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Utah Division of Drinking Water

Evaluation Plan: Determining Indoor and Outdoor Water Capacity Requirements

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Executive Summary

Currently the Utah Division of Drinking Water (DDW) is undergoing a legislative audit concerning the indoor and outdoor water capacity requirements as outlined in Utah Administrative Code R309-510-5, R309-510-7, and R309-510-8. These regulations are set in place to ensure that each water system has sufficient water storage capacity to meet peak day demand, meaning demand on the day of highest water consumption. Land developers believe that the current requirements are not reliable guidelines and have lobbied the State legislature to review the standards.

Currently, the indoor water capacity requirement for community water systems is 800 gallons per day per connection. The outdoor water capacity requirement varies across the state depending on the elevation and geographical location. DDW has determined six different zones throughout the state with each zone having its own specific outdoor water capacity requirement for peak day demand.

The Division of Drinking Water anticipates three recommendations from the auditors:

- Clarify the language in R309-510-5, which specifies the process to qualify for a reduction in the capacity requirements.
- Reduce the indoor water capacity requirement as outlined in R309-510-7
- Increase the outdoor capacity requirement as outlined in R309-510-7

In order to address these recommendations, DDW needs to establish a process to determine if current indoor and outdoor water use throughout the State is higher, lower, or in line with the capacity requirements set out in the current regulations. By examining current water use, DDW can establish realistic and reliable water capacity requirements to ensure Utah residents sufficient access to clean drinking water.

DDW will first identify and approach Utah drinking water systems to participate in the data gathering process. Over the next three years, DDW will collect water use data from participants to monitor average peak day demand and use the information to set drinking water storage capacity for the state.

The collection and analysis of indoor water use data will be carried out by DDW while outdoor water use data analysis will be performed by independent contractors. A major challenge to the process will be collecting adequate data from participants. The most accurate data is obtained from electronic SCADA monitoring systems, which many Utah water systems do not possess. In order to obtain reliable data and attract participants, DDW may need to aid water systems in obtaining the necessary funds to purchase or reconfigure SCADA systems.

Purpose of the Evaluation

The Division of Drinking Water regulates the quantity and quality of drinking water. Our evaluation will focus solely on indoor and outdoor water capacity requirements as outlined in R309-510-5, R309-510-7, and R309-510-8.

DDW has recently undergone a legislative audit to evaluate the accuracy and practicality of the regulations. Specifically, the Division anticipates three recommendations from the auditors:

1. Clarify the language in R309-510-5, which specifies the process to qualify for a reduction in the capacity requirements.
2. Reduce the indoor water capacity requirement as outlined in R309-510-7
3. Increase the outdoor capacity requirement as outlined in R309-510-7

To address these concerns, DDW will look at current water use in the state and reexamine the current regulations.

In order to examine current water use, DDW will need to collect indoor and outdoor water use data from various types of community water systems from throughout the State of Utah. However, DDW does not currently have a process in place to gather the data necessary to determine current water use. The purpose of this evaluation plan is to establish a data collection process for the needed water use data. After the data is collected, it will be analyzed to determine the ideal indoor and outdoor water capacity requirements for community water systems to ensure that Utah's citizens receive "adequate quantities of water which consistently meet applicable drinking water quality requirements" (R309-510-1).

Specifically, the data collection will be used to answer the following questions:

- What is the appropriate indoor water capacity requirement that can be used by all community water systems?
- What are the appropriate outdoor water capacity requirements for each of the six outdoor water use zones?

Stakeholder Analysis

Evaluation stakeholders are those that will make decisions as a result of the completion of this evaluation. After DDW carries out the evaluation, they will address the legislative audit by identifying realistic water system capacity requirements. These new requirements will be strongly supported by quantitative evidence gathered from this evaluation. Additionally, DDW will be in a position to make further regulation changes as needed in the future. The state legislature will approve the new requirements from the information gathered by DDW and endorse the new regulations.

Table 1: Evaluation Stakeholders

Stakeholders		Actions to be Taken
Evaluation Stakeholders	Division of Drinking Water	Formulate responses to legislative audit recommendations.
		Identify realistic water system capacity requirements.
	State Legislature	Recognition that steps are being taken by DDW to resolve the concerns of the audit.

Stakeholder-Evaluator Relationship

As the evaluator and one of the principal stakeholders, DDW is very interested in crafting an evaluation that is sound and accurate. Some of Utah's water systems may be hesitant to cooperate with the evaluator because it may require that they change their data collection and management practices, while others will willingly cooperate in order to obtain accurate and useful data.

Though not antagonistic, many land developers and state legislators would like to see DDW conclude that current storage capacity requirements are too restrictive. They would like this result because it would mean decreased planning, engineering, and construction costs.

The legislative audit was instigated at the request of the state legislature. Many legislators are former real estate developers or have ties with developers. DDW is under pressure to make necessary changes but is eager to make changes that will aid in its attempt to provide and regulate best practices for drinking water in Utah.

Process Overview

Expected Impact of Regulation

DDW will improve and update capacity regulations for drinking water systems, provide oversight and enforcement, and facilitate compliance. This will be possible by supplying increased funding to a representative sample of water systems to allow them to install or reconfigure SCADA systems. These SCADA systems will lead to the detailed collection of accurate water use data from both separate and combined culinary and irrigation lines through concentrated man hours to install and program SCADA systems. This relationship between water systems and DDW will continue over the next three years as the water systems regularly provide DDW with water-use data.

If DDW incentivizes individual water systems to use SCADA systems, the division will be able to accurately track peak day demands for both indoor and outdoor use resulting in more accurate statewide water use standards. These accurate standards will ensure adequate quantities of safe drinking water to citizens year round.

Currently this process is in the development stage and has not been implemented. Thus, this is a formative evaluation and assumes (1) water systems' willingness to participate in data collection and (2) that adequate funding will be available to upgrade SCADA systems for participating water systems.

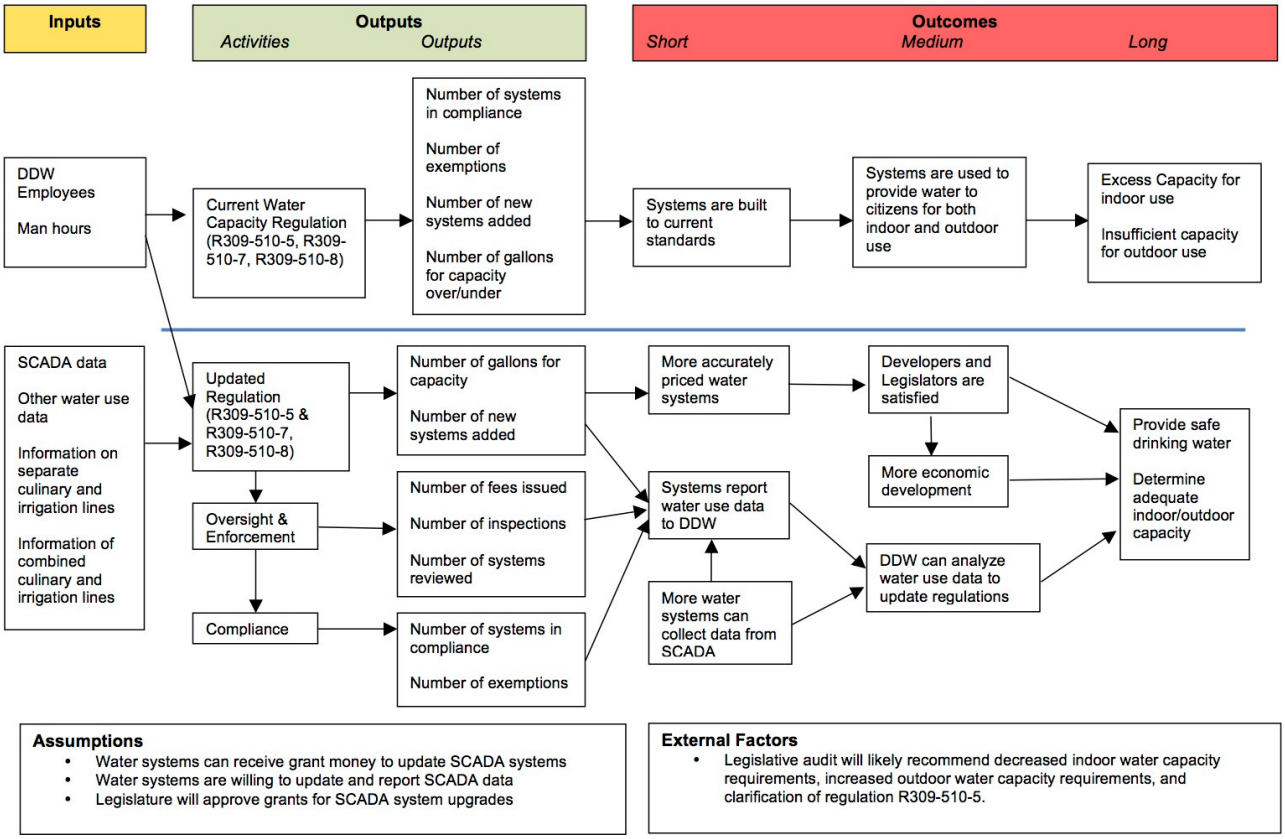
Logic Model

The following graphic shows a logic model the impact of regulation changes, or the general flow of this process. The logic model consists of inputs, activities outputs, and short-, intermediate-, and long-term outcomes. Inputs are the resources that are needed to accomplish the activities of the process. Outputs are the direct quantitative results of the activities. Outcomes are qualitative results of the activities. This logic model outlines (1) how the department functions under the current water capacity regulations and (2) the process to develop updated regulations.

The logic model is designed around these two evaluation questions:

1. What is the appropriate indoor water capacity requirement that can be used by all community water systems?
2. What are the appropriate outdoor water capacity requirements for each of the six outdoor water use zones?

Logic Model



Assumptions

- Water systems can receive grant money to update SCADA systems
- Water systems are willing to update and report SCADA data
- Legislature will approve grants for SCADA system upgrades

External Factors

- Legislative audit will likely recommend decreased indoor water capacity requirements, increased outdoor water capacity requirements, and clarification of regulation R309-510-5.

Evaluation Plan

The evaluation will be carried out by the Division of Drinking Water in cooperation with the selected water systems. The water systems will gather data on daily home water use through SCADA systems and send that data to DDW for analysis. If DDW finds itself understaffed, it may want to consider working with engineering students at local universities to analyze the data.

The DDW's response to the audit recommendations will rely on participation from an accurate and representative sample of Utah's water systems as well as uniform data on water use. Internal validity will be a major concern for all stakeholders.

Data Analysis Approach

DDW will take a hands-on approach to this evaluation effort by providing funding, programming, and training for and in SCADA systems in order to gather necessary data in a representative sample of drinking systems throughout the State. DDW will use a stratified random sample to ensure that that the data they receive will reflect the accurate levels of water use in different subsections of the State, while tracking this data through a time series of three years. Each drinking water system will regularly submit their SCADA data that has been pre-programmed to deliver the water data appropriate for DDW to analyze. Engineers will then use this information to rewrite Utah Administrative Codes R309-510-5, R309-510-7, and R309-510-8.

Outcome Measurements

Table 2 provides information detailing the interpretation of the measurement, methods of analysis, and possible results. In order to answer the long-term outcome questions, DDW will collect interval outdoor and indoor peak-day demand data in each water system over a three-year time period. The unit of analysis will be either source metering data or individual service connection metering data, depending on the type of data the water system is able to collect. When the data is collected, the data should be cleaned and coded in order to have organized and accurate data. The data will be analyzed using Excel spreadsheets to calculate the maximum, minimum and average peak day demand per connection.

Other variables that may be included are county/location (rural versus urban), water system size (large versus small), water system type (residential versus mixed use, seasonal use versus year round, etc.), and if a secondary irrigation system is available in the service area. If possible, DDW should also gather yearly average demand for indoor use, water loss percentage, and whether a water system has a tiered water rate structure that promotes conservation.

In this process, short-term outcomes are measured by the representativeness of the sample population from which DDW will gather water use data. Table 3 specifies the

effectiveness of a survey, which represents DDW's efforts to recruit and provide assistance to the water systems necessary to build a representative sample of the State of Utah. The representative sample will include the following types of water systems: small and large systems, systems from the different irrigation zones, systems from rural and urban areas, and systems that have secondary systems.

Table 2: Long-Term Outcomes

Measure of data	Analytic method	Possible results	Interpretation
Current **indoor** capacity regulation compared with actual indoor water use	Indoor water use data collected through SCADA	Use is below current capacity regulations	Decrease capacity regulation
		Use matches current capacity regulations	No change
		Use is above current capacity regulations	Increase capacity regulation
Current **outdoor** capacity regulation compared with actual outdoor water use	Outdoor water use data collected through SCADA	Use is below current capacity regulations	Decrease capacity regulation
		Use is equivalent to current capacity regulations	No change
		Use is above current capacity regulations.	Increase capacity regulation

Table 3: Short-Term Outcomes

Measure of data	Analytic method	Possible results	Interpretation
A representative sample of water systems	Survey	Large representative participation	Positive
		Adequate sample	Neutral
		Inadequate participation yielding unrepresentative sample	Negative

Measurement Tools and Approach

The first measurement tool will be a survey sent out to the state's 468 culinary water systems to identify eligible water systems who can, or could with SCADA data upgrades, provide daily water use data per household (refer to appendix D). From those water systems that are capable and willing to provide data, the evaluators will identify a stratified sample to ensure a representative sample. Eligible water systems will be selected to participate based on available funding for that water system to obtain or reconfigure their SCADA data system to collect the appropriate data needed.

The second measurement tool will be a monthly survey administered to the participating water systems to collect daily water use data. Water systems will report daily indoor and outdoor water use per connection. This data will be collected for a minimum of three years. Once sufficient data is collected, a regression model will be created to predict the ideal indoor and outdoor capacity requirements.

Evaluation Stages

This evaluation plan can be carried out by going through five major stages: Identify a Representative Sample of Water Systems, Install or Reconfigure SCADA systems, Gather Data, Analyze Data to Identify Peak Day Demands, and Update Regulations. These steps are explain in more detail below and the timeline for these stages is described in Table 4.

Identify a Representative Sample of Water Systems

To identify a representative sample, DDW will distribute the Participation Survey (see Appendix C) to all 468 community water systems.

Distribute Survey

The first step in this stage is to distribute the survey and encourage the water system administrators to respond. To ensure the highest response rate possible, several reminder emails will be sent out; one will be sent by Ken Bousfield several days before the survey is distributed to explain the purpose and importance of the survey and encourage all to respond. About a week after the survey is sent out, a reminder email will be sent to those that have not responded to encourage them to respond by the survey deadline.

Analyze Responses

The second step will be to analyze the responses and identify a representative sample of willing and capable water systems. This representative sample will include small

and large systems, urban and rural systems, systems from different irrigation zones, and systems with and without secondary water systems.

A statistically significant sample would require at least 40 water systems to be analyzed. Budgetary constraints may not allow for this to happen. Due to this reality, it is recommended that at least one large and one small water system from each zone be analyzed.

Contact Selected Water Systems

The final step in this stage will be to contact the selected water systems and coordinate needs and the timeframe for the installation or reconfiguration of the SCADA system.

Install or Reconfigure SCADA systems

This stage will be carried out by SCADA system engineers. The number of systems to be installed and reconfigured will depend on the available budget resources.

Gather Data

This stage will occur over three years in order to collect an adequate amount of data, specifically peak day data. (1) The first step in this stage will be for the DDW analyst to create an online shared database where each participant water system can upload their SCADA data. The participating water systems will be instructed on how to upload their data to this database. (2) The analyst will monitor SCADA data collection to ensure that each water system continues to upload monthly SCADA data to the shared database.

Analyze Data to Identify Peak Day Demands

(1) After the end of the third summer of data collection, the DDW analyst will clean the data to ensure accurate and complete data. (2) The analyst will then analyze the cleaned data to identify the minimum, maximum, and average peak day demands. (3) The final step for the analyst will be to propose new indoor and outdoor capacity requirements to the DDW engineers.

Update Regulations

(1) Once the DDW analyst has proposed new indoor and outdoor capacity requirements, the DDW engineers can begin drafting the new capacity requirement regulation for R309-510-7. (2) The drafted regulation will then go through the rulemaking process for the Division of Drinking Water and the Department of Environmental Quality.

Limitations

The data collection process faces several potential threats to the validity of the results. However, the process is designed to overcome these validity threats. The threats center on the administration of the first survey sent to all water systems. The following list shows how the survey will address threats to validity.

- Mono-operation bias: The survey employs multiple questions to comprehensively address each concept.
- Mono-method bias: The survey collects both qualitative and quantitative data.
- Attrition: Survey distributors will send an initial introduction email from Ken Bousfield and monthly reminder emails.

A major potential limitation to this project is funding. DDW currently estimates SCADA installation costs to average $30,000. Due to unknown and widely variable reconfiguration costs, it is expected that 10-16 systems will receive DDW aid for SCADA upgrades.

However, there are others funds available to assist water systems install or reconfigure SCADA systems. A potential solution to this problem is the use of government grants from the Community Impact Board or other similar state programs. For more information, refer to Appendix C.

Budget and Responsibilities

Resources

The resources required to perform the proposed evaluation include time, money, and personnel. The evaluation will require the hire of one full-time or temporary staff to coordinate data collection with the study of water systems, analyzing the information, and proposing recommendations to change the current regulations. This staff would work an average of 30 hours per week for 2-3 years at a salary of $40,000 per year. At the same time, the evaluation will require approximately $100,000 to hire outside consultants or a university team to analyze and research outdoor water use information and produce a summary report on their findings and recommendations. Additionally, the evaluation will require $300,000-$500,000 to help participant systems purchase and reconfigure SCADA systems.

DDW should help participants obtain funds to purchase or reconfigure SCADA systems. Due to budget constraints, DDW will be limited in the funds it can provide to participants; however, other funding sources may be available. Water systems in rural Utah may apply for grants and/or low-interest loans from the Utah Permanent

Community Impact Board Fund (CIB). The Utah Community Development Block Grant program can also provide grants to eligible water systems. DDW should also assist participants in approaching their counties and regional associations of governments for funding opportunities.

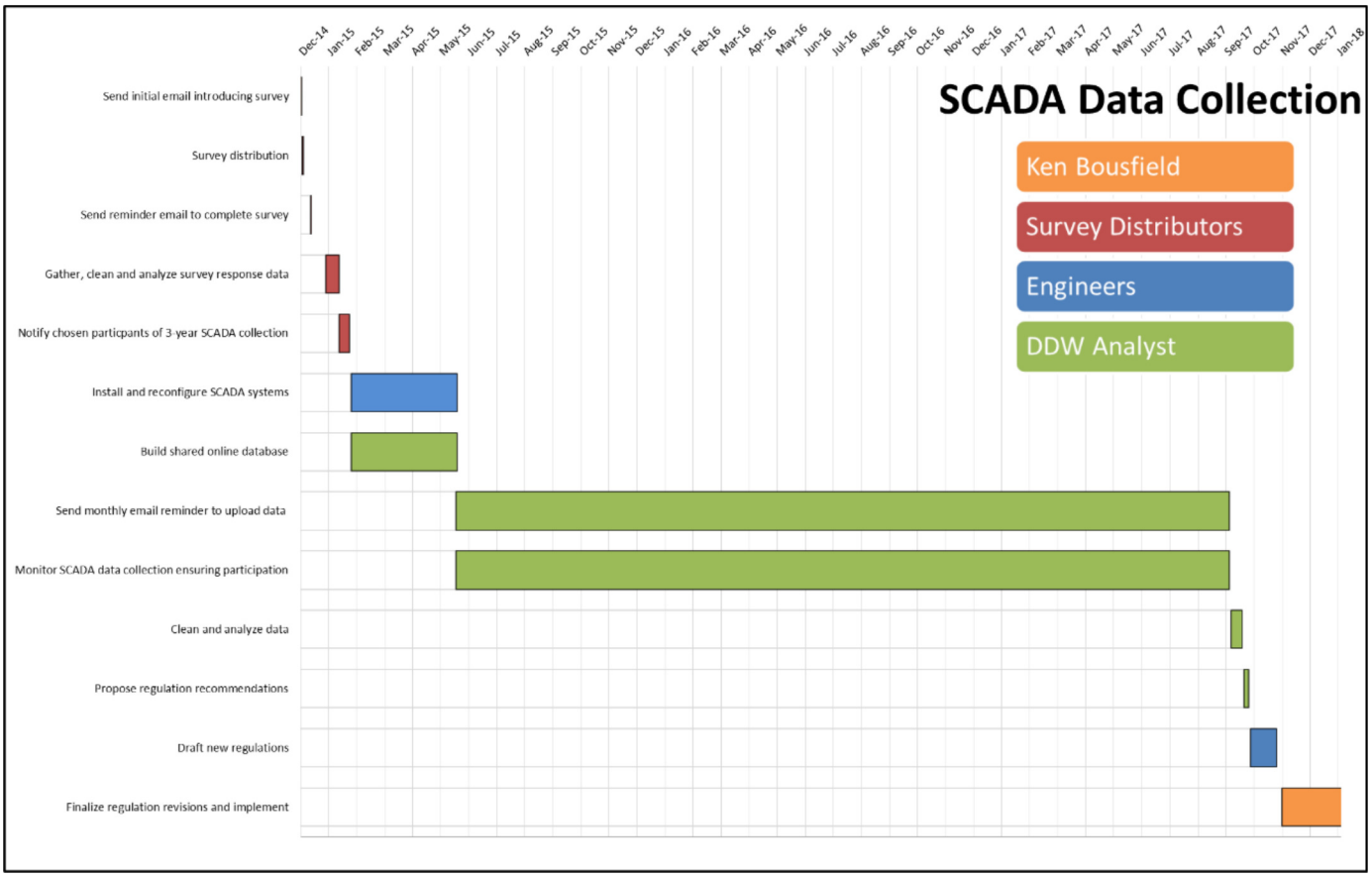
Timeline

The data collection process will ideally take place over the next three years. The identification and selection of participant water systems will begin in December 2014.

By May 2015, the participant systems will be able to provide adequate and uniform water use data to make informed decisions. Data collection will continue for two years until the end of summer in 2017, at which time DDW will analyze the data and begin drafting revisions to the storage capacity regulations. The final regulations will take effect in early 2018.

This timeline may be delayed if participant water systems are unable to obtain or reconfigure their SCADA systems. Details on the timeline of this process are shown on the following pages.

Process Timeline



Responsibilities

Table 4 below describes the responsibilities assigned to each person throughout this evaluation plan and the timeline by which the responsibility must be finished.

Table 4: Responsibilities Chart

Responsible	Task	Start Date	End Date
Ken Bousfield	Send initial email introducing survey	12/8/14	12/8/14
Survey Distributors	Survey distribution	12/10/14	12/10/14
	Send reminder email to complete survey	12/19/14	12/19/14
	Gather, clean and analyze survey response data	1/5/15	1/19/15
	Notify chosen participants of 3-year SCADA collection	1/20/15	1/30/15
Engineers	Install and reconfigure SCADA systems	2/2/15	5/29/15
DDW Analyst	Build shared online database	2/2/15	5/29/15
	Send monthly email reminder to upload data	5/29/15	9/29/17
	Monitor SCADA data collection ensuring participation	5/29/15	9/29/17
	Clean and analyze data	10/2/17	10/13/17
	Propose regulation recommendations	10/16/17	10/20/17
Engineers	Draft new regulations	10/23/17	11/20/17
Ken Bousfield	Finalize regulation revisions and implement	11/27/17	1/31/18

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Conclusion

This evaluation will further the Division of Drinking Water's mission of "supply adequate quantities of water" (R309-510-1) to the State of Utah. By collecting data from an adequate representative sample of water systems, DDW will be able to identify accurate water usage in the state and draft appropriate storage capacity regulations. The new regulations that result from this evaluation will ensure that the citizens of Utah always have sufficient water for their culinary and irrigation needs. Additionally, the broader use of SCADA data throughout the state will permit the Division as well as the participant systems to consistently monitor water use in the future. This will allow DDW to continue to collect useful information on water use, identify trends, forecast future water use, and facilitate future changes to capacity regulations if necessary.

Appendix A: Literature Review

For years, water use has been the subject of a large number of studies regarding conservation, use measurement, distribution technology, supply management, and countless other subjects. As water technology and use standards continue to change, being familiar with the findings in these studies can be key to developing efficient and correct technology, standards, laws, etc. Utah's Division of Drinking Water (DDW) is about to receive a legislative audit regarding their current capacity regulations for both drinking and irrigation water systems. In order to correctly identify these new capacities, the following studies and literature reviews can provide accurate and appropriate background to help DDW reach a correct decision.

The main issue that DDW faces is a lack of water use data to create new capacity standards for water systems. With new technology such as SCADA or other programs, water use data can be collected and analyzed making it easier to create these capacity standards (Mayer et al. 2009; 2004 & Sarma and Rao 1997). Therefore, DDW desires to incentivize water systems to gather data from SCADA by providing grants or other means (Mayer et al. 2009). By collecting data from a large variety of areas and system types, they will make more accurate decisions that will positively affect them in the future (Adamowski 2008 & Chung et al. 2008). This is the basis of the process to be employed by DDW.

Water systems will benefit by using this new technology. Costs will decrease as systems identify peak day demand and adjust capacities accordingly (2004; Blokker, Vreeburg, and Dijk 2010). In addition to cutting costs, systems will be able to conserve potentially large amounts of water (2005; 2004 & Haley, Dukes, and Miller 2007).

In addition to cutting costs and conserving water, the data collected from water use measurement technology can lead to the development of forecasting models (Arbuésa, García-Valiñasb, and Martínez-Espiñeira 2003; Blokker, Vreeburg, and Dijk 2010 & Zhou et al. 2002). These forecasting models can further contribute to cutting costs and predicting water overuse and outages (2013). A model, in addition to an efficient, large-scale water supply management will be the best and most efficient way to plan for future water demand changes (Chung et al. 2008).

Appendix B: References

2004. The Residential Runoff Reduction Study. Municipal Water District of Orange County Irvine Ranch Water District.

2005. Landscape Irrigation Scheduling and Water Management. edited by Jim McCabe: Water Management Committee of the Irrigation Association.
2013. South Orange County Water Reliability Study 2013 Update. Municipal Water District of Orange County.

Adamowski, J. 2008. "Peak Daily Water Demand Forecast Modeling Using Artificial Neural Networks." Journal of Water Resources Planning and Management no. 134 (2):119-128.

Arbuésa, Fernando, María Ángeles García-Valiñasb, and Roberto Martínez-Espiñeira. 2003. "Estimation of residential water demand: a state-of-the-art review." The Journal of Socio-Economics no. 32 (1):81-102.

Blokker, E., J. Vreeburg, and J. van Dijk. 2010. "Simulating Residential Water Demand with a Stochastic End-Use Model." Journal of Water Resources Planning and Management no. 136 (1):19-26.

Chung, G., K. Lansey, P. Blowers, P. Brooks, W. Ela, S. Stewart, and P. Wilson. 2008. "A general water supply planning model: Evaluation of decentralized treatment." Environmental Modelling & Software no. 23 (7):893-905.

Haley, M., M. Dukes, and G. Miller. 2007. "Residential Irrigation Water Use in Central Florida." Journal of Irrigation and Drainage Engineering no. 133 (5):427-434.

Mayer, Peter, William DeOreo, Matt Hayden, Renee Davis, Erin Caldwell, Tom Miller, and Peter J. Bickel. 2009. Evaluation of California Weather Based “Smart” Irrigation Controller Programs. Aquacraft, Inc. Water Engineering and Management. Sarma, P.B.S., and V.V. Rao. 1997. "181-195." Agricultural Water Management no. 32 (2).

Zhou, S.L, T.A. McMahon, A. Walton, and J.Lewis. 2002. "Forecasting Operational Demand for an Urban Water Supply Zone." Journal of Hydrology:189-202.

Appendix C: Contact Information

The Permanent Community Impact Fund Board (CIB) provide grants and low-interest loans to state agencies and subdivisions of the state which are socially or economically impacted by mineral resource development on federal lands. Subdivisions of the state include counties, municipalities, special service districts, water conservancy districts, and water improvement districts.

Eligible applicants must submit an application requesting funding for a specific project. The application is reviewed at one of three review meetings held by each trimester by the board. Approved projects will then be reviewed in a funding meeting held at the end of each trimester, where funding may be awarded. Projects regarding drinking water must also submit a detailed technical review of the project to DDW. CIB contact info is listed below.

Community Impact Board www.jobs.utah.gov/housing/cib	Division of Drinking Water- CIB Liaison
Candace Powers Program Manager 1385 S. State Street Salt Lake City, UT 84115 801-468-0131 cpowers@utah.gov	Nathan Hall Division of Drinking Water 195 North 1950 West Salt Lake City, UT 84114 801-536-0048 nhall@utah.gov

The Community Development Block Grant (CDBG) is a federal program administered by the State of Utah. Grants are used to create a suitable living environment and expand economic opportunities in municipalities of fewer than 50,000 people and counties of fewer than 200,000 people. CDBG funding is awarded on a continual basis throughout the year. Utah CDBG contact information is listed below.

Cheryl Brown CDBG Manager 1385 S. State Street 801-468-0118 cbrown@utah.gov	Mary Jacobs CDBG Program Specialist 1385 S. State Street 801-468-0124 mjacobs@utah.gov

The regional associations of governments (AOGs) can assist water systems in their areas apply for and obtain funding for SCADA systems. In particular, each AOGs regional planner can assist water systems with CIB and CDBG applications. The regional planner contact information is listed below.

AOG	Counties	Planner
Bear River AOG	Box Elder Cache Rich	Brian Carver 170 North Main 435-713-1420 435-881-4369 brianc@brag.utah.gov
Six County AOG	Juab Millard Piute Sanpete Sevier Wayne	Emery Polelonema 435-893-0713 epolelon@sxcounty.com P.O. Box 820 (250 North Main) Richfield, UT 84701
Five County AOG	Beaver Garfield Iron Kane Washington	Gary Zabriskie 435-673-3548 Gzabriskie@fivecounty.utah.gov P.O. Box 1550 (1070 West 1600 South, Bldg. B) St. George, UT 84771
Southeast Utah AOG	Carbon Emery Grand San Juan	Michael Bryant 435-637-5444 ext. 414 mbryant@seualg.utah.gov 375 S. Carbon Ave. Price, UT 84501
Uintah Basin AOG	Daggett Duchesne Uintah	Cody Christensen 435-722-4518 codyc@ubaog.org 330 East 100 South Roosevelt, UT 84066
Mountainland AOG	Utah Wasatch Summit	Robert Allen 801-229-3813 rallen@mountainland.org 586 East 800 Nort Orem, UT 84097
Wasatch Front Regional Council	Salt Lake Davis Weber Tooele Morgan	Val John Halford 801-363-4250 vhalford@wfrc.org 295 North Jimmy Doolittle Rd. Salt Lake City, UT 84116

Utah Division of Drinking Water

in collaboration with the

Block 3

The Utah Division of Drinking Water is looking for water systems to participate in a data collection program in order to track peak day demand. This data will aid the Division in determining ideal indoor and outdoor water system capacity.

Please answer the following questions.

General Information

Name

Email Address

What is your water system name?

What county are you in?

How many service connections do you have?

Do you have a secondary irrigation system in your service area?

- Yes
- No

Water Flow Monitoring

Do you currently have a SCADA system for your water system?

- Yes
- No

If no, how do you monitor flow or demand in your water system?

Do you have a means to monitor peak day demand (e.g., the day of higher water use in a year)?

- Yes
- No

If you keep historical water data, would you be willing to share that data with the Division of Drinking Water?

- Yes
- No

Participation

Would you be willing to share your future water use data with the Division of Drinking Water for analysis?

- Yes
- No

Would you be interested in updating/reconfiguring your water system data collection method to gather the data needed for revising the regulations?

- Yes
- No

What would encourage you to participate in collecting water use data?

What would prevent you from participating?

- Cost
- Expertise
- Lack of resources
- Lack of interest
- Other

Block 4

Thank you for completing this survey. Please click Next to submit your responses.