About this Document

The Water Resources Department (Department) held seven open house events throughout the state in June 2016. The IWRS Project Team posed six discussion questions to stimulate conversation and solicit public feedback on water-related issues, particularly drought.

The IWRS Project Team also used an online form to solicit input, posing the same set of discussion questions. Comments were accepted from Monday, June 13 through Friday, July 15, 2016. This comment opportunity was shared through the IWRS mailing list, with follow up reminders. Staff also asked the subscribers to help advertise the open houses and online survey through their individual networks and organizations.

Survey Results

The Department received responses from 66 individuals through the online form, although respondents did not provide comment on all of the questions posed. Response counts for each question are shown below:

How has the recent drought affected you?	54 responses
In what ways did the drought affect your community?	51 responses
How did you respond to drought? Please share any successes or strategies.	47 responses
What actions should be pursued to better prepare for future droughts?	59 responses
What most concerns you about the future with regard to water?	62 responses
Any other thoughts or comments you would like to share with the IWRS Project Team?	47 responses

Although individual responses were solicited anonymously, 57 individuals provided the county they resided in. Twenty-five survey respondents resided in Deschutes County.

The following tables contain responses received through this online form. Comments are shown as submitted by the commenter. Department staff made some slight editing to fix spelling errors or punctuation.

Q1: How has the recent drought affected you?

1. Yes
2. Yes
3. Yes
4. Increased costs and reduced production.
5. Not at all. Surprisingly, my water well's lowest static level last year (September, 2015) reading) was 9' 10" below top of well casing. In "normal" years, the static level drops to around 15'-16' below top of casing.
6. The reduction of instream flows has reduced recreational opportunities. Specifically, fishing opportunities have been reduced as fish populations have been harmed by poor conditions in the river.
7. It has not really affected us. Here in our system we have been able to meet demands.
8. The drought has reduced the public water available for use in recreation, stream flow, irrigation, etc. This results in much lower than optimal flows in the upper Deschutes River during the winter "reservoir" storage season. This is a detriment to people, fish, frogs and other wildlife. Personally my use of the upper Deschutes has been restricted due to the effects of a limited water supply (fishing season has been shortened significantly to protect fish and frogs).
9. Mostly in recreation, shocked by the low water levels. Also my family's house in rural Lane County -- running out of well water every summer now.
10. Curtailed my ski season. Made me think more about xeriscaping.
11. Made me realize how tenuous water supplies are, and encouraged me to conserve at home.
12. Limited my ability to enjoy our rivers.
13. Having experienced drought in Iowa, I rigged up graywater system (bathwater and washing machine water) to the outside for watering garden. Did not experience drought here as I moved in last August.
14. Not that much because my water use is quite low already due to efficient irrigation.
15. Water bill has gone up. So I water my lawn less. Not a big deal.
16. Wildfire is the biggest impact in Southern Oregon; Extremely hazardous air conditions for extended periods of the summer.
17. My low producing well goes dry for summer months and we have to buy water.
18. We are a family of outdoor enthusiasts and many of our favorite streams, rivers and lake level have fallen well below normal levels. This has had a negative impact to the native fish and wildlife that use the ecosystem.
19. It has contributed to reduced streamflows in the upper Deschutes River
20. Replaced inefficient sprinkles, installed water timers, take shorter showers, reduced watering hours, no hosing off driveways, leave grass longer, et al.

Q1: How has the recent drought affected you?

21. Impacted the vitality of our outdoors water activity
22. I am an active hiker, camper hunter and fisherman... the drought curtailed my activities in the lakes and streams in and around Bend OR....access to lakes and streams for shore line fishing was a serious issue given the retreats of shorelines ..and the threat of fire was always a concern as I ventured into remote areas for hiking and camping...
23. Not affected directly. Disappointed with the Hoodoo and Willamette Pass ski operations due to lack of snow.
24. Higher danger of wildfires.
25. Low CFS flow below Wickiup dam last winter...25 CFS.
26. We are seeing an increased burden on both our surface and ground water resources. This is combined with ever increasing demands from water users and constant increases in the amount of water rights issued by the State. The cumulative effect is that we do not have enough water available to meet our needs, especially during summer months. The negative impact is most harshly felt in ecological water needs where streams are drying up and fish and aquatic species are being killed.
27. More hornets/wasps. Fewer mosquitoes. More time to recreate in the high country. Can't have campfires. more hikes in dry reservoirs
28. Aside from turning my once green lawn in Ashland brown it has made it hard for me in my professional career because I endeavor to restore riparian habitat in the Rogue and Klamath Basins and the lack of water availability has impacted my access to temporary irrigation licenses in some stream systems. In addition drought conditions have reduced the native plantings ability to establish.
29. Loss of vegetation on and near my property. This year weeds replace native vegetation that died.
30. The citizens I work for have become more focused on water issues and I have had more calls and projects because of the interest on water.
31. It has made it more difficult to negotiate higher Upper Deschutes Winter flows with Irrigation Districts, even when they are willing.
32. Well, as a rafter, I find that access to some of my favorite rivers is more limited. ... But on a personal level, I have enough for my daily needs.
33. Did not allow for the head water resources to fully fill before they were dumped for irrigation
34. Over draining of the upper Deschutes river in the summer, resulting in very low water levels in the winter.
35. As a Fish and Wildlife Habitat Restoration Biologist, the drought has affected all of us, including our efforts to conserve and recover ecosystems. Lower flows mean shrinking habitat and undesirable conditions such as increased water temperatures. We use irrigation on newly planted native trees and shrubs to restore riparian forests so we have to consider our impacts and possible impacts to us if water availability becomes an issue.
36. We just conserved water.
37. I have had trees I planted for reforestation die (they were in some cases decade old western red cedar - so even well-established trees are affected as of last summer). I use a well and am always concerned

Q1: How has the recent drought affected you?

about ground water levels, so far no problem but rural dwellers need to be concerned.

38. My pastures are gone. Feed is so expensive. I am selling my livestock

39. Many fish died including salmon and steelhead. The John Day, Deschutes, Columbia and other rivers had temperatures that were lethal to fish. Fishing was closed for part of the season and should have been closed longer. Fish that didn't die were severely stressed, vulnerable to disease and emaciated as their metabolism slowed they didn't eat well as they had no energy to acquire food. Large fires in Eastern Oregon caused damage and will continue to damage river ecosystems.

40. I am much, much more aware of how and when I am using water.

41. Stopped watering the yard, shorter showers, less frequent dishwashing and clothes washing.

42. Increased risk of wildfire and increased summer smoke, voluntary water shortage.

43. I've cut back on water usage ... brown lawns, etc...

44. Not personally affected (other than the loss of several arborvitae trees).

45. The drought impact on rivers and fish has impaired the ecological, recreational and economic value of healthy streams to Oregonians. At the same time wasteful uses were rampant in basins where there were declared drought (i.e. Deschutes). The state should institute minimum flows on ecologically important streams that the state will protect during times of drought, enforce against waste and mandate conservation/curtailment.

46. Mildly, yes. For us it has been an inconvenience not an economic hardship.

47. The drought exacerbated existing issues related to water scarcity; put increased pressure on natural and human systems dependent upon stream flow and groundwater recharge; and made the community more aware of water resource issues.

48. It has focused my attention on the inadequacy of Oregon Water Resources planning. During a 30-year involvement with river water conservation, I have observed that all the planning efforts, (State, Federal and Local) I have participated in, try to manage the resource for public benefit, rather than adjust current policy to sustain the resource. This strategy is environmentally bankrupt and will lead to the eventual collapse of the resource, leaving people and farms with inadequate supply as well as fish, frogs, and wild rivers.

49. Minimal flows in the upper Deschutes during winter have ruined fishing and adversely impacted stream species.

Q1: How has the recent drought affected you?

50. Oregon, like many other Western states, was deeply impacted by the drought of 2015, with varying levels of extreme to severe drought across the state, and formal drought declarations in twenty-five of Oregon's thirty-six counties. While 2016 is shaping up to be a much better year in terms of snowpack and related available water supplies, recovery from drought takes more than one year and there is a great need for assistance to better plan for and mitigate drought impacts. Furthermore, the most severe impacts of the 2015 drought were linked to high temperatures, which exacerbated the lack of water and led to decreased yields and in some instances failed crops. Unfortunately, Oregon is still facing higher than normal temperatures, which will cause existing snowpack to melt quicker, soil moisture to decrease, and other related impacts which can be detrimental to crops along with to the environment we all share.
51. It has decreased water flow in winter on the upper Deschutes, impacting fishing and property values.
52. The negative impact on wildlife, fisheries and recreation.
53. Reduced production of hay due to less water less often, forcing purchase of much more than usual.
54. Dropping well water levels.

Q2: In what ways did the drought affect your community?

1. Concern for current and future availability of enough and quality water resources in Oregon.
2. Significant reduction in water available for irrigation primarily due to reallocation of irrigation water for other purposes.
3. I live in the county, where a very large number of people ended up having to purchase water, delivered by tank trucks. Many more problems than ever before, according to these delivery companies.
4. Our community depends on recreation - floating and fishing - as core parts of its tourism economy. Also, a healthy river is an important part of the community's identity. When instream flows are reduced, these suffer.
5. With publicity about other places our system demand has decreased naturally.
6. See above. Everyone who uses the rivers, reservoirs and other water-centric facilities has been impacted. From farmers to frogs everyone has felt the negative effects.
7. Some reduced recreation income because of less snow, although Mt. Bachelor did relatively well.
8. Reduced water for residential irrigation.
9. Limited all of our ability to enjoy our rivers.
10. In visiting Bend while drought was in place, I was amazed at the sprinkler systems working away on what are community property in the various Estate systems... River Rim, River Canyon etc.
11. Created opportunities for news stories but no real changes in behaviors in the town of Madras at least.
12. We have poisoned the well. Rather than prioritize in-stream flows for habitat protection, we draw down river flow and warm up the water, all to the detriment of fish, birds, and insects dependent on the river systems. In the end the resources and values that make central Oregon popular are destroyed. We end up with too many people, damaged ecosystems, and irrigated specialty crops.
13. Ashland ran low on water from our watershed and added water from the irrigation district; this is low quality water and additionally, some folks lost their irrigation water because there wasn't enough to go around. Wildfire caused a lot of damage to our tourist industry, crops and health. Emigrant Lake, where many go for recreation was completely empty down to a small stream in the middle.
14. Trees died, several neighbors also have to purchase water due to wells nor producing enough water, etc.
15. With Detroit Reservoir at an all-time low last year, a tremendous amount of recreational use shifted to Suttle Lake and surrounding waters pushing usage over the top.
16. Fishing and recreation have been impacted by lower streamflows. The fishing season on the upper Deschutes has been shortened by a month.
17. Not sure.
18. Lost revenue for tourism.
19. Bend so far has been fortunate with adequate water supplies although the debate continues is this at

Q2: In what ways did the drought affect your community?

	this expense of water for lakes and streams and support for fish and other wildlife
20.	Some economic in lower visitor counts, particularly in the winter months.
21.	Less water instream for fish and other water dependent animals.
22.	It is a shame to see the dead fish that were stranded because of the low CFS.
23.	Hurt income levels.
24.	Almost every irrigator was forced to end their season months early due to lack of water availability. This created significant financial losses to our Ag industry and the small businesses it supports.
25.	Government and media over-reacting to wildfire, stoking fear of natural processes.
26.	Reduced water use, increase water rates, smoke from wildfires and a major infrastructure project to get water to Ashland from Medford to supplement Reeder res. supply.
27.	Low flows threatened salmon populations.
28.	The flows out of Wickiup were 23 cfs most of the Winter. Per ODFW, that level kills 85% of the River's macroinvertebrates, seriously undermining both the essential biomass and restoration of native Redband Trout, Steelhead, and Chinook and Sockeye Salmon.
29.	This community, Portland metro, is clueless. People in general are implementing water reduction measures, but I think that is based on wanting to lower their water bill more than thinking about the big picture.
30.	Dangerously lowered water levels.
31.	Very low river level in the winter months with adverse effects on our natural habitat.
32.	Decreases in water availability among in-stream minimum flow needs and water users such as irrigation districts and municipalities; lower water quality; increased fire risks; recreational opportunities.
33.	I live near the city of Molalla and know they were concerned last summer about the low level of the Molalla River where they get their drinking water. They dispose of wastewater into the Molalla River in the late fall but can only do so if water in the river is high enough so there are worries about that.
34.	Fires.
35.	The recreation industry was harmed as many people chose to go elsewhere.
36.	I'm not sure many people in my community are concerned or feel affected. The local rivers and reservoirs are much lower and have affected recreation.
37.	Trees are stressed.
38.	See above plus water shortage for irrigation, forest losses, OSF and Britt cancelations, reduced tourism.
39.	More brown lawns, less car washing.

Q2: In what ways did the drought affect your community?

40. As a lakeside tourist community - and no water in the lake - businesses suffered major loss.
41. Again, my interest is rivers and fish. Rivers went dry and fish went belly up (literally) across the state. Drought statutes and rules designed to provide flexibility to water users do little to nothing to protect rivers and fish during times of drought.
42. More thoughtful use of water and hopefully changing habits for future droughts.
43. Reduction in water quantity for aquatic systems is also damaging to water quality through concentration of pollutants, increased stream temperatures, and negative impacts and reduction of aquatic habitat which harms native fish populations.
44. I live in a desert. Drought is just a more severe version of the status quo. Because I live in a desert, water conservation and in-stream water to meet the most basic needs of the resource, is a function of who can pay and how much? Twenty years ago the estimate for maintaining 300 cfs year round minimum stream flow in the Upper Deschutes River was about $5 million. Today, that estimate is now around $500 million. In reality, there are strategies today that can achieve those minimums and more that are revenue neutral or revenue positive, but it will take an overhaul of current policy, not another study of how we can more effectively squeeze the resource so we can continue our wasteful ways.
45. Minimal flows in the upper Deschutes during winter have ruined fishing and adversely impacted stream species.
46. The Ashland watershed was on the edge last summer, better this with some snow, but this will continue to be problematic.
47. Water is critical to Oregon's agriculture, industries, cities, fish and wildlife. Unfortunately, Oregon is facing increasing water demand and a dwindling, uncertain water supply inadequate to meet the myriad of statewide water needs. To adequately supply Oregon's diverse water needs now and into the future we need to use our water wisely and efficiently. That means instituting innovative conservation and reuse programs and planning smart, environmentally sound storage projects that capture available water so it can be put to good use when needed. Our neighboring states have recognized the need to invest in future water supply, including the State of Washington's allocation of $220 million to address water supply issues in the Columbia Basin, but Oregon has yet to make a similar commitment. Ensuring adequate water supplies is essential to the continued production of numerous high-value agricultural commodities supporting a 4,553.5 million dollar economy in Oregon, as well as growing municipal populations, successful industries, recreational amenities, and diverse aquatic habitats. Evaluating and implementing innovative water supply projects is a wise investment that will pay dividends and benefit Oregonians for many years to come.
48. It impacts property values and recreational activities.
49. Stream flow and warming waters hurt our fisheries and other wildlife.
50. Low river levels damaging the fisheries and reducing desirability of the river and surrounding areas.
51. Reduced incomes due to smaller crops. Increased expenses to pump water from deeper depths. More users turning on wells earlier in the year as surface water disappears.

Q3: How did you respond to drought? Please share any successes or strategies.

1. Track personal use of water usage. Decreased irrigation in home gardens.
2. Utilized ground water resources.
3. We reduced the frequency of water on established landscape plants.
4. I, personally, focused on my own water conservation (in my home and landscaping).
5. We respond to customer questions and concerns with information about our system.
6. I reduced my fishing time on the upper Deschutes and got much more active in regional water conservation activities.
7. I didn't make significant changes.
8. I renovated and extended our residential drip irrigation system.
9. Was not able to enjoy our rivers.
10. I advocate for appropriate farm practices. In areas with low rainfall, grow dryland crops and switch to low water consumption practices.
11. As a gardener I cut back water use and used a lot of mulch. In fact there was a shortage of straw availability in town because everyone was mulching. Ashland citizens voluntarily cut back water usage to such an extent that no further restrictions were required. As stated above, the City added irrigation water to our water supply. I added a couple of rain barrels, but these are insignificant in addressing my water needs.
12. Installed xeriscaping, planted drought tolerant plants in yard and only water food plants,
13. We have a ground well and do the best we can to limit our use.
14. By contacting legislators, conservation groups and attending public meetings.
15. See above.
16. Reduced lawn watering.
17. Used a "Xeriscape" strategy for my yard with draught tolerant plants.
18. n/a.
19. Left out some ground and bought more hay to feed.
20. We encouraged conservation and efficiency improvements.
21. Planned more hikes in dry reservoirs. Brought more water on hikes.
22. We lowered our water use to the bare minimum, applied thicker mulch to plantings, irrigate more in early spring then fade off early so plants shut down sooner and just hold through the hot dry fall.

Q3: How did you respond to drought? Please share any successes or strategies.

23. Advocated for fisheries restrictions.
24. Reduced water use. Mainly through reduced outdoor watering, shorter showers and collecting shower water for outdoor plants. Whenever possible did not waste any water.
25. I focused on irrigation water management, pond development and water distribution upgrades at work.
26. I continue to work in the Upper D Basin Study and with Irrigation Districts to find more water sooner.
27. I never water my lawn. I reuse water from every tap - hand wash water is used to flush the toilet, water used to wash vegetables goes to water plants. It's just drops of effort, but it's the best I can do.
28. Can't, it is out our hands. The priorities are not balanced.
29. Water conservation and changes to habits on how I use water.
30. Cut back on outside watering.
31. We live off the grid and are conscious in all ways of consumption. We don't waste water ever. I am an ODFW wildlife habitat property on 20 acres and we only plant natives so they don't need watering in summer.
32. We are selling off our sheep and cattle.
33. I am no longer watering my lawn. I've installed soaker hoses to water vegetables and other bushes and flowers. I collect water in a bucket in the shower while the water is warming up and use it to water bushes and flowers. I make sure not to water any concrete when I am watering plants. If I fill a water bottle and do not finish drinking it, I use it to water plants. When I fill my dog's water bowl with fresh water, I use the old to water plants.
34. stopped watering the yard , see above question
35. Voluntary water use reduction and educating the public about climate trends and projections and the inevitability of this water shortage continuing. However, amazing numbers of agency personnel (USNRCS / USFS) seem to focus still on historic averages as though we are likely to return to them.
36. Brown lawns- using soaker hoses instead of sprinkler system for garden. Bucket to capture warm-up shower water.
37. Local business owners were inventive with organizing a couple of unique events to celebrate the empty lakebed and bring tourists in
38. Changing times of water use to minimize evaporation and optimize the water we did use. Reusing water many times not one time and then having it flow away. Gray water from baths for the garden etc.
39. The Rogue Riverkeeper does not respond to drought directly, however, our water quality monitoring program will capture increased incidents of pollution in the basin, if the drought persists and leads to a concentration of pollutants.
40. As a long time water user, who NEVER uses his full allocation, I lease nearly half of my water back to the river. For that privilege I pay a penalty in the form of additional WRD fees to secure an in-stream lease. The window for application is short and must be renewed (and paid for) annually. This option is

Q3: How did you respond to drought? Please share any successes or strategies.

neither promoted nor encouraged by my irrigation district and I receive no verification that the water actually remains in the river. A simple strategy would be to maximize the value of in-stream leasing, and monetize it, similar to a conservation easement. Long term leases, open enrollment periods, incentive payments, and requirements for irrigation districts to incorporate in-stream leases into their conservation plans would be a good start. I have also had success with individual landowners in changing the point of diversion on their land to take better advantage of the energy in gravity fed irrigation systems. The same or better results can be achieved with significant reductions and savings of both water and power. Consider the value of this strategy if it was adopted on a basin or district-wide scale.

41. Followed government attempts to address the issue and forge compromises among the stakeholders.
42. You can check in with Julie Smitherman, but the Ashland conservation efforts last summer were quite effective. Can they be sustained over the long term?
43. Our District members have been active in conserving water for some time now. They have invested time and money in conservation and efficiency projects including, piping and lining of canals and encouraging their patrons to move away from flood irrigation when possible. These prior investments paid off during the 2015 drought and continue to pay off today. The districts that have had the resources and support to implement conservation projects see the return every irrigation season. During last year's drought, however, no amount of conservation was going to make the water last to the end of the irrigation season, there simply was not enough natural storage in snowpack to meet the demand. The districts handled the drought in different ways, some districts reduced allocations to their patrons/water users for the whole season; others reduced allocations using rotations and scheduling of water users; others chose to provide their farms full allotment, but shut down the season earlier. No matter how the districts approached the water delivery during the 2015 drought, all districts had a shortened irrigation season. Finally, most districts increased their communication with patrons/water users and the community to educate them about water efficiency and conservation and making sure no one was using more water than allowable.
44. I watch water consumption and took out the lawn for a more natural landscaping
45. Used water more carefully
46. Use less. Plant drought tolerant species.
47. Had to irrigate more than normal

Q4: What actions should be pursued to better prepare for future droughts?

1. State adopts 3-5 year transition to the following: Seasonal muni water rates, acre-inch pricing for irrigation districts, and pulse flows of stored water to ensure adequate water for in-stream and irrigated water rights holders.
2. We need more conservation efforts in agricultural and urban communities, and we need tools that the public can use to be better stewards and monitor their usage.
3. Store more water when available during years with abundant precipitation.
4. We need stop subdividing land, which creates ever increasing demands on aquifers. The exception could be land close enough to Grants Pass to connect to Grants Pass's water system in the event of well failure. Grants Pass has a seemingly bullet proof water supply (Oldest water rights on Rogue River/Lost Creek Reservoir) Eliminating lawns would help, obviously!
5. More progressive conservation measures should be taken, particularly in the agricultural communities where the vast majority of water is used and there are tremendous opportunities to reduce losses and waste.
6. It might be possible to create cross system connections to help other systems
7. The irrigation districts that use most of the Deschutes water need to modernize and become much more efficient. I think the state should provide low-cost loans to the districts and/or farmers to upgrade their irrigation systems. Serious water metering needs to be done at every logical point, water wasters need to be cut-off from supplies, water should ONLY be allocated for verified agricultural uses...not watering lawns and the like. The rivers MUST have first priority in terms of water rights. It is ridiculous to "over-allocate" stream flows to the extent that the rivers could actually be sucked dry!
8. Right now I'm driving through California, and it's an object lesson in water mismanagement. 1) we need better control of how Ag uses water! Including Big Ag and Big Pot. Wasteful water practices, poisoning creeks with pesticides, and raising water-intensive crops (in California's case, really stupid things like almonds) are a matter of public concern, not just private corporate or family farm interest. (I grew up on a family farm and ranch. Not dissing farmers or ranchers. Just saying we need to be smarter and coordinate better among everyone.) 2) levy a serious luxury-water tax on wasteful, decadent water-slurping uses such as lawns, golf courses, giant fountains in desert housing developments, etc. You can't stop rich people from wasting our natural resources to the detriment of everyone else -- but you can make them pay. 3) incentivize individuals, landlords, businesses, landscapers, and HOA/housing developments to encourage ecologically sound practices such as replacing lawns with drought-tolerant xeriscaping, encouraging tenants and residents to hang-dry laundry, using leaves productively in landscape management instead of blaring leaf blowers, etc. Align water awareness with being local, being cool, saving money and the environment -- don't isolate water, make it part of a larger campaign that includes energy use and pollution in general! 4) public education component - hire a sophisticated branding company (local, duh!! Like Weiden + Kennedy or Plazm, someone really top notch who's been in Oregon a long time) to go well beyond the typical public interest style ad campaign, and instead align water and other sustainability choices as sexy, cool lifestyle branding (different campaigns for different geographical areas and demographics). Plan on a several-year, multi-layer campaign with social media, advertising, and content aspects, not just some one-off posters. Coordinate efforts with Travel Oregon and other stakeholders in Oregon's water future but also Oregon's brand. 5) team with universities to create long term solutions and experiments. What if U of O architecture school had an eco and water sustainability wing, and the

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State helped get them permission to build outside of Code? This could have additional benefits, such as for Oregon's many patients who have mold allergies, Multiple Chemical Sensitivities, and other illnesses that are made worse by current Code requirements and typical building practices. Let every home have a self-composting toilet. Re-educate designers and builders!

9. We need to guarantee better instream flows during all seasons to better protect fish and wildlife, and associated aquatic ecosystems. Until archaic water laws are overhauled, pass legislation to make ODFW-recommended minimum instream flows the most senior water right. The State needs to do a much better job of defining and enforcing water waste. Most flood irrigation may need to be defined as waste. Landowners should be allowed to lease water back to the stream for many years.
10. Increase conservation through regulation and incentives. Is conservation truly accounted for in the forecast of increased demand? In other words, with climate change and reduced snowpack, we will have to conserve and change how and when we use water. I think we underestimate the capacity to save water through conservation. If we had to, or even voluntarily with incentives and prudent foresight, we could cut back on wasteful irrigation practices in particular, both agricultural and urban. Another way to conserve water would be through increased re-use of treated wastewater. There is no good reason, other than misinformed public perception, that adequately treated wastewater cannot be used to irrigate crops, in particular crops like orchards and vineyards, i.e., crops that don't come in direct contact with the irrigation water.
11. We have a hundred year old water distribution system ...any relational future plan should start with the year's snow pack then divide the pie proportionally to all water right owners
12. We need more water in our rivers.
13. Having visited Australia regularly over the past 6 years, the rainwater collection system is well established. Although 500 gal tanks in the back yard are unsightly, with new construction they are neatly hidden from most vantage points. And everyone that I can see has at least one of these tanks if not two--so all share in the "eyesore" to the point that no one notices (except me as an outlier). Retrofitting homes to collect gray water and placement of "rain barrels" as holding tanks for watering gardens/lawns would be a step forward. And would show that urban folks are sharing in responsibility along with the Irrigation Districts who are trying (I gather) to retrofit their leaky canals to be efficient as well as actual farmers.
14. Put genuine effort into defining a 'carrying capacity' process - it is a process... not a number - at the state, regional and community levels. This will require reform in state land use law to revise the current policies which promote population growth and discourage honest planning at the local level. For example, the 20-yr. land supply mandate that requires communities to forecast population growth and provide a 20-yr. supply of land for jobs and housing inside urban growth boundaries needs to be repealed. The law should be that a local jurisdiction can have NO MORE THAN a 20 yr. supply. Another needed reform is to allow local jurisdictions to collect the full costs of providing infrastructure for new population growth. Very few jurisdictions come even close to collecting the full costs of population growth, but the situation is made worse because the state prohibits collecting Systems Development Charges (SDC's) for police, fire, libraries and schools. Developer interests will howl and cry that allowing full cost SDC's will increase the cost of housing. This is a lie. What these public subsidies do is prop up the speculative value of bare land. And what does that do? Discourages good planning. Why? Because developing modern urban settlement is a very complicated and usually requires larger sections of land, especially lands that follow natural features (such as rivers) as

Q4: What actions should be pursued to better prepare for future droughts?

	opposed to parcel boundaries. To plan properly for these larger areas often requires cooperation. Why should any landowner cooperate when the government is helping him pull a 'gotcha'? I suggest a carrying capacity process that gives citizens a chance to vote - say every six to ten years - on whether they want to continue these subsidies or not.
15.	Charge for irrigation water. Let the market decide what is a beneficial use. If the farmers can afford to put appropriately priced water on irrigated crops, then go ahead and use the water. If not, leave the water in the river. But charge what the water is worth. Stop giving it away.
16.	I am writing to advocate for two drought strategies. 1) In town, rain gardens and other ways of harvesting water off impervious surfaces and storing it in the ground (tanks are just too expensive to be widely used). While this won't replace the need for irrigation across the whole dry season, it can extend the season when irrigation is not needed by a couple of months depending on where you live. That's a lot of water saved. Also replacing lawns with native plantings and lots of mulch will vastly reduce water demand. 2) More innovatively, we need to do water infiltration in the upper watersheds. When we slow, spread and sink water in the upper parts of the watershed, it rehydrates the forests and surfaces below as late season flows, restoring springs and seeps, and providing water in the hot season when it's needed by plants and fish. The best ways to do this are: -- decommissioning logging roads and turning them into water collection swales without culverts that speed the runoff. -- laying logs on the ground on contour; this can be done while thinning some of smaller trees improving the health of the remaining trees and reducing water demand; with ground contact to prevent fire ladders, water runoff and debris will collect on the uphill side of the logs and infiltrate into the ground -- imitating the actions of beavers with check dams spreading water horizontally away from main stream flows
17.	Require medical marijuana grows to have legal water rights and not stress residential wells.
18.	As we live in a ranch area, I do think a hard look at water rights and how the old "use it or lose it" mentality is deeply entrenched. That entire management and allocation should be revisited given our new environmental conditions.
19.	The inherent needs of our rivers and streams need to be made the first priority for water allocation. Water rights for irrigation, municipal, and industrial use should come behind the basic needs and health of our rivers and the wildlife and natural systems that they support. Irrigators, in particular should be forced to update outmoded, inefficient water distribution systems. We should consider public funding (i.e. low cost loans) to facilitate this.
20.	Motivation toward reducing consumption and increased recycling
21.	Water should be allocated specifically for fish and wildlife.
22.	manage the water to maintain the vitality of our fisheries at the same time balancing needs of others
23.	Reduce ag demand through better watering practices: drip vs. spray.
24.	Seek to improve irrigation systems and districts' use of our precious water resources so water can be conserved instream and reservoirs.
25.	Higher winter CFS flows. It is not all about irrigation. Less water in the summer. Find some common ground.

Q4: What actions should be pursued to better prepare for future droughts?

26. More storage.
27. We need more storage and conveyance infrastructure. We need access to winter water rights out of the Columbia River.
28. Water conservation by agriculture. Replace prior appropriation with public-interest water management.
29. Increase water storage capacity in reservoirs through dredging and other management strategies, require all new development to have water saving features and onsite infiltration to landscape features. Big one here, work with or put regulatory pressure on irrigators to switch to more efficient delivery methods and to pipe canals!!!!!!
30. More instream rights, better planning to obtain public water supplies in less damaging ways, management of upper watershed catchments to improve retention.
31. Explore more water reuse projects and make it easier for people to use grey water. Explore the installation of more water storage projects for the replenishment of groundwater.
32. More education and flexibility regarding irrigation amounts and water usage to small/medium landowners. Specifically those in large irrigation districts. A better understanding of the basin wide efficiency of areas where multiple irrigation districts are located.
33. Higher instream flows, Irrigation system improvements, and a Water Management Agreement that codifies the rights and responsibilities of Instream, Ag, and Muni interests.
34. I think that there needs to be an awareness campaign that lets people in "water-safe" areas know that it's still a rare and shared resource. The price we pay for commodities should be a reflection of drought (do we really pay the actual cost of our manufactured goods?) I'd like to see people aware of water-intensive crops that are grown in deserts and encourage eating and supporting agriculture that grows what grows based on the climate of the place. We may have to forgo some things, but in the long run, not having those cheap strawberries or a new pair of jeans is better for the water world.
35. Lower summer water flows and raise winter flows.
36. Implement a plan for insuring more even and natural water flow of the upper Deschutes throughout the year. In particular in a drought situation do not open the damns completely in the summer months and drain out all of the water.
37. Large scale efforts to restore and conserve in-stream, riparian, and upland habitats to store, safely release, connect floodplains to raise water tables, and cool streams and rivers. Large scale efforts to improve infrastructures such as irrigation ditch piping projects, efficient irrigation equipment, reduce flood irrigation practices, educate and change habits by municipal water use to conserve.
38. Don't allow the water agencies to drain the watershed.
39. All water consumers should be made aware of actions they can take - whether homeowners converting lawns to landscape materials (hopefully native) that don't require a lot or any watering. Farms and nurseries should be required to do all and any conserving practices possible, like getting rid of overhead sprinklers and recycling any water possible. I oppose any new dams for irrigation - either the farms need to adapt to crops that use less or no irrigation or they won't survive. We need to leave plenty of water for fish and wildlife and can't risk impounding water for agriculture. We need better waste water plant practices so more waste water can be recycled for use in communities and on farms.

Q4: What actions should be pursued to better prepare for future droughts?

40. Better conservation of our water. More efficient irrigation and water usage.
41. Protect ecological flows or rivers, reduce waste by irrigators.
42. More education about the lack of water and how that will affect the community; how lowered river levels affect fish and plant life. Perhaps more education about what has happened in California; how people are losing their jobs and moving north; how more people in the area increases the demand on the availability of water. Institute an incentive program for people to reduce water consumption.
43. Educate people about what they can do, prepare cache gardens and rain gardens on public areas. Regulate agribusiness' use of water.
44. Encourage water conservation throughout Oregon.
45. Fines for people who waste water - if they need to learn the hard way, so be it.
46. Our community depends on the lake (reservoir) being full. Locals do not understand why protocol cannot be changed so that water is held back in early spring to assure a full lake during the summer season.
47. The state should work to better manage our state's water resources ahead of drought by mandating common sense management initiatives--i.e. measurement of ALL water diversions, enforcement against waste, setting irrigation efficiency standards by basin, etc. Additionally, during times of drought, the state should require mandatory conservation and curtailment that is directly tied to river flows and/or a conservation target, require that water management and conservation plans be updated to require meaningful curtailment/conservation actions to be triggered at certain stages of drought and/or set a conservation target, protect minimum flows on ecologically significant streams, establish emergency regulation temperature triggers for fishery closures during drought and establish a dry day fund to facilitate instream leasing during times of drought
48. Planning for a more frequent droughty future rather than delaying change and then reacting in alarmist ways.
49. Actions to be pursued to prepare and protect aquatic resources during drought include: increased monitoring, measurement, and documentation of water usage; increased enforcement of existing water laws; additional instream protections (including expansion of "Allocation of Conserved Water Program" to improve instream protection as well as encourage efficiency). It is important to establish instream water rights and provide for enforcement of water regulations to protect flows for fish, wildlife, and water quality as well as to include fish, wildlife, and water quality needs when planning and determining future water needs. These instream actions require funding, staff, resources, quantitative analysis, and a higher prioritization than currently given. The new strategy should require development of drought provisions to protect flows for fish and wildlife, and set minimum flows on ecologically significant streams.
50. Start treating the waters of the state as a resource rather than a commodity. The rights of individual water users, regardless of their priority or beneficial use are still junior to the rights of all the people of Oregon. Plan to create abundance rather than prepare for scarcity. These are not utopian platitudes, but pragmatic strategies with reachable goals and objectives.
51. Aggressively pursue compromises that would result in substantially increasing stream flow in the upper Deschutes River during winter months.

Q4: What actions should be pursued to better prepare for future droughts?

52. Obviously, continuing water conservation efforts. These are the "Low-hanging fruit" in any drought response program. We're not talking huge infrastructure changes and the public outreach efforts generally fall on receptive ears. As much as I hesitate to say it, looking at more water retention/storage structures/strategies, e.g., diversion of winter flashy stream runoff to (as appropriate/available) groundwater recharge zones, early irrigation fields (see some of the efforts in the southern Great Valley of California on this issue).

53. We cannot fully address drought and climate change without a discussion of the importance and need for increased water storage, particularly small, off-channel reservoirs. With increased precipitation and decreased snow-pack, it is essential that Oregon has storage options to prevent flooding and be able to release water later in the season when needed most for communities, crops, and fish. To better meet Oregon's diverse water needs, the new grant and loan fund for water storage, conservation and efficiency projects under SB 839 was created by the 2013 Legislature. The Water Projects Grant and Loan Fund recently committed $8.9 million to projects throughout the state, including funding a $3 million dollar project that will expand a reservoir in Hood River. The Oregon Water Resources Department has reserved approximately $5 million for a 2017 funding cycle. This program needs to receive more robust funding so that it can further impact our communities. In the first round alone, there were 37 project applications requesting $51 million dollars in funding. If the funded projects are successful, this program should continue to receive a multitude of worthwhile project applications from all over the state and we are doing the program a disservice by not increasing the funding pool. Additionally, we need to expedite the temporary instream transfer application process. There are many water users who would take advantage of this valuable tool, placing water instream for a season, if the process would be completed quickly.

54. Regional plans with strategies to achieve dramatic improvements in water conservation; innovative technologies in efficient irrigation; simplified process for safe graywater capture and reuse; widespread use of composting toilets where feasible, and waterless urinals; disincentives for permitting water-intensive land-uses in drought-prone areas; modification of water rights law so that unused water rights go directly towards conservation rather than transferred.

55. Help farmers transition to methods that decrease their water needs. Normalize water flow on the Deschutes to support fish, the spotted frog, and other wildlife to maintain quality of life and the integrity of this watershed

56. Require conservation by irrigators to allow more water to remain in the streams.

57. Start planning for additional water storage, preferably above the upstream limit of salmonids

58. Conservation!!

59. Put in local reservoirs to collect more winter water.

Q5: What most concerns you about the future with regard to water?

1. Lack of resources from State to conduct water law enforcement; lack of Fed resources to "up infrastructure" regional and nodal storage redundancy for drought and natural disasters.
2. Demand is going higher, but the climatic uncertainty is only making it more difficult to "have water whenever we want and as much we want." Unless efforts are made by public to be engaged in conservation efforts, policy efforts alone will not be very effective.
3. The application of the public trust doctrine to water allocation. Specifically reallocation of water previously permitted for irrigation to alleged environmental purposes.
4. Continuously expanding population, with finite water supply. Also, there's a huge number of illegal water withdrawals from steams, the number of which has presumably gone up since OWRD stopped their Stream-Walker program.
5. My concerns - a healthy river and healthy environment - seem to be lost behind industry concerns. There needs to be more emphasis on better sharing of water between uses.
6. The death of the Deschutes River.
7. More rain on snow may reduce available water for human uses and aquatic organisms. Continued human growth with excesses may further stress water availability. Reducing water loss is important, although some wells could go dry with increased piping of canals.
8. With the probable loss of snowpack, summertime supplies will be drastically reduced. How can we maintain a vibrant economy, strong agriculture, high quality of life for area residents, and a healthy environment, in particular, streams that support and nurture native fish and wildlife throughout the year.
9. Already the state has inventoried water aquifers…if an aquifer is depleted…the water board should limit all well users proportionally.
10. Wasteful use of water, especially by industry and agriculture.
11. Won't be enough of it to take care of all parties' needs --and the upper Deschutes clearly reveals what that means for a river.
12. Population growth will lead to stress; stress to excesses; excesses will beget more excesses; then people will start killing each other... and the whole gruesome cycle will continue again.
13. The condition of the upper Deschutes River and the impacts of irrigation withdrawal on the river. The IWRS Project Team needs to show they clearly understand this problem and what is needed to resolve this situation in the near future.
14. The costs associated with irrigation must be internalized. That is to say, there are costs associated with pumping rivers dry that are not reflected in what irrigators pay for the water. The fisheries are part of the public trust. Irrigated farming is private industry, not part of the public trust. Regulators fail to protect the public trust when they prioritize irrigation over fisheries and river ecosystems. Farms are important to the economy. Dryland farming is extensively practiced in north central Oregon and southern Washington. Dryland farming may not be as lucrative as irrigated specialty crops grown with Deschutes River water. But it's a good living that can be sustained alongside healthy fisheries. Regulators must protect the public trust before subsidizing irrigators with essentially free water. Water rights permitees need to step back and acknowledge that water is diverted with permission of those responsible for administering the public trust. That is what a permit is all about. Regulators should charge enough so that the market influences farm practices. In setting the price, consider the

Q5: What most concerns you about the future with regard to water?

	lost fisheries resulting from drawing down stream flows and raising water temperatures. My concern is that after a generation of ignoring minimum stream flow requirements, which were paltry and would not support healthy fisheries to begin with, the regulators are used to giving in. The Deschutes River has died a death of a thousand cuts. If its dead, why not take the last of the water and grow some more high value carrot seeds with what is left.
15.	The combination of changing climate with the damage we have done to our forests is extremely serious. We need to put regenerative practices to work in the forests in order to get the natural systems services we need.
16.	The over use of water for marijuana grows.
17.	Responding to politics and not a better balance of irrigation, environment and recreation.
18.	That no governmental organization will have the courage to force water wasters to become more efficient and our rivers and streams will therefore further suffer.
19.	I am very concerned that the river levels must be sustained to create a healthy environment for our fish.
20.	That we don't include recreational uses in our overall watershed planning. Quality of life should not be ignored while addressing this issue.
21.	Degradation of our environment when it is secondary to industry
22.	Not a balanced approach - too much focus and priority to agriculture.
23.	The value of recreation needs to be weighed in with agriculture.
24.	If no requirements for efficiency are placed on high water demand agriculture, business, and industry, they will simply continue current wasteful patterns. Greed and sloth are limitless demands. Water just isn't limitless.
25.	Year-round stream health. Too much water pushed through ("wasted?") in summer months. Not enough the rest of the year. Flows should be managed to be more consistent, and not allow reservoirs, particularly Wickiup, to be drawn down so much.
26.	Wasteful water practices that leave streams dry and decimate fish populations.
27.	How poorly the upper Deschutes is managed. The Deschutes needs to be managed as Wild & Scenic river not an irrigation canal.
28.	Everyone wants it to either play in it or look at it and doesn't respect the needs of agriculture.
29.	Oregon's outdated water right laws, lack of planning, lack of monitoring, lack of local knowledge in the State's processes and programs.
30.	How will changing water supply (timing and quantity) affect ecosystems?
31.	I am concerned that water, particularly water claimed and used by irrigation districts is not being used or valued in the best way. There is still a use it or loose it mentality that is killing us. I'm concerned about clean drinking water and aquifer health, but here in the Rogue the real issue centers on Ag use and miss use as I see it.

Q5: What most concerns you about the future with regard to water?

32. Connection between quantity and quality, effects of public withdrawals on quality.
33. Water quality is of greater concern than quantity (although they affect each other). Concerned about the impacts of climate change on wildlife habitat and changing environments that are no longer suitable for some species.
34. The Great Plains region and the Ogallala aquifer. The effects of running out of water in that region may affect the country as farmers look to claim new water from new locations.
35. The need to keep food/livestock production front and center in all discussions and for the Agency to acknowledge the Oregon Department of Agriculture as the leader in that conversation through a MOU.
36. Lawsuits interfering with our ability to work collaboratively with water rights holders. Concerns about the veracity of District commitments given the lack of an Agreement.
37. That people have little respect for it. It is taken for granted. I think that without a change of attitude and awareness, we will find ourselves in dire straits. Selfishly speaking, Western Oregon is blessed with rain, so it may become a refuge for people fleeing the southwest. More people will mean a greater strain on the resources. And the snowpack doesn't hold all summer....
38. Lower summer water flows and raise winter flows.
39. Protection and preservation of natural species, such as the Oregon Spotted frog.
40. Quantity and quality.
41. We live on the upper Deschutes River (Wild River La Pine) not to have a historic water flow in the non-growing season is environmentally reprehensible. It's now classified as a dead River. This is unacceptable and fraudulent as a new homeowner I bought this house under false pretenses will seek legal counsel as home value on a dead river is a tough sale.
42. That we won't have enough and that we will continue to pollute what we have. Waste water plants are not keeping up with the need to clean the water - we could have more water if we had better municipal waste water plants.
43. Growing food for the people and wildfires.
44. I think we have gotten complacent. I am most concerned about people not really believing or understanding that water across the globe is becoming more and more scarce; that only about 3% of the water on the planet is fresh water; that water is essential for life.
45. That we will not have enough.
46. Loss of potable water, loss of wildlife; the fact that this is merely a symptom of the greater global warming / climate change crisis and that many individuals in the agencies still deny that reality or fail to respond to it appropriately.
47. A future without water ... what do you think?
48. That no water or little water in the lake may become the norm. Our community would not be able to survive.
49. 1. Lack of protection of instream flow for fish, wildlife, recreation and clean water purposes: The state

Q5: What most concerns you about the future with regard to water?

should move forward on adopting instream water rights on stream that are currently not protected and should resolve the 60+ applications that have been protested. New instream water rights should protect the full suite of flows necessary for stream/fish health. We need continued progress on scenic waterway flows as well. 2. Lack of data: Good data is key to good water management and planning. The state should invest in data needed to better manage the state's water resources, including USGS basin investigations across the state, more stream gauges, instream flow studies (including peak/ecological flows) across the state, etc. As is, permanent decisions are being made (i.e. issuing of groundwater rights) without the benefit of data to ensure the state's decisions are sustainable. 3. Inadequate water management: Water management in this state continues to need to be improved, including measuring and reporting of water use. The state should set a 2020 deadline for the implementation of stage I of the 2000 Water Resources Commission Water Measurement Strategy, and then commit to measurement of all diversions w/i a decade of that. 4. Lack of enforcement of permit conditions and/or existing rules/laws: For instance permit conditions/rules/statutes require that water be used beneficially without waste, yet the state does little to ensure that irrigation and/or municipal users are efficiently using water without waste. The state should move forward with setting basin specific efficiency standards as contemplated in the Division 410 rules. 5. Equal attention to implementations and funding to instream portions of the Integrated Water Resources Strategy: The state is putting a lot of effort and money into implementing the development side of the equation of the IWRS. Fulfilling the instream portions should be a priority, including equal funding. 6. Accountability of water development funding: the state should institute a transparent and robust accounting of all projects that receive state funds to ensure that they are consistent with statutory directions and also that the projects move forward as committed to in grant applications. Moreover, if state funds are used for conservation projects, the state should require that the conservation project go through the Conserved Water Act.

50. A lack of planning for the future, one that may be water restricted. If we plan for drought in infrastructure and cultural habits when it occurs we are prepared and do not have to take "emergency" measures.

51. Oregon water usage has already outpaced the ability for the natural system to withstand withdrawals under current practices and regulations. An increase in demand and usage of water without a change in regulations and usage will render aquatic systems the losers in the state unless given a higher priority. Since the bulk of current and projected future water demand is expected to be agricultural, it makes sense to target conservation and efficiency in this sector. Agricultural producers need to be given financial and technical support to improve efficiency which will benefit water resources, fish, wildlife, and the state’s residents. The state needs to regulate and enforce existing water law and usage regulations including enforcement against waste and develop and implement basin-specific efficiency standards for agriculture. Our state’s water resources will benefit from OWRD collaborating with partners including other agencies such as DEQ to develop additional instream protections including setting standards to reduce the use and exposure of water resources to toxics and other pollutants and assist/support jurisdictions to implement and enforce water quality control plans and other action to protect water quality.

52. Climate change is slow death and my greatest concern is that government will fail to act with any decisiveness until the resource is depleted beyond repair. There are global indicators of the expansion of drought, which leads to famine and then to war. The bloodiest example we currently have is the drought in the Middle East that led directly to the civil war now raging in Syria.

Q5: What most concerns you about the future with regard to water?

53. Over-use of water from the Deschutes River will irreparably damage the ecology of the river.

54. In addition to population pressures, the transition from snow to rain, more intense rainfall patterns, and flashier stream behavior during the winter and early spring. The ramifications for late summer and early fall are frightening on a host of fronts: nature of fire season, irrigation, municipal water supplies....

55. Oregon is not prepared for our water future. Oregonians do not understand where their water and their food comes from, despite the increased popularity of farm to fork, community supported agriculture, etc. There is a basic misunderstanding about what it takes to get the water to where it is needed. It may take a crisis before Oregon wakes up and realizes our lack of preparedness. A large portion of Oregon's water infrastructure is long overdue for an upgrade, but there is an absence of funds to do the work. Oregonians do not understand the long standing impacts of drought and climate change, or the need for new water storage. Finally Oregon needs to champion policies that incentivize water users to participate in collaborative conservation efforts and partnerships between entities to meet the large water demand with little supply.

56. Low water levels changing the dynamics of the ecosystem of the upper Deschutes.

57. Increasing issues with water quality AND water quantity. The integrated water resources strategy needs to fully address the range of water issues. If important water-related challenges are not mentioned in the strategy, it will be difficult for residents, agencies, non-profits, and funders to see these issues as a priority. The intent of the integrated water resources strategy was to address "integrated" water issues. Drinking water availability and quality, and overall aquatic habitat and water quality are not adequately addressed.

58. Thinking only if water use for humans and not the environment. Lie water flow on the Deschutes in winter. With it too high in the summer

59. Irrigators will take all the water without adequate regard to other needs.

60. The possibility that even more groundwater may become contaminated.

61. Lack of responsible stewardship with regards to the Upper Deschutes River.

62. Wells are going deeper and deeper to get water. We are not protecting this resource long term especially for basalt wells.

Q6: Any other thoughts or comments you would like to share with the IWRS Project Team?

1. No
2. No
3. The most obvious and effective drought preparedness actions are to store more water during years with abundant precipitation and to use more surface water in lieu of groundwater where possible during years of abundance. Both of these actions would of serve to conserve water for drought years. OWRD must recognize that the concept of maintenance of seasonal varying flows is purposefully designed to first eliminate any potential for future enhancement of water storage and second to regulate current storage facilities out of useful existence for the irrigator community.
4. As a former member of Josephine County Rural Planning Commission, I (Malcolm Drake) was very disturbed to see at least one proposed subdivision's well flow tests that blatantly violated the rules, which are clearly stated in the Rural Land Development Code. Example: one well, when tested at full capacity of around 40 gpm, caused excessive drawdown in the observation well. The well was allowed to be retested, at only 5 gpm, and at that pumping rate, the observation well was only minimally drawn down. This totally violates the rules, and clearly does not protect neighbors' well's, since the new LARGE (40-50 lots; I don't remember the exact number) subdivision would presumably pump at a rate greater than 5 gpm. I don't know if this mishandling of pump tests is a continuing problem or not, but suspect it likely is. Unfortunately, OWRD quit providing expertise regarding water issues, when Ivan Gall transferred out of the area. That enabled planners to plead ignorance of RLDC'S water laws
5. Please focus in on developing real strategies to better balance water uses among the entire community....water is not just for those who "were here first" but, instead, should be for all values and uses in the community.
6. It's time to push the water consumers (especially irrigators) into SERIOUS action to make consumption more efficient and to restore normal stream flows in the upper Deschutes River (Wickiup Reservoir to Bend).
7. Need to move quicker with on-the-ground action and legislation changes, and less with continued studies unless they really tell us something we don't know.
8. If we need additional water, according to the IWRS forecasts, where will the extra water come from in the summertime if we're fully appropriated? I understand why total water use could increase in municipalities with increasing population, but why is there a predicted +1.5 gallons per day increase per capita? It seems with more efficient industrial processes, better residential irrigation systems and practices, and perhaps shorter showers, M&I use could go down or at least remain at 150 gal/day. Certainly with rationing it would go down.
9. The most senior water right holders in Oregon should be fish and wildlife. It is completely unacceptable for WRD to attempt to plan our water future without considering instream needs. In fact, instream needs should be given the highest rights. Decades ago, ODFW determined minimum instream needs for most rivers in Oregon and was granted junior water rights. Few if any rivers meet those minimum needs. ODFW water rights should be given the highest seniority.
10. I was impressed with the presentation, the commentary from the audience, and the ability of the chair people to keep on track and not be to offensive to those who wanted 10 minutes.

Q6: Any other thoughts or comments you would like to share with the IWRS Project Team?

11. If you don't put together a viable carrying capacity process your work is useless; indeed, dangerous because it just postpones the day of reckoning and makes intelligent planning more difficult with fewer reasonable options - Kinda like starting up the motor on a vehicle with no brakes (and lousy steering). I will not be alive to see the crash... but my children will.
12. Publicly acknowledge that minimum stream flows were established before most of the current staff of the WRD and ODF&W were born, and that minimum stream flows are routinely ignored. The beneficiary of ignoring minimum stream flows is farmers who want to grow specialty crops instead of using sustainable farm practices that thrive in the counties north of Deschutes County and along the Columbia River.
13. Thanks for letting the public comment. I would hope all of us either simple household consumers, ranchers and farmers and recreational users can find a better balance than there is today. Way too much at stake!
14. Minimum water flows in the upper Deschutes River need to be set at 300+ CFS...and this should be enforced! Un-used water rights should routinely be permanently returned to the river. Water wasters (i.e. lawn waterers, field flooders, etc.) should have their water rights cancelled. The public owns the water...not the irrigation districts!
15. Please consider the fish population in our state as you manipulate water levels for other interests!
16. Our environment, especially regarding our rivers, is more important than ANYTHING else.
17. 1) The cost of attempting to fix environmental damage is vastly higher than not breaking it in the first place. 2) A significant portion of Oregon's economy is recreation and environmentally based. Water needs for fish and maintaining the life of many of our rivers are being treated negligently.
18. Accelerate ag change to more efficient use of water.
19. I would like to see the state pursue water conserving policies and practices that encourage irrigation districts, developers and other high water use entities to conserve water and allow the increase of instream water flows.
20. Come up to Pringle falls in the winter and see the damage caused by low flows.
21. The map doesn't reflect that good farmable ground in North Unit ID could be developed and how little water NUID gets to raise crops.
22. Stop giving in to special interest groups and do what is right for the people and economy of Oregon!
23. As a restoration professional working in the Rogue and a fisheries biologist I think we need to establish base instream flows for all our major streams and regulate water use so that our streams don't go dry. It sickens me to see Bear Creek nearly dry, salmon stranded in hot pools, and mean while that water is just spilling off peoples poorly managed flood irrigated pastures and running down road ditches. We need to tighten up on water used by Ag. And start putting an appropriate price tag on that water. Also like to request that when it comes to access to water for use on restoration projects that the department consider establishing a protocol that prioritizes or at least outlines a way for access to that water to be prioritized over other less beneficial (to the ecological river system) uses.

Q6: Any other thoughts or comments you would like to share with the IWRS Project Team?

24. Pay more attention to instream needs.
25. Agriculture/Livestock production is not only necessary for feeding Oregonians, but it is a necessary element of the State's economic structure.
26. I attended and spoke at the OWRD Integrated Water Resources Strategy Open House. Dave Dunahay (COF), myself, and other environmental stakeholders emphasized that the 2015 Statewide Long-Term Water Demand Forecast does not include increased instream demands at all, and that the oversight invalidates the Forecast and sends the wrong message to instream interests. For example, 500 cfs Winter flows (the likely long-term flows needed to fully address Oregon Spotted Frog recovery) demand 155,000 acre feet of water. That is a 13% increase in the total statewide demand forecast, and it does not even consider instream demand increases in all of the other Oregon Basins. Clearly, the forecast info needs to include increased instream demands in order to be useful. Just as clearly, for the forecast and planning to be credible with instream interests, instream demands need to be considered up-front and on equal footing with Agricultural and Municipal demands. At the meeting, we also had private conversations with OWRD Regional Manager Kyle Gorman, Deschutes Basin Watermaster Jeremy Giffin, OWRD Place Based Planner Harmony Burright, and OWRD IWRS Manager Alyssa Mucken. I agreed to submit my remarks in writing and there they are.
27. I'm glad you're on the job. Good luck.
28. Lower summer water flows and raise winter flows.
29. You need to look at the bigger picture and not just how much water is available for irrigation.
30. If we just help change people’s habits and practices, we will be well on our way to solving many issues surrounding droughts.
31. Remember one world. All of gods creatures have to live in it...
32. You need to do extensive outreach if your project is going to succeed.
33. Water rights must be respected but all the new marijuana growers.
34. Our system of establishing instream water rights (IWR) is broken. Only 10% of the state’s water has instream water rights and most of them don't meet those goals in the summer. State Parks only applies for IWR's only when mandated by the initiative process or told to by the Governor. DEQ hasn't applied for an IWR in over 20 years and ODFW has 69 rights that are contested since the late 1980's and has been sitting on 400 applications since 2012. They have no money to properly study the state's needs to protect the public's interest. When determining future water demands the department needs to consider not just the IWR's but our rivers (all of them) ecological needs including water quality. The ELOHA modeling system might be appropriate for determining the ecological needs. The current demand model only has consumptive use projections. How will the instream needs change as the climate warms?
35. Thank you for your efforts.
36. The trend or decreasing snow water equivalent in mid to high elevation snowpack is clear. The projection for this to decrease substantially under the 'business as usual' emissions scenario tells us

Q6: Any other thoughts or comments you would like to share with the IWRS Project Team?

	we are only experiencing so far a minor inconvenience compared to what future Oregonians will experience. Addressing water shortage demands reducing the emissions of greenhouse gases regionally and globally. This means all state and federal agency personnel must recognize the root of the problem and promote addressing it.
37.	No, but, thanks for trying and good luck to us all.
38.	I think that the planning boards in cities and counties need to work to reduce the amount of hard/non-permeable surfaces in urban residential areas. This will allow more precipitation to penetrate into the ground having a positive effect on water tables and when we do have rain events capture stormwater in the ground instead of having it runoff overloading water treatment systems. This will lower infrastructure costs and reduce pollutants in surface waters.
39.	Convey to the Governor that situation is critical, and the current antiquated system of allocation is untenable in the face of climate change. We can no longer support a system that not only encourages, but exploits waste for financial gain.
40.	Thanks for your efforts at pro-actively staying in front of an emerging issue. Don't be hesitant to engage others in the water resource community as you deal with legislators and the legislative process; as you know, the more voices speaking to a common issue...
41.	Water is AWESOME!!!!
42.	The upper Deschutes used to be a prime Rainbow Trout fishery. It is becoming a Brown Trout fishery. This is not right.
43.	In addition to soliciting comments from the general public, it is very important for OWRD to involve the full array of partner agencies in developing strategies.
44.	Please normalize the water flow on the upper Deschutes River especially in winter to protect the wildlife and quality of life.
45.	The draft update to the Integrated Water Resources Strategy does not consider the needs of fish, wildlife, or recreation. These are major economic drivers for Oregon. Your strategy must include protections that address the needs of fish, wildlife, and recreation.
46.	Recently moved to an area near the upper Deschutes river. I'm shocked by the fluctuations in river flows and reservoir levels. Currently there is no way a healthy ecosystem can be maintained with the extreme variations in flow and water level.
47.	Please address the dropping well water levels soon as studies show that we are over using basalt wells to compensate for other reduced water sources.