Water Conservation Regulation

May 28, 2015

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**FOR IMMEDIATE RELEASE:**

**District Seeks 36% Reduction in Use**

## NID Adopts Water Conservation Regulation

GRASS VALLEY – Directors of the Nevada Irrigation District on Wednesday (May 27) adopted a local water conservation regulation that is designed to meet statewide requirements handed down by Gov. Brown and the State Water Board.

NID Water Operations Manager Chip Close said the regulation calls upon NID's residential water users to reduce usage by 36 percent from 2013 baseline levels. He said the district is seeking to reduce water use among all water users and will make every effort to help customers achieve the goal.

The reductions are necessary after Gov. Brown earlier this year extended his initial 2014 drought emergency into a second year and called for 25 percent reductions by residential water users. The State Water Board's subsequent emergency regulations established differing conservation levels for different parts of the state in order to achieve the overall 25 percent level.

NID, with a warmer, inland climate, larger lot sizes, and high seasonal water use, was mandated to reduce consumption by 36 percent. District officials noted that customers reduced usage by 16.4 percent last year and encouraged increased conservation this year.

Close said it will be difficult for the District's residential customers to cut use by 36 percent but the district continues to encourage customers to reach that goal. The district may also rely on reduced water use by irrigation water customers to help meet the target.

He said irrigation water customers have already committed to one-year reductions of nearly 3000 acre-feet of water, which is roughly a third of the annual usage of the district's 44,700 residential users in Nevada and Placer counties.

Members of the NID Board voiced support for the district plan, saying the overall state plan does not recognize NID's water system, operations and combination of residential and agricultural water uses.

"A different approach is needed for our area and I think we're taking a very rational approach," said Director Nancy Weber. "This is an entirely appropriate plan for the district," said Director Nick Wilcox.

The NID regulation includes specific water use reduction methods, particularly those used in outdoor watering, where some of the greatest savings can be achieved. Prohibited use of potable water include:

- outdoor residential watering of more than two days per week.
- outdoor watering that causes runoff
- washing down of driveways and sidewalks

The regulation includes several other water saving measures. These and many more helpful hints on water conservation may be found under the Conservation/Drought tab at [www.nidwater.com](http://www.nidwater.com). Water waste may be reported via the NID website or by calling NID's Water Waste Hotline at (530) 271-6799. The six-page Water Conservation Regulation (Resolution 2015-15) will also be posted on the NID website.

The next regular meeting of the NID Board of Directors will be held at 9 a.m. on Wednesday, June 10, at the NID Business Center in Grass Valley. NID board meetings are open to the public.

-30-

Filed under:

[Press Releases](#) by NID Administrator

## NID Reports 36% Water Conservation

July 9, 2015

**Contact:**

Rem Scherzinger  
(530) 273-6185  
or: Dave Carter  
(530) 265-NEWS

FOR IMMEDIATE RELEASE:

NID Reports 36% Water Conservation

GRASS VALLEY – In response to serious drought conditions, the Nevada Irrigation District customers achieved a 36 percent reduction in potable water usage in June (compared to June 2013), reaching the mandates issued by Gov. Brown and the State Water Board.

“We are extraordinarily proud of our community,” NID General Manager Rem Scherzinger said at Wednesday’s (July 8) meeting of the NID Board of Directors.

Scherzinger encouraged water users to continue the high level of conservation until drought conditions ease. Mandatory and voluntary water conservation measures and helpful water-saving advice may be found under the Conservation/Drought tab at [www.nidwater.com](http://www.nidwater.com).

In other business, NID directors:

- held a public hearing and review of the district plan to encase a 1900-foot stretch of the Newtown Canal in pipeline. Officials said the canal section, located west of Nevada City, is in poor condition, running at capacity, and must be improved to ensure reliability of water supplies to Lake Wildwood and Penn Valley. The public hearing was held to offer an additional opportunity for comment on the project’s recently completed draft environmental impact report. Eight written comments were received and will be addressed in a final EIR which will now be prepared.

The next regular meeting of the NID Board of Directors will be held at 9 a.m. on July 22 at the NID Business Center in Grass Valley. NID board meetings are open to the public.

-30-

Filed under:

# NID Reports 38% August Conservation Rate

September 10, 2015

**Contact:**

Rem Scherzinger  
(530) 273-6185  
or: Dave Carter  
(530) 265-NEWS

**FOR IMMEDIATE RELEASE:**

## NID Reports 38% August Conservation Rate

GRASS VALLEY – The Nevada Irrigation District and its water users in Nevada and Placer counties are taking the California drought seriously and saving more water than many areas of the state, it was reported at Wednesday's (Sept. 9) meeting of the NID Board of Directors.

NID General Manager Rem Scherzinger said that in August customers achieved a 38 percent conservation rate (from 2013 base levels) for the district's domestic water customers. This follows back to back 36 percent reductions in June and July.

In addition, NID operational adjustments and customer use reductions this year have reduced the use of irrigation water from the district's canal system by 14,122 acre-feet of water from 2013 levels, Scherzinger reported. This amount of water would supply NID's domestic users for about a year and a half.

"Overall, we're doing very well," he said. "Our customers realize that California is in a serious drought and everyone is pitching in to help."

NID reservoir storage remains at near average levels. As of Sept. 3, total storage was at 155,798 acre-feet, which is 84 percent of average for the date and 59 percent of capacity.

Scherzinger said reservoir levels at Jackson Meadows and Scotts Flat are below average for this time of year, with other reservoirs closer to average levels for this time of year. Scotts Flat is about to pass the 40 percent of capacity mark which is ahead of schedule, he noted.

The district is now projecting it will end the 2015 irrigation season with more than 110,000 acre-feet of carryover water storage for next year. This equals about 45 percent of the district's water storage capacity.

In other business, NID directors:

- awarded a \$152,482 contract to Simpson & Simpson, Inc. of Newcastle for final trench repaving work following the district's replacement of 7400 feet of water main lines and service lines in Cascade Shores east of Nevada City. The firm's bid was the lowest among three submitted to the district.
- reviewed land acquisition options for five federal Bureau of Land Management (BLM) parcels in the Centennial Reservoir project area along the Bear River between Rollins and Combie reservoirs. The parcels, whether owned by NID or the BLM, would remain in public ownership and be used to benefit the public. No action was taken.

The next regular meeting of the NID Board of Directors will be held at 9 a.m. on Sept. 23 at the NID Business Center in Grass Valley. NID board meetings are open to the public.

-30-

## NID: Please Continue to Conserve Water

October 15, 2015

Contact:

Rem Scherzinger

(530) 273-6185

or: Dave Carter

(530) 265-NEWS

FOR IMMEDIATE RELEASE:

NID: Please Continue to Conserve Water

GRASS VALLEY – As dry summer weather stretches into fall, the Nevada Irrigation District is urging customers to continue water conservation efforts in face of a four-year drought.

NID General Manager Rem Scherzinger reported at Wednesday's (Oct. 14) meeting of the NID Board of Directors that conservation by domestic water users slipped to 18.5 percent in September (measured against 2013 usage levels). District customers achieved 36 percent conservation in June and July and 38 percent in August.

NID customers are being asked to reduce water usage by 36 percent under an executive order issued in April by Gov. Brown. Customers did an excellent job reducing outdoor water use during the summer months; however, as winter approaches conservation must be shifted from outdoor to indoor water savings.

With NID's six-month irrigation season ending Wednesday (Oct. 14), Scherzinger said canal flows are being reduced and remaining water is being held in storage. As of Oct. 7, NID reservoirs held 135,241 acre-feet of water, which is 86 percent of average for the date and 51 percent of capacity.

For more information on the drought and other NID activities, see the fall issue of the district's quarterly newsletter, NID WaterWays, at [www.nidwater.com](http://www.nidwater.com). The website also features a section on water efficiency and conservation.

-30-

Filed under:

[Press Releases](#) by NID Administrator

**NEVADA IRRIGATION DISTRICT**

1036 W MAIN STREET  
GRASS VALLEY, CA 95945-5424  
Billing Office: (530) 273-6185

**ACCOUNT STATEMENT**

Page 1 of 2

<b>ACCOUNT NUMBER</b> 16207-00	<b>BILLING PERIOD</b> FROM TO 05/12/15 07/21/15	
<b>CYCLE</b> 228 (O)	<b>APN</b> N22-180-35-000	
<b>BILL ISSUE DATE</b> 07/21/2015	<b>DUE DATE</b> 08/04/15	<b>AMOUNT DUE</b> \$0.00
<b>SERVICE NAME AND ADDRESS</b>		

**TERMS OF PAYMENT ON REVERSE SIDE**

CONSUMPTION COMPARISON	METER SIZE	METER READINGS		HCF CONSUMED	TOTAL GALLONS CONSUMED	AVERAGE GALLONS USED PER DAY
		PREVIOUS	PRESENT			
USAGE / DAYS CURRENT 0 / 71	3/4 IN MTR	946	946	0	0	0

**IMPORTANT MESSAGE**

**\*\*Important Drought Information\*\*** NID is targeting a 36% reduction in water usage as compared to the same time in 2013 and we are asking all customers to conserve. Mandatory outdoor water use restrictions are in place and include: - Limit watering to 2 days or less per week - No outdoor watering in the heat of the day - No watering that causes excess runoff For more information visit our website <http://nidwater.com/drought-information>

**SERVICE DESCRIPTION****AMOUNT**

PREVIOUS BALANCE	\$126.96
PAYMENT 06/18/15	-\$189.50
BALANCE FORWARD	-\$62.54
3/4 IN MTR NON COM-IN	\$62.54

**TOTAL AMOUNT DUE****\$ 0.00**

PLEASE BRING THE ENTIRE BILL IF PAYING IN PERSON OR IF BY MAIL RETURN THE BOTTOM PORTION ONLY

**NEVADA IRRIGATION DISTRICT**

1036 W MAIN STREET  
GRASS VALLEY, CA 95945-5424  
Billing Office: (530) 273-6185

Please return this portion with your payment. Make your check payable to:  
**NEVADA IRRIGATION DISTRICT**

<b>ACCOUNT NUMBER</b> 16207-00	<b>AMOUNT DUE</b> \$0.00
<b>DUE DATE</b> 08/04/15	<b>AMOUNT ENCLOSED</b> \$

TO ENSURE PROPER CREDIT TO YOUR ACCOUNT PLEASE  
NOTE ACCOUNT NUMBER ON YOUR CHECK AND REMIT  
PAYMENT TO:



NEVADA IRRIGATION DISTRICT  
1036 W MAIN STREET  
GRASS VALLEY CA 95945-5424

**TERMS OF PAYMENT ON REVERSE SIDE**



# NID

NEVADA IRRIGATION DISTRICT

# Waterways

A NEWSLETTER TO THE CUSTOMERS OF THE NEVADA IRRIGATION DISTRICT

## NEW RESERVOIR PROGRESS

...STORY BELOW

HOW TO SAVE WATER  
THIS FALL.... PAGE 4

WATER  
FOR SOUTH  
NEVADA  
COUNTY →



... PAGE 3

Volume 36 • Number 3 • Fall 2015

## High Hopes for a Wet Winter

**A**s summer turns to fall in a region beset by four years of drought, there are high hopes for a wet 2015/16 rainfall season, or at least a return to more normal conditions.

While the odds favor a wetter winter, NID is planning for whatever Mother Nature may deliver. By Sept. 30, district water storage was measured at 138,500 acre-feet, which is 52 percent of capacity but 86 percent of average for the date.

The district was able to maintain adequate storage despite a 2014/15 precipitation year that produced a snowpack just 5 percent of average. Last winter's average daily minimum temperature in the Sierra Nevada was 32.1 degrees, the first time it was above freezing in at least 120 years.

While there are high hopes for an El Niño wet winter, a fifth year of drought is certainly possible. California has had two six-year droughts in the past 90 years, from 1929-34 and 1987-92.

### Seasonal Tips for Saving Water

Page 4

## How Dry I Am.... Scotts Flat



**DROUGHT:** By Oct. 7, Scotts Flat Reservoir had dropped to 18,300 acre-feet of water, about 37 percent of capacity. The last time Scotts Flat approached this low level was in 1988 when it dipped to 20,800 acre-feet.

## NID Moving Forward on New Reservoir Project

**W**ith construction of the planned Centennial Reservoir, NID will be positioned to reduce over-reliance on mountain snowpack and to store more water at mid-elevation levels in the Sierra foothills.

District leaders say NID's current water system relies too much on the water storage contained in the annual snowpack. More storage at the lower elevations will capture more runoff from rain events, water that now flows through the district and is lost to local water users.

Additional water storage capacity will allow the district to improve and expand water service within NID's Nevada and Placer county service areas. Water supplies for local agriculture could be strengthened.

*(Please See New Reservoir, Page 2)*

## General Manager's Report

By Rem Scherzinger



### NID Customers Stand Up to the Drought

**W**hat will the 2015/16 rainfall year bring to Northern California? Are we looking at a wet El Niño year? Another warm winter that brings more rain than snow to our mountain watershed? Or worse, a fifth year of drought?

Whatever winter delivers, NID stands prepared. Due to outstanding water conservation efforts this year by NID customers, along with the district's own tightened operations, we have maintained adequate year-to-year carryover water storage for next year. What this means is that we are well positioned to meet basic needs for water service in 2016.

This fall, as we near the mid-October end of the 2015 irrigation season, NID reservoirs are holding about 130,000 acre-feet of water, which is more than the 110,000 acre-foot minimum level we established early this year.

Readers will remember Gov. Brown's April 1, 2015 executive order, which called for a 25 percent reduction in statewide urban water use. To reach the statewide goal, the State Water Board mandated different levels for different water suppliers. In NID's case, we were ordered to reduce usage by 36 percent (measured against 2013 baseline levels).

#### **38% Conservation Rate in August**

NID customers have done better than that, and we applaud you! We reached the 36 percent conservation mark in June and July and achieved 38 percent in August. Our irrigation water deliveries were down by 14,122 acre-feet as of Sept. 9. This savings alone could supply our urban water customers for a year.

Looked at in another way, in January through August of this year, we have reduced treated water use by 29 percent, or 699 million gallons!

These savings have not come without sacrifice. Farmers and ranchers are dealing with reduced production, brown lawns are apparent throughout our service areas and, of course, we all have endured the high fire dangers exacerbated by the continuing drought.

On behalf of your elected NID Board of Directors and district staff, I thank all NID water users for your awareness and support as we make our way through one of the driest periods in state history. We are hopeful this winter brings the change we all have been waiting for

[www.nidwater.com](http://www.nidwater.com)

## A Look Back...

### NID's First Office Building



NID's first office (pictured in 1936) was built in 1928 at 144 South Auburn Street in Grass Valley, now the site of a municipal parking lot. The building was gutted in a late night fire on Sunday, Sept. 6, 1964 but NID was able to salvage most records. Rather than rebuild, district officials chose to construct a new office building at NID's 18-acre maintenance and construction property on West Main Street. At the time, Grass Valley merchants were pushing for more downtown parking and in December 1964 the Grass Valley City Council purchased the fire site from NID for \$92,625. In 2016, the current NID Business Center marks 50 years at the present location. The building has been expanded twice to keep pace with district growth; once in 1989 and again in 1998.

### New Reservoir - *Cont'd From P. 1*

The Centennial Reservoir and Power Supply Project includes a 110,000 acre-foot reservoir on the Bear River between Rollins and Combie reservoirs, two hydroelectric power stations and low impact public recreation.

NID began planning the project in August 2014 in filings with the State Water Resources Control Board. Steady progress has included preliminary geotechnical investigations, environmental work has begun, and preliminary design is scheduled in 2016. Construction is planned to begin in 2021 with completion in 2023.

The project is estimated at \$200-\$300 million and would be NID's most significant advancement since the Yuba-Bear Hydroelectric Project doubled district water storage 50 years ago.

### Winter Storm Readiness

NID customers are reminded to make sure that all exposed pipes and faucets are protected against freezing temperatures. Frozen pipes can lead to loss of water, property damage and expensive repairs. Inexpensive pipe insulation is available from local building supply outlets.

If predictions of a strong El Niño condition prove true, we could see some heavy rainstorms this winter. To be prepared, check and clean your rain gutters and make sure drainages and canal spillways are clear.

## Seasonal Tips

### Water Conservation: Autumn

**A**s cooler weather sets in, it is still important to save water and make conservation an everyday habit.

The California *Save Our Water* campaign encourages water users to "Fit It For Good" when it comes to repairing leaks, going efficient with new toilets and fixtures, and rethinking outdoor water use.

Here are a few reminders for fall and winter:

- **Adjust your sprinkler schedule.** In cooler weather, lawns and plants don't need as much water. When it's raining, they don't need watering at all. You can invest in a weather-based sprinkler system and never again have to worry about irrigation schedules.

- **Get a jump on spring plantings.** Many plants can be set in the fall. They will require less water and will look better in spring.

- **Check for leaks.** Find and fix leaks now. One way to find leaks is to read your water meter, refrain from any water use for two hours, and then read the meter again. If the reading has changed you probably have a leak.

- **Install low-flow showerheads.**

- **As you wait for hot water,** collect the running water to water your plants. Better yet, install a circulating hot water system.

- **Hold a household meeting** and remind everyone to keep showers to five minutes or less, run only full loads in the washer and dishwasher, and to not use the toilet as a wastebasket.



### DWR Offering Conservation Rebates

The California Department of Water Resources (DWR) has a rebate program that provides rebates of up to a \$2000 for turf or grass replacement and up to \$100 for purchase and installation of one qualified high-efficiency toilet. For information, see:

<http://saveourwaterrebates.com/>

### How to Contact Your Elected Directors

#### DIVISION I - Nevada City Area

Nancy Weber, (530) 265-0424

**Board Vice President, 2015**

#### DIVISION II - Grass Valley-Chicago Park

John Drew, (530) 272-5257

#### DIVISION III - Lake of the Pines-Alta Sierra

Scott Miller, M.D., (530) 268-8778

**Board President, 2015**

#### DIVISION IV - Lincoln-North Auburn

William Morebeck, (916) 645-8650

#### DIVISION V - Penn Valley-Lake Wildwood

Nick Wilcox, (530) 432-2171



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### Working Together for Wolf Creek

The Wolf Creek Community Alliance (WCCA), a citizen group dedicated to protecting and restoring Wolf Creek, now has a water quality laboratory at NID. The small building is being leased to the Alliance for \$1 per month. Pictured in front of the structure are WCCA President Jonathan Keehn and NID Asst. General Manager Tim Crough.

## NID NEWS BRIEFS

**NEW FINANCE MANAGER.** Marvin V. Davis joined NID Sept. 8 as the district's Finance Manager, overseeing a combined annual budget of \$68.5 million and a team of 21 employees in Accounting, Customer Service, Information Technology and Purchasing. Davis is a U.S. Air Force veteran who holds an MBA from CSU Fresno and comes to NID from the City of Lincoln, where he served as accounting manager.



Marvin Davis

**GOOD AUDIT.** The NID Board of Directors on July 22 accepted a 2014 audit of the district by the certified public accounting firm of Richardson & Co. LLP, of Sacramento. The firm concluded that NID financial statements fairly present the district's financial position and that NID's records are kept in accordance with generally accepted accounting principles.

### Drought Impacts NID's Bottom Line

With a largely commodity-based rate structure, NID revenues are directly related to the amount of water the district sells.

With ongoing conservation bringing reduced water sales, district leaders have studied the need for drought-related rate surcharges, but none are planned at this time. The 6 percent 2016 general rate increase as called for in the district's five-year financial plan is scheduled.

To cover drought-related financial impacts, the district has used reserve and hydroelectric funds and has reduced or postponed maintenance and construction work.

**NID's QR Code**  
Scan this QR Code with  
your smart phone for direct  
access to the NID website.



<http://www.nidwater.com>

## Pledge of Service



Employees gathered for a team photo at the annual NID "All Hands Meeting."

### Water Conservation Tips: Winter

Even though we've seen good rain and snow, the drought is not over and water conservation remains important. Here are a few seasonal tips for saving water:

- Remember, mandatory restrictions are in place for treated water users. Outdoor watering during and within 48 hours after rain is prohibited.

- Consider turning off sprinklers until spring. At a minimum, reduce watering to one day per week. Let Mother Nature do the job!

- With freezing temperatures it's important to insulate pipes and prevent them from freezing. A

broken pipe can be costly and a huge water waster!

- Shorten your shower by a minute or two and you'll save up to 150 gallons per month. Time your shower to keep it under five minutes. You'll save up to 1,000 gallons per month.

- When washing dishes by hand, don't let the water run. Fill a basin with wash water and rinse in the other.

- Toilet leaks can be silent. Be sure to test your toilets at least once a year. Stop by the NID Business Center and pick up free dye tablets to test your toilets.

- Consider replacing your older toilet with a high efficiency toilet. Visit [www.saveourwaterrebates.com](http://www.saveourwaterrebates.com) for information on how to qualify for up to a \$100 rebate when you replace an inefficient toilet with a new 1.28-gallon or less high efficiency toilet.



### How to Contact Your Elected Directors

#### **DIVISION I - Nevada City Area**

**Nancy Weber, (530) 265-0424**

**Board President, 2016**

#### **DIVISION II - Grass Valley-Chicago Park**

**John Drew, (530) 272-5257**

#### **DIVISION III - Lake of the Pines-Alta Sierra**

**Scott Miller, M.D., (530) 268-8778**

#### **DIVISION IV - Lincoln-North Auburn**

**William Morebeck, (916) 645-8650**

#### **DIVISION V - Penn Valley-Lake Wildwood**

**Nick Wilcox, (530) 432-2171**

**Board Vice President, 2016**



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### Water Supply

#### **Continued From P. 1**

"These are more normal conditions for us," Sindt said. "This year is shaping up to be much better than the last few years. At this time, the district is continuing to manage water supplies very conservatively and continuing to ask customers to conserve water."

Sindt said the wet weather pattern seen in mid-January was forecasted to continue through the month and perhaps into the spring months. Weather watchers continue to track the El Niño weather condition in the Pacific Ocean which can influence California rainfall.

More information on the coming year's water supply is expected following NID snow surveys on Feb. 1, Mar. 1 and Apr. 1. Snow survey information is used to predict water availability locally and statewide.

### 2016 Budget, Water Rate Update

NID's combined annual budget for 2016 is \$74.5 million. The combined budget includes a Water Division budget of \$55.2 million, Hydroelectric Division budget of \$16.9 million, and Recreation Division budget of \$2.3 million.

All customers will see a 6 percent increase in water rates this year. It is the third rate adjustment in the district's current financial plan. The plan, approved in 2014, is aimed at bringing water rates more in line with the district's costs of providing service. NID water rates remain among the most affordable in the region.

### Water Conservation with Nevada County RCD

The Nevada County Resource Conservation District is scheduling several workshops this spring to assist landowners better manage their resources. Several sessions on water conservation are included.

In addition, NID will partner with the RCD in a "Mulch Madness" event this spring in which landowners may obtain free water-saving mulch for gardens.

For information on dates and schedules, call the RCD's Grass Valley office at (530) 272-3417 or see [www.nrcrd.org](http://www.nrcrd.org).

**NID's QR Code**  
Scan this QR Code with  
your smart phone for direct  
access to the NID website.



<http://www.nidwater.com>



# NID

NEVADA IRRIGATION DISTRICT

# Waterways

A NEWSLETTER TO THE CUSTOMERS OF THE NEVADA IRRIGATION DISTRICT

**NID Rebounding  
From the Drought:  
Conservation Still Needed**

...P. 1, P.2

**NID LEGENDS:  
The Russian of  
Texas Creek**

...P. 3



Volume 37 • Number 2 • Summer 2016

## State Lifts Drought Restrictions

### Water Conservation is Here to Stay

**T**he State Water Resources Control Board in mid-June lifted the mandatory water conservation measures that have been in place to save water during California's historic drought.

NID thanks you, our customers, for doing a tremendous job in saving water during the drought. We appreciate all you did to reduce water use and meet mandatory water conservation requirements under the state's emergency regulation of a year ago.

Thanks to last winter's improved rain and snowfall in Northern California and strong conservation statewide, specific state-mandated actions are being replaced with locally determined measures designed to maintain our water-wise  
(Please See Conservation, P. 2)



## Water Efficient Landscape



**Members of the community are invited to stop by and visit the new water efficient landscape in front of the NID Business Center in Grass Valley where native and low water use plants are displayed and identified. Pictured are NID's Aurora Tipton with Adam Weiss and Greg Chapman of Weiss Landscaping. The landscape is open during normal business hours.**

## Water Project Aids Cascade Shores

The community of Cascade Shores at Scotts Flat Reservoir will be connected to NID's modern Elizabeth L. George Water Treatment Plant in a water project now in progress and scheduled for completion later this year.

The work includes more than three miles of 12-inch transmission line running from Banner Mountain. It is designed to improve water quality and reliability for NID's 400 customers in Cascade Shores. It includes fire hydrants and is sized for future expansion of the treated water system. The new connection will allow the district to abandon the old and undersized water treatment plant that dates to the original development of Cascade Shores. It will also reduce the small community's dependence on the upstream South Yuba Canal.



**Jackson Meadows Reservoir, June 24, 2016**

## **NID Water System Rebounds From Drought**

**A**fter four years of drought, NID's water storage system has returned to near normal levels. As of July 11, the district's 10 reservoirs held 246,300 acre-feet of water, which is 114 percent of average for the date and 93 percent of capacity.

The generous 2015/16 rainfall year ended June 30, with 79.92 inches of precipitation (Bowman Reservoir, elev. 5,650 ft.). This equals 116 percent of the 130-year average of 69.12 inches.

## **Conservation Encouraged Continued From P. 1**

habits and ensure we have adequate supplies for an additional three years of drought.

The bottom line is that while NID no longer has a specific state-mandated conservation standard, the district encourages everyone to continue using water efficiently. It's a way a life in California.

If the drought of the last four years has taught us anything, it's that water is a precious resource, wasting it is foolish and there are many relatively easy ways to conserve water. As we move away from state-mandated extraordinary conservation, certain wasteful practices remain prohibited, including watering hardscapes or irrigating within 48 hours of precipitation. We ask you to keep these and other water saving practices in place since the next dry year may be right around the corner.

Again, we thank you for your heroic efforts and congratulate you for becoming the efficient water community you are today. Please visit [www.nidwater.com](http://www.nidwater.com) or [www.saveourwater.com](http://www.saveourwater.com) for water saving tips. Keep saving! It is the wise - and indeed the California - thing to do.

**[www.nidwater.com](http://www.nidwater.com)**  
**[www.centennialreservoir.org](http://www.centennialreservoir.org)**

## **Newtown Canal Upgrade Under Way This Summer**



**A**n upgrade to a critical section of the Newtown Canal near Newtown and Champion Mine roads west of Nevada City is in progress this summer, with completion expected later this year.

NID has placed high priority on the upgrade because the Newtown Canal is the primary source of water to NID's Lake Wildwood Water Treatment Plant, which supplies customers in Lake Wildwood and Penn Valley.

The Newtown Canal project is designed to improve water quality and remove a significant bottleneck in the canal. About 1900 feet of the canal is being realigned through a pipe along a roadside easement.

The canal realignment is being completed by Hansen Brothers Enterprises, Inc. of Grass Valley under a \$1.3 million contract awarded May 25 by the NID Board of Directors.

Timing of the canal realignment has been coordinated with the County of Nevada, which is planning road improvements in the area. This will allow NID to save an estimated \$65,000 in pavement overlay costs.

## **NID Pursues Fish Passage On Auburn Ravine Creek**

NID Directors on June 8 authorized engineering studies of two alternatives for modifications to the Hemphill Canal diversion point on Auburn Ravine Creek between Auburn and Lincoln. Fish movement is currently limited by a three-foot-tall seasonal diversion NID installs on the creek each spring to deliver water to customers in the greater Lincoln area.

The two alternatives identified for further study are a streamside sump structure and a costlier stream bank well system. Both options would eliminate the need for the seasonal diversion structure.

The engineering analyses will become part of NID's environmental studies and project permitting processes, which could take four or more years. Engineering Manager Gary King said NID has applied for grant funding for the project but has received no commitments.

### **Community Support**

The board's decision was applauded by local community groups, including Friends of Auburn Ravine and Auburn Ravine Preservation Committee, who are working toward improving fish passage on the creek.

The Hemphill project could improve fish passage to an additional six miles of Auburn Ravine. It would be NID's second significant contribution to fish migration in Auburn Ravine. The district's \$1.2 million fish ladder below Highway 65 in Lincoln, completed in 2011, earned finalist honors in the statewide environmental awards program of the Association of California Water Agencies (ACWA).



**NID**  
NEVADA IRRIGATION DISTRICT

# Waterways

A NEWSLETTER TO THE CUSTOMERS OF THE NEVADA IRRIGATION DISTRICT

**State Mandate for  
33% Water Use Cut  
Remains in Effect**

**Wettest, Driest Years on  
Record, Recent  
Precipitation Data  
...Page 3**

Volume 37 • Number 1 • Spring 2016

## Water Supply

### **NID Reservoirs Fill But California Drought is Still On**

**T**he winter of 2015/16 has been a very good one for Northern California but not so good for the southern part of the state. Though wetter than average conditions prevailed in our region, the year has not been the "drought buster" that some hoped for.

Despite NID's above average precipitation and system of full reservoirs, mandatory water use restrictions imposed by the State Water Resources Control Board remain in place. This means that customers who use treated, piped water must reduce usage by at least 33 percent, as measured against 2013 levels.

NID irrigation water users are not under the same mandates. The NID Board of Directors on Mar. 23 rescinded the district's year-old drought emergency declaration and declared that normal irrigation water deliveries would be available this year.

The State Board hosted a hearing on April 20 to consider easing state restrictions in some regions but any changes were not expected until May. Meanwhile, NID treated water users



### **Irrigation Season Opens**

**Joe Gobert Jr. adjusts a water gate that releases water from Lower Scotts Flat Reservoir into the DS Canal. The NID irrigation season runs each year from on or about Apr. 15 through Oct. 14. Gobert is a water distribution operator in the Nevada City area.**

are encouraged to keep up the strong conservation efforts of the past few years.

### **NID Water Supply**

By April 24, seasonal precipitation at Bowman Reservoir had reached 77.02 inches, or 122 percent of average for the date. The amount had already exceeded the average

annual level of 69.02 inches (precipitation is measured annually July 1-June 30).

A good snowpack is expected to bolster this year's water storage. NID's April 1 snow survey found an average 33.9 inches of water content in the mountain snowpack, which is 102 percent of average. By comparison, (Please See Water Supply, P.3)

## General Manager's Report

By Rem Scherzinger



### It's a Long Road Back to Normal

**I**t's been a wet winter here on the western slope, fairly normal by our standards. We've had ample rain and the NID water system is filling to the brim.

But wait, the drought is not over. Our friends in Sacramento keep reminding us that the rest of California - especially areas to the south - remain dry and will be short of water again this year.

After four years of drought, it's not an easy or balanced recovery and, unfortunately, it appears that NID customers could be called upon to conserve serious amounts of water again this year.

We commend all of our water users for their heroic support, awareness and meaningful water conservation efforts through recent years. These efforts have allowed the district to achieve or nearly achieve the ham-fisted conservation requirements handed down by state water regulators.

But now, as our reservoirs spill and our rivers cascade toward the valley, it is difficult for NID to remain in a position where we have to enforce these locally blind water conservation standards upon our community.

#### **33% Conservation Mandate**

At this writing, NID's more than 20,000 treated water customers are expected to reduce water usage by 33 percent from 2013 levels. At the same time, our irrigation water customers, who use about 90 percent of the water supplied by the district, face no mandatory cutbacks.

We are pleased to make normal deliveries this year to our irrigation water customers; we know many of you have faced tough times and made tough economic choices due to the drought. We can only hope that reasonable levels of water use for our treated water users will soon resume.

The Governor's drought emergency declaration remains in effect until Oct. 16 and the State Water Resources Control Board met Apr. 20 to further consider what conservation levels may be appropriate for different regions. NID has joined with other north state and mountain counties water entities in making our case for less stringent requirements.

Water conservation is here to stay and we are doing our part to operate our water systems as efficiently as we can and in offering help and assistance to our customers in their efforts to save water.

We hope to be able to announce soon that more reasonable and attainable conservation efforts will return to the customers of the Nevada Irrigation District.

Thank you once again for helping all of us through the difficult four-year drought.

## AA+ Bond Rating

### District Issues Bonds for Water System Upgrades

**A** solid financial position, diversified operations and a Standard & Poor's AA+ bond rating have allowed NID to complete a \$24.7 million bond issue that will be used primarily to modernize the Combie Phase I Canal and Bear River Siphon.

The bonds carry a favorable true interest cost (TIC) of 2.15 percent and will be repaid from district revenues over a 15-year period.

The bond issue was approved Mar. 23 by the NID Board of Directors and secondly by the NID board acting as directors of the NID Joint Powers Authority. The district has successfully completed previous bond issues through the JPA.

The district retained a bond counsel and financial adviser who worked with the district's financial team to plan the transaction. In presentations to the board, bond counsel Douglas S. Brown of Stradling, Yocca, Carlson and Rauth of Sacramento, and financial adviser Robert Porr of the Irvine-based Fieldman, Rolapp & Associates, both cited the district's strong financial position and good credit standing.

Most of the bond funding will be budgeted toward an estimated \$20 million upgrade of the Combie Phase I Canal system, NID's primary supply link to customers in Placer County, carrying about 60 percent of the water supplied by NID. The aging canal carries water through the steep Bear River canyon and the siphon carries the water across the river into Placer County. The district plans to allocate another \$3.2 million to planning and environmental work on the Centennial Reservoir project and \$1.3 million for environmental mitigation land acquisitions.

#### Top 5 Uses

### How NID Water Is Used

NID water supports the agricultural production of more than 5,000 irrigation water users across Nevada, Placer and Yuba counties. As part of their irrigation water purchases, these customers submit reports on what they're growing with their water. Here are the leading water uses as summarized in NID's 2015 crop report:

#### Crop/Acreage

##### **Irrigated Pasture**

**18,108**

##### **Family Garden, Orchard**

**5814**

##### **Fruit (except grapes)**

**1008**

##### **Forage**

**884**

##### **Grapes**

**612**



## Water Supply

Continued From P. 1

ison, a year ago just 1.52 inches of water content was found in what became the lowest snow year on record.

Water storage has rebounded well from the four-year drought. NID's 10 reservoirs stood at 249,300 acre-feet as of Apr. 15, which is 94 percent of capacity and 129 percent of average for the date. Reservoir levels are expected to remain up, making this a good recovery year for hydroelectric power generation and public recreation.

### Wettest Year on Record

1903/04

142.07 Inches

## Rainfall Data: Wet, Dry, Recent Totals



NID Mountain Watershed

NID is a foremost source for local weather data, with precipitation records at Bowman Reservoir (elev. 5,650 ft.) dating back to 1872.

The wettest year on record? That was back in 1903/04 with 142.07 inches. The driest year? The second year of the mid-70s drought, 1976/77, produced just 30.80 inches. Average annual precipitation at Bowman is 69.02 inches.

### Precipitation at Bowman Reservoir Since 2000

Year	Inches
2000/01	41.57
2001/02	65/62
2002/03	75.74
2003/04	51.91
2004/05	73.94
2005/06	100.61
2006/07	48.74
2007/08	52.07
2008/09	67.88
2009/10	65.78
2010/11	123.67
2011/12	58.18
2012/13	57.94
2013/14	47.08
2014/15	48.52
2015/16	77.02 (4-24-16)

**Annual Avg: 69.02**  
(measured July 1-June 30)

## Lead Not an Issue in NID Water

The January 2016 public health emergency declared in Flint, Michigan has focused public attention on dangers of lead contamination in public drinking water supplies. Lead was found to be leaching from aging pipes in the water delivery system.

Lead has not been an issue in NID's treated water system. The district has conducted lead testing for many years, including at-the-tap lead and copper testing since 1992. The tests are conducted under the Lead and Copper Rule adopted by the EPA in 1991 as part of the Safe Drinking Water Act.

Lead is generally not found in NID source waters. It can be found in air pollution (this is why leaded gasoline has been banned), old paint and contaminated soils.

NID water quality specialists say that old plumbing systems in private homes could be a potential source of lead, through corrosion in old pipes, solder and faucets.

To learn more, see your annual NID Water Quality Report. The reports summarize testing results of the quality of water supplied to customers in the previous calendar year. See your report at [www.nidwater.com](http://www.nidwater.com).

The EPA provides a good overview at [www.epa.gov/your-drinking-water/basic-information-about-lead-drinking-water](http://www.epa.gov/your-drinking-water/basic-information-about-lead-drinking-water).

[www.nidwater.com](http://www.nidwater.com)

[www.centennialreservoir.org](http://www.centennialreservoir.org)

## NID NEWS BRIEFS

**2016 Water Rates.** District customers are reminded that a 6 percent water rate increase is in effect for all classes of water use. The adjustment is part of the district's 5-year plan to balance revenues with rising costs of doing business.

**Two Veteran Employees Retire.** NID recognizes the community service of two longtime employees who are retiring. **Kathy Anderson**, a buyer with NID's Purchasing Dept., retired Apr. 10 from a 26-year with the district. **Bill Winkle**, a Senior Water Distribution Operator with the Operations Dept., retires from a 27-year NID career on May 2.



Anderson Winkle

**Water Wasters Hotline.** If you notice water being wasted around your neighborhood or community, you might consider reporting it to the NID Water Wasters Hotline. Call (530) 271-6799.

**Work Near a Canal or Pipeline?** Are you planning a project, such as an outbuilding, bridge or culvert near a district facility? Please check with the district first to obtain an encroachment permit. This will ensure your rights to use your private property while protecting operation of the public water supply.

**Strategic Plan Update.** The NID Board of Directors on Apr. 13 approved a 2016-18 update of the NID Strategic Plan. The plan outlines the district's mission statement and lists specific goals and action items. It may be viewed under the Planning tab at: [www.nidwater.com](http://www.nidwater.com).

## No Motors for a Day



### Scotts Flat

Kayakers, sailors and paddleboarders turned out at Scotts Flat Reservoir Apr. 24 to enjoy NID's 9th Annual "No Motor Day." The Gold Country Yacht Club, Mountain Recreation and Boy Scout Troop 4 helped host the event, which promotes non-motorized recreation.

### Comments Welcome on Raw Water Plan

NID's Raw Water Master Plan includes a draft capital improvement plan (CIP) that addresses capacity issues on canals and raw water facilities throughout the district.

Prior to adoption of the CIP, the district is conducting a programmatic environmental review of the plan. A Notice of Preparation (NOP) for an environmental impact report is scheduled to be issued this spring.

Customers wishing to review or comment on the process are invited to visit the NID website. The item will be posted at <http://nidwater.com/planning/>

### How to Contact Your Elected Directors

#### DIVISION I - Nevada City Area

Nancy Weber, (530) 265-0424

Board President, 2016

#### DIVISION II - Grass Valley-Chicago Park

John Drew, (530) 272-5257

#### DIVISION III - Lake of the Pines-Alta Sierra

Scott Miller, M.D., (530) 268-8778

#### DIVISION IV - Lincoln-North Auburn

William Morebeck, (916) 645-8650

#### DIVISION V - Penn Valley-Lake Wildwood

Nick Wilcox, (530) 432-2171

Board Vice President, 2016



<http://www.nidwater.com>

#### NID's QR Code

Scan this QR Code with your smart phone for direct access to the NID website.

## Water Efficiency

### How to Know if You Are Overwatering

One of the easiest ways to save water is to make sure you are not overwatering your lawn and plants. Most of us water more than we need to, which not only wastes water but ends up drowning our plants. Watering for fewer days for the appropriate amount of time will give you healthier plants with less water use.

Here are some general guidelines on how to make sure that you are watering the correct amount:



**1. Irrigation for lawn areas** can be kept to three days in the summer with "run and soak" cycling of an irrigation valve/station.

For example, Program A for sunny lawn areas, can have three start times, three minutes with 30-60 minutes between each run time. Be aware that sun exposure and slope of the lawn area are factors to consider in calculating the amount of time the irrigation runs. Shaded lawn does not need as much water. Ensure irrigation water does not result in runoff.

**2. Mature shrubs** can usually be limited to watering two days a week in the summer. Be aware that sun exposure and slope of the landscape areas are factors to consider in calculating the run time. Check Sunset's Plant Finder to determine if your plants are high, medium, or low water use. Water in cycles (e.g. 5 minutes of run time with time in between to allow water to soak through to the plant's root zone). Run times will depend on the plant type. Watering with this technique encourages deep rooting by water percolating to depths of at least several inches into the soil for shrubs, deeper for trees. Ensure irrigation water does not result in runoff.

**3. Once the root system** is strong and deep enough, the plants will withstand more periods of no irrigation, particularly when day length is shortened and soil temperatures are cooler.

**4. Annuals or water-loving plants** can be efficiently irrigated with this method as long as they are rooted into the native soil. On new plantings, make sure the root ball is moist as well as the surrounding soil to encourage rooting beyond the original container size.

**5. Apply 2-3 inches of mulch** on any bare soil to keep soil temperatures cool.

Learn more at [www.SaveOurWater.com](http://www.SaveOurWater.com).

## NID Reports Improving Water Storage

January 14, 2016

January 13, 2016

Contact:

Rem Scherzinger

(530) 273-6185

or: Dave Carter

(530) 265-NEWS

FOR IMMEDIATE RELEASE:

GRASS VALLEY – After five years of drought, a return to more normal winter weather is improving the outlook for the coming year's water supply, it was reported at Wednesday's (Jan.13) meeting of the Nevada Irrigation District Board of Directors.

General Manager Rem Scherzinger said seasonal precipitation had reached 104 percent of average as of Jan. 7 with an outlook for continued wet weather. Precipitation at NID's Bowman Reservoir (elev. 5650 ft.) was measured at 28.95 inches on Jan. 7.

Rainfall is measured each year July 1 through June 30.

A deepening snowpack also bodes well for local water storage. The Jan. 7 snowpack was estimated to hold 17 inches of water content. A year ago, there was virtually no snow in what turned out to be the lowest snow year on record. More information on this year's snowpack is expected following NID's Feb. 1 snow surveys.

Scherzinger said NID's Jan. 7 water storage stood at 151,000 acre-feet, which is just short of the 159,600 acre-foot average for this time of year. NID storage bottomed out in late October at 132,200 acre-feet.

In other business, NID directors:

- Approved an update of the district's 2012 Agricultural Water Management Plan, subject to minor changes. The state-mandated plan is designed to help agencies use best management and water efficiency practices in agricultural water delivery.
- revised the district's formula for calculating the capacity fees paid by commercial and multi-unit residential developers who connect their properties to the public water system.

The next regularly scheduled meeting of the NID Board of Directors will be held at 9 a.m. on Jan. 13 at the NID Business Center, 1036 West Main St., in Grass Valley. NID board meetings are open to the public.

-30-

Filed under:

NID Drought News / Updates, Press Releases by NID Administrator

## The 2nd Annual Mulch Magic Giveaway!

April 27, 2017

Contact:

Susan Holt

(530) 271-6735

## The 2nd Annual Mulch Magic Giveaway!

Grass Valley – NID and the Nevada County Resource Conservation District (NCRCD) are highlighting the multiple benefits of using mulch for gardening and landscaping with the 2nd Annual Mulch Magic Giveaway. This event will provide approximately 160 cubic yards of shredded redwood bark to community residents, and is part of NID's continuing efforts to promote conscientious water use and conservation in our region.

The Mulch Magic Giveaway begins today, April 26, 2017, and will continue through June 30, 2017, or while supplies last. The community is invited to participate and may now begin picking up vouchers from the NID Business Office, located at 1036 West Main Street in Grass Valley, or the NCRCD office, located at 113 Presley Way, Suite 1 in Grass Valley. Each voucher entitles the holder to ½ cubic yard of mulch per residence, and is redeemable at Rare Earth Landscaping in Grass Valley, or Four Seasons Landscaping in Penn Valley. The mulch is provided in bulk and will require a truck for pickup.

Some of the benefits of using mulch include:

Sixty gallons of water saved per week, by adding 2 to 3 inches of mulch around trees and plants for each 1,000 square feet of irrigated landscape.

Mulch keeps soil moist and slows evaporation, allowing water to sink into the soil, which reduces the rate of watering needed for plants to thrive.

Mulch breaks down into the soil, providing nutrients for trees and plants.

Mulch protects plants by moderating soil temperature and suppressing weeds.

For more information on the Mulch Magic Giveaway, or on the benefits of using mulch, please contact: Kaycee Strong at 530-273-6185, ext. 244.

### Water Conservation Update:

Thank you NID customers who drink and use treated water for their homes and businesses as well as growers who use untreated water on their crop. You continue to make conservation a way of life.

Since 2013, which started the worst drought in modern times, NID customers slashed their treated water use by nearly 22 percent. That's more than 2.6 billion gallons of water!

Irrigation water users conserved 16,804 acre-feet. This is an impressive amount considering an entire year of treated water use by District customers is only around 10,000 acre-feet. Conservation efforts include voluntary cutbacks and District re-operation of the raw water system to keep flows at a minimum.

#### Daily Use in Homes – we can do better

The State Water Resource Control Board recently released statistics of how much water residential customers use on a daily basis. Statewide, that average has continued to fall. Measured in terms of gallons per capita per day (R-GPCD), the latest statewide average is 110.5. The Sacramento region comes in at 173.

NID residents had a 254 R-GPCD for the same period. That means we need to keep vigilant in our conservation efforts!

Here's the NID R-GPCDs in September through recent years:

- Sept. 2013 - 232
- Sept. 2014 - 216
- Sept. 2015 - 184
- Sept. 2016 - 223
- Sept. 2017 - 254

By comparison, neighboring district R-GPCDs are as follows:

- Placer County Water District - 197
- El Dorado Irrigation District - 271
- Sacramento Suburban Water District - 147
- City of Roseville - 177

See the full September 2017 State Water Board conservation report/list [here](#).



### NID Photo Contest 2017

The first employee photo contest was held at NID in 2017. Congratulations to these talented photographers:



FIRST PLACE - Rollins Lake at Greenhorn by Adrian Schneider



SECOND PLACE - Winter at Scotts Flat Lake by Gus Gramm



THIRD PLACE - Chicago Park Powerhouse by Ken Hart



FOURTH PLACE - Fixed Cone Valve at Jackson Meadows by Chris Ribble

### Seasonal Water Conservation Tips for Autumn

To help guide us through the cooler, fall months, here are some tips and ideas on how to conserve water in the outdoors:

- **Change your sprinkler schedule.** As the weather cools down, plants and lawns don't need as much water... and when it's raining, they don't need to be watered at all. Change your sprinkler timer now and then remember to turn it off when it rains.
- **Get a jump on spring plantings.** Gardeners will tell you that plants set in the fall season require less water and will look better come springtime!
- **Invest in a rain barrel.** Consider using a rain barrel to collect and store rain water runoff throughout the wet months. Water collected can be used to water indoor or outdoor plants, when needed, instead of turning on your sprinklers.
- **Redirect downspouts to capture water.** Simply redirect downspouts outside your home to capture any rainwater and direct it to garden or plant areas.

For more water saving tips and ideas year-round, visit [www.SaveOurWater.com](http://www.SaveOurWater.com)

The 3rd Annual Mulch Magic Giveaway is a success!

June 6, 2018

Residents with trucks lined up before 7 am to load free shredded redwood mulch during NID's annual Mulch Magic Giveaway on June 2. By 12:30 pm, all of the piles of mulch – a total of 150 cubic yards – were gone!

In its third year, this year the giveaway had a new format – people collected the mulch on a first-come first-served basis at the Nevada County Fairgrounds instead of a voucher system to be redeemed at local suppliers.

The Mulch Magic Giveaway is part of NID's continuing efforts to promote conscientious water use and conservation. Mulch is a great tool to help save water in gardening and landscaping. Two or three inches of mulch helps retain water keeping the soil moist for longer periods of time.

The popular event is sponsored by NID, the Nevada County Resource Conservation District (NCRCD) and the Nevada County Fairgrounds.

# WaterWays

Volume 39 • Number 4 • Fall 2018



## Plan for Water

Join the Community Process. Visit [PlanforWater.org](http://PlanforWater.org)

### Planning today for our water supply in the future – get involved!

The process has begun to update the plan that will detail how our community's water will be managed for the next 50 years. And you are invited to participate!

There is nothing more vital than a secure water resource. Water irrigates farms that produce our food, offers protection from fire, helps power the economy, sustains the environment and flows from our faucets.

Water is a tough resource to manage in a drought-prone state like California. That's why long-term water resource planning is an urgent issue for us all.

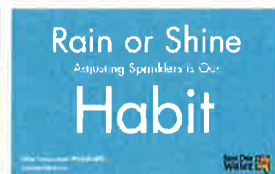
We believe we can best plan our water future by teaming up with water users. To do this, we have initiated a two-year process called Plan for Water that will update NID's Raw Water Master Plan. Key to the process will be a 30-member group comprised of community representatives who will develop strategies, or pathways, that reflect a balanced mix of community perspectives. Learn more about the process and how to get involved at [PlanforWater.org](http://PlanforWater.org). Sign up to receive a newsletter [here](#).

### Conservation: Cooler temps signal time to reduce outdoor water use

Cold nights and cooler days provide the opportunity to save water – and money – this fall and winter. Every drop truly counts year-round. Customers who avoid outdoor watering definitely are doing their part to conserve water and help the environment and their neighbors. About 30 - 60 percent of residential water is used outdoors.

Yards need much less water with the cooler weather and during the rainy season. You could save 55-100 gallons per day by stopping outdoor winter watering!

Another excellent way to conserve water is to wrap bare outdoor pipes, which are more likely to freeze in cold weather and later burst as they thaw. Other ways to be more water-wise include catching rainfall with a rain barrel or large bucket and using that water for indoor and outdoor plants.



Check out NID's "[Water Efficiency](#)" webpage for conservation tips and tools

- Measure your water use with a free online calculator
- Find tips to reduce the amount of water you use indoors
- Find tips to reduce the amount of water you use outdoors

Fourth Annual Mulch Magic Giveaway set for May 11 – come and get it

April 30, 2019

The 4th Annual Mulch Magic Giveaway will be held from 7-11 am on May 11 at the Nevada County Fairgrounds, Gate 8 off Brighton Street.

Nearly 150 cubic yards of shredded cedar will be handed out free on a first-come first-served basis, courtesy of Nevada Irrigation District and sponsors Nevada County Resource Conservation District (NCRCD) and the Nevada County Fairgrounds.

The event starts at 7 am at the Fairground's Gate 8, and goes until 11 am, or while supplies last.

The mulch is provided in bulk and will require a truck. This is a "self-load" event; participants are asked to provide their own shovels, containers and tarps to cover the loads. For those needing assistance, local Boy and Eagle Scouts will be available to help load mulch into vehicles.

The limit is 1 cubic yard of mulch (enough to fill a pick-up truck) per vehicle. The material is for personal use only; not for resale or commercial use.

Mulch is a great tool to help save water in gardening and landscaping. Two or three inches of mulch helps retain water keeping the soil moist for longer periods of time.

The Mulch Magic Giveaway is part of NID's continuing efforts to promote conscientious water use and conservation.

The location is the Nevada County Fairgrounds in the arena. Enter the Fairgrounds Gate 8 off Brighton Street.

For more information about the event, contact Kaycee Strong at 530-273-6185, ext. 244 or [strongk@nidwater.com](mailto:strongk@nidwater.com)

## Tremendous turnout for NID's Fourth Annual Mulch Magic Giveaway

May 20, 2019

Nearly 150 cubic yards of free shredded cedar mulch disappeared in less than two hours, during Nevada Irrigation District's 4th Annual Mulch Magic Giveaway on May 11.

Held at the Nevada County Fairgrounds, the event began at 7 am with mulch available free to local residents on a first-come first-served basis. By 8:30 am, the piles of mulch that filled much of the fairground arena were gone.

As a "self-load" event, participants are responsible for loading their own vehicles. For the first time this year, local Boy and Eagle Scouts were available to help shovel mulch, a service greatly appreciated by many.

NID provides the mulch, with the Nevada County Resource Conservation District (NCRCD) and the Nevada County Fairgrounds serving as sponsors.

The giveaway program is part of NID's continuing efforts to promote conscientious water use and conservation. Mulch is a great tool to help save water in gardening and landscaping. Two or three inches of mulch helps retain water, keeping soil moist for longer periods of time.

# WaterWays

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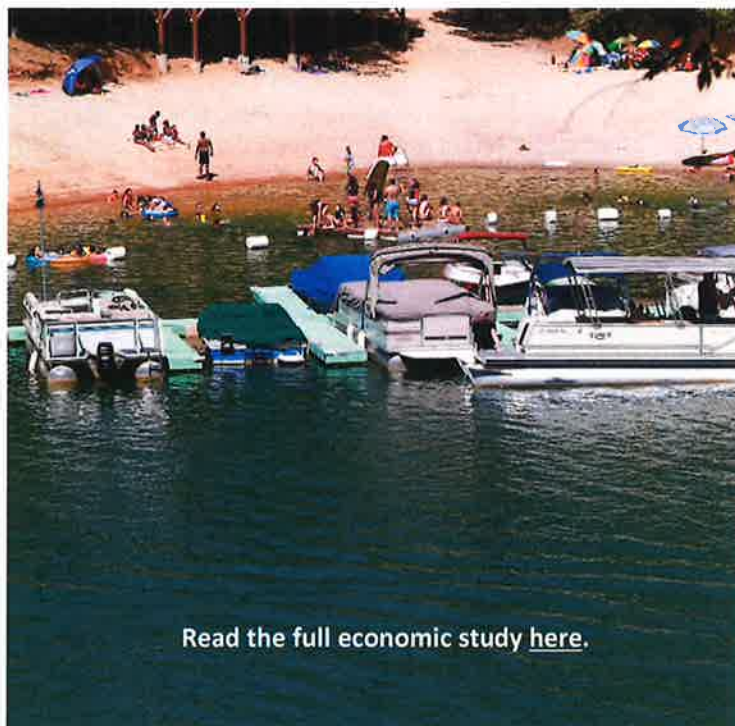
## Rollins recreation pumps millions into local economy

Boating, camping and fishing at Rollins Reservoir provide millions of dollars in spending at nearby businesses and generates as many as 50 jobs for the region.

Nearly 108,000 people visited NID's Rollins Lake recreational facilities at Orchard Springs, Long Ravine, and Peninsula Resort campgrounds last year. In turn, those visitors spent \$4.87 million at convenience and grocery stores, gas stations, restaurants and other nearby businesses, according to a new study that measured the economic impact on the cities of Colfax, Chicago Park and Grass Valley.

NID collects fees from visitors that cover the cost of maintaining and operating the recreation areas, including paying dozens of seasonal employees.

The recreation areas are a positive-revenue generator and ensure that we have sustainable water year-round.



### New water meters will help track water use, detect leaks

New smart water meters will provide up-to-the-minute information on water use and can help customers conserve water – and save money.

NID has installed about 6,400 Badger meters for treated water customers. As old meters need to be replaced, the District will install the new technology, which features a cellular communication system that makes it easy for customers to track their water use, so they can better understand usage and identify leaks.



Kayakers enjoy the serenity of morning on Scotts Flat Reservoir during 2018's No Motor Day. Read more [here](#).

## Save the Dates for Fun!

Bring the family and join in these fun events at NID Reservoirs and Campgrounds:

May 19: No Motor Day at Scotts Flat

Sept. 14: Kid's Triathlon at Orchard Springs

Sept. 15: BSM (Barbara Schmidt Millar) Triathlon at Cascade Shores Boat Launch



**FREE MULCH Available for Pick-up**



**Saturday May 11, 2019**

**7:00 am – 11:00 am**

**Location: Nevada County Fairgrounds**  
Enter Fairgrounds Gate 8 off Brighton Street  
Event will be held in Arena

### SELF-LOAD

Bring your own shovels, containers, truck, and tarp to cover your load

### Do you need help loading?

Local Boy and Eagle Scouts will be available to help load mulch into your vehicle.

### Make sure to tip your Scout!

- First come, first served while supplies last
- For personal use only; not for resale or commercial use

Questions? Contact Kaycee Strong

530-273-6185 ext. 244 or [strongk@nidwater.com](mailto:strongk@nidwater.com)

*Mulch is a great tool to help save water. 2-3 inches of mulch helps retain water keeping the soil moist for longer periods of time.*

**\*\*Limit 1 cubic yard per vehicle\*\***



## NID News Briefs

### Community tour showcases NID's Forestry Project at Scotts Flat Reservoir

The NID Watershed team led an April 17 community tour of all of the work being done on District property around the reservoir to reduce fire fuels and protect against wildfire.

In its third year, the healthy forest project at Scotts Flat Campground addresses many factors that affect wildfire risk, watershed and forest health, and long-term water security. The two-hour tour was featured as part of *Know Your Watershed* month.

The Scotts Flat Fire Fuels Reduction and Healthy Forest Project is in partnership with the Sierra Nevada Conservancy and CAL FIRE. Projects like this one within the Deer Creek sub-watershed will restore and maintain healthy, fire-resilient landscapes, while protecting water supply and quality in central Nevada County.

### NID supports the Nevada County STEAM Expo

NID was a sponsor of role in the annual Nevada County STEAM Expo, which motivates students to take an interest in science, technology, engineering, art and math. The event was coordinated by the Nevada County Superintendent of Schools and held at the Nevada County Fairgrounds on April 5-6.

On Friday, April 5, a team of NID employees judged student science projects. The District gave out 10 awards to recognize local youth that are working on and thinking about water resources, watershed health, and the environment.

On Saturday, April 6, NID hosted an information table in the "Career Exploration Wing" with fun activities and information to highlight employment opportunities for our local youth. The activities included a hands-on model of water system components and a hand-powered centrifuge that replicates the mercury removal process NID is using at Combie Reservoir during its award-winning sediment removal project (see p.1).

### Scotts Flat wins two "best of" awards

Scotts Flat Reservoir has been voted best camping *and* best fishing spot in The Union Newspaper's annual "Best of Nevada County" awards competition. Scotts Flat also was voted runner-up for best boating location.

Every summer, about 60 seasonal employees join the Recreation Department's nine full-time staff members to assist the 240,000-plus annual campers and boaters who visit NID campgrounds and reservoirs.

In total, NID operates and maintains 15 campgrounds, plus camping sites in the Jackson Meadows-Bowman Lake areas.

Read more about NID recreation [here](#).

## NID customers adopt water conservation as a way of life

Customers can feel good about their voluntary efforts to reduce water usage. In January, customers used 9 percent less treated water than in 2013, which is the first year of the worst drought in modern times and serves as a benchmark for water conservation measurements. In total for 2018, customers used 12 percent less treated water than in 2013.

This is an indication customers are embracing the concept that water conservation should be a way of life throughout the year, whether during the wet, cold winter or dry, scorching summer.

"Our new norm of water usage is well below that of the recent drought years," said Chip Close, NID operations manager. "Thank you to NID customers who have voluntarily incorporated water conservation into their lifestyles. It is important to be responsible stewards of our water resources, and conservation is a crucial way to stretch our limited supply and be responsive to the effects of climate change and future drought."

Now that winter is upon us, wetter weather means gardens and landscape do not need irrigation. There still are opportunities to conserve water. Find some easy water conservation actions at NID's website [here](#):

- Use an online water usage calculator to see how much water your family really uses
- Install low-flow shower heads and shorten your shower. Showering accounts for nearly 17 percent of residential indoor water use – up to 40 gallons per day for an average family
- Improve the efficiency of your toilet with an old trick. Place a brick in the toilet tank. The brick displaces about half a gallon of water, which reduces the amount needed per flush. Plus, there's little effect on the flush power.

## NID welcomes new Directors

NID welcomes three new members to its Board of Directors. Ricki Heck (Division 1), Chris Bierwagen (Division 3) and Laura Peters (Division 4) joined Directors Nick Wilcox and Scott Miller on the Board.

Elected to four-year terms, NID Directors set policy to ensure a reliable, high-quality water supply for our farms, homes and businesses in Nevada and Placer counties. Read the bios of the Directors [here](#).

(From left to right) Laura Peters, Chris Bierwagen and Ricki Heck were inducted on Dec. 12, 2018.



## Jacqueline Longshore named NID Maintenance Manager



Jacqueline Longshore during a fish rescue at the Scotts Flat plunge pool.

Congratulations to Jacqueline Longshore, who has been promoted to Maintenance Manager. In her new position she will oversee the activities of employees in Construction, Service, Facilities Maintenance and Fleet Maintenance.

Ms. Longshore started as a Senior Vegetation Control Worker with NID on June 6, 2011, and promoted to Assistant Maintenance Superintendent – Vegetation Control on May 6, 2013. She transferred to Hydroelectric as the Hydroelectric Program Analyst on Feb. 10, 2014, then promoted to Hydroelectric Compliance Administrator on May 19, 2018. On Jan. 7, 2019 her promotion to Maintenance Manager was announced after former Manager Brian Powell retired.

Prior to NID, Ms. Longshore worked for the California Department of Forestry and Fire Protection as a Forestry Assistant and Urban Forester. She holds a Bachelor's Degree in Forestry and Natural Resources Management from Cal Poly, San Luis Obispo, and has a minor in water science and concentration in resources management.

## NID News Briefs:



### Finding the most effective, least toxic treatments for vegetation management

NID's Vegetation Management Crew completed aquatic vegetation treatments in October as part of the District's ongoing efforts to test and find alternatives to conventional herbicides.

### NID keeps the water running for federal workers

NID gave a helping hand to Federal employee customers impacted by the government shutdown. NID worked with customers to develop payment plans and forego any fees and penalties associated with late payments.

### Check out NID videos on YouTube:

#### Watershed Stewardship at Scotts Flat

NID places a high priority on watershed stewardship. Focused efforts improve the health of watersheds, which are our ultimate source of water. Learn about NID projects addressing forest health and fire risk at Scotts Flat Reservoir. Click [here](#).



#### NID's Vegetation Management Program

With more than 400 miles of canals in Nevada and Placer counties, weed control is a big job for NID boundaries. The District's integrated program aims to prevent algae and other growth from clogging canals, limiting access and affecting water deliveries. Click [here](#).

#### Water Conservation: Saving Water on the Farm through Drip Irrigation

This video profiles Rich Johansen, farmer who conserves water through drip irrigation on 12 organic acres in Penn Valley. Click [here](#).

#### South Yuba Canal

NID is purchasing PG&E's Deer Creek facilities, including the powerhouse, most of the South Yuba Canal and Chalk Bluff Canal. These are significant components for NID water deliveries to more than 30,000 people in Grass Valley and Nevada City. Click [here](#).

#### Sediment and Mercury Removal at Combie Reservoir

This pilot project aims to remove and clean about 80,000 cubic yards of sediment from Combie Reservoir to reduce elemental mercury in the Bear River watershed and restore water storage capacity in the reservoir. Click [here](#).



A group of kayakers enjoy the serenity of morning on Scotts Flat Reservoir during 2018's No Motor Day.

## Save the Dates for Fun!

Bring the family and join in these fun events at NID Reservoirs and Campgrounds:

April 20: Easter Egg Hunt at Orchard Springs

May 19: No Motor Day at Scotts Flat

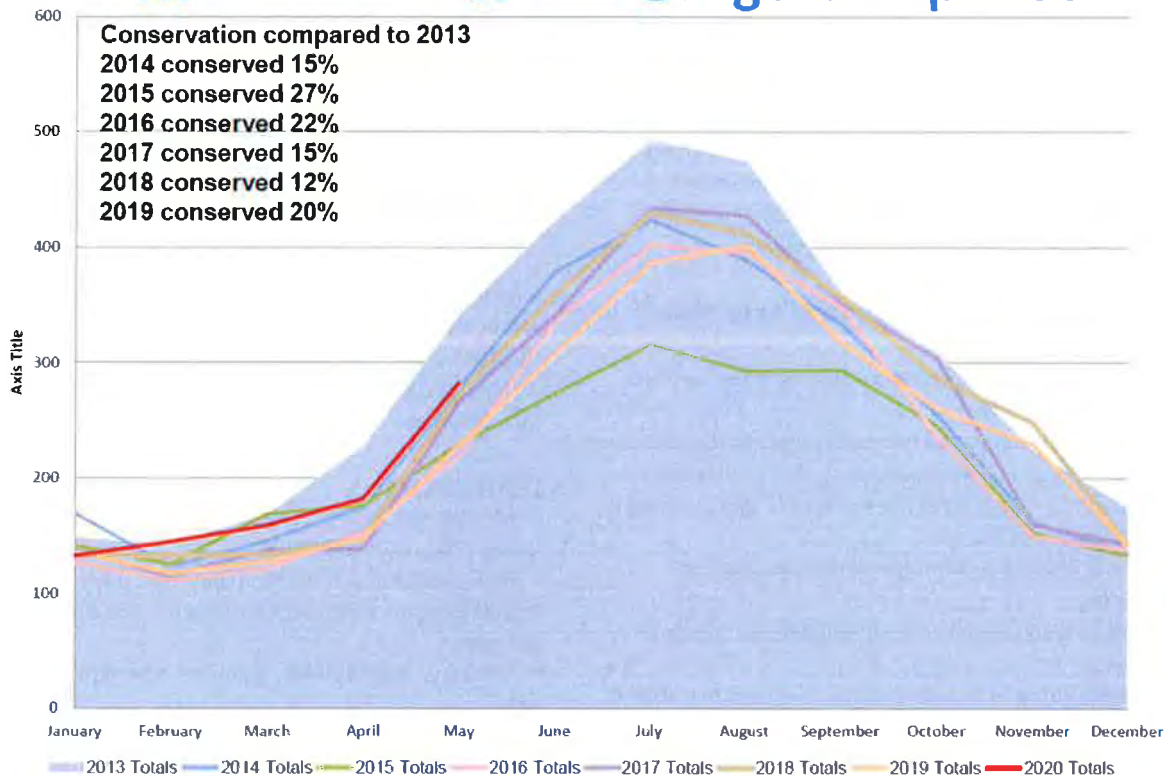
Sept. 14: Kid's Triathlon at Orchard Springs

Sept. 15: BSM (Barbara Schmidt Millar) Triathlon at Cascade Shores Boat Launch

## Local Water Conservation

Thanks to NID customers who continue to make water conservation a way of life. It's typical for treated water usage to go up in the later spring months as people begin outdoor watering. This year, also facing COVID-19 restrictions, we have seen an increase of about 15 percent, comparing 2020 to 2019. However, we are using less water than in 2013, the benchmark year for pre-drought water consumption.

### NID Treated Water Usage Comparison



### Conservation tips – reduce sprinkler waste

Use this checklist as you turn on your sprinkler/drip systems to ensure proper water use



#### CONNECT

A leak as small as a tip of pen can waste up to 6,300 gallons of water per month



#### INSPECT

A broken sprinkler can waste up to 25,000 gallons in six months



#### DIRECT

Be sure to spray on landscapes, not pavement

#### Controller

- \* Replace batteries
- \* Clean weather sensors
- \* Adjust watering schedule

#### Sprinkler Heads

- \* Adjust for adequate spray, coverage and run-off
- \* Remove dirt/debris around heads
- \* Check for broken, cracked, or clogged heads

#### Valves

- \* Functioning properly?
- \* Look for leaks

#### Wear and Tear

- \* Inspect and replace worn nozzles, valves and pipes
- \* Check water pressure for possible leaks

# Mulch Magic





# MULCH MAGIC VOUCHER

Valid April 1, 2016—June 30, 2016

Voucher # 101



Nevada County  
Resource Conservation District  
Your partner in conservation & agriculture

*Voucher good for ½ cubic yard of shredded cedar mulch ONLY*



Redeemable at:

**RARE EARTH LANDSCAPE MATERIALS**

**11750 La Barr Meadows Road, Grass Valley CA 95945 530.477.9901**

**Ask About Getting  
10% Off Your  
Additional Purchase!**  
\* Discount Valid Only with Voucher\*

One Voucher Per Residence—Resident Signature

Authorized By (NID or NCRCD)

**Sponsored by Nevada Irrigation District & Nevada County Resource Conservation District**



# The Magic Of Mulch



- ◆ Adding 2 to 3 inches of mulch around trees and plants can save more than 60 gallons of water per week for every 1,000 square feet of irrigated landscape.
- ◆ Mulch keeps soil moist and slows evaporation allowing water to sink into the soil.
- ◆ Mulch breaks down into the soil providing nutrients for plants.
- ◆ Mulch moderates soil temperature.
- ◆ Mulch suppresses weeds.

## How Much Does 1 Cubic Yard of Mulch Cover?

Depth	Square Feet
1"	320
2"	160
3"	108
4"	80
5"	64



**Sponsored by Nevada Irrigation District & Nevada County Resource Conservation District**

## LOCAL



Since opening their doors one year ago, NEO officials say they have seen great success with the Youth Center.

SUBMITTED PHOTO BY MIAMI PHOTOGRAPHY

# A happy anniversary

## NEO to celebrate Youth Center's first year open

Submitted to The Union

NEO will be celebrating the one-year anniversary of the Youth Center 5:30-8:30 p.m. Thursday, March 23.

NEO has teamed up with the Grass Valley, Nevada City, and Penn Valley Chambers of Commerce to make the celebration a joint chamber mixer. The entire community and people of all ages are invited to come join the celebration. The open house will include tours, live music and youth performances, and food provided by Smiley Guys Smokehouse.

The NEO Youth Center currently offers free after school drop-in hours for youth from the ages of 13-18. During the drop-in hours youth are engaged in various activities including homework help, ping pong, foosball, crafts, video games, board games, sports and more all in a safe and supervised environment. In addition, the center hosts workshops including yoga, dance and video game design as well as weekend events, such as concerts, dances, open mic nights, and

music nights.

Since opening their doors one year ago, NEO has seen great success with the Youth Center.

"We see more and more kids coming through our doors each week," explains Co-Director Lynn Skenderud, citing monthly attendance has increased every month since opening.

NEO sees an average of 19 youth per day, but on some days as many as 45 youth visit the center. Since September, NEO has seen a total over 1000 visits and currently has more than 200 unique members. The NEO Youth Center strives to create a warm, welcoming, and

engaging environment for all youth.

Youth Center attendee, Haysun Young says, "The Youth Center is awesome, you can't be bored here."

Young explains, "Coming to NEO is like getting a warm cozy hug."

"Our one-year anniversary at the Youth Center is an important milestone for us. Over the decades, there have been many attempts at starting youth centers in Western Nevada County, but none have ever made it to their second anniversary. We're proud to have made it this far. We're going strong and look forward to all that

we can accomplish in the coming year," said Skenderud.

NEO continues to look to the future by laying the ground work for their long-term vision of opening a multi-generational Youth & Community Center. In addition, NEO continues to host off-site events, teen sessions at larger community events, and school outreach at 9 area schools. NEO is a 501(c)(3) organization that was founded in 2008. NEO

strives to empower youth to make healthy lifestyle choices by providing New Events and Opportunities in a safe environment that encourages youth success and contributes to a healthier community.

To learn more visit [www.nyo.org](http://www.nyo.org) or call 530-470-3869. The NEO Youth Center is located at 128 Joerachle Drive in Grass Valley, next to Blaney College Prep High School and Smiley Guys Smokehouse.

## 'Mulch Magic'

NID, NCRCD to give away free mulch

Submitted to The Union

Placing mulch in your home landscape can work magic in conserving water, controlling weeds and building richer soils and healthier plants.

Beginning April 1 and for a limited time, free mulch is being made available to local residents.

The "Mulch Magic Give-away" is being offered by the Nevada Irrigation District (NID) in partnership with the Nevada County Resource Conservation District (NCRCD), Bare Earth Landscape Materials and Four Season Landscape Materials. It is scheduled from April 1 through June 30, or as long as supplies last.

Community members may pick up vouchers at the NID or NCRCD offices and redeem the vouchers at either Bare Earth in Grass Valley or Four Seasons in Penn Valley.

Vouchers are good for up to a half cubic yard of shredded cedar or redwood bark mulch per resident. In all, approximately 100 cubic yards of mulch will be available.

The benefits of mulch are many, says NID Water Efficiency Technician Aurora Tipton.

"Adding two to three inches of mulch around trees and plants can help you save more than 60 gallons of water per week for every 1,000 square feet of irrigated landscape," she said.

Importantly, Tipton said, mulch keeps soil moist and slows evaporation, allowing the water to sink into the soil. Mulch moderates soil temperature, suppresses weed growth and provides nutrients to the soil.

**NOW OPEN!**

**Anew PLACE**  
Community Thrift & Resource Center  
745 S. Auburn St., Grass Valley • 530-477-9111  
Come shop...Come relax...

**75% OFF Sales Every day!**

**Come see what Anew Place has to offer!**  
Hours: Monday-Friday 10am-6pm • Saturday 10am-5pm  
Each year there are hundreds of items that help make life easier and support that makes community members who are looking for value & through help from the community, and the best of them.

**Anew Day**  
info@anewday.com  
[www.anewday.com](http://www.anewday.com)

**CAREGivers Wanted**

Must be able to lift, lift, lift, and change the lives of the people around you.

- Industry leading wages, \$11-13/hr.
- 401K plan with matching funds
- Nationally Awarding Paid Training
- 24hr CAREGivers can earn \$40-\$50K annually

**Home Instead SENIOR CARE**  
Call us at 1-800-828-1234

**Do You Know Your True Skin?**

**25% OFF ANY Recommended Treatment**

We invite you to a **FREE** Visia Complexion Analysis so you can discover what your skin needs! We can determine your True Skin Age & its condition.

**Reflections Skin Oasis**  
138 Colfax Ave. Suite 2, Grass Valley  
[www.reflectionsskinosis.com](http://www.reflectionsskinosis.com)  
530.274.9053

Education and Ease At Reflections Skin Oasis where the "Beauty of Everyday" begins today.

**DORSEY MARKETPLACE**

**Public Open House**

An opportunity to visit with friends and learn more about the proposed Dorsey Marketplace.

**Wednesday, March 30, 2016**  
**4pm-8pm**  
**Foothills Event Center**  
**400 Idaho Maryland Road**  
**Grass Valley, CA 95945**

[dorseymarketplace.com](http://dorseymarketplace.com)



# MULCH MAGIC VOUCHER

Valid April 26, 2017—June 30, 2017

Voucher # 300



Nevada County  
Resource Conservation District  
Your partner in conservation & agriculture

*Voucher good for ½ cubic yard of bulk shredded redwood mulch ON-*



Redeemable at:

**FOUR SEASONS LANDSCAPE MATERIALS**

**17115 Penn Valley Drive, Penn Valley CA 95946 530-432-9906**

**Ask About Getting  
10% Off Your  
Additional Purchase!**

\_\_\_\_\_  
One Voucher Per Residence—Resident Signature

\_\_\_\_\_  
Authorized By (NID or NCRCD)

**Sponsored by Nevada Irrigation District & Nevada County Resource Conservation District**

# 2018 MULCH MAGIC GIVEAWAY

***FREE MULCH Available for Pickup***

**Saturday June 2, 2018**

**7:00am – 1:00pm**

**Location: Nevada County Fairgrounds Gate 8**

**\*\*Limit 1 cubic yard per vehicle\*\*  
(enough to fill a pick up truck)**

*Mulch is a great tool to help save water. 2-3 inches of mulch helps retain water keeping the soil moist for longer periods of time.*



Nevada County  
Resource Conservation District  
[www.ncrcd.org](http://www.ncrcd.org)



**NEVADA COUNTY  
FAIRGROUNDS**  
*California's Most Beautiful Fairgrounds*

- First come, first served while supplies last
- For personal use only; not for resale or commercial use

***Self Load ONLY***  
bring your own shovels,  
containers, trucks,  
and tarp to cover your load

Questions? Contact Kaycee Strong  
530-273-6185 ext. 244 or [strongk@nidwater.com](mailto:strongk@nidwater.com)



**NID**

# 2019 MULCH MAGIC GIVEAWAY

## ***FREE MULCH Available for Pick-up***



**Saturday May 11, 2019**

**7:00 am – 11:00 am**

**Location: Nevada County Fairgrounds  
Enter Fairgrounds Gate 8 off Brighton Street  
Event will be held in Arena**

### ***SELF-LOAD***

Bring your own shovels,  
containers, truck,  
and tarp to cover your load

### ***Do you need help loading?***

Local Boy and Eagle Scouts will be  
available to help load mulch into your  
vehicle.

***Make sure to tip your Scout!***

- First come, first served while supplies last
- For personal use only; not for resale or commercial use

***Questions? Contact Kaycee Strong***

**530-273-6185 ext. 244 or [strongk@nidwater.com](mailto:strongk@nidwater.com)**

*Mulch is a great tool to  
help save water. 2-3  
inches of mulch helps  
retain water keeping the  
soil moist for longer  
periods of time.*

**\*\*Limit 1 cubic yard per vehicle\*\***



**NEVADA COUNTY  
FAIRGROUNDS**  
California's Most Beautiful Fairgrounds



Nevada County  
Resource Conservation District  
[www.ncrcd.org](http://www.ncrcd.org)

# Farm Days





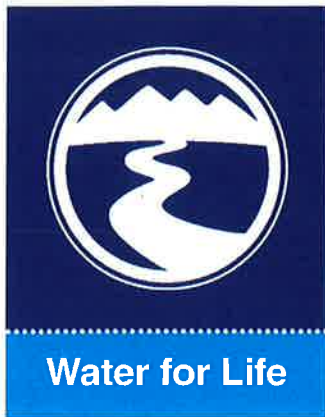
# WOW! 2<sup>nd</sup> Annual FARM DAY

September 22<sup>nd</sup> at the Nevada County Fairgrounds!



This event is open to all 3rd graders in Nevada County. Space is limited and classes/students must register. Please contact the Nevada County Resource Conservation District/Jan Blake for more information.

(530) 272-3417 x103 • [janet.blake@ncrcd.org](mailto:janet.blake@ncrcd.org)



# Springtime Sprinkler Checklist

---

## Controller

- Replace batteries if necessary
- Clean weather sensors
- Adjust irrigation schedule

## Sprinkler Heads

- Adjust for adequate spray, coverage, and run-off
- Remove dirt and debris around heads
- Check for broken, cracked, or clogged heads

## Valves

- Functioning properly
- Look for leaks

## Wear and Tear

- Inspect and replace worn nozzles, valves and pipes
- Check water pressure for possible leaks



## CONNECT

A leak as small as the tip of a pen can waste up to 6,300 gallons of water per month.



## INSPECT

A broken sprinkler can waste up to 25,000 gallons of water in 6 months.



## DIRECT

Be sure to spray on landscapes, not pavement



# Summertime Sprinkler Checklist

---

## Controller

- Replace batteries if necessary
- Clean weather sensors
- Adjust irrigation schedule



## CONNECT

A leak as small as the tip of a pen can waste up to 6,300 gallons of water per month.

## Sprinkler Heads

- Adjust for adequate spray, coverage, and run-off
- Remove dirt and debris around heads
- Check for broken, cracked, or clogged heads



## INSPECT

A broken sprinkler can waste up to 25,000 gallons of water in 6 months.

## Valves

- Functioning properly
- Look for leaks

## Wear and Tear

- Inspect and replace worn nozzles, valves and pipes
- Check water pressure for possible leaks



## DIRECT

Be sure to spray on landscapes, not pavement



# How to Detect a Water Leak

- **Check meter for running water**

**Sensus Meters:** Look for red dial spinning— indicating water flowing through meter

**Badger Meters:** Numbers on the right hand side will be moving— indicating water flowing through meter

- **Verify leak with a timed meter test**

**Step 1:** Locate meter and write down all numbers showing

**Step 2:** Don't use water for 30-60 minutes

*(Including swimming pools, ice-cube maker, landscape irrigation, etc.)*

**Step 3:** Verify the numbers on the meter are the same

*\*\*If the numbers are different, water ran through the meter during that time and you likely have a leak.*

- **Isolating leak**

**Step 1:** Locate the shut off valve at the home and turn it off.

**Step 2:** Look at meter. If water is still flowing through the meter, the leak is located in the pipes between the meter and the shut off valve to the home.

*\*\*If the meter is not moving the leak is beyond that shut off valve.*

**Questions? Call NID**

**530-273-6185**



## How to Water & Irrigate

### How Long Do I Need to Water?

One of the easiest ways to save water is to make sure that you are not overwatering your lawn and plants. Most of us water more than we need to, which not only wastes water but ends up drowning our plants. Watering for fewer days for the appropriate amount of time will give you healthier plants and use less water.

Here are some general guidelines on how to make sure that you are watering the correct amount. For specific information on your landscape, this run time [calculator tool](#) by Rain Bird can help you design a specific plan for your landscape. Rain Bird's ["When and How Much to Water"](#) video may also help you figure out how much water is the right amount for your landscape.

1. Irrigation for lawn areas can be kept to three days in the summer with "run and soak" cycling of an irrigation valve/station.
  - For example, Program A for sunny lawn areas, can have three start times, three minutes with 30-60 minutes between each run time.
  - Be aware that sun exposure and slope of the lawn area are factors to consider in calculating the amount of time the irrigation runs. Shaded lawn does not need as much water.
  - Ensure irrigation water does not result in runoff.
2. Mature shrubs can usually be limited to watering two days a week in the summer.
  - Be aware that sun exposure and slope of the landscape areas are factors to consider in calculating the amount of time the water runs
  - Check [Sunset's Plant Finder](#) to determine if your plants are high, medium, or low water use.
  - Water in cycles (e.g. 5 minutes of run time with time in between to allow water to soak through to the plant's root zone). Run times will depend on the plant type.
  - Watering with this technique encourages deep rooting by water percolating to depths of at least several inches into the soil for shrubs, deeper for trees.
  - Ensure irrigation water does not result in runoff.
3. Once the root system is strong and deep enough, the plants will withstand more periods of no irrigation, particularly when the day length is shortened and the soil temperatures are cooler.
4. Annuals or water-loving plants can be efficiently irrigated with this method as long as they are rooted into the native soil. On new plantings, make sure the root ball is moist as well as the surrounding soil to encourage rooting beyond the original container size.



5. Apply 2-3" of mulch on any bare soil to keep soil temperatures cool.

## What is Drip Irrigation?

Drip irrigation is the slow, precise application of water directly to the plants' root. A drip irrigation, micro irrigation, system can be customized to meet your landscape's specific needs while maintaining an optimum moisture level for your plants, efficiently conserving water that might otherwise be lost.

## The Benefits of Drip Irrigation

Drip irrigation is an efficient and economical method of watering. Experts say that drip irrigation is at least 90 percent more efficient than other irrigation methods and reduces runoff and evaporation. Drip irrigation applies the water slowly where it is needed—at the plant's roots.



Commonly used in commercial nursery and agricultural operations, homeowners are beginning to take advantage of its uses and benefits.

Drip irrigation involves placing tubing with emitters on the ground alongside the plants. The emitters slowly drip water into the soil at the root zone. With this slow, appropriate direct application of water, plant health and growth is improved. In addition, drip irrigation:

- Prevents disease.
- Reduces weed growth.
- Saves time and water.
- Requires less work and maintenance.

## What Is a Smart Controller?

Automatic sprinkler systems are run by a controller. Just as technology has improved cell phones and other devices in our lives, so has technology changed residential sprinkler system controllers.

"Smart" controllers act like a thermostat for your sprinkler system—telling it when to turn on and off and using local weather conditions to create a personalized watering schedule that matches actual conditions at your house. Instead of requiring the homeowner to set a schedule, smart controllers use real-time weather information to create a watering schedule that better matches plants' water needs. The EPA estimates that a household that replaces a standard clock timer with smart controller can save nearly 8,800 gallons of water annually.



## Why is Saving Water Important?

With the recent changes in weather patterns, we are experiencing more extremes such as multiple drought years or more precipitation falling as rain instead of snow. In the upper watersheds, snowpack is very important as it provides water into the summer and fall months. With limited water storage capabilities, water conservation becomes a must for everyone.

NID water is used for human consumption, agriculture, recreation, hydropower and the environment.

The California Conservation Act of 2009 requires customers to reduce their water usage 20% by the year 2020.

Water conservation is everyone's responsibility in order to ensure a high quality, reliable water supply now, and into the future.



French Lake Elevation ft. 6,678

## Serving Our Customers Since 1921

- ♦ Irrigation Water
- ♦ Drinking Water
- ♦ Recreation
- ♦ Hydro Power

Visit [www.nidwater.com](http://www.nidwater.com) for water saving tips and try the "Water Calculator" link to determine your home's water usage. Contact the NID Water Efficiency Department for more information and assistance.

Contact the UC Master Gardeners for free assistance with planting information at [www.ceplacer@ucdavis.edu](mailto:www.ceplacer@ucdavis.edu)



Nevada Irrigation District  
1036 W. Main Street  
Grass Valley, CA 95945  
Tel: 530-273-6185  
[www.nidwater.com](http://www.nidwater.com)



Lower Scotts Flat Lake

## WATER CONSERVATION

### Preserving Water, One Gallon at a Time Because Every Gallon Counts



Nevada Irrigation District



# water efficient

## L A N D S C A P E S

In California, the largest use of all urban water is watering landscapes. When a landscape or irrigation system is poorly designed or poorly maintained, or the landscape consists of plants not suited to the dry and often hot California climate, water demand increases as a result of excessive evaporation, leaks, and runoff. Water consumption can be greatly reduced with careful planning, good plant selection, efficient irrigation systems, and good water management and maintenance practices.

Since California experiences frequent and sometimes prolonged droughts together with an ever increasing demand, there is a great need for us to use water efficiently. But this doesn't mean we have to give up our gardens. We can use water more efficiently and still have colorful, esthetically pleasing landscapes—including some turf areas for recreation.

This brochure is intended to help you create a landscape that is not only water efficient, but attractive, colorful, and low maintenance.

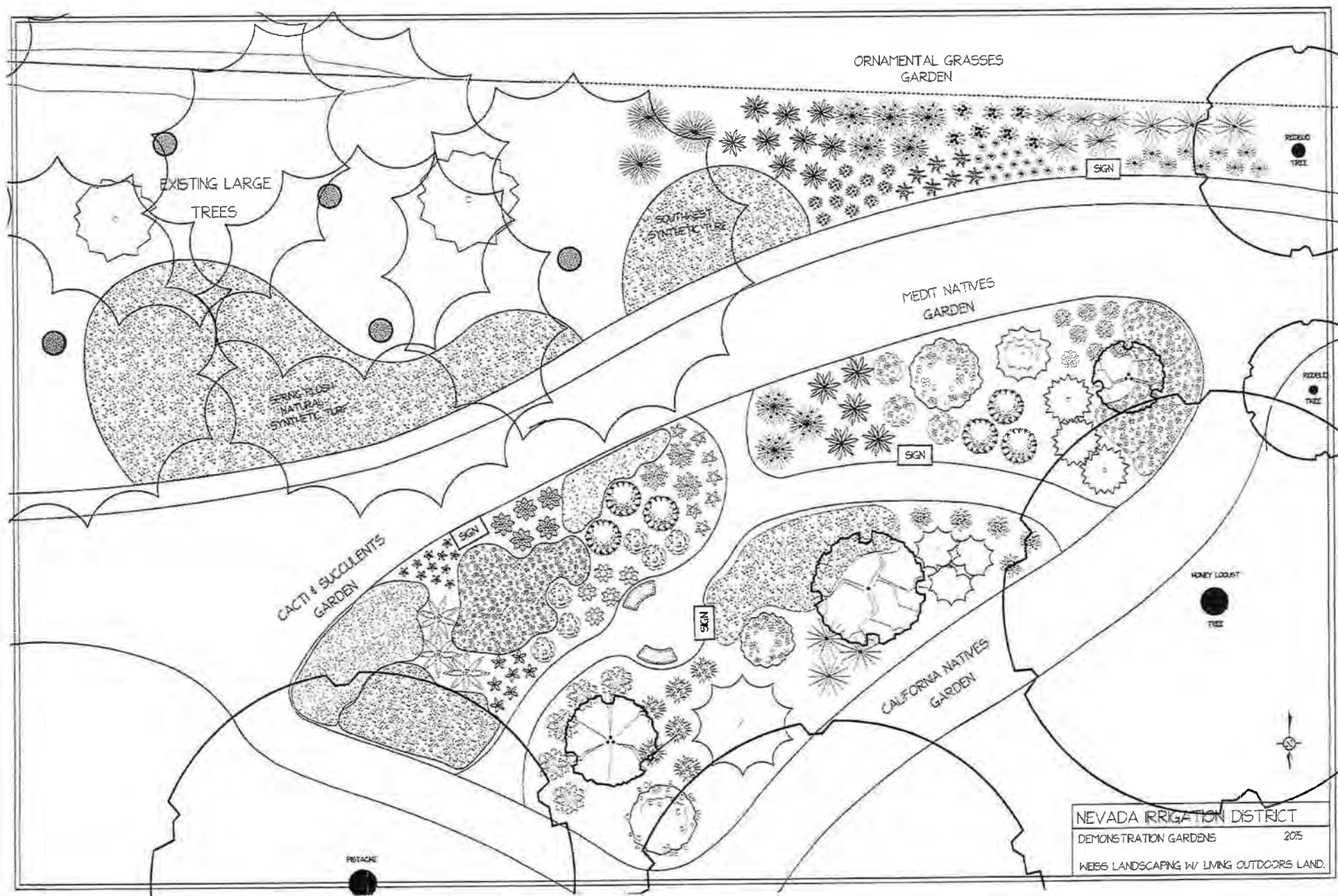
The designs illustrated here are typical back yards, but the principles of water efficient gardening apply to front yards as well.





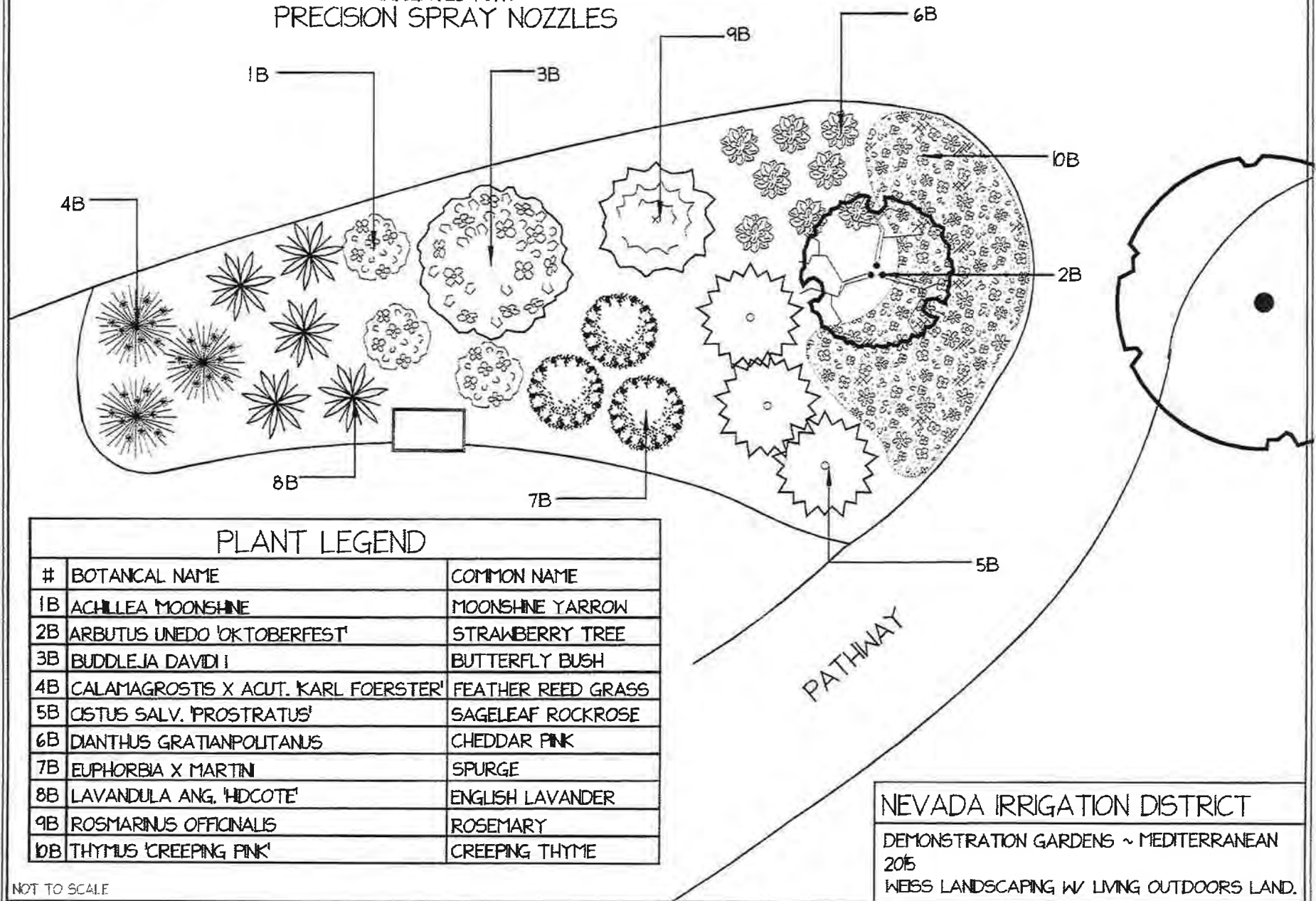
# NEVADA IRRIGATION DISTRICT

## DEMONSTRATION GARDENS



# MEDITERRANEAN NATIVES GARDEN

IRRIGATED WITH:  
PRECISION SPRAY NOZZLES



## PLANT LEGEND

#	BOTANICAL NAME	COMMON NAME
1B	ACHILLEA MOONSHINE	MOONSHINE YARROW
2B	ARBUTUS UNEDO 'OKTOBERFEST'	STRAWBERRY TREE
3B	BUDDLEJA DAVIDI	BUTTERFLY BUSH
4B	CALAMAGROSTIS X ACUT. 'KARL FOERSTER'	FEATHER REED GRASS
5B	CISTUS SALV. 'PROSTRATUS'	SAGELEAF ROCKROSE
6B	DIANTHUS GRATIANPOLITANUS	CHEDDAR PINK
7B	EUPHORBIA X MARTIN	SPURGE
8B	LAVANDULA ANG. 'HDCOTE'	ENGLISH LAVANDER
9B	ROSMARINUS OFFICINALIS	ROSEMARY
10B	THYMUS 'CREEPING PINK'	CREEPING THYME

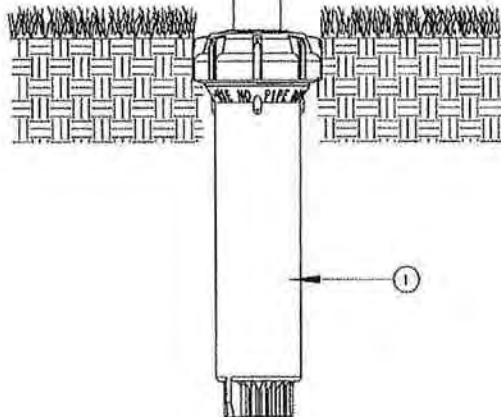
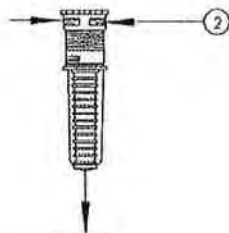
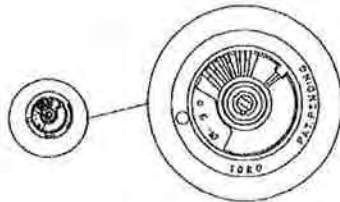
NEVADA IRRIGATION DISTRICT

DEMONSTRATION GARDENS ~ MEDITERRANEAN  
2015

WEBB LANDSCAPING W/ LIVING OUTDOORS LAND.

NOT TO SCALE

# TORO-IRRIGATION DIVISION



## LEGEND:

① 570Z SPRAY HEAD 2", 3", 4", 6", 12" OR SHRUB  
(PRX-COM RECOMMENDED)

② PRECISION

③ USE CHECK VALVES ON SLOPES AND WHEN  
HEADS ARE INSTALLED BELOW GRADE.

PRECISION-2-FINELIGHT

**NID**  
**Mediterranean Natives**

1. *Achillea 'Moonshine'*  
Moonshine Yarrow



2. *Arbutus unedo 'Oktoberfest'*  
Strawberry Tree



3. *Buddleja davidii*  
Butterfly Bush



4. *Calamagrostis 'Karl Forester'*  
Feather Reed Grass



5. *Cistus salvifolius 'Prostratus'*  
Sageleaf Rockrose



6. *Dianthus gratianopolitanus*  
Cheddar Pink



8. *Lavandula angustifolia* 'Hidcote'  
English Lavender



10. *Thymus* 'Creeping Pink'  
Creeping Thyme



7. *Euphorbia x martini*  
Spurge

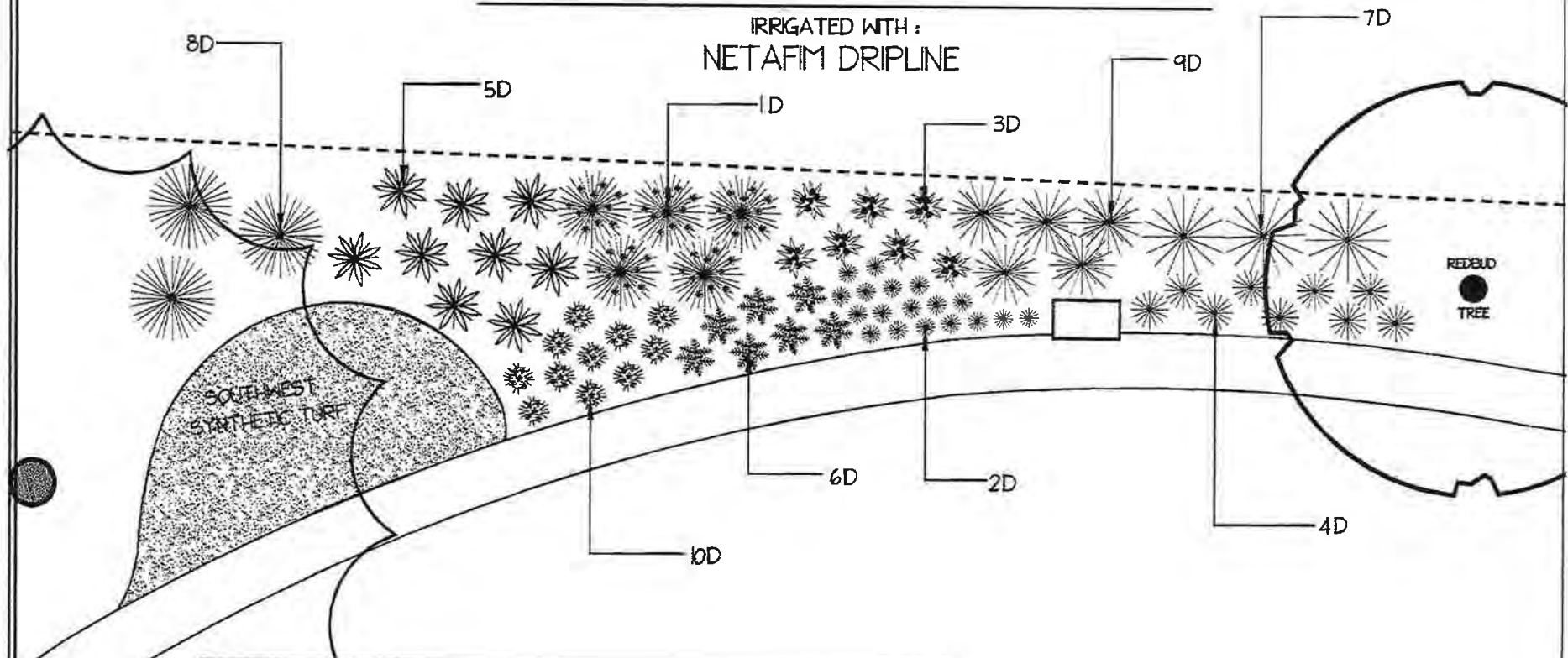


9. *Rosmarinus officinalis*  
Rosemary



# ORNAMENTAL GRASSES GARDEN

IRRIGATED WITH:  
NETAFIM DRIPLINE



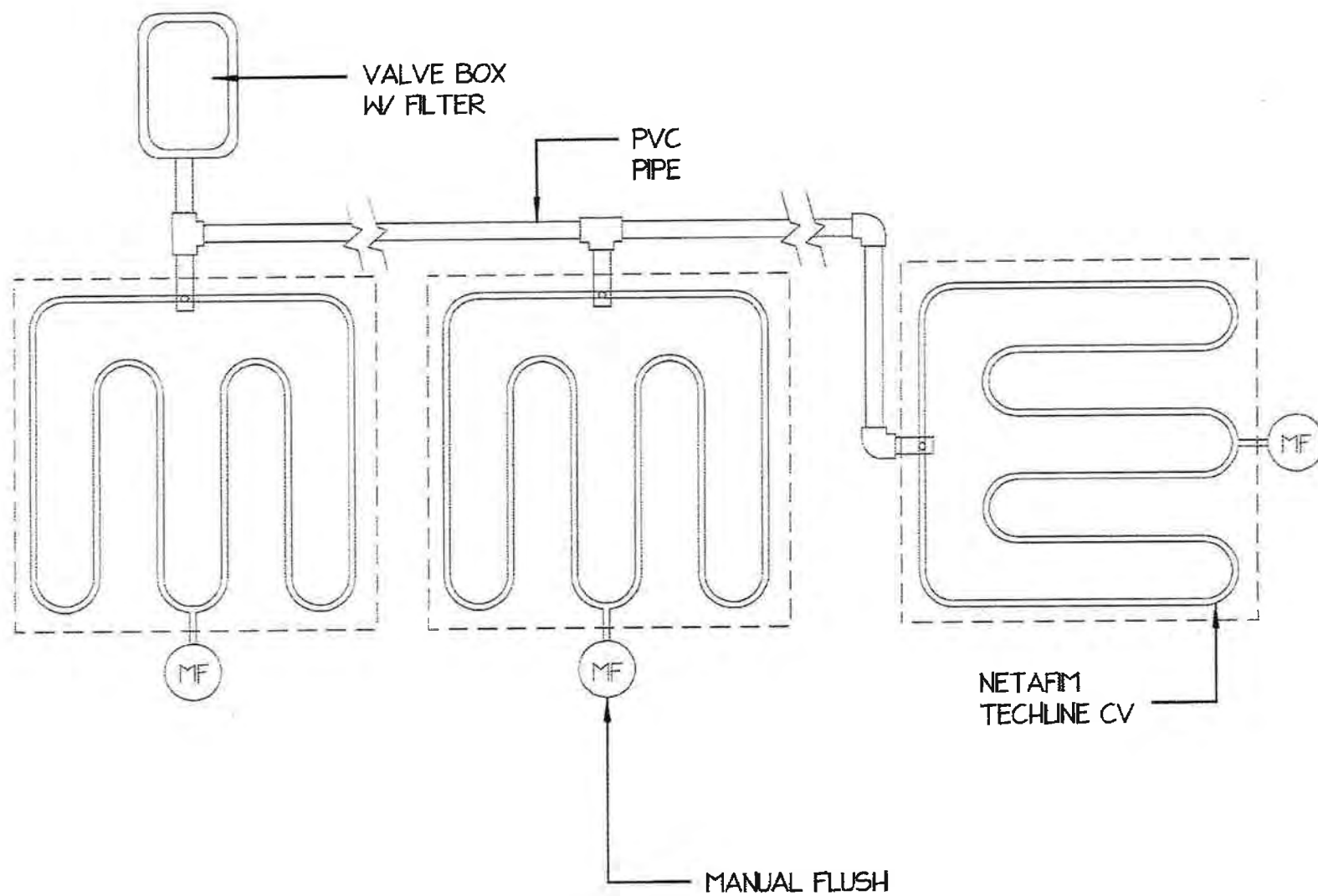
## PLANT LEGEND

#	BOTANICAL NAME	COMMON NAME
1D	CALAMAGROSTIS X ACUT. 'KARL FOERSTER'	FEATHER REED GRASS
2D	CAREX TESTACEA	NEW ZEALAND SEDGE
3D	CHASMANTHUM LATIFOLIUM	SEA OATS
4D	FESTUCA GLAUCA	BLUE FESCUE
5D	HELECTOTRICHON SEMPERVIRENS	BLUE OAT GRASS
6D	LIRIOPE MUSCARI 'SILVER SUNPROOF'	LILY TURF
7D	MISCANTHUS SINENSIS	SILVER GRASS
8D	MISCANTHUS SIN. 'STRICTUS'	SILVER GRASS
9D	PANICUM VIRGATUM	SWITCH GRASS
10D	PENNISETUM ALOPECUROIDES 'LITTLE BUNNY'	FOUNTAIN GRASS

## NEVADA IRRIGATION DISTRICT

DEMONSTRATION GARDENS ~ ORNAMENTAL  
2015 GRASSES  
WEISS LANDSCAPING W/ LIVING OUTDOORS LAND.

NOT TO SCALE



**NID**  
**Ornamental Grasses Garden**

1. *Calamagrostis 'Karl Forester'*  
Feather Reed Grass



2. *Carex testacea*  
New Zealand Sedge



3. *Chasmanthium latifolium*  
Sea Oats



4. *Festuca glauca*  
Blue Fescue



5. *Helictotrichon sempervirens*  
Blue Oat Grass



6. *Liriope muscari* 'Silvery Sunproof'  
Lilyturf



8. *Miscanthus sinensis* 'Strictus'  
Silver Grass



7. *Miscanthus sinensis*  
Silver Grass



9. *Panicum virgatum*  
Switch Grass



10. *Pennisetum alopecuroides* 'Little Bunny'  
Fountain Grass

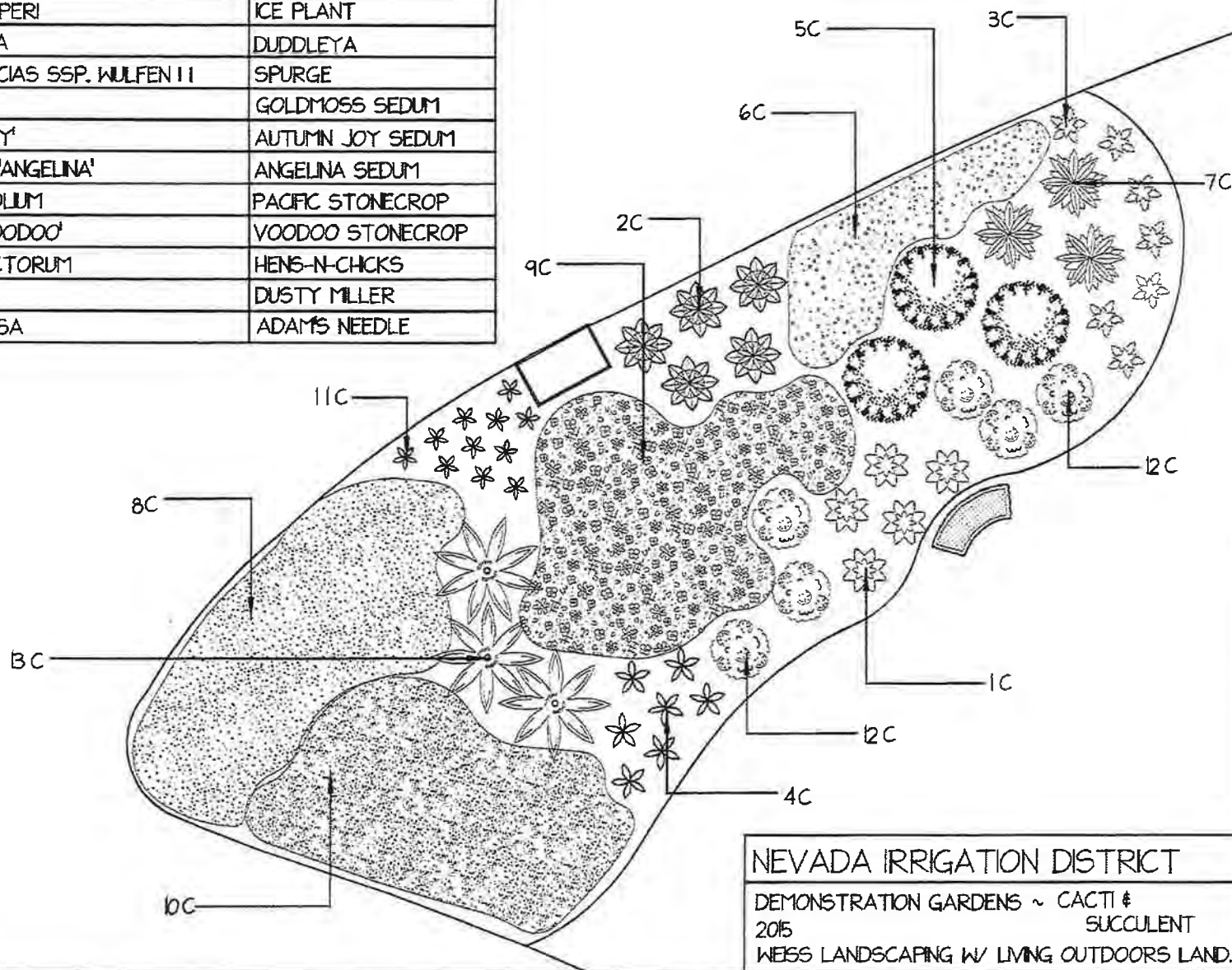


# PLANT LEGEND

#	BOTANICAL NAME	COMMON NAME
1C	AGAVE BRACTEOSA	SPIDER AGAVE
2C	AGAVE PARRYI	AGAVE
3C	DELOSPERMA COOPERI	ICE PLANT
4C	DUDLEYA FARINOSA	DUDDLEYA
5C	EUPHORBIA CHARACIAS SSP. WULFENII	SPURGE
6C	SEDUM ACRE	GOLDMOSS SEDUM
7C	SEDUM 'AUTUMN JOY'	AUTUMN JOY SEDUM
8C	SEDUM RUPESTRE 'ANGELINA'	ANGELINA SEDUM
9C	SEDUM SPATHULIFOLIUM	PACIFIC STONECROP
10C	SEDUM SPURUM 'VOODOO'	VOODOO STONECROP
11C	SEMPERVIRENS TECTORUM	HENS-N-CHICKS
12C	SENECIO CINERARIA	DUSTY MILLER
13C	YUCCA FILAMENTOSA	ADAM'S NEEDLE

# CACTI & SUCCULENTS GARDEN

IRRIGATED WITH:  
DURA-FLO JR. DRIPPERLINE &  
XERIPOP SPRAY HEADS



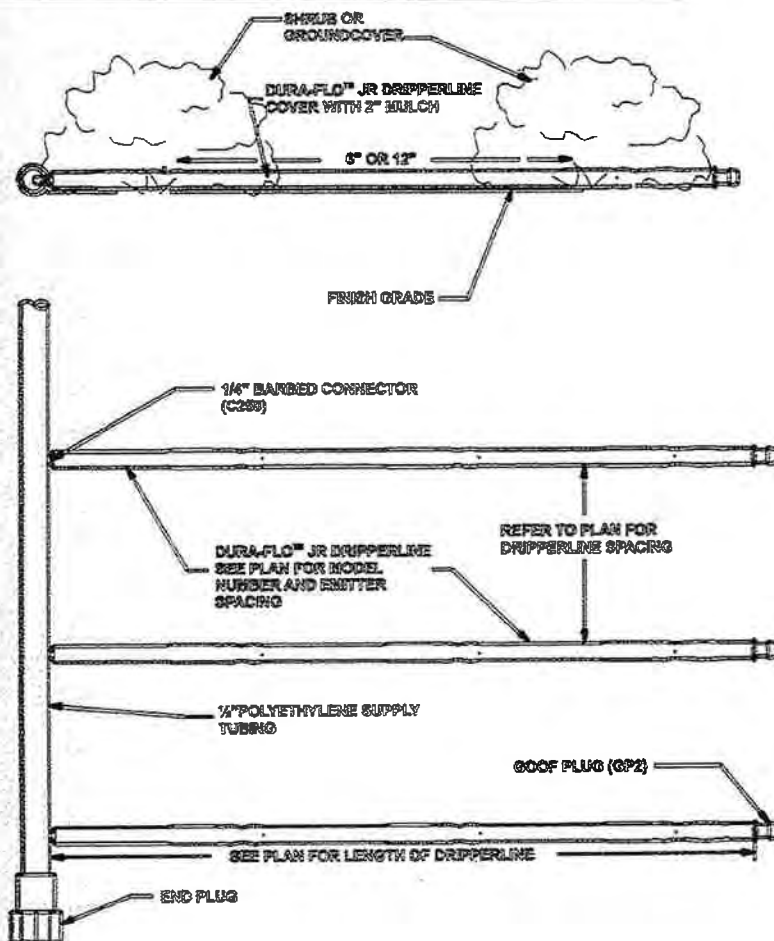
NOT TO SCALE

NEVADA IRRIGATION DISTRICT

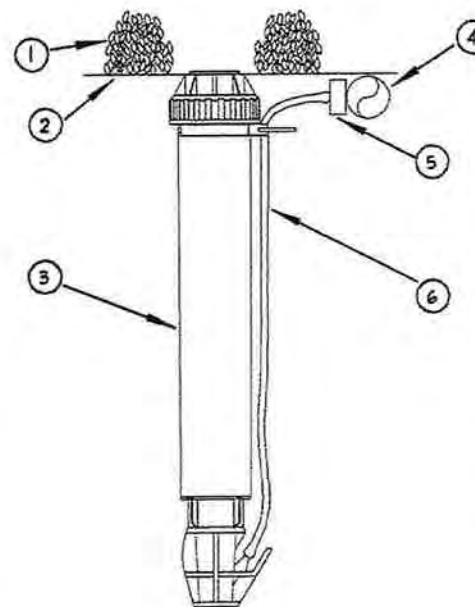
DEMONSTRATION GARDENS ~ CACTI &  
SUCCULENT  
2015  
WEISS LANDSCAPING W/ LIVING OUTDOORS LAND.



# **DURA-FLO™ JR DRIPPERLINE** NOT TO SCALE



## **XERI-POP MICRO-SPRAY 6' FROM BARBED CONNECTOR INTO 1/2" POLYETHYLENE**



- 1 PLANT MATERIAL
- 2 FINISH GRADE
- 3 MICRO-SPRAY POP-UP: RAIN BIRD XERI-POP XP-600X
- 4 From nelson 1/2" x 5/8" x 1/4" x 1/2" POLYETHYLENE TUBING: RAIN BIRD XF SERIES TUBING OR RAIN BIRD XT-700 XERI-TUBE OR RAIN BIRD XBS BLACK STRIPE TUBING H099993x;
- 5 From nelson 1/2" x 5/8" x 1/4" x 1/2" SELF-PIERCING BARB CONNECTOR RAIN BIRD SPB-025
- 6 From nelson 1/2" x 5/8" x 1/4" x 1/2" DISTRIBUTION TUBING: RAIN BIRD XQ TUBING (LENGTH AS REQUIRED)

### **NOTE**

1. RAIN BIRD XERI-POP CAN UTILIZE THE FOLLOWING NOZZLES:  
SQ SQUARE NOZZLE (FORMERLY XPCN)  
5 SERIES MPR NOZZLES (ALL CONFIGURATIONS)  
5 SERIES PLASTIC BUBBLERS  
8 SERIES MPR NOZZLES (8H, 8T AND 8Q)

NID  
**Cacti & Succulents Garden**

1. *Agave bracteosa*  
Spider Agave



2. *Agave parryi*  
Agave



3. *Delosperma cooperi*  
Ice Plant



4. *Dudleya farinose*  
Duddleya

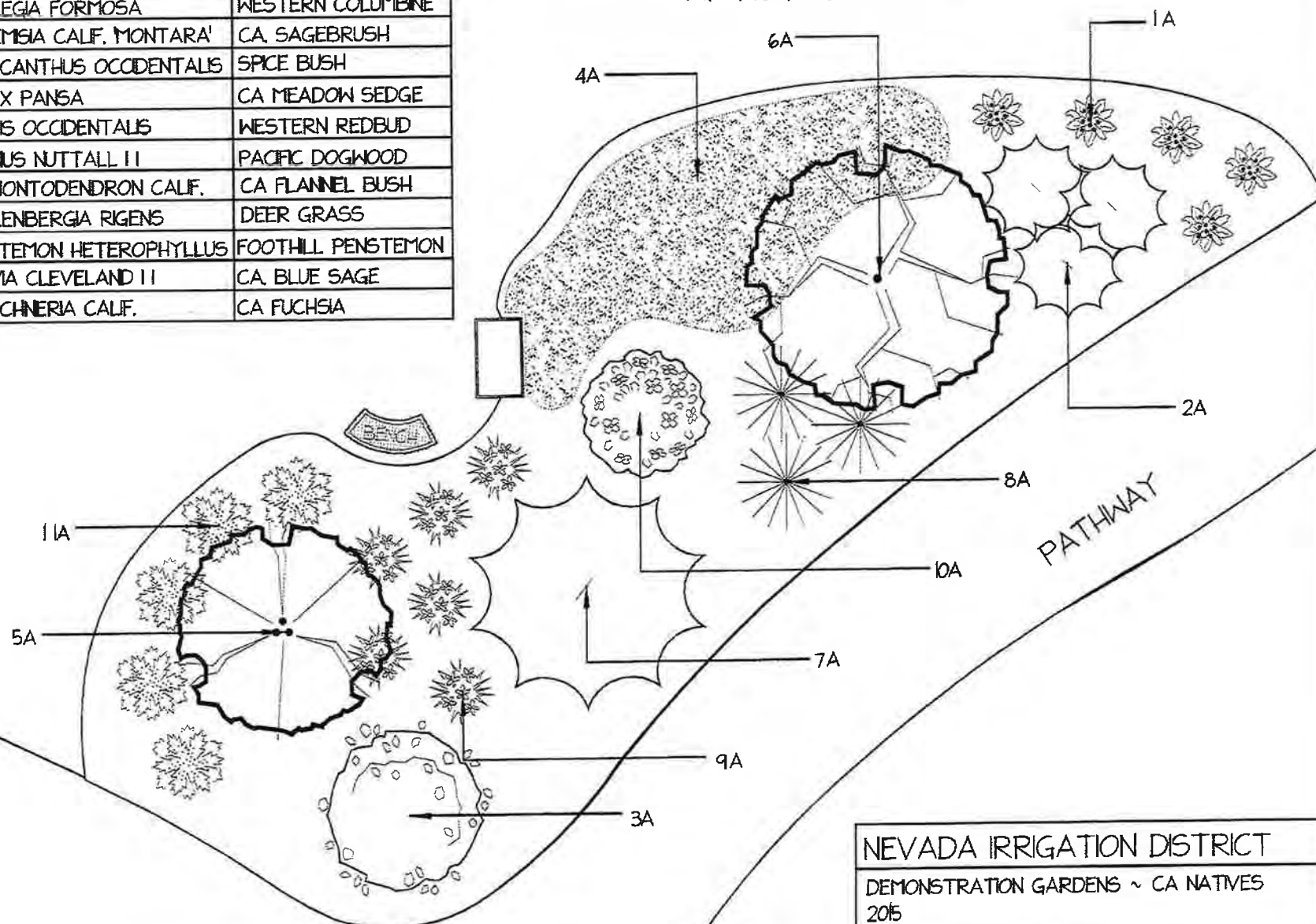


# PLANT LEGEND

#	BOTANICAL NAME	COMMON NAME
1A	AQUILEGIA FORMOSA	WESTERN COLUMBINE
2A	ARTEMISIA CALIF. 'MONTARA'	CA. SAGEBRUSH
3A	CALYCANTHUS OCCIDENTALIS	SPICE BUSH
4A	CAREX PANSA	CA MEADOW SEDGE
5A	CERCIS OCCIDENTALIS	WESTERN REDBUD
6A	CORNUS NUTTALL II	PACIFIC DOGWOOD
7A	FREMONTODENDRON CALIF.	CA FLANNEL BUSH
8A	MUHLENBERGIA RIGENS	DEER GRASS
9A	PENSTEMON HETEROPHYLLUS	FOOTHILL PENSTEMON
10A	SALVIA CLEVELAND II	CA. BLUE SAGE
11A	ZAUSCHNERIA CALIF.	CA FUCHSIA

# CALIFORNIA NATIVES GARDEN

IRRIGATED WITH:  
MP ROTATOR SPRINKLERS



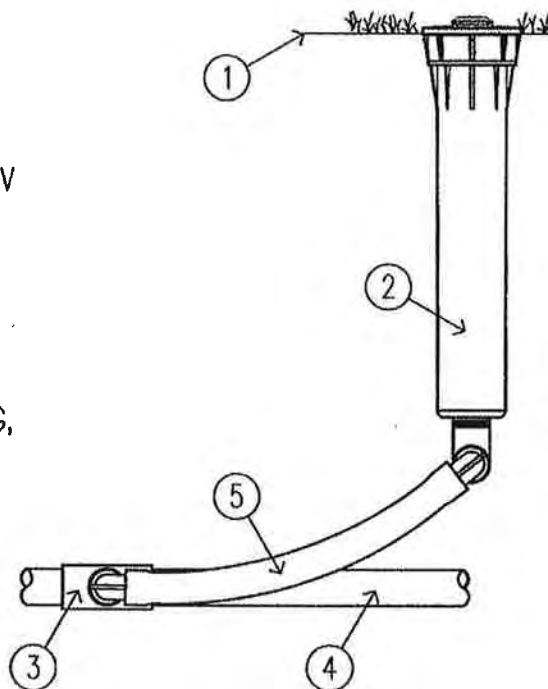
NEVADA IRRIGATION DISTRICT  
DEMONSTRATION GARDENS ~ CA NATIVES  
2015  
WEBB LANDSCAPING W/ LIVING OUTDOORS LAND.

NOT TO SCALE

- ① FINISH GRADE
- ② MODEL PROS-06-PRS40-CV
- ③ LATERAL TEE OR ELL
- ④ LATERAL PIPE

SWING JOINT:

- ⑤ HUNTER 'PRO-FLEX' TUBING,  
HSBE-050 ELBOWS (2), &  
MARLEX STREET ELBOW (1)



# PROS-06-PRS40-CV MP ROTATOR SPRINKLER

XX

SCALE: 3" = 1'-0" Hunter IRRIGATION DETAIL

**NID**  
**California Natives Garden**

1. *Aquilegia formosa*  
Western Columbine



2. *Artemisia californica* 'Montara'  
California Sagebrush



3. *Calycanthus occidentalis*  
Spice Bush



4. *Carex pansa*  
California Meadow Sedge



5. *Cercis occidentalis*  
Western Redbud



7. *Fremontodendron californicum*  
Flannel Bush



6. *Cornus nuttallii*  
Pacific Dogwood



8. *Muhlenbergia rigens*  
Deer Grass



9. *Penstemon heterophyllus*  
Foothill Penstemon

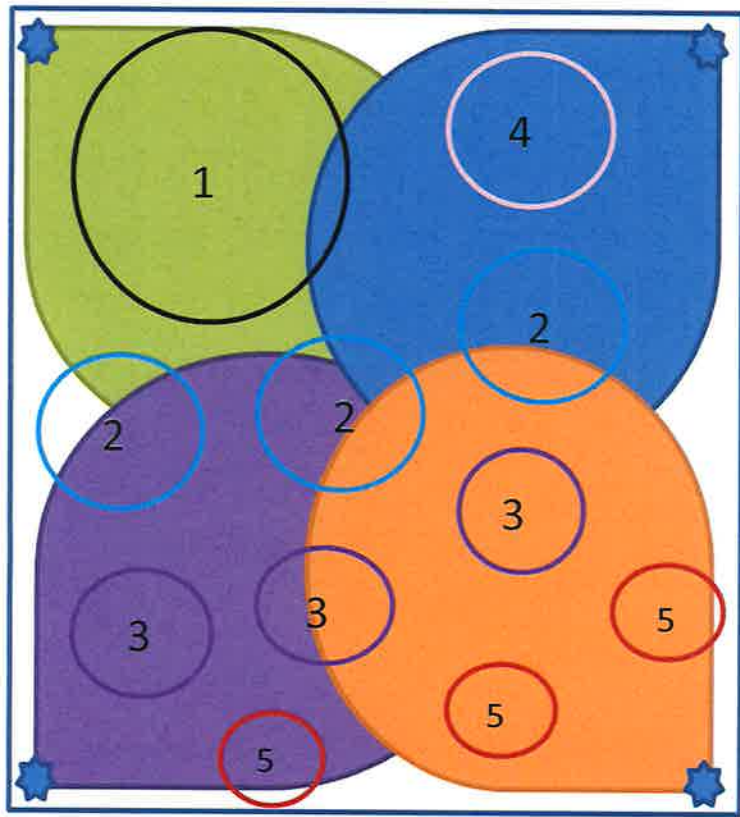


10. *Salvia clevelandii*  
California Blue Sage



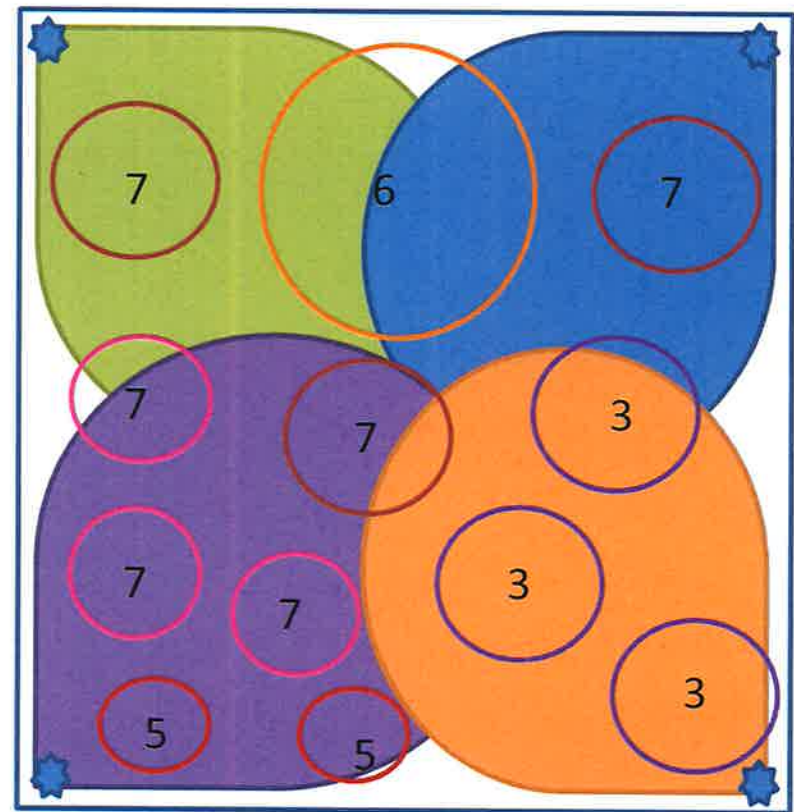
11. *Zauschneria californicum*  
California Fuchsia





10.5'

15'



11.5'

15'

### Water Efficiency Landscape Upgrade Purchasing Department

1. Buddelia, Butterfly Bush
2. Zauschneria, California Fuschia
3. English Lavender
4. Salvia, California Blue Sage
5. Hens and Chicks
6. Japanese Silver Grass
7. Santa Margarita Foothill Penstemon
8. Dwarf Deer Grass/ Pennisetum Little Bunny

\*\*Mulch will be covering the entire area\*\*

\*4 Rainbird Head popup adjustable Sprinklers

\*1 Sprinkler Timer



# NID

## Nevada Irrigation District Toilet Rebate Program

Nevada Irrigation District *treated water*, residential customers can receive up to a \$100 rebate by replacing an older inefficient toilet with a high efficient toilet.



### How to get a rebate?

1. Check Availability
2. Complete step one of application
3. Purchase and install toilet
4. Complete step two of application
5. Receive approval notice
6. Receive your rebate check

*Funding is limited.  
Rebates will be issued  
on a first-come,  
first-served basis until  
funding is depleted.*



**To check your eligibility: Call 530-273-6185 ext. 244 or  
email [strongk@nidwater.com](mailto:strongk@nidwater.com)**

\*Limit to one rebate per parcel. Single-family treated water residential customers only.\*

Visit <https://nidwater.com/conservation/incentives-rebates> for more information

## Nevada Irrigation District launches a new program to provide toilet rebates

March 4, 2020

Nevada Irrigation District (NID) has launched a new toilet rebate program for its treated water residential customers. The program will offer up to \$100 when eligible customers replace their older inefficient toilets with high-efficient WaterSense-labeled toilets.

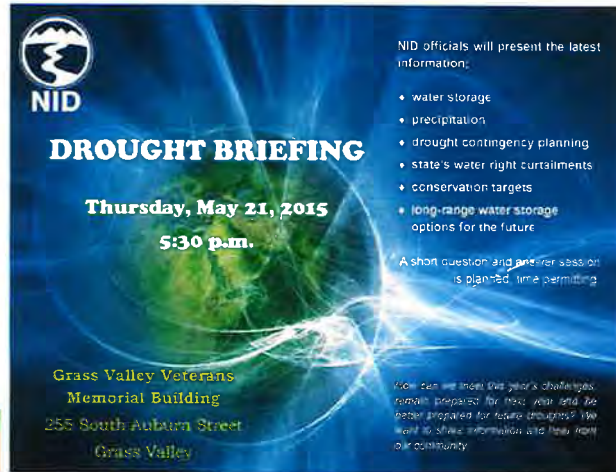
Toilets are a primary source of indoor water use, accounting for nearly 30 percent of an average home's indoor water consumption. Older, inefficient toilets can use as much as six gallons per flush.

According to WaterSense, by replacing an older non-efficient toilet with a WaterSense-labeled toilet, rated at 1.28 gallons per flush or less, you can save water by 20 to 60 percent. That's nearly 13,000 gallons of water savings every year.

NID's new program is aimed at helping treated water residential customer reduce water consumption and save money. Don't miss out on this opportunity! Rebate funding is limited, and will be issued on a first-come, first-served basis until depleted.

Customers: to check your eligibility, contact NID's Water Efficiency Technician at 530-273-6185 ext. 244 or email [strongk@nidwater.com](mailto:strongk@nidwater.com).

Visit <https://nidwater.com/conservation/incentives-rebates> for more information.



## Community Drought Briefing May 21, 2015

- ▶ Brief History of NID
- ▶ NID Today
- ▶ Current Water Supply Conditions
- ▶ State Water Board Regulations
- ▶ District Conservation Efforts

## Origins of NID

- ▶ Many canal systems and water rights were developed in the 1850's for hydraulic mining
- ▶ Heavy sedimentation occurred in the natural streams & rivers
- ▶ Sawyer decision 1884 led to the stop of hydraulic mining
- ▶ Left many canals abandoned or unused



## Establishment of NID

- ▶ 1917 - 1921, Community Leaders with help from Farm Bureau began purchasing canal systems and water rights
- ▶ Those acquisitions included obtaining Bowman, French, Faucherie, Sawmill and Jackson lakes, and the rights for Scotts Flat Reservoir
- ▶ August 5th 1921 a public vote at the Brett Hart Hotel formally establishing NID  
536 Yes to 163 No



## Building Infrastructure



## Addition of Placer County

- ▶ In 1927 farmers in Placer County voted to become members of the District
- ▶ The District purchased the Gold Hill Canal system from PG&E in 1933 to serve this area
- ▶ This expanded the District by 67,000 acres into Placer County
- ▶ Present day this area includes North Auburn to Lincoln up 65 toward Camp Far West Lake



## 1962 Storage Expansion

- ▶ 1962 NID leaders realized more storage was needed
- ▶ Voters agreed to a 65 million dollar bond for the formation of the Yuba-Bear Project
- ▶ Funding was gained through bonds and through an agreement between PG&E and NID to be paid back through 2013
- ▶ Added 157,000 acre feet storage with:



## Jackson Meadows Reservoir



## Scotts Flat Reservoir



## Rollins Reservoir



## NID Today

- ▶ NID encompasses 287,000 acres of land covering portions of Nevada, Placer, Yuba, and Sierra Counties
- ▶ NID has 280,000 Acre Feet Storage
- ▶ NID can produce over 82 MW of green hydroelectric power
- ▶ Power is generated along the path prior to consumption



## The District Water Rights

- ▶ District exercises its 53 water rights
- ▶ 25 Pre - 1914 or riparian & 28 Post - 1914 water rights
- ▶ Rights allow for capture or diversion of 450,000 Acre Feet
- ▶ Consumptive uses include irrigation, domestic, and municipal



## Domestic Water

- ▶ NID has 7 water treatment plants serving a population of nearly 50,000
- ▶ Treated over 3 billion gallons of water last year
- ▶ Operate and maintain over 40 water storage tanks with a total capacity of 41 million gallons
- ▶ The systems include over 300 miles of treated distribution pipelines
- ▶ Supply raw water to the City of Grass Valley & City of Nevada City for treatment



## Irrigation Water

- ▶ NID waters irrigate over 31,000 acres
- ▶ Serves nearly 6,000 irrigation water customers
- ▶ Utilizing over 450 miles of canal
- ▶ NID provides the water to support a 98 million dollar ag industry in both Placer and Nevada Counties

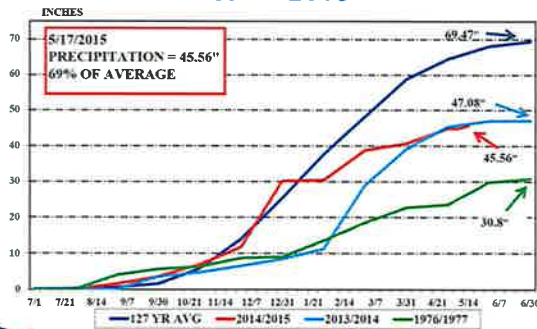


## Current Drought Conditions



Scotts Flat September 2014

## NEVADA IRRIGATION DISTRICT BOWMAN LAKE PRECIPITATION TOTALS 2014-2015

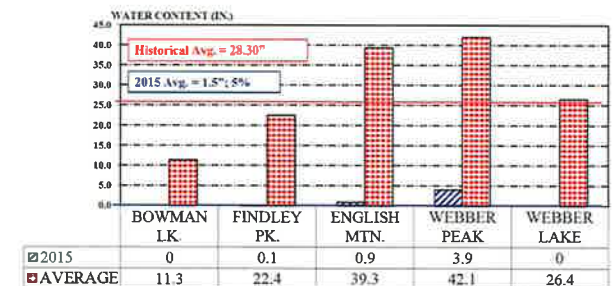


## Snow Surveys

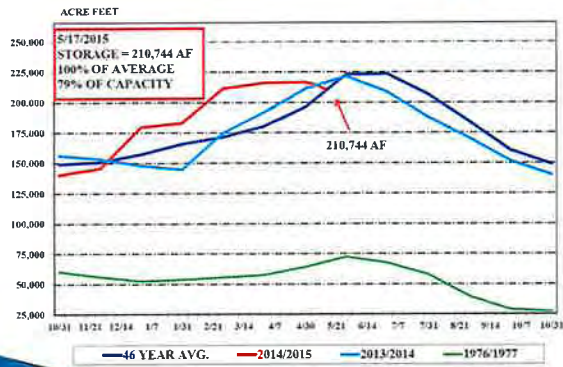
- ▶ District conducts its own watershed snow surveys
- ▶ Database dates as far back as the 1920's
- ▶ This year returned some of the lowest snowpack readings on record



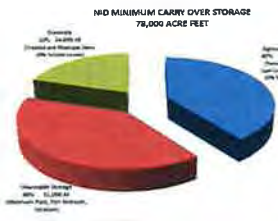
## Nevada Irrigation District May 1, 2015 Snow Survey



## DISTRICT'S RESERVOIR STORAGE



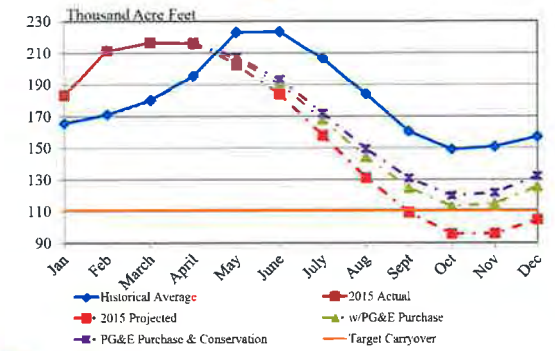
## District's Drought Contingency Plan



- Utilize snowpack, storage, and runoff forecasting to determine water availability
- Drought Contingency Plan provides guidance on minimum carryover amounts to preserve water and protect from a multiyear drought

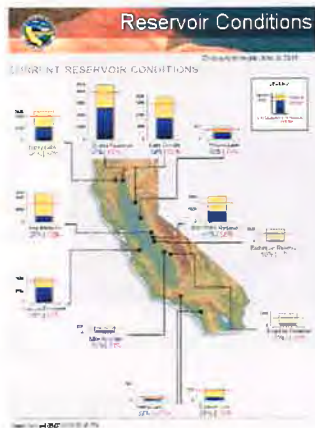
- Provides guidance on when to buy supplemental water from PG&E

## Storage Projection 2015



## Statewide Conditions

- Reservoir storage statewide continues to lag
- Governor extended drought declaration to March 2016



## March 17, 2015 Drought Monitor

U.S. Drought Monitor  
California



## May 12, 2015 Drought Monitor

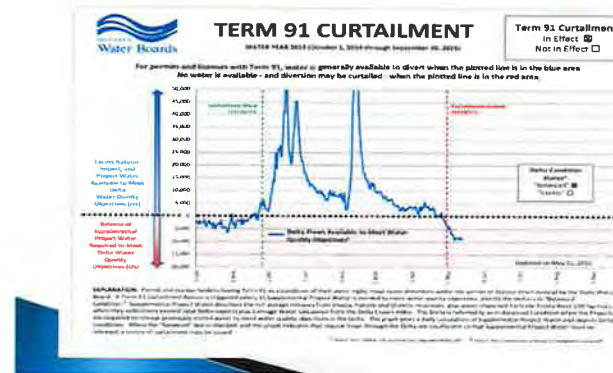
U.S. Drought Monitor  
California



## Recent State Board Actions

- March 1, Pre - 1914 Order for Additional Information  
Required to provide documentation for the basis of pre - 1914 rights, 2014 diversion data and a projection of 2015 quantities  
On-going monthly reporting requirement of diversion data
- May 1, Post - 1914 Water Right Curtailment Order  
District had to cease directly diverting and collecting water to storage  
In effect for 270 days or until lifted; may effect ability to collect water to storage in fall/early winter

## Sacramento River / Delta Water Supply Vs Demand



## State Board May 5 Conservation Regulation - Water Purveyors

- Established conservation standard based on 2014 R-GPCD (Residential Gallons Per Capita Per Day)
- Goal 25% conservation statewide  
55 gallons per person per day is baseline  
Different parts of the State have different requirements  
Tiers range from 8% to 36% based on 2014  
July - September usage  
District is in the highest tier at 267 R-GPCD which mandates a 36% reduction
- Reporting of production, usage and water waste activities
- Provide customer with notification of possible leak
- Possible fines \$10,000 per day for non compliance

## Treated End User Requirements

- Targeting a 36% reduction in usage from 2013
- Outdoor watering limited to 2 days a week maximum
- No outdoor watering during heat of day (10:00am to 6:00pm)
- No watering during or up to 48 hours after rain
- No watering that creates runoff
- No use of hoses unless fitted with an automatic shut-off nozzle
- No use of potable water in fountains unless water is recycled
- No washing down sidewalks or driveways
- No watering ornamental lawns along roadside
- No outdoor water on new construction unless drip or micro-spray
- No serving drinking water in restaurants unless requested
- Hotels/Motels provide an option of not washing towels and linens daily
- Possible fines of \$500 a day for violations

## District Drought Contingency Plan Actions - Irrigation Water

- Target a 25% reduction
- Asking for voluntary reduction of service allotment  
Customers will receive their previous allotment in 2016  
Reductions of over 320 MI have been realized (2880 Acre Feet, 940 MG)
- New or increased irrigation water sales limited to the smallest amount for beneficial use
- Encourage efficient irrigation practices
- Additional conservation may be implemented at the discretion of the General Manager (based on storage)

## Overview of District Actions

- Targeting 110,000 AF for carryover storage (75% avg.)
- Purchasing PG&E water to bolster carryover storage
- Increased priority on leak repair
- Continue to respond to water waste reports
- Continue to be conservative with releases from storage
- Closely monitor canal ends for excess
- Secure irrigation boxes with seals (zip ties)
- Addition of a Water Waste Policy
- Limit District flushing program (only flush as needed for public health and safety needs)
- Limit fire department drills
- Discourage planting of new lawns
- Establishing purchased water and conservation pricing through the Proposition 218 process

## District Conservation

- Removing portions of lawn at headquarters and installing a drought demonstration landscape
- Update District drought web page
  - Graph reservoir storage levels month to month
  - Update conservation numbers monthly
- Offering irrigation efficiency workshops
- Continue support of Great Water Mystery in schools
  - In collaboration with SYRCL

## How Do I Know if I Have Conserved?

**Important 2015 Drought Update**

Nevada Irrigation District is targeting a 30% reduction in water usage in comparison to the year prior to 2013 and we are asking all customers to conserve. The Nevada Irrigation District Board of Directors has implemented portions of the Drought Contingency Plan. Mandatory outdoor water restrictions are in place and they include:

- Limit watering to 2 days per week;
- No outdoor watering in the heat of the day, (10:00 a.m. to 6 p.m.);
- No watering during and 48 hours after a rain;
- No outdoor watering that causes excess runoff;
- No washing down driveways and sidewalks, unless for health and safety;
- No washing a motor vehicle with a hose, unless the hose is fitted with a shutoff nozzle;
- No use of potable water in a fountain or decorative feature, unless the water is recirculated.

Below is the 2011-2014 & 2015 consumption levels as well as 2016 reduction target for 437000 sq. ft. (approx. 10 acres):

Year	Consumption (MG)	Reduction Target (MG)
2011	11,100	7,275
2012	9,750	6,412
2013	8,250	5,375
2014	7,500	4,875
2015	6,750	4,375
2016	6,000	3,875

For more water conservation tips visit: <http://nirwater.com> or <http://www.nidwater.com>

To report water waste please call 530-271-6799 or online at <http://nidwater.com/report-water-waste>

## How to Read a Meter



- Meters read in Hundred Cubic Feet (HCF)
- Use first 4 numbers from left to right for billing
- To convert to gallons multiply by 748
  - $4 \times 748 = 2992$

CONSUMPTION COMPARISON	METER SIZE	METER READINGS PREVIOUS	METER READINGS PRESENT	HCF CONSUMED	TOTAL GALLONS CONSUMED	AVERAGE GALLONS USED PER DAY
USAGE/DAY CURRENT: 2992/56	5/8 IN MTR	0	4	4	2992	53

## Indoor Conservation Tips

**FIX LEAKY TOILETS**  
 saves **30-50 GALLONS** per day/toilet

**WASH ONLY FULL LOADS OF CLOTHES**  
 saves **15-45 GALLONS** per load

**TAKE FIVE MINUTE SHOWERS INSTEAD OF 10 MINUTE SHOWERS**  
 saves **12.5 GALLONS** with a water efficient showerhead

**TURN OFF WATER WHEN BRUSHING TEETH OR SHAVING**  
 saves **10 GALLONS** per person/day

**INSTALL A HIGH-EFFICIENCY WATERSENSE-LABELED TOILET**  
 saves **19 GALLONS** per person/day

**INSTALL AERATORS ON BATHROOM FAUCETS**  
 saves **1.2 GALLONS** per person/day

## Outdoor Conservation Tips

**GET EFFICIENT**

**invest in a smart controller**  
 water less frequently, but longer and close to plant roots

**redired downspouts to capture rainwater and direct it to garden areas**

**PLANT DROUGHT-RESISTANT TREES AND PLANTS**  
 saves **30-60 GALLONS** per 1,000 sq. ft. each time

**WATER PLANTS EARLY IN THE AM**  
 saves **25 GALLONS** each time you water

**INSTALL DRIP IRRIGATION**  
 saves **15 GALLONS** each time you water

**USE MULCH**

- RETAIN MOISTURE**: Less watering needed and grow healthier plants.
- MODERATES TEMPERATURE**: Cool soil in the summer and warm soil in the winter.
- DECOMPOSES NUTRIENTS**: Enrich soil and better soil quality.
- DISCOURAGE WEEDS**: Keep weeds away and reduce maintenance.

**ADJUST SPRINKLER TO WATER PLANTS, NOT DRIVEWAY**  
 saves **12-15 GALLONS** each time you water

**USE A BROOM TO CLEAN OUTDOOR AREAS**  
 saves **8-18 GALLONS** per broom

[www.nidwater.com](http://www.nidwater.com)






### Converting to Badger Meters

- Approximately 6,380 Badger meters installed as of June 18<sup>th</sup>, 2019




- Existing meters are replaced when components fail

### BEACON HOME SCREEN




Continuous Flow Vs. Leak Detected

What's the Difference?

### Project Background and Purpose


- NID began testing new meter technology in 2015
- Automatic Meter Infrastructure (AMI) will allow for better diagnosis of water usage
- Real-time access to water usage to help better track and understand usage
- Detect and resolve leaks
- Monitor meters and identify losses

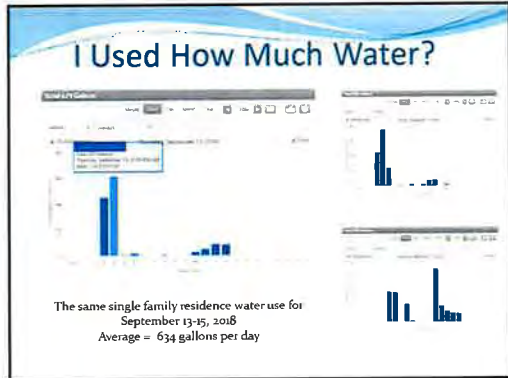
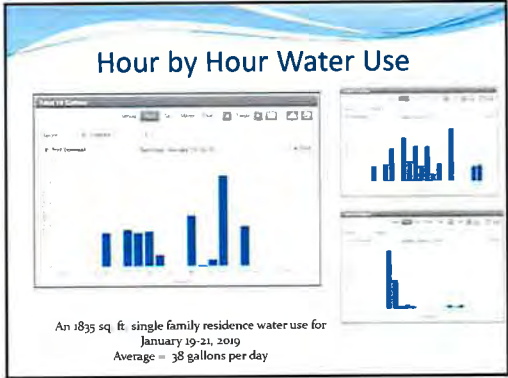


### BADGER METER



### BEACON HOME SCREEN





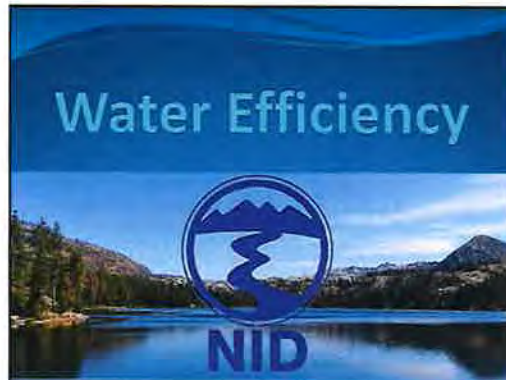
## Summary of Fees and Charges

- Endpoints communicate via the cellular network. This data exchange requires that the District purchase service units.
- Each endpoint uses 1 service unit per month.
- The average cost per service units is \$0.86.
- Once the District has converted all meters, the annual cost for data exchange is estimated to be \$105,000.



Thank You





## Treated Water Restrictions

- Washing down paved surfaces unless for health and safety
- Watering that causes excessive run off
- Washing of a vehicle with a hose unless fitted with a shutoff nozzle
- Cleaning of gutters by flooding with water
- Landscape watering during heat of day (10:00am to 6:00pm)
- Use of fountains and water features that do not recirculate water
- Outdoor watering during periods of rain



## Current Conservation Legislation

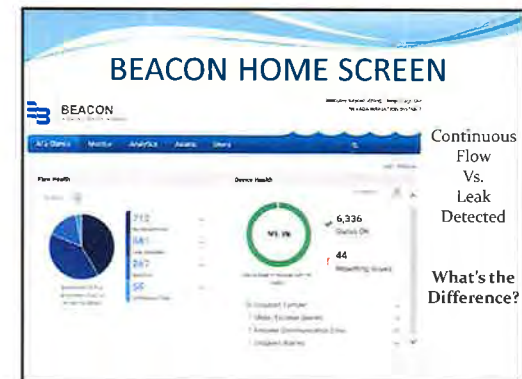
- Residential **Indoor** Standard- 55 GPCD
  - 52.5 GPCP by 2025
  - 50 GPCP after 2030
- 55 GPCD x Service Area Population x 365= **Indoor** Standard
  - NID 2018: approx. 67 GCPD
  - NID 2019: approx. 64 GCPD
- Industry experts project that people are already meeting this standard or don't have to go far
- Outdoor Standard
- [www.home-water-works.org/calculator](http://www.home-water-works.org/calculator)

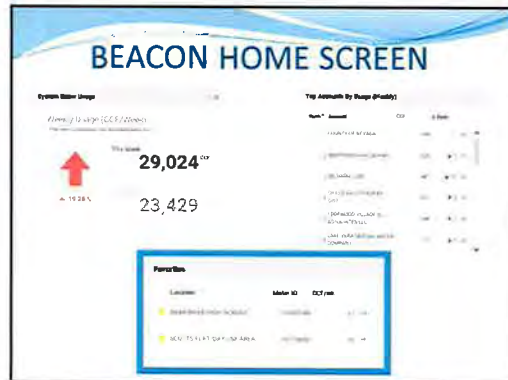
## Converting to Cellular Badger Meter

- Approximately 8,719 Badger meters installed as of October 1, 2020



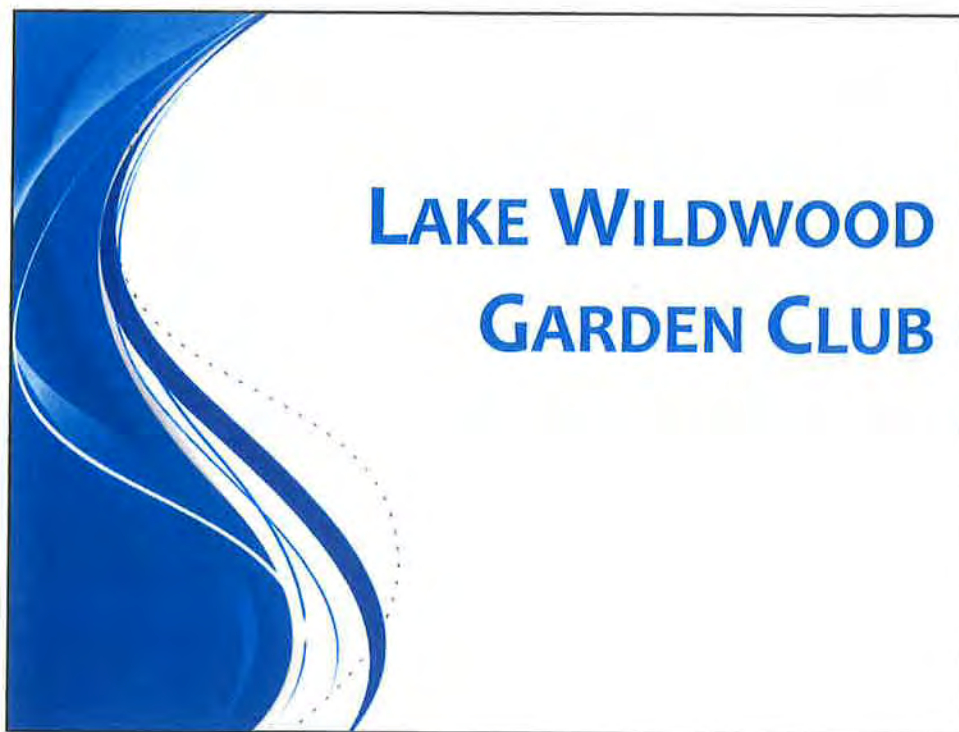
- Existing meters are replaced when components fail











## NID Today



- NID encompasses 287,000 acres of land covering portions of Nevada, Placer, Yuba, and Sierra Counties
- NID has nearly 280,000 Acre Feet of reservoir storage

- Serves over 25,000 customers
- Provides hydroelectric power and recreation opportunities



## The District Water Rights

- District exercises its 53 water rights
  - ✓ 25 Pre - 1914 or riparian
  - ✓ 28 Post - 1914 water rights
- Rights allow for capture or diversion of approx. 450,000 Acre Feet
- Beneficial uses include irrigation, domestic, municipal, hydroelectric and recreation
- Currently under curtailment order from the SWRCB for Post - 1914 rights



## NID Storage Reservoirs

### Upper Mountain Division:

➤ Jackson Meadows (MY)	6,036' elevation	69,205 AF
➤ Jackson Lake (JC)	6,596' elevation	1,330 AF
➤ French Lake (CC)	6,835' elevation	13,840 AF
➤ Faucherie Lake (CC)	6,123' elevation	3,980 AF
➤ Sawmill Lake (CC)	5,863' elevation	3,030 AF
➤ Bowman Lake (CC)	5,564' elevation	68,510 AF

### Lower Division:

#### **Yuba System:**

➤ Scotts Flat Reservoir (DC)	3,075' elevation	48,547 AF
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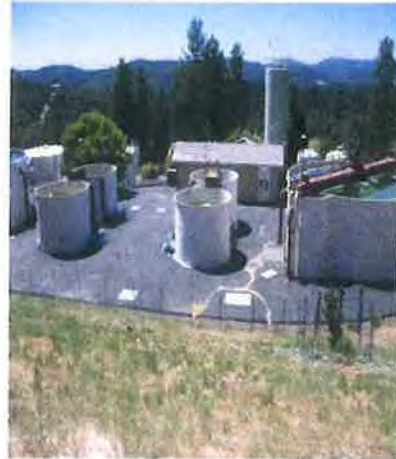
#### **Bear River System:**

➤ Rollins Reservoir (BR)	2,171' elevation	65,988 AF
➤ Combie Lake (BR)	1,600' elevation	5,555 AF

Note: 1 Acre Foot (AF) = 1 Acre Covered 1 Foot Deep = 325,851 gallons

## Domestic Water

- NID has 7 water treatment plants serving a population of nearly 50,000
- Treated over 3 billion gallons of water last year
- Operate and maintain over 40 water storage tanks with a total capacity of 41 million gallons
- The systems include over 300 miles of treated distribution pipelines



## Irrigation Water

- NID water irrigates over 31,000 acres
- Serves nearly 6,000 irrigation customers
- Utilizing over 450 miles of canal
- NID provides the water to support a 98 million dollar ag industry in Placer, Nevada and Yuba counties



## Hydroelectric and Recreation

- NID operates and maintains 7 powerhouses which can produce over 82 MW of green hydroelectric power
- NID's reservoirs offer camping, boating, swimming and fishing opportunities
- Over 100,000 visitors per year frequent NID recreation facilities



## Current Drought Conditions

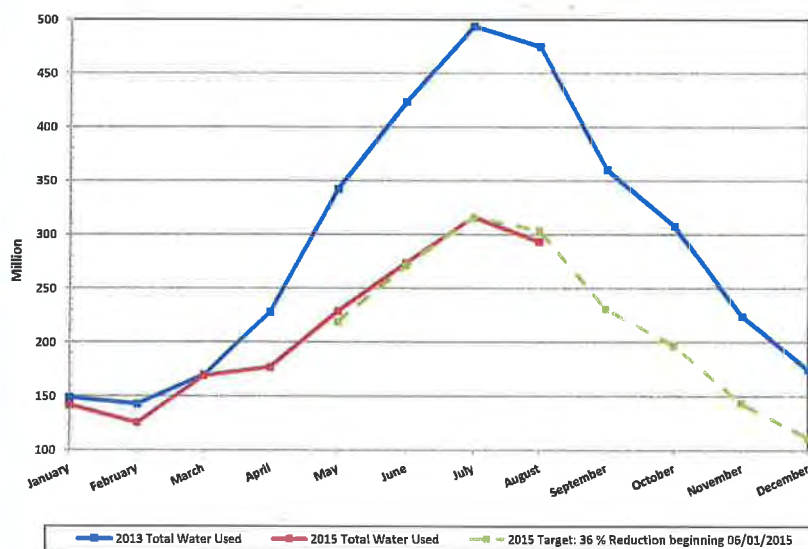


Scotts Flat Lake, September 2015

## Treated Water Use Restrictions

- Targeting a 36% reduction in usage from 2013
- Outdoor watering limited to 2 days a week maximum
- No outdoor watering during heat of day (10:00am to 6:00pm)
- No watering during or up to 48 hours after rain
- No watering that creates runoff
- No use of hoses unless fitted with an automatic shut-off nozzle
- No use of potable water in fountains unless water is recycled
- No washing down sidewalks or driveways
- No watering ornamental lawns along roadside
- No outdoor water on new construction unless drip or micro-spray
- No serving drinking water in restaurants unless requested
- Hotels/Motels provide an option of not washing towels and linens daily
- Possible fines of \$500 a day for violations

## 2013-2015 Conservation Comparison



## District Conservation

- Update District drought web page
  - ✓ Links to toilet and lawn replacement rebates
  - ✓ Graph reservoir storage levels month to month
  - ✓ Update conservation numbers monthly



- Removing portions of lawn at headquarters and installing a water wise demonstration landscape

## District Conservation









- Offering irrigation efficiency workshops
- Continue support of The Great Water Mystery in schools
  - ✓ In collaboration with SYRCL



Detective Drizzle  
Where does all the water go?


## Permanently Reduce Your Use

**OUTDOORS** - Most of our water use goes towards watering our landscape. Reducing outdoors is the easiest way to save.

 <p><b>WATER EARLY OR LATE</b> Water early in the morning or later in the evening when temperatures are cooler.</p>	 <p><b>BE WATER EFFICIENT</b> Choose an irrigation system that meets your needs for water use, efficiency and cost.</p>
 <p><b>SKIP THE CAR WASH</b> Wash your vehicle with a bucket, sponge, and hose instead of a car wash.</p>	 <p><b>DON'T OVERWATER</b> Water deeply but less frequently to create healthier and stronger landscapes.</p>
 <p><b>RETHINK YOUR LAWN</b> Replace your grass with native landscaping.</p>	 <p><b>DON'T SPRAY</b> Use a hose to kill weeds, weeds and weeds.</p>
 <p><b>MULCH IT</b> Place layers of mulch around trees and plants to retain moisture in the soil and keep them cool.</p>	 <p><b>WATCH SPRINKLERS</b> Check your sprinkler system frequently and adjust sprinklers so only your lawn is watered.</p>

**For more information and tips visit [SaveOurWater.com](http://SaveOurWater.com)**

## Water Wise Demonstration Garden



## How Do I Know If I Have Conserved?

### Important 2015 Drought Update

Nevada Irrigation District is targeting a 36% reduction in water usage as compared to the same time in 2013 and we are asking all customers to conserve. The Nevada Irrigation District Board of Directors has implemented portions of the Drought Contingency Plan. Mandatory outdoor water use restrictions are now in place and they include:

- Limit watering to 2 days per week;
- No outdoor watering in the heat of the day, (10:00 a.m. to 6 p.m.);
- No watering during and 48 hours after rain;
- No outdoor watering that causes excess runoff;
- No washing down driveways and sidewalks, unless for health and safety;
- No washing a motor vehicle with a hose, unless the hose is fitted with a shutoff nozzle;
- No use of potable water in a fountain or decorative feature, unless the water is recirculated

Below is your 2013, 2014 & 2015 consumption history as well as your reduction target for:  
12534 Any Drive, Grass Valley

All figures are in gallons

	2013	2014	2013 vs. 2014 % Difference	2015	2015 Reduction Target
Jan	11,948	6,971	25%	7,488	7,488
March	6,732	6,732	0%	6,394	6,400
May	7,430	6,732	10%	-	6,400
July	11,119	8,316	25%	-	6,400
September	6,732	7,430	-11%	-	6,400
November	6,732	6,964	3%	-	6,400
TOTAL	55,693	44,323	21%	13,882	22,912

For more water conservation tips visit <http://nidwater.com> or <http://savewater.com>

To report water waste please call 530-271-6799 or online at

<http://nidwater.com/report-water-waste/>

The state board has ruled that violators of the above regulations may be subject to fines of up to \$500

May 7, 2015

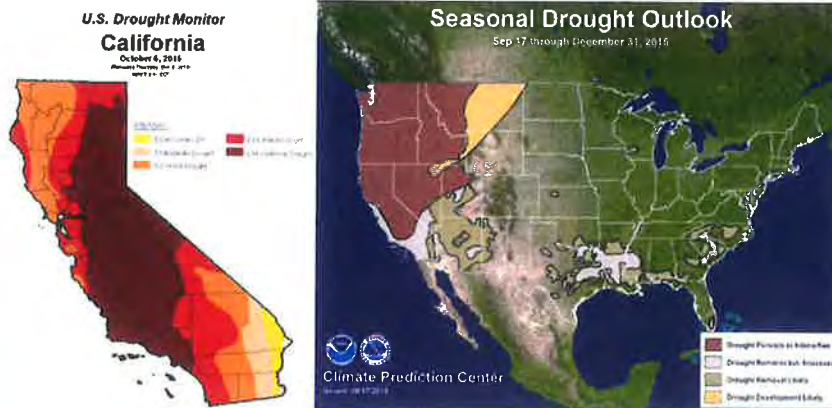
## How to Read a Meter



- Know where to find your meter. Contact Customer Service if you need assistance.
- Meters read in Hundred Cubic Feet (HCF)
- Use first 4 numbers from left to right for billing
- To convert to gallons multiply by 748
  - ✓  $4 \times 748 = 2992$

CONSUMPTION COMPARISON	METER SIZE	METER READINGS		HCF CONSUMED	TOTAL GALLONS CONSUMED	AVERAGE GALLONS USED PER DAY
		PREVIOUS	PRESENT			
USAGE/DAYS CURRENT 2992 /56	5/8 IN MTR	0	4	4	2992	53

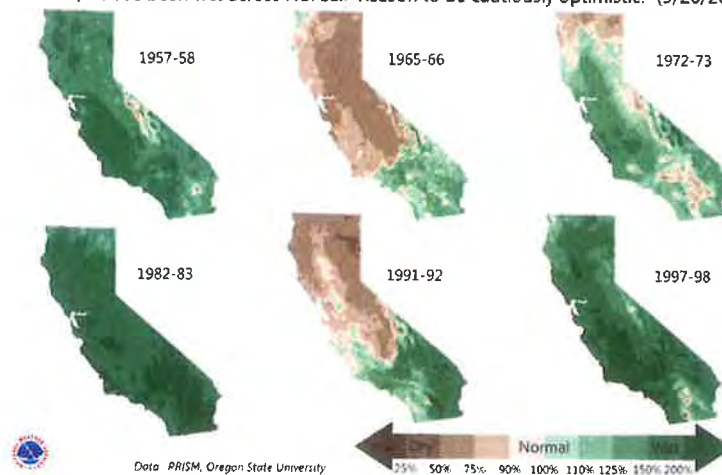
## Drought Outlook



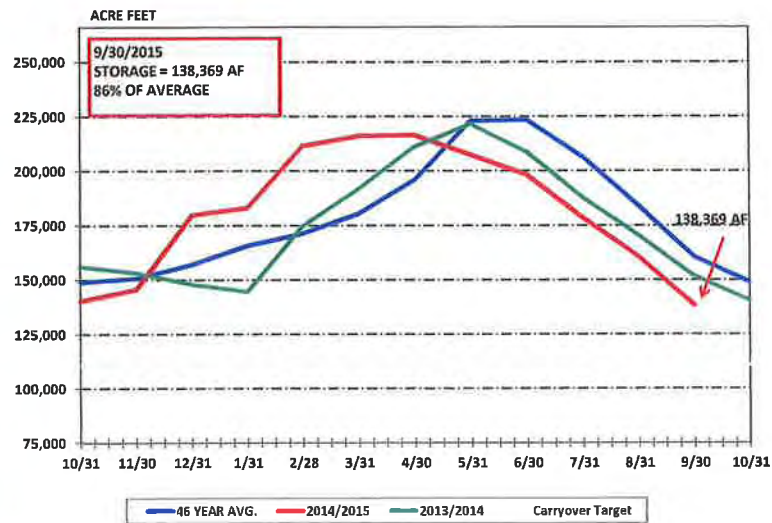
## Winter Forecasts

### STRONG EL NIÑO: CAUTIOUS OPTIMISM

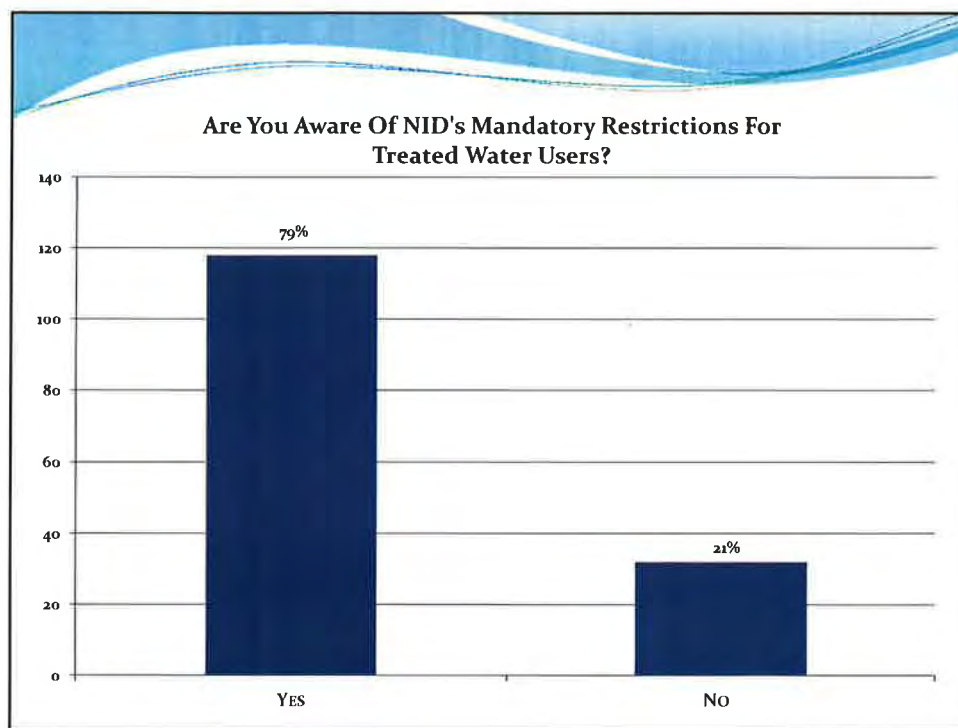
There have been 6 recorded El Niños since 1950 (a small sample). Of those 6 events, 4 have been wet across NorCal. Reason to be cautiously optimistic! (9/20/2015)

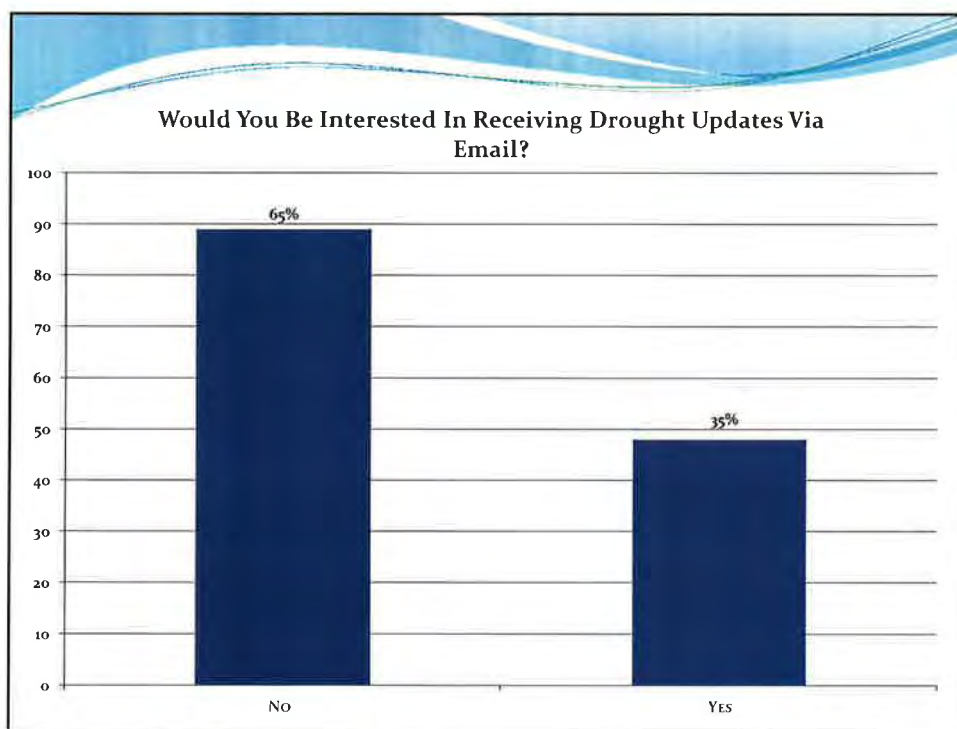
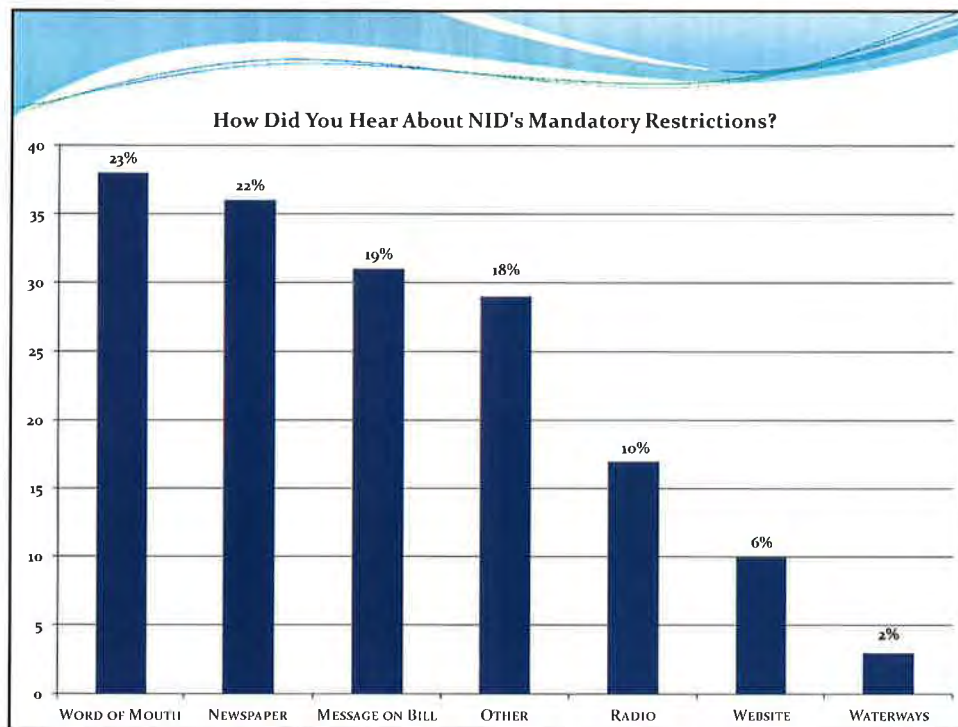


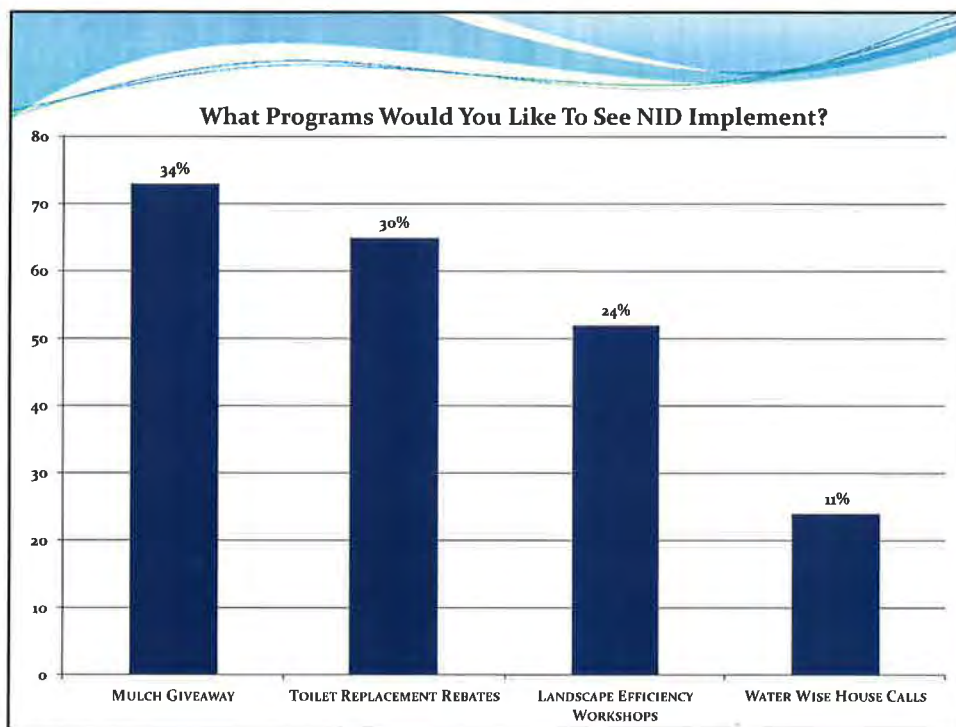
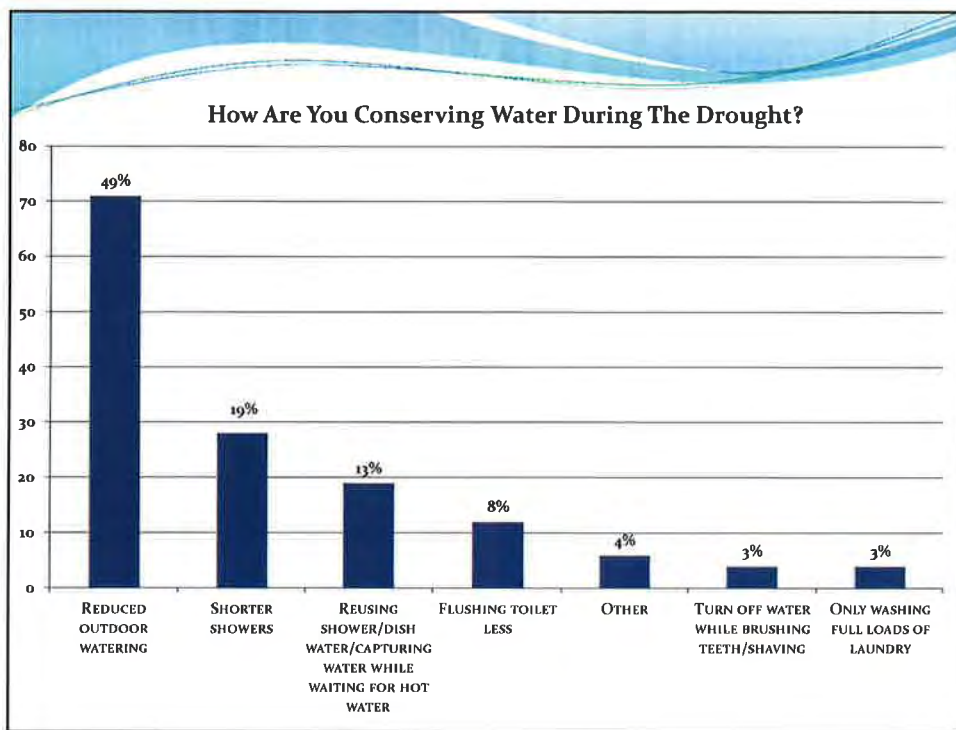
## NID Reservoir Storage

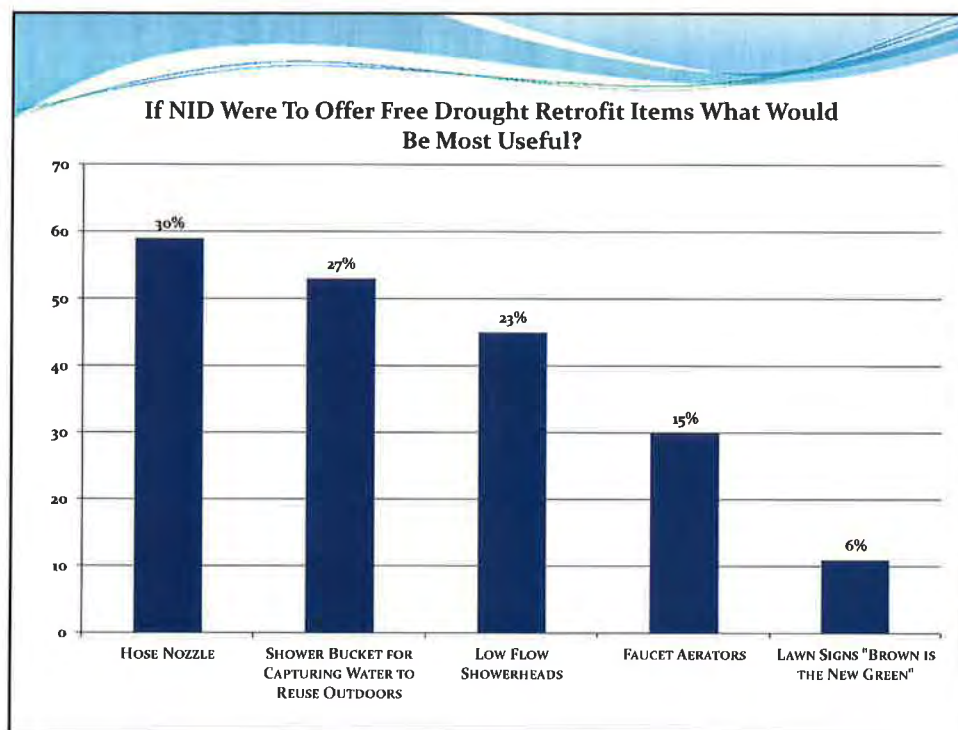


QUESTIONS?













## Appendix E: References

## **References**

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- Nevada County. Nevada County General Plan, Land Use Element. 2020.
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- United States Geological Survey (USGS). Ground-Water Conditions and Well Yields in Fractured Rocks, Southwestern Nevada County. 1984.
- Yuba County. Yuba County 2030 General Plan. Adopted June 7, 2011.