

**SCRIPT: IWAC IRRIGATION DESIGN  
STANDARDS VIDEO**  
DRAFT 1  
8/29/18

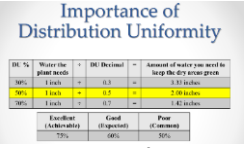


VIDEO	Len	AUDIO
<p>Irrigation sprinkler on center pivot and in lawn. Sound of a Rain-bird (pivot sprinkler).</p> <p>Outdoor lawns, flower beds, etc.</p>		<p>Lush green lawns. Vibrant flowers. From April to October, they provide the backdrop for outdoor activities in the Inland Northwest.</p>
<p>Present data graph of municipalities pumping and the seasonal increase. Months on x axis. Millions of gallons on y axis; animate an arrow rising?</p>		<p>During this time, irrigation rates in our area rise dramatically...in fact, half of the water we use annually is applied to landscapes.</p>
<p>5-mile prairie overwatering photos – Dan Kegley. Sprinkler watering hardscapes.</p>		<p>But how much of that water is necessary?</p>
<p>Water being used for showers, washing dishes.</p>		<p>And how do our irrigation practices affect the Spokane Valley-Rathdrum Prairie Aquifer, our main source of water...</p>
<p>Spokane River, outdoor camping? Or Rafting, fishing.</p>		<p>...and the Spokane River, one of the main reasons we and many visitors to our area love the Inland Northwest.</p>
	:03	<p>NATS water on the falls, or someone enjoying the river (fishing or rafting).</p>

Map of the SVRP aquifer area.	:45	The SVRP aquifer stretches 370 square miles...
Person drinking water.		and is the designated sole source of drinking water for over half a million residents in the Spokane and North Idaho area.
River/water path from aquifer to Lake Spokane. Could be animation; Start with Idaho.		Water from our aquifer flows into and out of the Spokane River...on to the Little Spokane River...and ultimately into Lake Spokane.
Images/animation of water flowing into lakes, or seeping out.		Area lakes are also fed by, or through ground seepage restock, our aquifer.
Home or business construction	:03	NATS FULL
Graphs showing rates of new home development. Construction sites: Rathdrum Prairie, Spokane Valley.		Our population is growing, and so is demand for water to support that growth.
Water delivery pipes, storage systems. Drilling rig in action.		Water providers have limited water rights, and creating new delivery systems, and drilling wells is expensive.
Housing construction.		While water supply and cost aren't much of an issue yet, efficient use of water is critical to ensure it will be available at a reasonable price, and healthy enough to sustain growth.
Outdoor recreation on river, lakes. Include Idaho. Low river water just east of Sullivan.	:55	Spokane and North Idaho's outdoor recreation industry is booming...it brings millions of dollars into our local economy each year. Full and healthy rivers and lakes are key to maintaining

Commented [TMS1]: I'm working on securing an actual figure, for more impact.

		and growing that revenue, so important to our future.
Worker installing irrigation.	:03	NATS FULL
Person working on irrigation system.		One way to protect our water resources is to refine irrigation practices.
Sullivan reach area of Spokane River.		Irrigation water is drawn from, and flows back into the aquifer, area lakes, and Spokane River, affecting both their volume and health.
Water runoff, sprinklers spraying on the road, water carrying oil into storm drains.		A well-designed system is efficient. It uses only enough water to sustain healthy plants. And it doesn't produce runoff that might carry harmful waste, fertilizer, herbicides or other chemicals into our water system.
Closeup of the most efficient types of sprinkler heads.		Through education and planning, it's estimated that landscapes can be well maintained using 20-50% less water than is being used now.
Companies installing sprinklers.	:57	Currently, irrigation installation is the only part of the construction process that doesn't require a permit, certification...or any experience.
Person observing, checking their irrigation system, adjusting timers.		Model design standards for irrigation systems are being developed. But other steps can be taken immediately to improve systems,

		conserve and protect water, and reduce water cost.
<p>Video/voiceover of Bijay explaining Distribution Uniformity.</p>  <p>Distribution uniformity table from Bijay's presentation. (Slide 7)</p> <p>Aerial examples of poor water distribution.</p>		Distribution Uniformity tests evaluate the performance of an established irrigation system.
<p>Bijay on cam, then VO with graphs/Slides of before and after water distribution is corrected.</p>	:10	
		Once you've done the testing, you can match sprinkler heads with your coverage needs, improving system performance.
<p>WaterSense label, irrigation components with the label.</p>		You can also retrofit irrigation systems with EPA "WaterSense" products, "certified to use at least 20 percent less water, save energy, and perform as well or better than regular models."
<p>Pivot sprinklers being replaced, drip lines and rotor heads in use.</p>	:47	<p>Evaporation is a primary source of water waste.</p> <p>Replace less efficient pivot sprinklers with drip and rotator heads, which produce larger drops of water less susceptible to evaporation.</p>
		Adapt your irrigation system for the microclimate where you are watering.
<p>Drier land around a building or home.</p>		For example, sun and wind exposure lead to higher rates of evaporation...it's more efficient

Soaker hoses and drip systems in use.		to use soaker hoses and drip systems under these conditions.
Hot, sunny conditions; sprinkler going.		Avoid watering in the heat of the day, 11:00 a.m. and 6:00 p.m., when evaporation rates are the highest.
Sprinkler	:03	NATS FULL
Various soil conditions.		The Inland Northwest is home to a wide variety of soil types. Each retains and transports water differently. System components, and watering schedules, should match the specific soil type where you are watering.
Cutaway graphic of water running through sandy soil, past the plant roots.		For example, water runs quickly through sandy soil or thin topsoil, so heavy watering isn't necessary to reach plant roots. But you may need to water lightly and more often to keep plants healthy.
Freshly-planted lawn  Mature lawn	:53	Watering programs should encourage plants to grow deep root systems that reach down for water, requiring less frequent top irrigation. As plants mature, adjust irrigation systems to avoid water waste.

Seasonal changes, how can we show water need changes?		Also adjust system controls several times throughout the irrigation season, to match climate changes that affect watering needs.
Smart sensors, rain sensors, controllers being adjusted.		Or install smart controllers, which automatically adjust sprinkler run times based on local weather conditions, reducing water usage, and cost.
Broken components, watering sidewalk or street,  Video/voiceover of Ron White story of water recovery in East Greenacres allowing for more homes to be built.		Check systems regularly during the watering cycle for broken heads, leaks, and inefficient watering. The amount of water recovered can add up, and have a significant impact.
Backflow device, maybe graphic showing how it works?		A well-designed irrigation system should also include a backflow device, which prevents water from bringing contaminants into your household water.
Smartscape/Spokanescape/Wisescape example?	:03	NATS FULL
Smartscape/Spokanescape example, before and after.  Chart showing cost before and after, time spent on maintenance before and after.		If refining your irrigation system can reduce water usage by 20-50%, conservation landscaping can reduce your water bill even more...and also reduce time spent on landscape maintenance.

Native plants, trees and shrubs in landscaping. Hardscaped areas.	Remove lawn, and introduce native plants that thrive in your area's climate and natural soil conditions. Or install hardscape...which requires no water at all.
Spokane County bar chart use of water by months now and 2040.	Water use is rising. Efficient use of water is critical to keep costs as low as possible.
Inland Northwest landscape, people active outside.	The Inland Northwest isn't really a well-kept secret anymore. Its beauty, range of outdoor activities, and lower cost of living continue to draw people here to visit...and entice them to stay.
Sprinkler planning (people discussing?).  River rafting, camping, other water activities.	A thoughtful approach to irrigation is a way to help extend the benefit, and joy, we get from our region's natural water resources, into the future.