



# Water Conservation Awareness and Education Plan

*A proposal to:* **Pleasant Grove City**

*Presented on:* **April 14, 2015**

***“Water is the life-blood of Utah's environment... water holds everything together--making the land inhabitable by people and wildlife.”***

[conservewater.utah.gov](http://conservewater.utah.gov)

# Table of Contents

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<b>1</b>	<b>Current Situation</b> .....	<b>3</b>
<b>2</b>	<b>Solution</b> .....	<b>3</b>
2.1	Objectives .....	4
2.2	Approach.....	4
2.3	Benefits .....	4
<b>3</b>	<b>Implementation Plan</b> .....	<b>5</b>
3.1	Phase I – Years 1-5 .....	6
3.1.1	Light Volume Consumers .....	6
3.1.2	Large Volume Consumers .....	7
3.1.3	The Water Wise Pledge .....	7
3.2	Phase II – Years 6-10 .....	7
3.2.1	Light Volume Consumers .....	8
3.2.2	Large Volume Consumers .....	8
3.3	Phase III – The Second Decade.....	8
<b>4</b>	<b>Budget</b> .....	<b>9</b>
<b>5</b>	<b>Conclusion</b> .....	<b>10</b>

# 1 Current Situation

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Water is our most precious natural resource in the state of Utah and in our wonderful City. The proper use of this resource makes Pleasant Grove City a beautiful and inviting place to live, work, and play. The overuse of this resource will cause us and our posterity serious problems in the near and far future. We must protect and conserve water whenever and wherever possible.

Our current consumption of water within the City is well above what we need and what we can afford. According to Pleasant Grove Public Works, the implementation of unmetered secondary irrigation increased our consumption of secondary water by almost four times. (see PG Public Works Department report on Water Usage) and is continually increasing. If left unchecked, this could create major shortage of water resources for future generations.

We can do better, we must do better, we will do better. With this Water Conservation Awareness and Education Plan, we can help our current and future generations be aware of the need to conserve, how to conserve, and how to help others conserve our water resources. Without some significant changes in our water usage in the next several years, we will see our resource dwindle and our beloved City become less inviting and self-sustaining.



# 2 Solution

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The Pleasant Grove Beautification and Shade Tree Commission (hereafter referred to as the Commission) believes that we can change our water future by educating the Pleasant Grove residents on the need to conserve and how to conserve. We believe that with education, regulation, and monitoring, we can not only lessen the amount of water we currently use, but benefit the residents of Pleasant Grove City with lower water costs, healthier yards and green space, and a unified community approach to water conservation

The Commission recommends we focus on **three key elements** to affect positive change. These three elements include **education, regulation, and monitoring**. The Commission recommends these elements to be implemented with light volume consumers (individual residents) and large volume consumers (public services, city grounds and parks, schools, churches and businesses). The Commission believes efforts with these two consumer types will prove effective in reducing the amount of water we consume now and for future generations. The Commission believes this approach over 5-20 years will bring positive change in the way our community views, uses, and conserves our water resources.

The Commission is partnering with Public Works to help in the water conservation effort. Public Works will maintain and implement the Water Conservation Plan. This plan is extensive and includes actionable items for water conservation and water use growth, focusing on the **regulation and monitoring** of water usage. The Commission will use the Water Conservation Awareness and Education Plan (hereafter referred to as the Education Plan) and focus on **education and awareness** for Pleasant Grove citizens and businesses.

## 2.1 Objectives

The objective of the Education Plan is:

***“Help all residents, churches, schools, and businesses conserve water by informing and educating on the what, why, and how of water conservation in PG City.”***

To measure the success of this program, there must be clearly defined goals which can be measured. Therefore the following goals are proposed:

- Reduce the consumption of all water by light volume (residents, homeowners) and large volume consumers (public services, city grounds and parks, schools, churches and businesses), by 30% within 10 years.
- Provide an ongoing educational and awareness program for all consumers within 3 years, beginning with light volume consumers and working into large volume consumers.
- Develop a self-perpetuating program of awareness, education, and monitoring within 10 years and review/adjust this plan every 5 years.
- Create a sense of urgency, responsibility, and community collaboration to protect our water resources and help one another be accountable within 10 years.

## 2.2 Approach

It has been shown that education and awareness is key to helping a community embrace the concepts and actions related to water conservation. This is a long term process that will take collaboration between the Commission, PG citizens and business owners. The Commission will lead out in promoting water conservation and awareness.

To accomplish the stated goals, customized education will be provided for large volume and light volume consumers. The education of light volume consumers will differ from that of large volume consumers in that it is a broader group and will require longer saturation time to get the message ingrained into the community. The Commission believes helping the light volume consumers reduce their consumption is the first priority as it will make the deepest impact on our resources. Educating the large volume consumers will be enhanced by having our citizens aware and involved in the efforts. The details are outlined in the Implementation Plan below.

## 2.3 Benefits

We are confident awareness and education will help carry on efforts of citizens to be water wise. We are confident that water conservation measures taken now will benefit and positively impact many generations to come. Failure to implement this plan will result in lack of essential water in the near and far future. The benefits will include, but are not limited to:

- Citizens will have more available water resources for a longer period of time.
- An educated and responsible core of residents and businesses who will help transfer knowledge and practical application to future generations.
- The City will be setting a local precedent to influence not only our local community but other adjacent communities and possibly the entire state of Utah.



***The benefit of following this plan is the protected resource of water for our future generations.***

### 3 Implementation Plan

The implementation plan consists of several phases with a step-by-step approach designed to help the City achieve the objectives. Research shows many communities taking up to twenty years to really see a shift in the way their citizens think about conserving water; however, proponents believe this shift will occur more quickly in Pleasant Grove due to the current state-wide conservation campaigns and initiatives.

The phases are associated with years of the plan and create a stratagem to follow/adapt as needed.

Implementation Plan Phases		
Phase	Focused Efforts On:	Actions:
<b>Phase I (Years 1-5)</b>	Light Volume Customers	<ul style="list-style-type: none"> <li>Identify and develop distribution channels such as door hangers, flyers, website, social media, parade, school assemblies, water audits, etc.</li> <li>Build schedule for each distribution channel.</li> <li>Launch the Water Wise Pledge</li> <li>Complete 50% of educating light volume consumers</li> </ul>
<b>Phase I (Years 4-5)</b>	Large Volume Customers	<ul style="list-style-type: none"> <li>Work with Public Works to implement metering</li> <li>Create an Information Packet to be distributed to all large volume consumers (include in Welcome packet from City)</li> </ul>
<b>Phase II (Years 6-10)</b>	Light Volume Customers	<ul style="list-style-type: none"> <li>Work with Public Works to implement metering with an Information Packet</li> <li>Increase education saturation through our communities</li> <li>Complete 100% of educating light volume consumers</li> </ul>
<b>Phase II (Years 6-10)</b>	Large Volume Customers	<ul style="list-style-type: none"> <li>Focus on the Water Wise Pledge for large volume consumers</li> <li>Determine a rewards system for large volume consumers that reduce their consumption by 30%</li> </ul>
<b>Phase III (Years 10-20)</b>	Light Volume Consumers AND Large Volume Consumers	<ul style="list-style-type: none"> <li>Continue education plan through identified channels and on schedule</li> <li>Adjust plan for new technology and environmental changes</li> <li>Adjust information available</li> <li>Consider a reward system for those consumers leading the way</li> </ul>

## 3.1 Phase I – Years 1-5

The first five years of the Education Plan are the most crucial. To ensure longevity of the Plan, there must be clearly defined roles and strategies. It will define what efforts are made on an annual basis to promote the Plan to all consumers in the City.

### 3.1.1 Light Volume Consumers

Identify and develop distribution channels such as door hangers, website, social media, parade, school assemblies, water audits, etc.

- **Website:** The [beautiful.plgrove.org](http://beautiful.plgrove.org) website will hold the bulk of the educational materials. Other channels of distribution will share limited pieces of information and encourage citizens to visit and use the website as a resource
- **Social Media:** Social media is a great channel to communicate with and engage the younger populations. Reminders, announcements, and informational tips will be shared through social media channels and encourage further education with resources on the website. To reduce duplication, the City social media channels will be used until momentum demands dedicated channels.
- **Flyer/Door hangers:** These materials will be developed from information assets on the website and can be changed as needed through the years. Some examples are ways to conserve water indoors, suggestions on how to reduce water consumption in the yard, helpful tips on where to get more information, etc. This information will be used as handouts at all Commission functions, the Strawberry Days celebrations (parade and garden tour), etc.
- **Magnets:** A magnet will be made available to remind people of key information about conserving water. This information will need to be more static (not changing) in nature and will lead people back to the website. Distribution of the magnets can be accomplished through the utility bill mailing in the spring or through door hanger packets.
- **Parade entry:** With a large number of our PG citizens at the parade (and others from surrounding communities), it is a great opportunity for a mass publicity push. A simple vehicle entry with a Banner and handouts could help spread the word about the water conservation movement and help educate the citizens and point them to the website for more information
- **Free Water Checks:** Sprinkler water checks can be performed for individual residents by a Commission member or a volunteer (Eagle scout projects). This will help tremendously with the education for water conservation and help the residents understand their role in helping in this effort. Training will be provided for volunteers/scouts and will be based solely on the [www.SlowTheFlow.org](http://www.SlowTheFlow.org) initiative.
- **Assemblies With Activity Book (4<sup>th</sup> grade):** The Commission will coordinate with elementary schools within the City limits for assemblies in the Fall and the Spring to help educate the 4<sup>th</sup> grade students on water conservation as part of their studies of Utah. The Fall assemblies will focus on indoor water conservation and the Spring assemblies will focus on outdoor water conservation.
- **Coloring Books:** These coloring books will be available to our younger citizens (under 4<sup>th</sup> grade) as a way to help educate them about water conservation and living in a desert state. The coloring books can be handed out at different City and Commission events such as the Arbor Day Celebration, Garden Tour, etc.

All of these channels will focus on education and promoting actions to be taken to conserve water including having a free water check and taking the Water Wise Pledge.

### 3.1.2 Large Volume Consumers

In Phase I, the main focus will be for the Commission to work with the PG City Public Works Department to implement metering on each large volume consumer water system. This will enable true measurements of usage and monitoring. Included with this metering will be a general information packet about the conservation efforts in PG and what is expected from large volume consumers.

- **Metering:** It is understood that Public Works is planning on metering secondary water usage for large volume consumers during the first phase of this Plan. When these meters are installed, an information packet will be issued to the consumer and will include the information described below. With this information and the metering, the large volume consumers should find the financial benefits along with the community efforts encouraging their involvement and participation in the Plan.
- **Information Packet:** The information packet for large volume consumers will be provided by the Commission and Public Works and will consist of the following information:
  - Letter from the City or the Commission
  - Information on our current water situation and our goals
  - Suggestions on how to save water indoors and outdoors for a large volume consumer
  - How to take the Water Wise Pledge
  - Guidelines on watering techniques and suggestions for outdoor conservation
  - How to contact the Commission for further information
- During the last year of Phase I, Public Works will be metering all large volume consumers to help reduce water consumption. This step may need to be adjusted based on available funding, technology, and resources.

### 3.1.3 The Water Wise Pledge

To increase involvement and consumer engagement with these efforts, the Water Wise Pledge will be launched. This pledge will require a consumer to take certain steps in their conservation efforts. To encourage participation, a drawing could be held monthly for a simple prize for all those who pledge during that month. To complete the Water Wise Pledge a consumer must

- Complete a Free Water Check from the Commission and implement suggested adjustments to conserve water
- Discuss as a family the water saving information on the beautiful.plgrove.org website regarding how your family can conserve water indoors and outdoors
- Implement at least three water reduction techniques indoors immediately

Once a consumer has completed the Water Wise Pledge, the Commission will send them a "I Am Water Wise" window display for them to help promote the Plan. They will also be entered into a drawing (to be held every 2 months) for a simple prize.

## 3.2 Phase II – Years 6-10

The second five years of the Education Plan are very important to stabilize the education and regulations put forth in phase I. In Phase II, the actions are as follows.

### **3.2.1 Light Volume Consumers**

- After reaching 50% PG residents with the education campaign efforts in Phase I, work with Public Works to implement metering. Metering efforts for large water consumers will occur in the latter part of Phase I. Based on success and timing of those meters, the details of metering light volume consumers will be implemented during Phase II. Public works will determine the implementation schedule and details while the Commission will provide an information packet to be distributed as metering is installed. The packet will include many of the education and communication pieces developed in Phase I.
- Increase education saturation through our communities: With 50% education reached during Phase I, it will be important to continue the education efforts into Phase II. All the same channels will be used and will be adjusted as needed to reach all members of our communities by the end of Phase II.

### **3.2.2 Large Volume Consumers**

- Focus on the Water Wise Pledge for large volume consumers: Once large volume consumers are metered and the light volume consumers are taking the Water Wise Pledge regularly, it will be a natural process to then focus on helping the large volume consumers participate more fully by taking the Water Wise Pledge themselves. This will be a big step as it will show that schools, churches, and businesses are involved in our community and willing to conserve our resources.
- Determine a rewards system for large volume consumers that reduce their consumption by 30%: Because the large volume consumers will be metered, measuring the reduction begin immediately. Showing our appreciation for a significant effort to reduce consumption will be very important to maintain momentum in our conservation efforts. A “special” window badge to promote a 30% decrease in consumption could be beneficial. Also, some reward should be considered to add value to this effort.

## **3.3 Phase III – The Second Decade**

The Commission believes that the first two Phases will be very successful in water conservation education and involvement of the residents. The second decade of this plan will be used to continue our water conservation efforts. This phase will be adjusted according to the needs of our communities at that time. The goals will be:

- Continue implementation of education plan through identified channels
- Adjust plan for new technology and environmental changes
- Make adjustments as new information becomes available
- Consider reward system for consumers leading the way



## 4 Budget

The cost of doing nothing is far greater than any cost of implementing this Water Conservation Awareness and Education Plan. The monetary expenses to implement this Plan are minuscule compared to the long term benefits from teaching a generation to conserve our natural resources.

In the beginning of this program, there will be a budgetary need for this Plan from the City. This budget is outlined in the budget schedule below. However, after metering is implemented for large volume consumers, some of the revenue from overuse fees could be used to continue funding this Plan.

Metering is not included as a cost of this awareness and education plan. It will be a cost directly associated with the Public Works department as they move forward with their metering plans. It is only suggested here as a way to measure and reduce water consumption. The water over use fees resulting from metering could partially be used to fund the ongoing education and awareness efforts of this plan, thus reducing the need for constant budget items for the Commission.



***The cost of doing nothing is far greater than any cost of implementing this Water Conservation Plan.***

Education Channel	Amount	Each	Yearly Cost
Maintenance of website	1	\$200.00	\$200.00
Flyers	2000	\$0.25	\$500.00
Door Hanger bags	2000	\$0.05	\$100.00
Magnets	2000	\$0.30	\$600.00
Banner for parades, events, etc. (2)	2	\$60.00	\$120.00
Activity Book for 4th graders	1000	\$0.82	\$820.00
Coloring Books	1000	\$0.61	\$610.00
Information packets	200	\$0.50	\$100.00
I Am Water Wise window sticker	500	\$4.31	\$2,155.00
Pledge drawing prizes	6	\$50.00	\$300.00
Business Windows badge recognition	200	\$4.54	\$908.00
<b>Totals</b>			<b>\$6,413.00</b>

Education Channel	Phase I Years					Phase II Years				
	1	2	3	4	5	6	7	8	9	10
Website	X	X	X	X	X	X	X	X	X	X
Social Media			X	X	X	X	X	X	X	X
Flyers/door hangers	X	X	X	X	X	X	X	X	X	X
Magnets	X	X		X		X		X		X
Parade entry	X	X	X	X	X	X	X	X	X	X
Assembly presentations		X	X	X	X	X	X	X	X	X
Free water checks	X	X	X	X	X					
Coloring books and info offered at events	X	X	X	X	X	X	X	X	X	X
Info packets to large water consumers						X	X	X	X	X
The Water Pledge (window sticker/drawing)	X	X	X	X	X	X	X	X	X	X
Large consumer window badge program						X	X	X	X	X

- The Public Works department has funding for \$1000 per year to put toward the Plan costs.
- Donations and fund raising will be used to fund \$1313 of the yearly costs.
- With that funding available and with each channel of education being implemented on different years, the budget requested from PG City to fund this Plan is **\$4000** per year for up to 20 years.
- This budget request does not include any current Commission budget. This is an additional on-going budget request.

## 5 Conclusion

Now is the time for Pleasant Grove to conserve water. Pleasant Grove residents, businesses, schools, and churches must be educated regarding the needs, problems, benefits, and responsibilities surrounding water conservation. If we act now, we can take advantage of the state wide conservation education efforts being sponsored by State officials. Through this 20+ year plan, Pleasant Grove City can lead the state in water conservation, and be an example to other cities and communities. Together we can raise the next generation of informed citizens and extend this most precious water resource for generations to come.