



# ***Utah's Water Future***

## Local Perspectives on Water Issues In the Salt Lake Valley & Beyond

Summary Report of the 2014 Household Survey Findings



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## Overview

In the summer of 2014, researchers from Utah State University, the University of Utah and the iUTAH Project (innovative Urban Transitions and Aridregion Hydro-sustainability) undertook a large survey of households on water issues across 23 neighborhoods in Cache Valley, Salt Lake Valley, and Heber Valley. Our goal was to assess household water use and resident perspectives on water issues within their city, valley, and state.

We used a “Drop-off/Pick-up” method where 16-page surveys were dropped off with willing, eligible participants at randomly selected households in the study neighborhoods and picked up from their front door within a day or two. When we were unable to reach residents at their door, surveys were sent by mail. Participants had the option to request results, and those reports will be sent in summer 2015.

The following topics that were included in the survey are presented in this report:

### I. Household Water Uses & Perspectives

- A. Familiarity with Water Use
- B. Lawn and Outdoor Watering
- C. Use of Water Conservation Practices
- D. Motivations to Conserve
- E. Secondary Water Systems

### II. Water Perspectives & Experiences

- A. Perceptions of Water Supply
- B. Risk Perceptions
- C. Perceptions about Water Use and Water Quality
- D. Experience with Flooding
- E. Climate Change Perspectives

### III. Water Policy & Management Perspectives

- A. Support for Local Water Management Strategies and Policies
- B. Support for State Water Strategies

### IV. Additional Information

- A. Water Information Sources
- B. Satisfaction with Neighborhood and Community



This report highlights findings from the survey data for **six neighborhoods in the Salt Lake Valley, Utah**, located in four cities (Riverton, South Jordan, West Jordan and West Valley City) as well as the unincorporated area of Millcreek. For comparison, we also include results from neighborhoods in Salt Lake City and the Cache and Heber Valleys<sup>1</sup>. Additional reports from the study can be found at [www.iutahpsecor.org/hhsurvey](http://www.iutahpsecor.org/hhsurvey).

<sup>1</sup> More detailed information is available upon request from the project coordinator, Dr. Douglas Jackson-Smith who can be reached at (435) 797-0582 or [doug.jackson-smith@usu.edu](mailto:doug.jackson-smith@usu.edu).

## METHODS

In the Salt Lake Valley, the survey was conducted between June and early August 2014.

### *Sampling*

We randomly sampled 180 households in specific neighborhoods located in Riverton (where there were 749 housing units to pick from<sup>2</sup>), 180 in both West Jordan (1,750 housing units) and West Valley City (477 housing units). We selected 180 households in two neighborhoods in the Millcreek area: Canyon Rim (a place with an estimated 385 housing units) and an area in the lower Millcreek area between 1300 and 1100 East (with 603 housing units). We also sampled 200 households in South Jordan (a neighborhood with an estimated 2,271 housing units).

Neighborhoods were selected to represent a diversity of land use, land cover, housing mix, and demographic attributes. See the map on next page for location of our selected study neighborhoods across the Salt Lake Valley.

Samples of this size can estimate the characteristics of the neighborhood residents with an accuracy of within +/- 8.0 to 10.4%.

### *Response Rates*

After accounting for vacant homes, our final response rates<sup>3</sup> were:

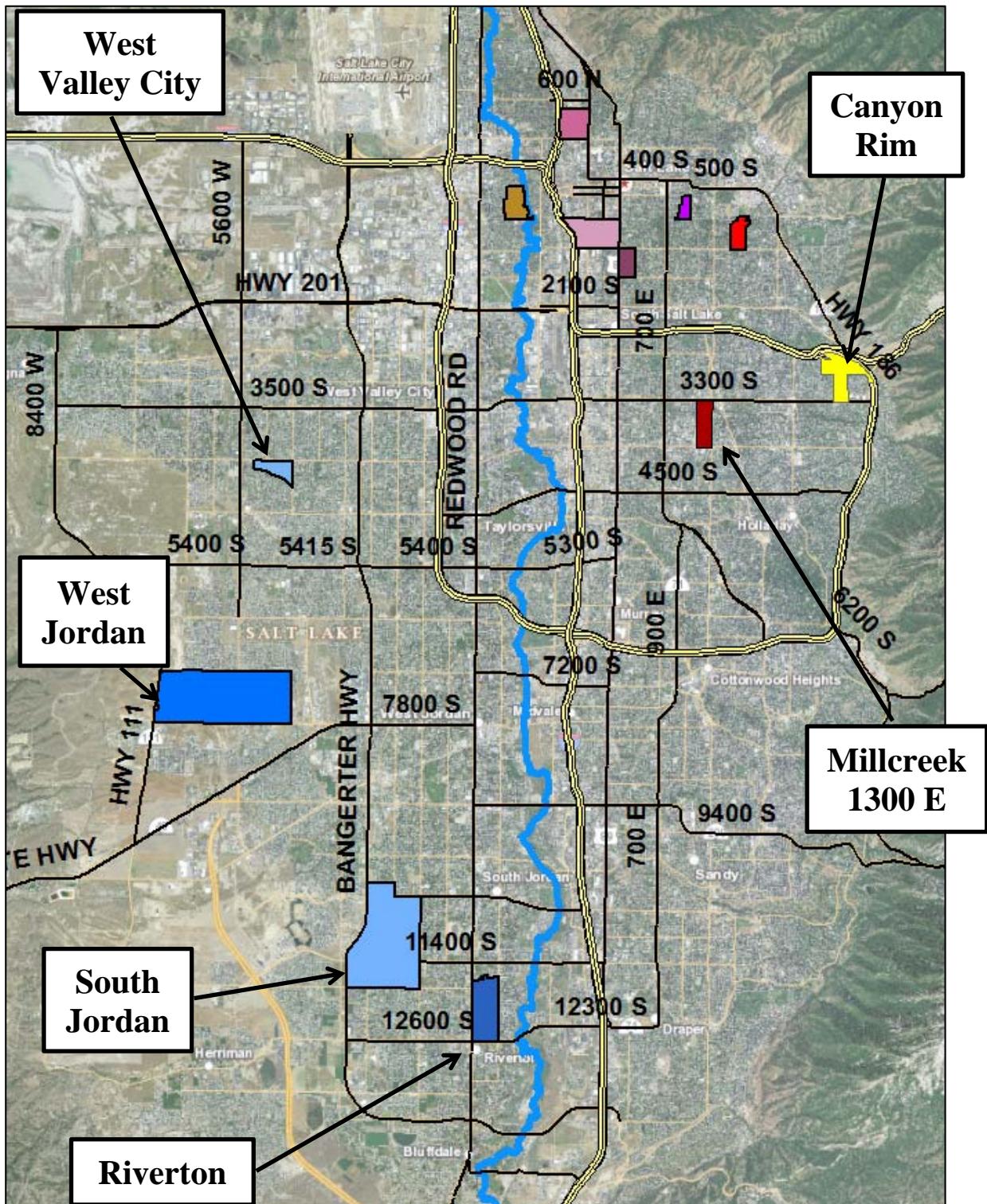
- Canyon Rim = 63% (109 respondents)
- Millcreek (1300 E)= 51% (84 respondents)
- Riverton = 61% (107 respondents)
- South Jordan = 48% (86 respondents)
- West Jordan = 68% (118 respondents)
- West Valley City = 60% (103 respondents)

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<sup>2</sup> The sampling frame and estimated total number of potential housing units from which we sampled was obtained from city or county tax parcel rolls and field reconnaissance.

<sup>3</sup> Across the entire three-county study area, we received 2,413 useable surveys, with an overall response rate of 62%.

## Map of Study Neighborhoods in the Salt Lake Valley



## **Who Did We Hear From in the Salt Lake Valley (outside of Salt Lake City)?**

The characteristics of the respondents from the six Salt Lake Valley neighborhoods (outside of SLC) that were included in the survey are summarized in Table 1 below.

As was true in most of our other study areas, respondents from the six neighborhoods were predominantly non-Hispanic whites and most owned their home. In the West Valley City neighborhood, nearly a third of respondents identified as Hispanic or non-white. In three neighborhoods (Riverton, South Jordan and West Jordan), a majority reported being members of the Church of Jesus Christ and Latter Day Saints (LDS) faith; in the other three neighborhoods, roughly 40% of respondents were LDS. Respondents in our West Jordan neighborhood were most likely to have children under 18 living at home (71%), compared to between 41-56% in the other neighborhoods.

While significant majorities (55 to 71%) of respondents from these neighborhoods indicated they are Utah natives, only 43-56% said they are originally from the Salt Lake Valley. Moreover, while nearly half of the South Jordan neighborhood respondents reported living in their current home for less than 5 years, between two-thirds and three-quarters of respondents in the other five neighborhoods had been there at least 5 years.

The income level of survey respondents was much higher in the South Jordan neighborhood than in West Valley City or the Millcreek 1300 E. neighborhoods. Meanwhile, education levels were highest in the Canyon Rim neighborhood (where 62% of respondents had a 4-year college degree), and lowest among respondents in West Valley City (19%), West Jordan (34%) and Riverton (36%).

Over 90% of Canyon Rim and West Jordan neighborhood respondents owned their homes, compared to 79% and 83% in lower Millcreek and West Valley City neighborhoods. Over a third of the South Jordan respondents belong to homeowner or condominium owner associations (HOA or COAs), where new condominium and townhome developments are quite common. This number is considerably lower for Canyon Rim, West Jordan and West Valley City.

The average age of respondents varied by neighborhood – with the youngest respondents in West Jordan and South Jordan and the oldest respondents in the two Millcreek neighborhoods and West Valley City. The average household size in West Jordan was over 4 persons, notably higher than in the Millcreek neighborhoods, and likely reflects the greater number of younger families with children living at home in West Jordan.

**Table 1. Characteristics of Salt Lake Valley Survey Respondents**

Characteristic of Respondent	<u>SALT LAKE VALLEY NEIGHBORHOODS</u>						Comparison Areas		
	Canyon Rim	Millcreek	Riverton	South Jordan	West Jordan	West Valley City	Salt Lake City Combined	Cache Valley	Heber Valley
<i>Percent of Respondents</i>									
Female	51	54	53	45	55	44	51	55	58
Non-Hispanic White	93	89	92	87	85	66	75	87	93
LDS Religion	43	41	62	63	54	38	26	66	57
Has 4-year college degree	62	49	36	48	34	19	54	50	48
Has household income >\$75,000	53	40	57	75	55	19	32	29	42
Has household income <\$25,000	3	15	4	1	1	23	23	20	11
Rents their home	7	21	10	12	7	17	38	29	21
Is a member of HOA or COA	5	23	13	38	11	11	11	22	30
Is a seasonal resident	1	3	1	3	0	3	2	2	6
Has children under 18 in home	41	47	55	56	71	47	34	48	53
Has lived in this home < 5 years	26	32	33	48	36	23	52	50	48
Is originally from this valley	43	56	55	45	54	54	39	32	22
Is originally from Utah	55	65	71	61	69	64	51	56	55
Grew up in rural place or farm	29	30	50	28	26	43	34	56	57
<i>Average for Respondents</i>									
Age of respondent	50	53	50	48	43	52	47	47	51
Number of people living in household	3.1	3.1	3.6	3.8	4.1	3.6	2.6	3.2	3.4

### *Representativeness of Respondents*

The six Salt Lake Valley neighborhoods were defined using boundaries of census block groups (CBGs), an official geographic area for which attributes of the population is reported in recent government census counts. By comparing the characteristics of survey respondents with information from the US Census, we see how representative our sample is of the actual population (Table 2).

Overall, the profile of our survey respondents demonstrates that our sample captured a relatively representative set of adults and households from each neighborhood. The average size of households, proportion of high- and low-income households, and racial or ethnic composition were close to the estimated population characteristics in each of the six neighborhoods.

Adults within sampled households who completed the survey tended to be somewhat older, more likely to be female, and have higher levels of formal education than the background population, but these differences are generally relatively small. Younger adults were notably underrepresented in all six neighborhoods, partly because the adult with most responsibility for making water management decisions was encouraged to complete the survey. Households with incomes over \$75,000 are under-represented in the sample in four neighborhoods, and over-represented in two (South Jordan and West Jordan). In all but one neighborhood (West Valley City), people who rent their homes are slightly under-represented in the sample.

It should be noted that we did not sample from all neighborhoods in Riverton, South Jordan, West Jordan, or West Valley City. To see how these neighborhoods compare to city-wide totals, Table 2 includes additional information from the census that includes all residents of each municipality.

Generally speaking, the study neighborhoods that we selected are typical of the overall city totals. The selected South Jordan and West Jordan neighborhood have slightly larger household sizes and fewer low income households than the two cities as a whole. The Riverton and West Valley City study neighborhoods have a higher percentage of wealthy households than their respective cities.

**Table 2: Characteristics of 2014 Salt Lake Valley Neighborhood Respondents Compared with the 2010 Census and the American Community Survey (2008-2012)**

Neighborhood Respondents / Census Block Groups / Cities																
	<i>Canyon Rim</i>		<i>Millcreek</i>		<i>Riverton</i>			<i>South Jordan</i>			<i>West Jordan</i>			<i>West Valley City</i>		
	Survey Respondents	Census CBG*	Survey Respondents	Census CBG*	Survey Respondents	Census CBG*	Census Riverton City**	Survey Respondents	Census CBG*	Census South Jordan City**	Survey Respondents	Census CBG*	Census West Jordan City**	Survey Respondents	Census CBG*	Census West Valley City**
<i>percent of adults or households</i>																
Percent 18-35	<b>16</b>	<b>28</b>	<b>24</b>	<b>39</b>	<b>18</b>	<b>32</b>	<b>38</b>	<b>15</b>	<b>35</b>	<b>35</b>	<b>21</b>	<b>43</b>	<b>42</b>	<b>20</b>	<b>37</b>	<b>41</b>
Percent over 65	<b>20</b>	<b>21</b>	<b>21</b>	<b>19</b>	<b>17</b>	<b>8</b>	<b>8</b>	<b>14</b>	<b>8</b>	<b>11</b>	<b>5</b>	<b>4</b>	<b>7</b>	<b>31</b>	<b>11</b>	<b>10</b>
Female Adults	<b>51</b>	<b>52</b>	<b>54</b>	<b>54</b>	<b>53</b>	<b>51</b>	<b>50</b>	<b>45</b>	<b>50</b>	<b>51</b>	<b>55</b>	<b>50</b>	<b>51</b>	<b>44</b>	<b>50</b>	<b>50</b>
Non-Hispanic White Adults	<b>93</b>	<b>94</b>	<b>89</b>	<b>88</b>	<b>92</b>	<b>89</b>	<b>91</b>	<b>87</b>	<b>89</b>	<b>90</b>	<b>85</b>	<b>80</b>	<b>77</b>	<b>66</b>	<b>60</b>	<b>59</b>
Adults w/ College Degree	<b>62</b>	<b>43</b>	<b>49</b>	<b>36</b>	<b>36</b>	<b>34</b>	<b>31</b>	<b>48</b>	<b>38</b>	<b>38</b>	<b>34</b>	<b>28</b>	<b>23</b>	<b>19</b>	<b>14</b>	<b>13</b>
Households with Income >\$75,000	<b>53</b>	<b>59</b>	<b>40</b>	<b>43</b>	<b>57</b>	<b>66</b>	<b>58</b>	<b>75</b>	<b>70</b>	<b>63</b>	<b>55</b>	<b>49</b>	<b>43</b>	<b>19</b>	<b>40</b>	<b>29</b>
Households with Income <\$25,000	<b>3</b>	<b>10</b>	<b>15</b>	<b>15</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>1</b>	<b>5</b>	<b>6</b>	<b>1</b>	<b>9</b>	<b>12</b>	<b>23</b>	<b>20</b>	<b>20</b>
Households that Rent their Home	<b>7</b>	<b>11</b>	<b>21</b>	<b>29</b>	<b>10</b>	<b>11</b>	<b>14</b>	<b>12</b>	<b>15</b>	<b>15</b>	<b>7</b>	<b>9</b>	<b>23</b>	<b>17</b>	<b>13</b>	<b>30</b>
Mean Household Size (#)	<b>3.1</b>	<b>2.9</b>	<b>3.1</b>	<b>2.5</b>	<b>3.6</b>	<b>3.6</b>	<b>3.7</b>	<b>3.8</b>	<b>3.7</b>	<b>3.5</b>	<b>4.1</b>	<b>4.1</b>	<b>3.5</b>	<b>3.6</b>	<b>3.8</b>	<b>3.5</b>

\* = Reflects same area where survey sample was drawn.

\*\* = reflects city-wide totals (larger than study neighborhood)

# RESULTS

## I. Household Water Uses & Perspectives

The survey included questions about how households currently use water, and their perspectives about a range of water issues.

### A. Familiarity with Water Use

The survey asked how ‘familiar’ respondents are with the amount of water they use and the cost of their water bill each month. Most respondents reported a fairly high degree of familiarity with how much they *spend* on water each month, but far fewer were familiar with the volume of water they *use* (Table 3). Respondents in lower Millcreek neighborhood were the least familiar with how much they spend, perhaps because they are more likely to rent or live in an HOA. Respondents in our West Valley City study neighborhood were much more familiar with the cost and amount of water they used than most other study neighborhoods (including those in Salt Lake City and the Cache and Heber Valleys).

**Table 3: Familiarity with water use and cost by neighborhood.**

	<u>SALT LAKE VALLEY NEIGHBORHOODS</u>						Comparisons		
	Percent of Respondents						Salt Lake City	Cache Valley	Heber Valley
Respondent familiar with amount of water their household uses	31	31	31	33	25	40	32	26	30
Respondent familiar with how much household spends on water each month	76	64	76	75	76	81	56	59	67

## B. Lawn & Outdoor Watering

Nearly all respondents reported having a lawn on the property where they live (though 15% of South Jordan respondents did not report having a lawn), and nearly all of these reported that they regularly water their lawn.

The survey asked people to indicate who is responsible for watering the lawn on their property. Results are shown in Table 4. Over 90% of respondents in five neighborhoods (and 86% of those with lawns in South Jordan) indicated they water their lawn themselves. A sizeable group (14% of those with lawns) in South Jordan said their lawn watering is handled by a homeowners or condominium association (HOA or COA). A small number of lawns in lower Millcreek and Riverton were said to be watered by landlords of rental property. This means that in all six neighborhoods respondents primarily made their own decisions about outdoor watering, but in South Jordan, HOAs and COAs were also important decision-makers.

**Table 4: Responsibility for Lawn Watering**

<i>Who is responsible for watering the lawn?</i>	<b>SALT LAKE VALLEY NEIGHBORHOODS</b>						<i>Comparisons</i>		
	Canyon Rim	Millcreek	Riverton	South Jordan	West Jordan	West Valley City	Salt Lake City	Cache Valley	Heber Valley
<i>Percent of Households</i>									
Lawn is Not Watered	3	1	0	0	1	1	8	3	1
Household	95	91	96	86	97	97	73	83	84
Landlord	1	4	1	0	1	1	15	8	2
Homeowner or Condo Association or other entity	1	4	3	14	1	1	4	5	13

## Lawn Watering Practices

To get a sense of the rules of thumb used by respondents watering their own lawns, we asked them to think about a typical July week. On average, people reported watering their lawns 3-4 days per week. Lawn watering was most frequent in South and West Jordan (over 4 times a week) and least frequent in the West Valley City and two Millcreek neighborhoods (3.3-3.5 times).

Salt Lake Valley respondents were also asked what time of day they typically water their lawns. Responses suggest that between 92-99% of respondents in the six study neighborhoods usually water their lawns in the morning, evening, or at night. The proportion of households with underground sprinklers was highest in the newer neighborhoods (South Jordan, West Jordan), and least common among respondents in the West Valley City neighborhood, where just under two-thirds had an underground sprinkler (Table 5). Nearly all homes in Canyon Rim, South Jordan and West Jordan also relied on automatic timers for lawn sprinkling. By contrast, just over half of West Valley City and two-thirds of lower Millcreek homes had automatic timers. The use of sprinklers and automatic timers was considerably higher in Canyon Rim, Riverton, South Jordan and West Jordan than in Salt Lake City or neighborhoods in the other two study valleys.

**Table 5: Irrigation Systems Used to Water Lawns**

	<u>SALT LAKE VALLEY NEIGHBORHOODS</u>						Comparisons		
	Canyon Rim	Millcreek	Riverton	South Jordan	West Jordan	West Valley City	Salt Lake City	Cache Valley	Heber Valley
<i>Percent of Households Watering Own Lawn</i>									
Uses underground sprinkler system to water lawn	86	76	87	90	93	63	60	74	66
Has automatic timer for lawn watering	87	67	81	95	91	54	56	68	67

## Lawn Watering Considerations

To get a better feel for the factors that influence when and how much respondents water their lawns, we asked respondents to indicate how important each of several common reasons are to their lawn watering decisions. The results, shown in Table 6 below, suggest that most (85-94%) of households said they try to vary their lawn watering behaviors based on weather.

With proportions higher than found elsewhere, between 72-79% of respondents in Riverton, South Jordan and West Jordan paid more attention to the impact of watering practices on their property value and 67-71% said they seek to prevent brown spots on their lawn. Respondents in Riverton and West Jordan were most concerned about keeping a regular watering schedule, while those in West Valley City, Canyon Rim, and lower Millcreek were more likely to seek to minimize the amount of time they spent watering.

Over half reported that they are trying to conserve the amount of water they use (54-80%), with conservation a more important objective in West Valley City and the two Millcreek neighborhoods. A relatively small proportion of respondents (27-39%) suggested that keeping their neighbors happy was an important goal of their lawn watering decisions.

**Table 6: Factors that Shape Lawn Watering Decisions**

<i>How important is each reason to your decisions about when and how much to water your lawn?</i>	<u>SALT LAKE VALLEY NEIGHBORHOODS</u>						Comparisons		
	Canyon Rim	Millcreek	Riverton	South Jordan	West Jordan	West Valley City	Salt Lake City	Cache Valley	Heber Valley
<i>Percent indicating important (4 or 5)</i>									
Varying based on weather	94	94	85	85	92	88	86	86	86
Maintain property value	63	62	79	72	74	66	59	71	69
Conserve amount of water used	77	77	54	66	62	80	77	68	72
Keep regular water schedule	68	56	74	67	75	61	56	61	63
Prevent brown spots on lawn	54	57	67	68	71	62	53	73	65
Minimize time spent watering	64	64	51	56	58	64	60	57	56
Keep neighbors happy	37	27	33	28	33	39	27	32	33

## C. Use of Water Conservation Practices

### Indoor Water Use

Several questions in the survey explored the use of practices that are designed to reduce water consumption (Table 7). Respondents were asked how often people in their household do each of five types of conservation behaviors. An 'indoor conservation index' score was computed for each household. Interestingly, the scores on this index do not vary much across neighborhoods or across the three valleys in the study.

When asked how their household indoor water use has changed over the last 5 years, 27% of Riverton respondents indicated that they had decreased their indoor water consumption which is higher than typically found elsewhere. Respondents from South Jordan and West Jordan were least likely (11-14%) to report a recent decrease in indoor water consumption.

A little over half of all household respondents from five of these six Salt Lake Valley neighborhoods indicated that they believe they could do more to reduce indoor water use, with the West Jordan respondents most likely to see room for improvement, and those in Riverton the least likely to see potential for reducing indoor use.

### Outdoor water use

A similar set of questions explored the use of conservation practices in outdoor irrigation behaviors (Table 7). We asked if they used any of three recommended strategies to reduce lawn watering: sprinkler testing, irrigation planning, and installation of more efficient irrigation systems. Nearly two-thirds of respondents from Riverton and South Jordan reported use of at least one of these practices; this number drops to 51 percent in West Valley City.

Few households (12-29%) in these three neighborhoods reported a decrease in outdoor water use over the last five years, though reductions were notably more likely in the Canyon Rim neighborhood. Between a third and half of respondents (34-55%) in these neighborhoods felt they could do more to conserve outdoor water. It is clear that respondents feel a greater ability to reduce indoor than outdoor water use. Finally, between 19-40 percent of respondents believe they use less water than their neighbors, numbers that are generally lower than seen in Salt Lake City or the other two study valleys.

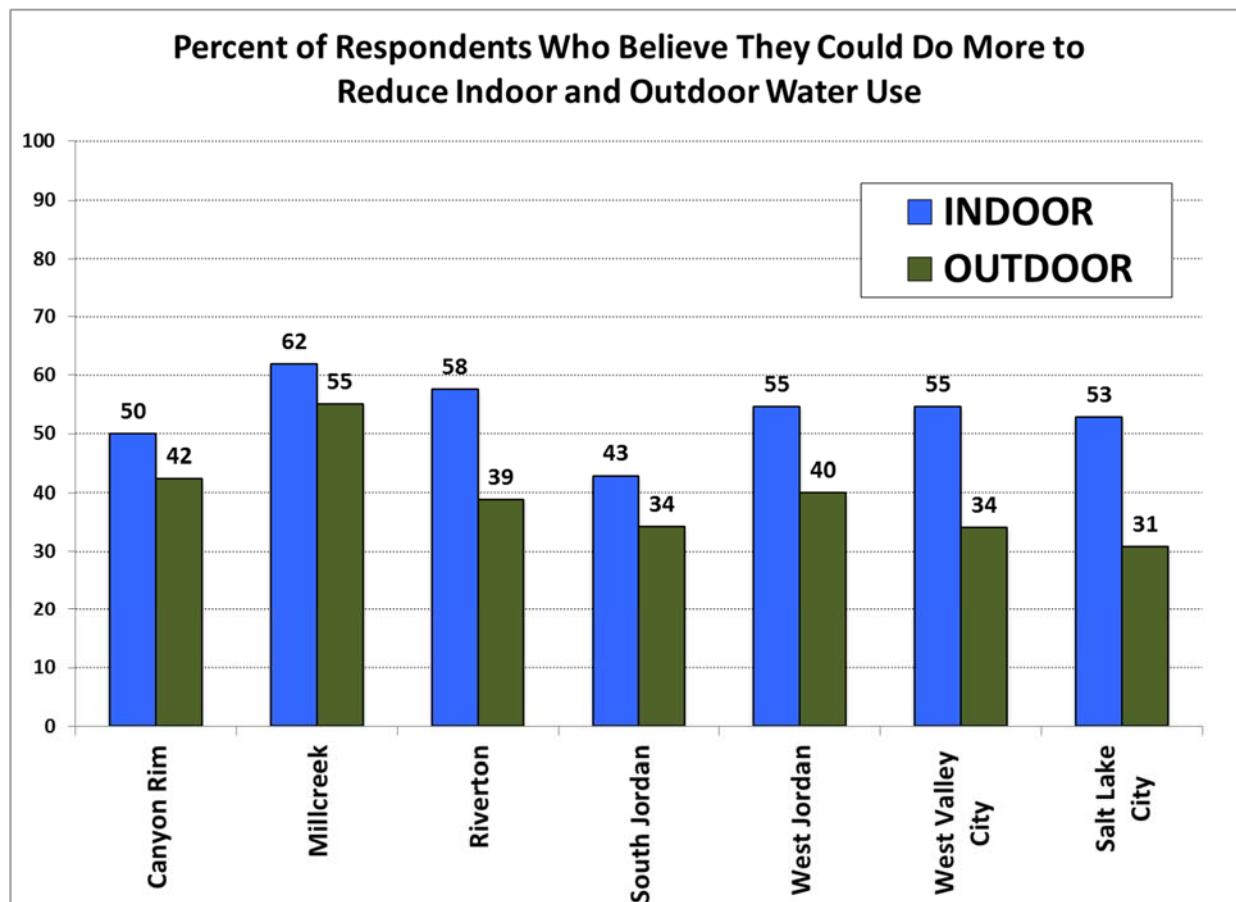
An illustration of how these Salt Lake Valley neighborhood respondents compare to those in Salt Lake City on beliefs about their ability to reduce indoor and outdoor water use is shown on Figure 1. In general, the proportion of respondents who believed they can reduce indoor water use did not vary much across the neighborhoods (except in South Jordan). However, respondents in lower Millcreek, Canyon Rim, West Jordan, and Riverton were notably more likely to believe they can reduce outdoor use than respondents from Salt Lake City.

**Table 7: Water Conservation Behaviors and Perceptions**

	<u>SALT LAKE VALLEY NEIGHBORHOODS</u>						Comparisons		
	Canyon Rim	Millcreek	Riverton	South Jordan	West Jordan	West Valley City	Salt Lake City	Cache Valley	Heber Valley
<i>How willing would you be to reduce your own water use if you knew the water you conserved would...</i>									
<u>Use of Conservation Practices</u>									
Mean score on indoor water conservation practice index*	19	20	20	19	19	19	18	18	19
Percent using ANY of three outdoor water conservation practices**	62	63	69	67	62	51	60	54	54
<u>Changes in Water Use last 5 Years</u>									
Percent who decreased household <u>indoor</u> water use	22	22	27	14	11	23	23	21	22
Percent who decreased household <u>outdoor</u> water use	29	20	12	14	16	16	24	17	16
Percent who believe they can do more to conserve water INDOORS	54	57	43	58	62	50	55	55	53
Percent who believe they can do more to conserve water OUTDOORS	53	42	34	39	55	42	40	34	31
Believes they use LESS than average households in neighborhood	31	40	32	24	19	27	42	37	35

\* = taking fewer or shorter showers, running dishwasher only when full, turning off water when brushing teeth, buying low water use appliances & fixtures, fixing leaky toilets and faucets (all measured on 5 point scale from never to always, minimum score = 5, maximum = 25)

\*\* = Testing sprinklers to gauge amount of water applied; developing a plan to estimate amount of water needed by lawn, installation of a more efficient law watering system



**Figure 1: Percent of respondents who believe they can do more to reduce water use.**

## D. Motivations to Conserve

The households in the study were asked how willing they would be to reduce their water use if they knew the water they conserved would be used for different purposes. The results are shown in Table 8. Overall, people were most willing to reduce current water use if the savings were used to secure future local water supplies (73-86%). Conversely, people were least willing to conserve if the water they save is used to encourage new development in the area (18-27%). For most respondents, conserving water was attractive if they knew it would reduce their water bill (less so in Riverton). Conserving water to ensure a future supply of water for agriculture was most popular in lower Millcreek and South Jordan, and least important to respondents in West Valley City and Canyon Rim.

Clear majorities supported using conserved water to improve fish and wildlife habitat or improve urban parks and open space, while smaller proportions would be motivated to conserve to improve outdoor recreation opportunities.

**Table 8: Willingness to Conserve Water Based on How Water Savings are Used.**

<i>How willing would you be to reduce your own water use if you knew the water you conserved would...</i>	<b>SALT LAKE VALLEY NEIGHBORHOODS</b>						<i>Comparisons</i>		
	Canyon Rim	Millcreek	Riverton	South Jordan	West Jordan	West Valley City	Salt Lake City	Cache Valley	Heber Valley
<i>Percent indicating willing or very willing to conserve if...</i>									
Ensure future supplies for your home	79	86	76	73	75	77	85	79	81
Reduce your water bill	79	75	62	83	73	77	75	73	66
Ensure future supply for agriculture	60	72	64	67	64	57	68	66	62
Improve fish & wildlife habitat	63	65	66	63	55	64	78	64	68
Improve urban parks & open spaces	59	60	51	56	54	57	63	58	55
Improve opportunities for outdoor recreation	33	44	42	49	45	52	51	45	51
Allow increased development in this area	24	29	18	24	27	33	36	27	24

## **E. Secondary Water Systems**

### *Access to and Use of Secondary Water*

Secondary water systems were used for outdoor irrigation by nearly all the respondents in the Riverton study neighborhood, and by roughly 20% of respondents in lower Millcreek and South Jordan. Very few respondents had access to secondary water in Canyon Rim, West Jordan, or West Valley City (Table 9). Secondary water is non-drinkable water that is usually provided by an irrigation or canal company and is often outside of the control of the city public water utility.

In Riverton, the vast majority of secondary water users (89%) received their secondary water through a pressurized pipe. In Millcreek and South Jordan, however, most received their secondary water from an open ditch or canal (67-83%). In each of these three neighborhoods, most of those with access to secondary systems used the water primarily for irrigating their lawn and other landscaping (50-98%), and nearly half used this water on a vegetable garden. Relatively few respondents in any of these three neighborhoods reported using secondary water for agricultural purposes (watering pastures, crops or livestock), though this number was a bit higher in South Jordan (29%).

### *Satisfaction with Service*

Secondary water users in these three neighborhoods were generally satisfied with their systems with 53-56% indicating they were satisfied or very satisfied.

A minority of secondary water users indicated they attended any meetings with their secondary water provider. However, secondary water users in Millcreek and South Jordan (70%) were more likely to have attended such meetings. Only 29-44% of secondary water users were confident in the future security of their secondary water supply.

**Table 9: Use and Perceptions of Secondary Water Systems**

	<b>SALT LAKE VALLEY NEIGHBORHOODS</b>						<i>Comparisons</i>		
	Canyon Rim	Millcreek	Riverton	South Jordan	West Jordan	West Valley City	Salt Lake City	Cache Valley	Heber Valley
<i>Percent indicating lawn watering responsibility...</i>									
<b>Has Access to Secondary water</b>	0	23	91	20	2	5	1	21	53
<b>Secondary water use:</b>									
Has but does not use	na	39	2	12	na	na	na	13	5
Used for lawn and yard landscaping	na	50	98	59	na	na	na	79	91
Used for vegetable garden	na	50	47	47	na	na	na	53	46
Used to water pasture/crops	na	11	4	29	na	na	na	7	9
Used to water livestock	na	0	4	0	na	na	na	4	5
<b>How secondary water received</b>									
Open ditch or canal	na	83	11	67	na	na	na	47	17
Pressurized pipe	na	11	89	27	na	na	na	50	81
<b>Percent of secondary water users that:</b>									
Are satisfied with secondary water system	na	56	55	53	na	na	na	53	67
Have attended a meeting with a secondary water provider	na	33	12	29	na	na	na	45	20
Are confident in the future security of their secondary water supply	na	44	29	29	na	na	na	38	34

*n.a. = not enough respondents using secondary water to provide reliable estimates.*

## II. Water Perceptions & Experiences

### A. Perceptions of Water Supply

Since planning for future water challenges is a major focus for local and state government officials, the survey included a block of questions that asked whether the respondent agreed with a set of statements that ‘there is enough water to meet the needs of all people and businesses’ in their city, valley and the state as a whole (Table 10).

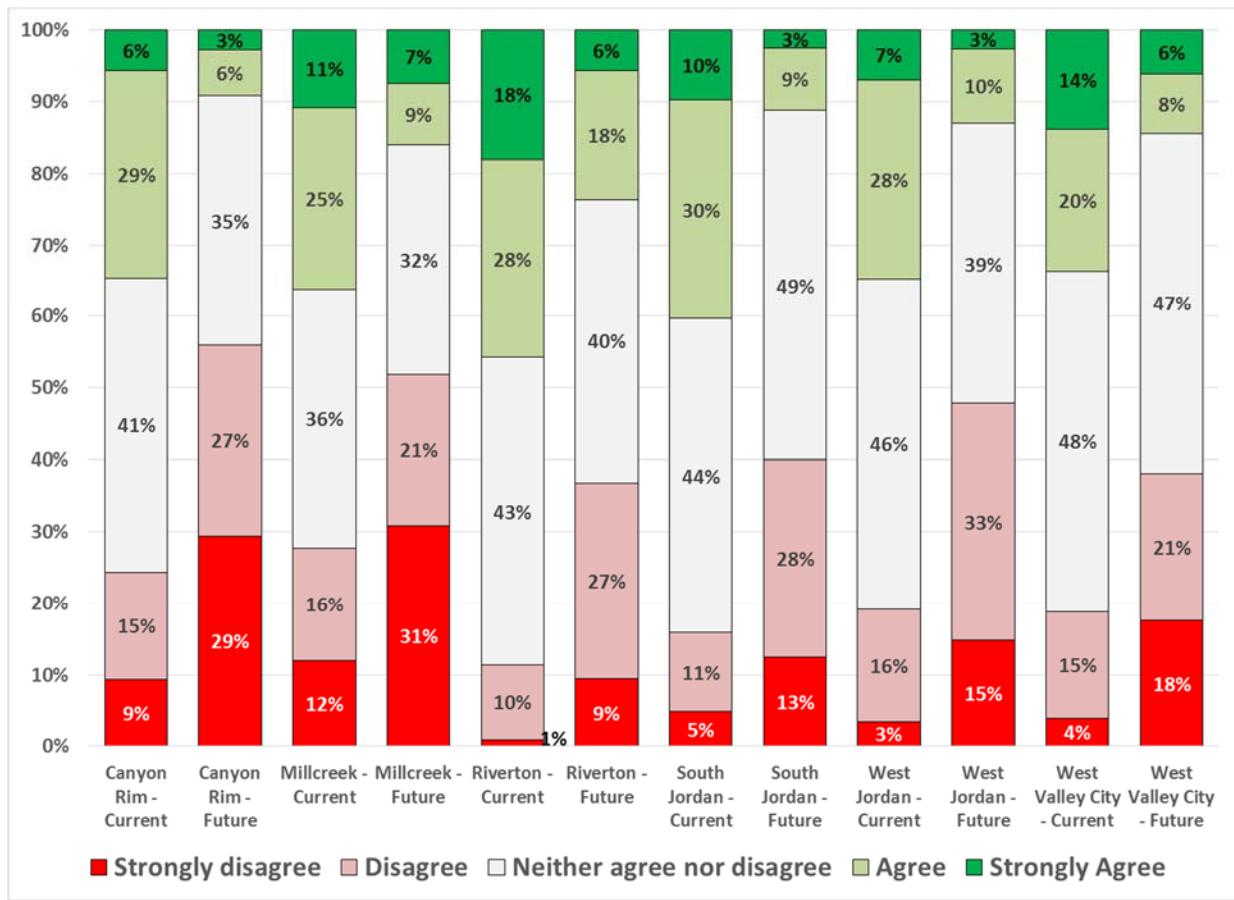
Overall, the findings suggest that less than half (34-46%) of Salt Lake Valley respondents were confident about the current sufficiency of their city’s water supply to meet the needs of people and businesses in their city. Confidence dropped significantly when asked about sufficiency of future city water supplies (9-24%). Concern about the adequacy of city water supplies was highest among respondents in the two Millcreek neighborhoods.

Confidence in current and future water supplies was generally lower when the supply in the valley or entire state is considered. Very few (5-9%) of respondents from these six neighborhoods believed that there is a sufficient future supply of water to meet needs at the state level.

More detailed information demonstrates significant ambivalence about the sufficiency of local water supplies (Figure 2 below). Between 35-48% of respondents indicated they neither agree nor disagree with the statements about overall water sufficiency for their city. This ambivalence was highest among South Jordan and West Valley City respondents.

**Table 10: Percent of Respondents Agreeing that Water Supply is Sufficient**

<i>There is enough water to meet the needs of all people and businesses in...</i>	SALT LAKE VALLEY NEIGHBORHOODS								Comparisons	
	Canyon Rim	Millcreek	Riverton	South Jordan	West Jordan	West Valley City	Salt Lake City	Cache Valley	Heber Valley	
<i>Percent Indicating AGREEMENT with Statement</i>										
CURRENTLY										
This City	35	36	46	40	35	34	34	46	47	
Salt Lake Valley	19	32	27	34	27	29	28	39	42	
Utah	12	12	20	25	13	22	19	19	14	
IN THE FUTURE										
This City	9	16	24	11	13	14	12	23	21	
Salt Lake Valley	6	9	16	8	11	12	8	18	18	
Utah	5	8	9	8	7	7	7	11	7	



**Figure 2: Agreement or Disagreement with Statement that City Water Supply is Sufficient to Meet the Current or Future Needs of All People and Businesses, By City.**

## B. Risk Perceptions

While water issues are likely to be important policy challenges for local and state governments in the coming years, there are a host of other important issues that compete for the attention of the public. To compare water issues to other topics, we asked respondents to indicate ‘how concerned’ they were about each of ten issues (Table 11).

Generally speaking, respondents from most neighborhoods were more concerned about air pollution, traffic congestion, population growth and loss of open space than about water related issues. The top water-related concern for most respondents was the perceived high cost of water, and this was the top overall concern for respondents in West Jordan and West Valley City.

In Canyon Rim, water shortages were a major concern (ranking second after air pollution); this issue was also rated high by respondents in lower Millcreek and West Valley City.

Concern about water shortages was lowest in Riverton, South Jordan and West Jordan. Poor water quality was a more significant concern among respondents in the Riverton study neighborhood (cited by 70%), and a comparatively small concern for those living in South Jordan and Canyon Rim (cited by just over half).

Roughly 60% of respondents in all the study neighborhoods expressed concern about deteriorating water infrastructure in their city. As discussed below, climate change concerns varied widely across the study neighborhoods – with 43-45% of respondents in Riverton, South Jordan and West Jordan expressing concern, compared to 59-63% of Millcreek and West Valley respondents. Finally, concerns about flooding were relatively high in lower Millcreek and West Valley City, where roughly a third of respondents cited it as a major concern, but in general, flooding issues rated much lower on the concern scale than any of the other 9 issues presented on the survey.

**Table 11: Percent of Respondents Concerned about Various Issues**

Issue	<u>SALT LAKE VALLEY NEIGHBORHOODS</u>						Comparisons		
	Canyon Rim	Millcreek	Riverton	South Jordan	West Jordan	West Valley City	Salt Lake City	Cache Valley	Heber Valley
<i>Percent Indicating Concern (4-5)</i>									
Air pollution	87	89	86	83	79	81	88	77	69
Traffic congestion	78	81	81	87	79	83	82	80	75
<b>High cost of water</b>	75	76	77	81	86	84	68	65	69
Loss of open space	78	79	76	82	73	72	79	72	78
Population growth	73	69	69	77	70	73	72	64	76
<b>Water Shortages</b>	79	74	59	61	63	69	73	56	60
<b>Poor Water Quality</b>	53	59	70	54	63	66	66	45	52
<b>Deteriorating water infrastructure</b>	62	60	60	57	55	62	68	52	58
Climate change	63	61	44	43	45	59	76	48	51
<b>Flooding</b>	20	33	19	11	29	32	24	28	20

*Water issues listed in bold font.*

## C. Perceptions about Water Use and Water Quality

### *Perceived Excessive Water Use*

Given the concerns about water supply and water shortages discussed above, the survey included a block of questions designed to capture public perceptions about which, if any, sectors are responsible for using ‘too much’ water (Table 12).

The results suggest that more ‘blame’ for overuse of water is attributed to residential lawns, parks, and golf courses among respondents in all six neighborhoods. By contrast, very few people (between 2-13 percent) had the impression that agriculture is using too much water.

There was significant variation in perceptions about excessive water use across these six study neighborhoods. Respondents in the two Millcreek neighborhoods were most likely to think residential lawns currently use too much water (with 62-71% agreeing), while those in South Jordan and West Valley City were least likely to think lawns use too much water (48-49%). Perceived overuse of water in parks and golf courses was highest in lower Millcreek (57%), West Jordan (48%) and West Valley City (48%). Agreement with statements that ‘agriculture’ uses too much water was highest in lower Millcreek and West Valley City (though only 12-13% agreed).

Compared to respondents from Salt Lake City, respondents from these six neighborhoods were less likely to think any entity uses too much water. On the other hand, perceived excessive water use in the Salt Lake Valley was notably higher than among respondents in the Cache and Heber valleys.

**Table 12: Perceived ‘Excessive’ Water Use by Sector**

<i>Too much water is used for...</i>	<u>SALT LAKE VALLEY NEIGHBORHOODS</u>							<i>Comparisons</i>		
	<b>Canyon Rim</b>	<b>Millcreek</b>	<b>Riverton</b>	<b>South Jordan</b>	<b>West Jordan</b>	<b>West Valley City</b>		<b>Salt Lake City</b>	<b>Cache Valley</b>	<b>Heber Valley</b>
<i>Percent Indicating Agreement (4 or 5)</i>										
Residential lawns	<b>62</b>	<b>71</b>	<b>59</b>	<b>48</b>	<b>57</b>	<b>49</b>		71	51	44
Parks and golf courses	<b>43</b>	<b>57</b>	<b>40</b>	<b>37</b>	<b>48</b>	<b>48</b>		60	44	43
Industry	<b>33</b>	<b>40</b>	<b>33</b>	<b>24</b>	<b>30</b>	<b>40</b>		48	22	19
Agriculture	<b>5</b>	<b>13</b>	<b>4</b>	<b>5</b>	<b>2</b>	<b>12</b>		13	10	13

## Water Quality

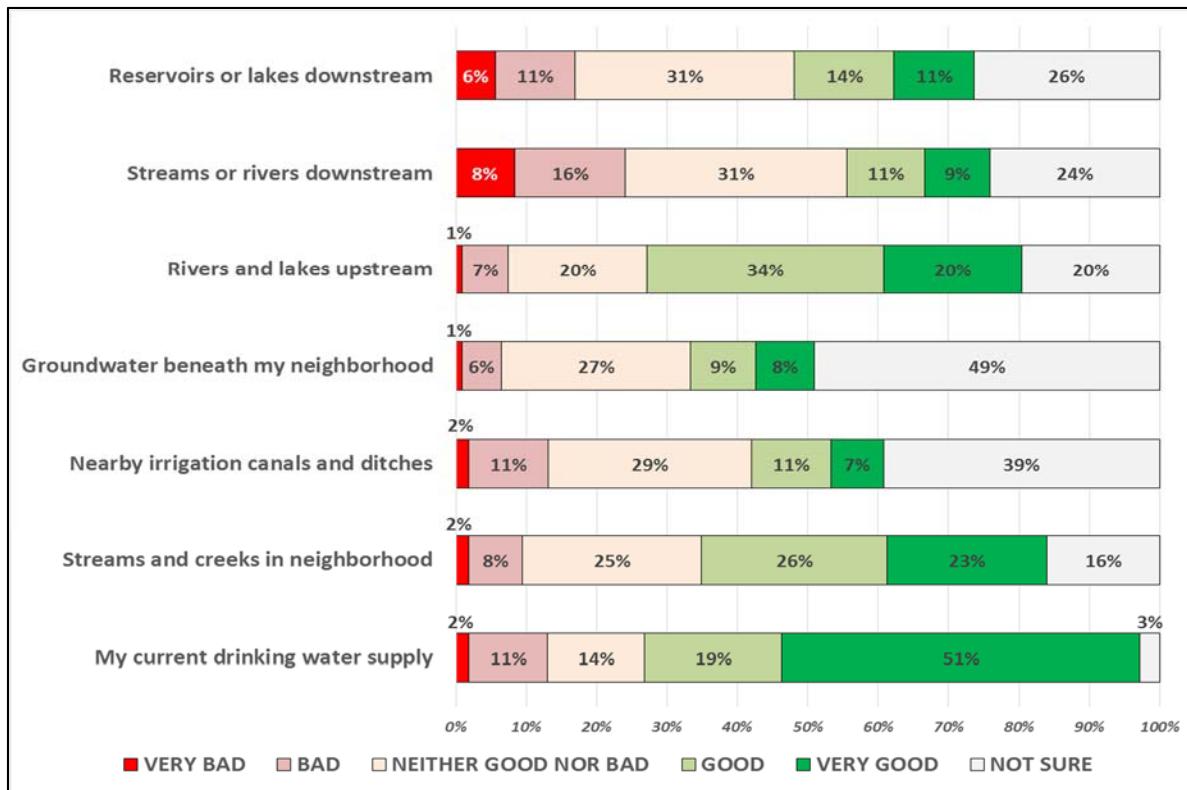
We also assessed public perceptions of the water quality of different types of water bodies (Table 13 and Figures 3a to 3f). Overall, people were much more likely to assess all types of water in their area as 'good quality' than 'bad quality'. Water quality ratings were highest for drinking water supplies, upstream rivers and lakes, and streams and creeks nearest the respondent's neighborhood. Water in nearby irrigation canals and ditches, and in streams, rivers, reservoirs, and lakes downstream from the neighborhood, was more likely to be rated as poor, particularly in Riverton and West Valley City. Notably, for many types of water bodies, a majority of respondents in many neighborhoods indicated that they were either 'not sure' or thought local water quality was 'neither good nor bad'.

With respect to their drinking water supply, between 64-73% of respondents in five neighborhoods rated water quality as good, though this number drops to just 18% of respondents in Riverton. In general, respondents in Riverton had more water quality concerns than in the other study areas.

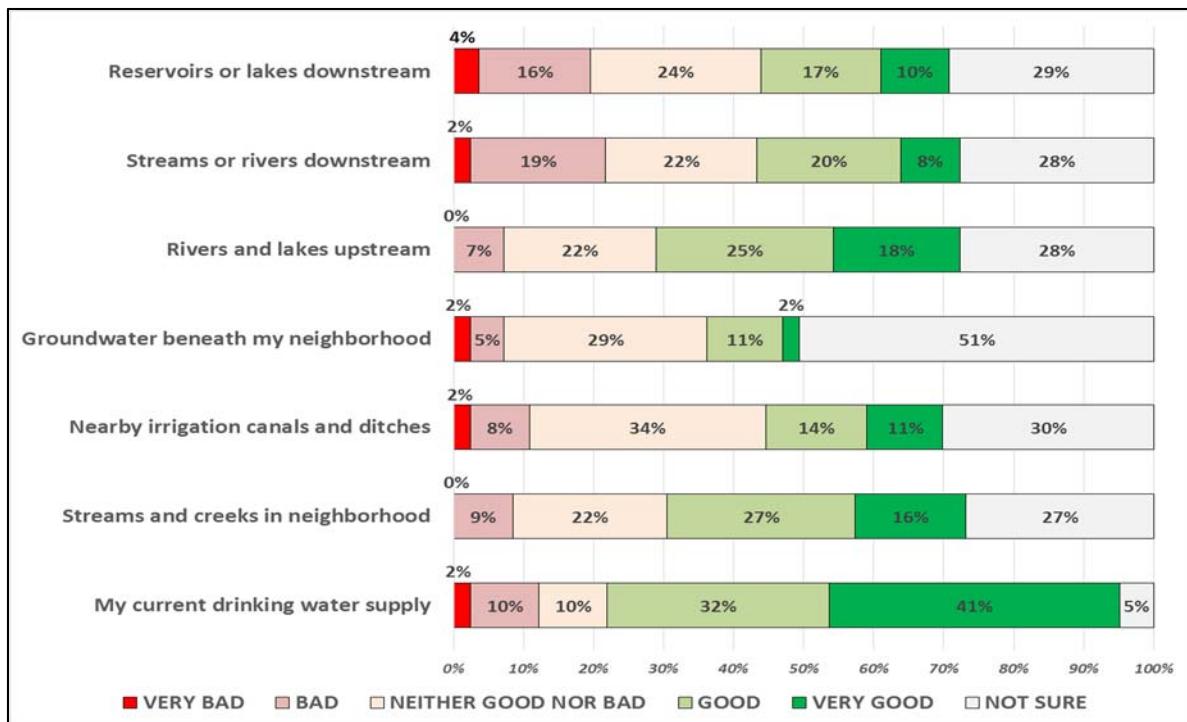
Respondents throughout the Salt Lake Valley tended to rate water quality of all types lower than those from the Heber and Cache Valley study areas.

**Table 13: Perceived Water Quality of Different Types of Water Resources.**

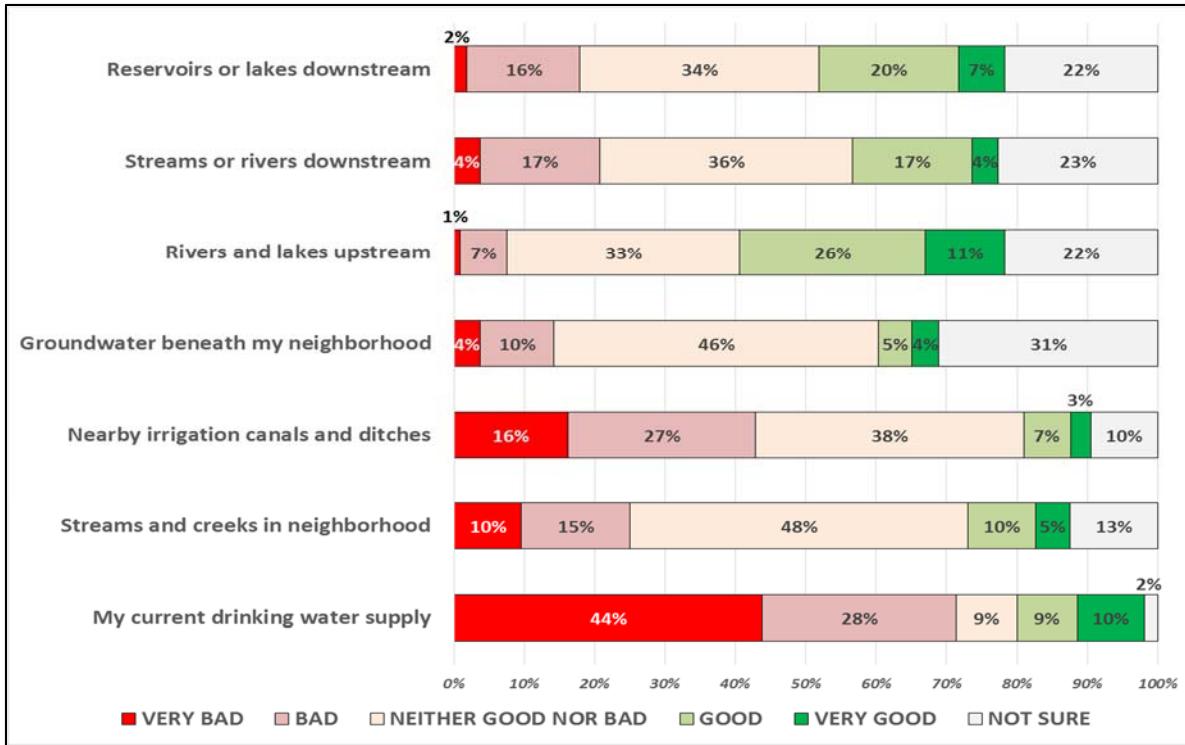
<i>How would you rate the water quality of the following types of water in your area?</i>	<b>SALT LAKE VALLEY NEIGHBORHOODS</b>						<i>Comparisons</i>		
	Canyon Rim	Millcreek	Riverton	South Jordan	West Jordan	West Valley City	Salt Lake City	Cache Valley	Heber Valley
	<i>Percent Rating Quality Good or Very Good</i>								
Drinking water	70	73	18	64	65	69	66	79	73
Water in rivers and lakes upstream	53	43	38	35	39	37	42	56	58
Water in streams and creeks in neighborhood	49	43	14	22	19	18	30	53	56
Water in reservoirs and lakes downstream	26	27	26	24	28	25	20	36	43
Water in streams or rivers downstream	20	29	21	24	24	24	20	38	48
Water in nearby irrigation canals or ditches	19	25	10	20	12	13	14	41	41
Groundwater in neighborhood	18	13	9	11	16	11	15	27	29



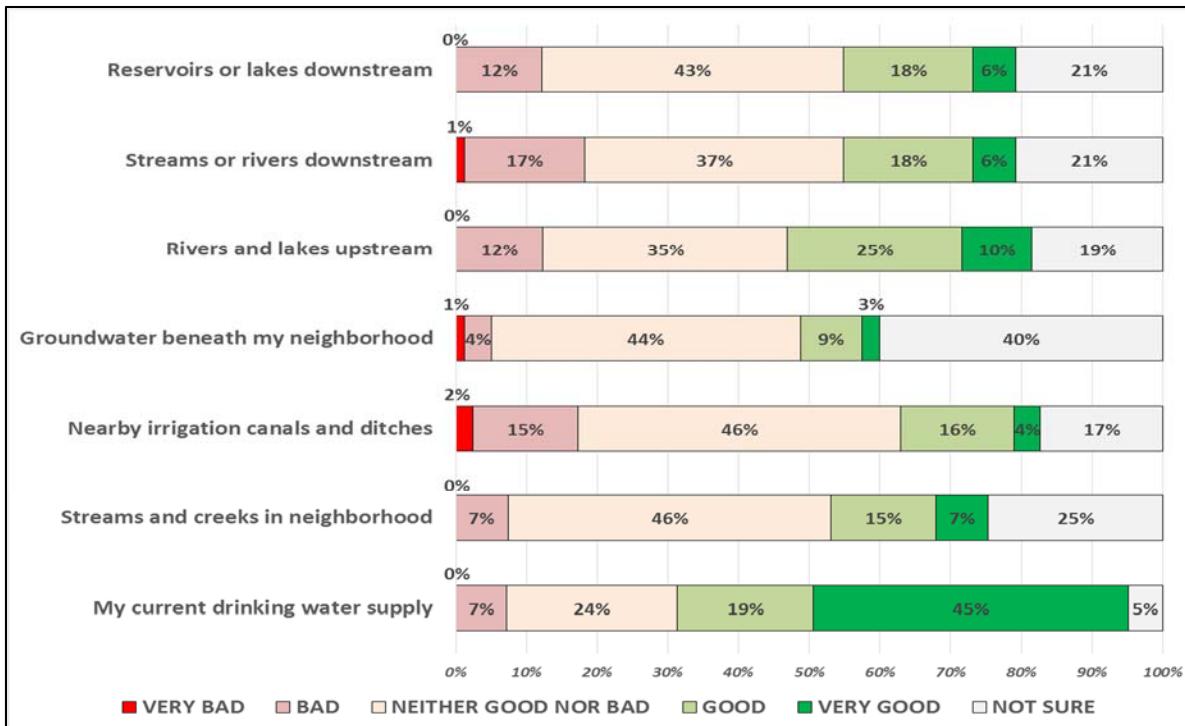
**Figure 3a: Perceived water quality for different types of water among Millcreek - Canyon Rim neighborhood respondents.**



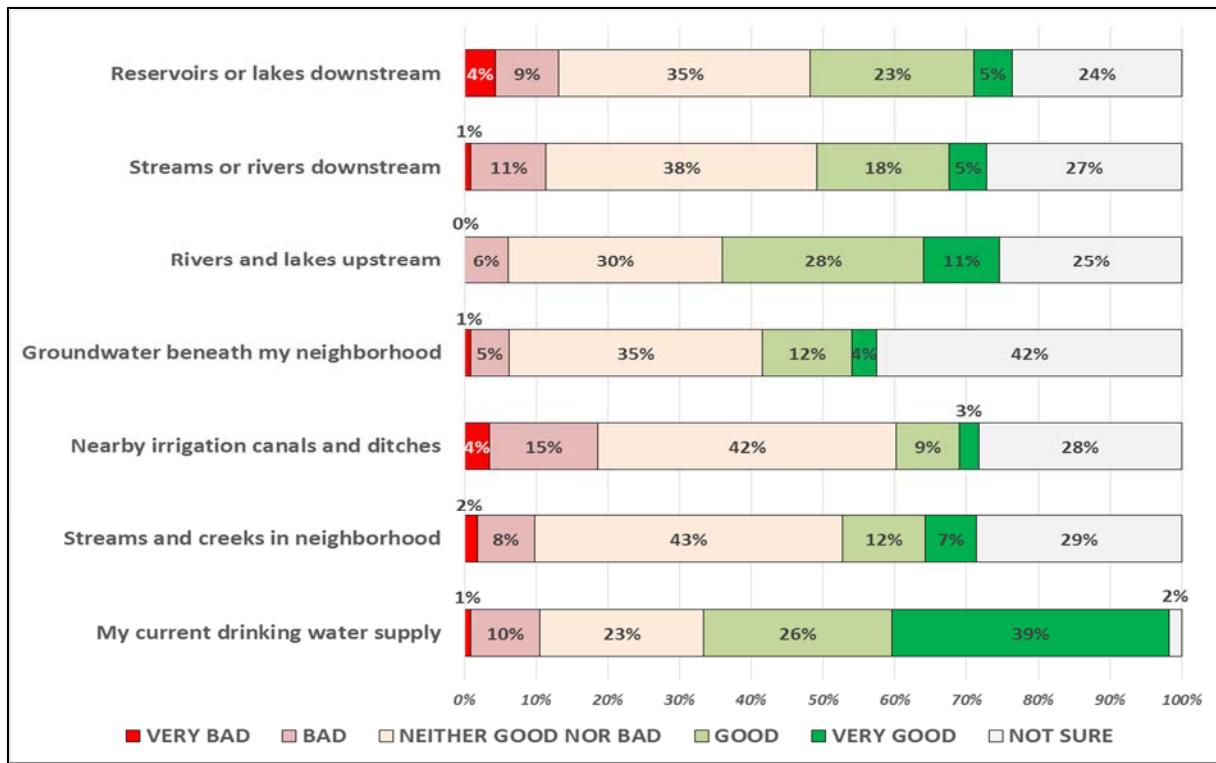
**Figure 3b: Perceived water quality for different types of water among Millcreek - 1300 E. neighborhood respondents.**



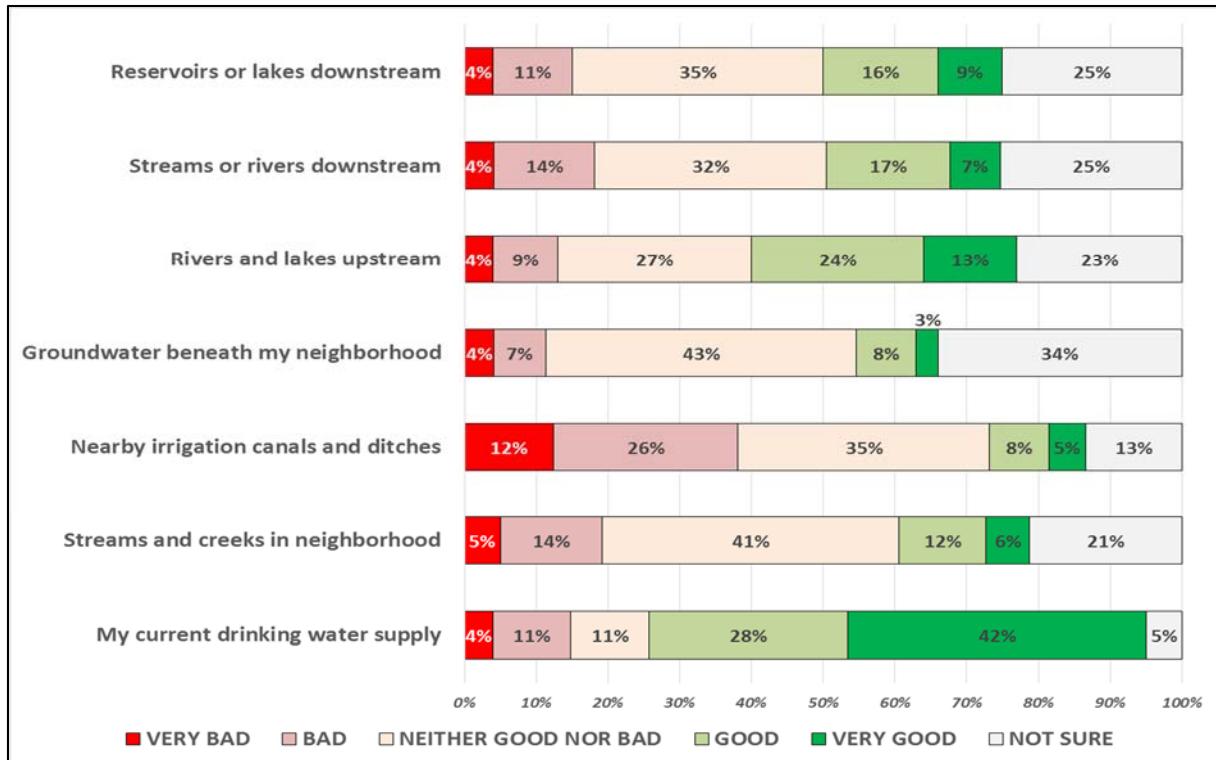
**Figure 3c: Perceived water quality for different types of water among Riverton neighborhood respondents.**



**Figure 3d: Perceived water quality for different types of water among South Jordan neighborhood respondents.**



**Figure 3e: Perceived water quality for different types of water among West Jordan neighborhood respondents.**



**Figure 3f: Perceived water quality for different types of water among West Valley City neighborhood respondents.**

## D. Experience with Flooding

When asked if they or members of their household have personally experienced property damage over the last 10 years, over a third of households (32-46%) indicated impacts such as flooded basements or other property damage (Table 14). Between 36-58% indicated having experienced any type of flooding impacts to their own household. It should be noted that the survey only asked about impacts from flooding and/or stormwater and did not differentiate between flooding originating inside the home from external flooding sources.

Personal experience with flooding was most commonly reported among respondents in lower Millcreek and Riverton neighborhoods, and least common in South Jordan and West Jordan. Over 70% reported knowledge of community-level flooding impacts in four neighborhoods (Canyon Rim, lower Millcreek, Riverton and West Jordan), but proportions were notably lower in South Jordan and West Valley City.

**Table 14: Percent of Respondents indicating Impacts from Flooding on Household or Community.**

<i>Self-reported impacts from flooding or stormwater over last 10 years</i>	<b>SALT LAKE VALLEY NEIGHBORHOODS</b>						<i>Comparisons</i>		
	Canyon Rim	Millcreek	Riverton	South Jordan	West Jordan	West Valley City	Salt Lake City	Cache Valley	Heber Valley
<i>Percent of Respondents Listing Impacts</i>									
Household suffered property damage	34	46	39	32	33	33	29	38	31
Household impacted in any way*	45	52	58	36	39	50	45	43	40
Community impacted in any way*	72	73	77	63	71	62	73	80	51

\* = Combines all types of impacts, including flooded basement or other property damage, injury or loss of life, damage to public roads or infrastructure, contamination of drinking water or area streams.  
Listed if at least one type of impact was reported.

## E. Climate Change Perceptions

Climate change has received significant media attention and political debate. Respondents in these Salt Lake Valley communities were asked their views on climate change, and whether they were worried that climate change will significantly impact the water supplies in their valley. Results demonstrate a wide diversity of views on this topic. Generally speaking, most respondents (76-84%) said they believe climate change is happening, but they were split as to whether they see climate change as human-caused or part of a natural process (Table 15). A majority of respondents from Canyon Rim, lower Millcreek and West Valley City believed that climate change is happening and is caused by humans, while respondents in South Jordan and West Jordan were evenly split on whether it is a natural process or human caused. Significant minorities of respondents (18-22%) from four neighborhoods said they 'do not know enough' to say if climate change is happening.

Between 34-52% of respondents across these six Salt Lake Valley neighborhoods saw climate change as a possible threat to water supplies in the valley, with worry about water supply impacts highest in the areas where people attribute climate change to humans.

**Table 15: Respondent Views on Climate Change Issues**

<i>How would you characterize your views on climate change?</i>	<u>SALT LAKE VALLEY NEIGHBORHOODS</u>							<i>Comparisons</i>		
	Canyon Rim	Millcreek	Riverton	South Jordan	West Jordan	West Valley City	Salt Lake City	Cache Valley	Heber Valley	
<i>Percent of Respondents</i>										
Climate change is happening, and is caused mainly by <u>human</u> activities	51	57	37	34	36	53	66	41	40	
Climate change is happening, and is caused <u>both</u> by human and natural causes	5	2	8	6	7	4	2	5	6	
Climate change is happening and is caused mainly by <u>natural</u> processes	28	24	31	36	37	21	14	29	32	
Climate change is <u>not happening</u>	3	6	3	4	3	2	5	3	5	
I <u>do not know enough</u> to say if climate change is happening	14	10	22	21	18	20	13	21	18	
I am worried that climate change will significantly impact water supplies in this valley	50	52	37	34	35	50	66	39	39	

### **III. Water Policy and Management Perspectives**

#### **A. Support for Local Water Management Strategies and Policies**

Many survey questions assessed the levels of support or opposition to a wide range of potential local city water management policies and programs.

##### *Addressing Short Term Water Shortages*

First, respondents were asked, “If your city faced a short-term water shortage, how much would you oppose or support each of the following possible local policies or strategies?” (Table 16). Levels of support for these different strategies generally did not vary widely across the six neighborhoods.

There was strong support (77-91%) for educational and voluntary conservation programs across six Salt Lake Valley communities. Support for restrictions on watering in parks, golf courses, and public properties was lower, but still ranged from 69-79% of respondents.

Mandatory restrictions on watering in order to respond to short-term shortages were least popular, but still received support from 59-67 percent of respondents, with just 10-18 percent of respondents indicating that they would oppose or strongly oppose mandatory measures.

**Table 16: Percent of Respondents Supporting Various Local Policy Options**

<i>To deal with a short-term water shortage, I would support or strongly support the following strategies...</i>	<u>SALT LAKE VALLEY NEIGHBORHOODS</u>						<i>Comparisons</i>		
	Canyon Rim	Millcreek	Riverton	South Jordan	West Jordan	West Valley City	Salt Lake City	Cache Valley	Heber Valley
<i>Percent Indicating Support or Strong Support</i>									
Educate public on water conservation	85	91	88	88	88	89	91	89	92
Encourage voluntary reductions in outdoor water use	80	85	91	77	81	82	87	84	85
Restrict watering in parks, golf courses, and other public properties	75	69	79	70	72	69	78	76	72
Mandatory watering restrictions	59	67	61	61	60	58	71	69	64

### *Long Term City Water Management Strategies.*

Respondents were also asked about the extent to which they supported a range of potential long-term approaches to water policy and management in their city (detailed results shown in Table 17 and Figures 4a-4f).

The most popular policies across each of the six study neighborhoods were to:

- 'limit future housing development unless water supplies are secured,' supported by 79% of respondents in Riverton and lower Millcreek, 76% in Canyon Rim, 71-72% in South Jordan and West Jordan, and 64% in West Valley City, and
- 'develop systems to reuse treated wastewater for residential irrigation,' the most popular policy option in Canyon Rim (78%), lower Millcreek (82%), and West Valley City (65%), and the #2 option in South Jordan and West Jordan (68 and 70%, respectively).

Building new water storage facilities was supported by over two-thirds (66-70%) of respondents from five of the six neighborhoods, with 61% in West Valley City supportive.

A majority of respondents (50-73%) in all the neighborhoods supported building structures to reduce stormwater runoff, with support highest in the two Millcreek neighborhoods.

There was more varied and modest support for several other local water policy options designed to incentivize conservation. For example, between 40-59% of respondents in these neighborhoods supported city programs to subsidize the purchase of low water use irrigation systems and appliances, roughly 2 to 3 times the proportion who opposed such programs. Support was highest in the Millcreek neighborhoods, and lowest in West Valley City.

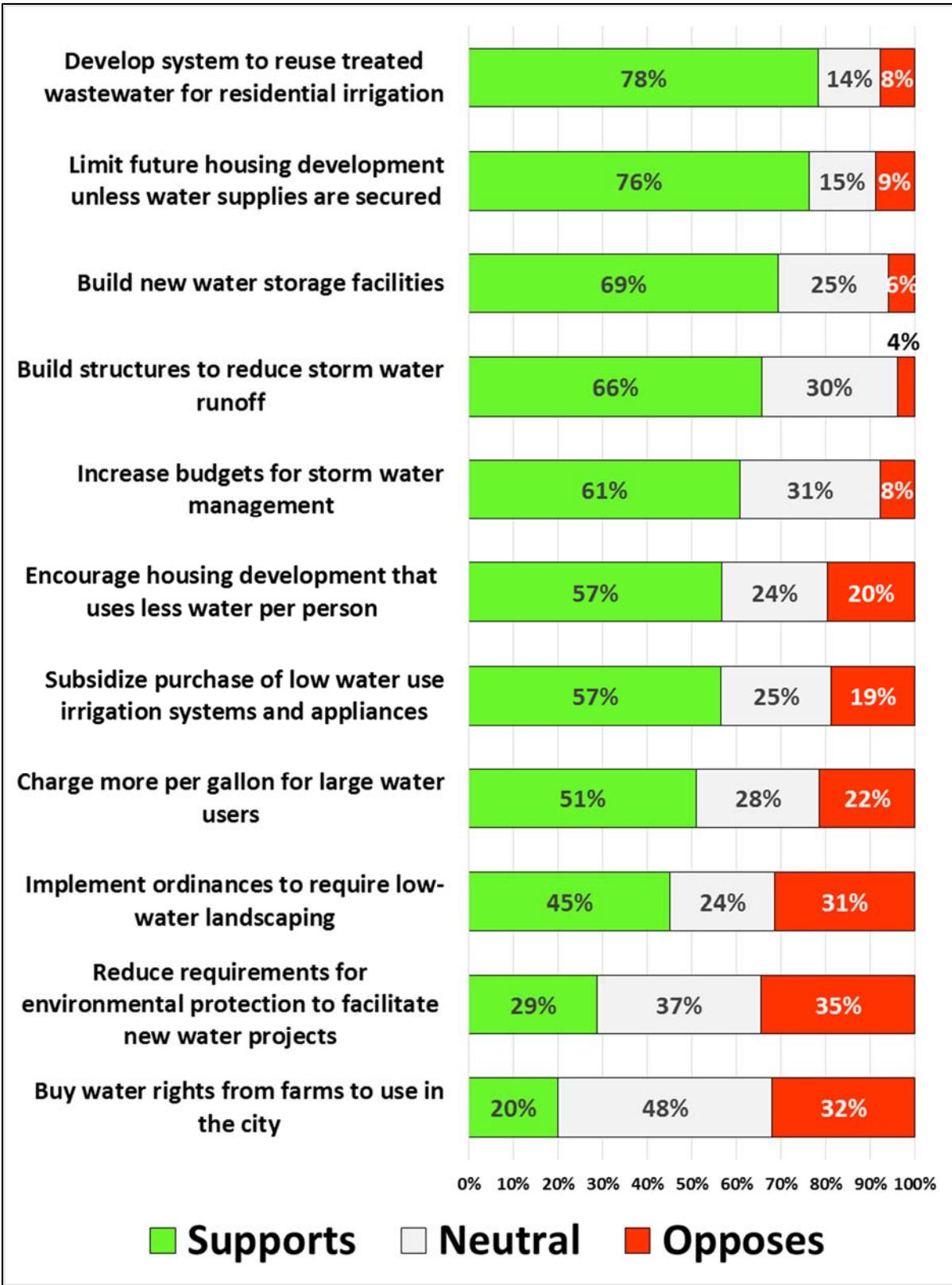
Policies to charge more per gallon for large water users had support from 39-51% of respondents in the Salt Lake Valley area, and levels of support exceeded opposition in all six neighborhoods.

Policies to encourage forms of housing development that use less water per person had strong support in Canyon Rim and lower Millcreek, but mustered support from 29-42% of respondents in the other neighborhoods, and opposition outweighed support in South Jordan and West Jordan. Substantial minorities (27-45%) supported ordinances that require low water landscaping, and support was higher than opposition everywhere but in South Jordan.

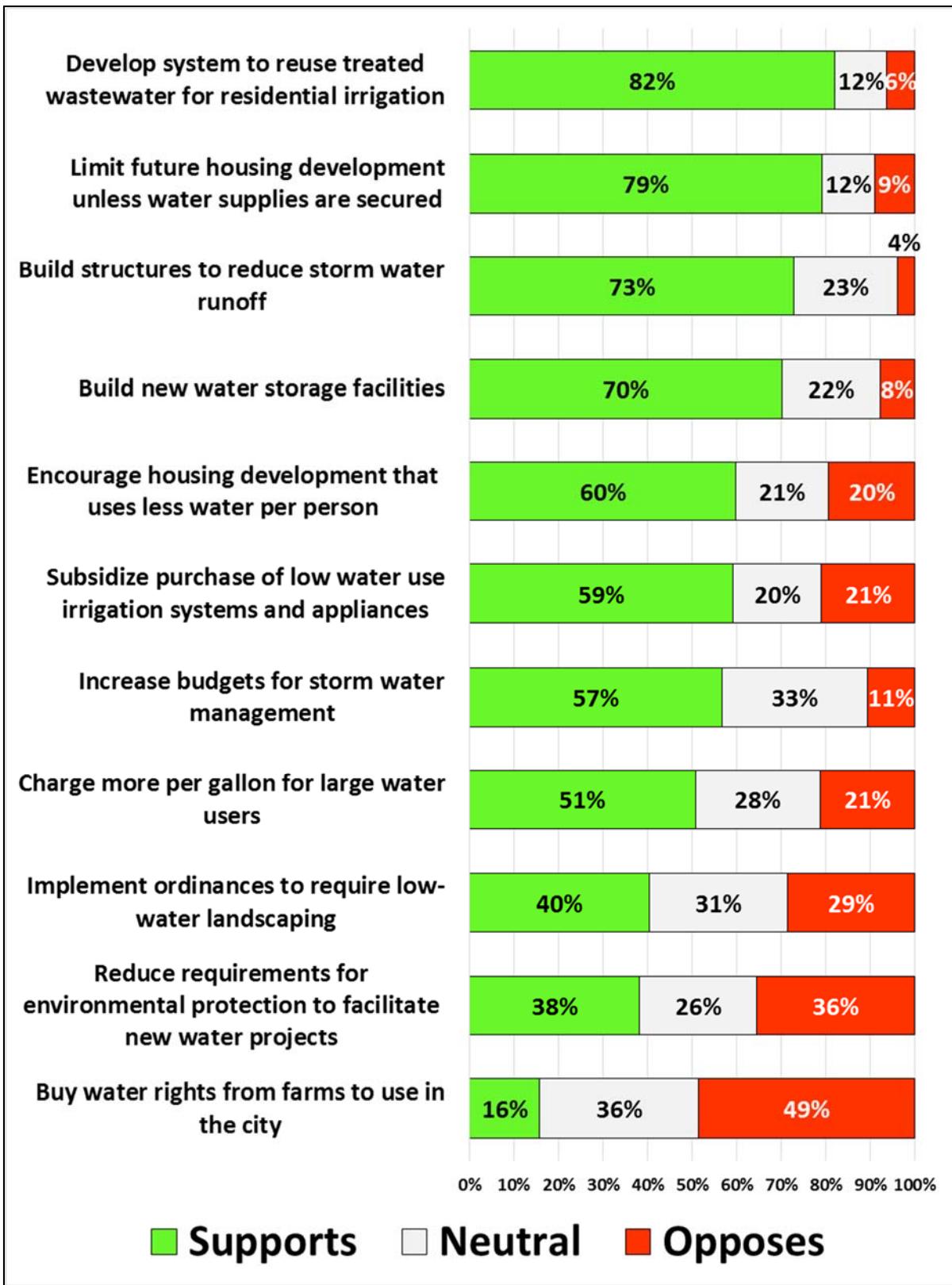
A minority of respondents supported reducing environmental protections to facilitate new water projects (28-45%), though more people supported than opposed this approach in every community (except lower Millcreek). The least supported policy option in every neighborhood was 'buying water rights from farms to use in the city' (supported by just 16-33% of respondents), and opposition exceeded support everywhere but in South Jordan.

**Table 17: Percent of Respondents Supporting Various Local Policy Options**

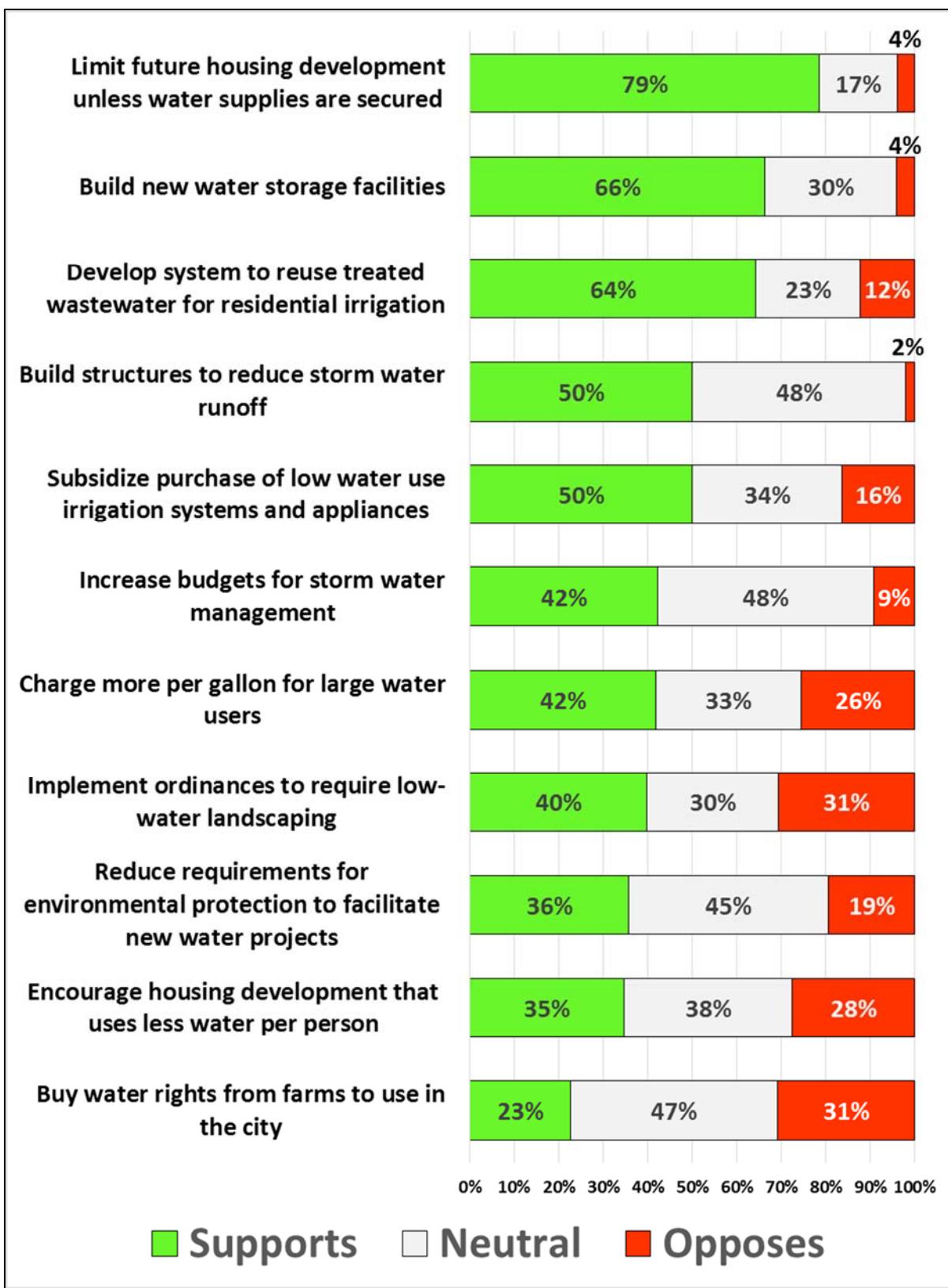
	SALT LAKE VALLEY NEIGHBORHOODS						Comparisons		
	Canyon Rim	Millcreek	Riverton	South Jordan	West Jordan	West Valley City	Salt Lake City	Cache Valley	Heber Valley
<i>Long Term Local Policy Options</i>	<i>Percent Indicating Support or Strong Support</i>								
Limit future housing development unless water supplies are secured	76	79	79	72	71	64	72	67	77
Develop system to reuse treated wastewater for residential irrigation	78	82	64	68	70	65	79	71	69
Build new reservoirs or water storage facilities	69	70	66	67	69	61	61	61	57
Build structures to reduce storm water runoff	66	73	50	54	52	51	70	54	45
Subsidize purchase of low water use irrigation systems and appliances	56	59	50	51	49	40	66	50	43
Increase budgets for storm water management	61	57	42	41	50	39	58	48	35
Charge more per gallon for large water users	51	51	42	39	39	40	64	43	45
Encourage housing development that uses less water per person	57	60	35	33	29	43	66	37	38
Implement ordinances to require low-water landscaping	45	40	40	39	27	39	62	40	41
Reduce requirements for environmental protection to facilitate new water projects	29	38	36	45	33	28	35	31	27
Buy water rights from farms to use in the city	20	16	23	33	28	19	25	24	27



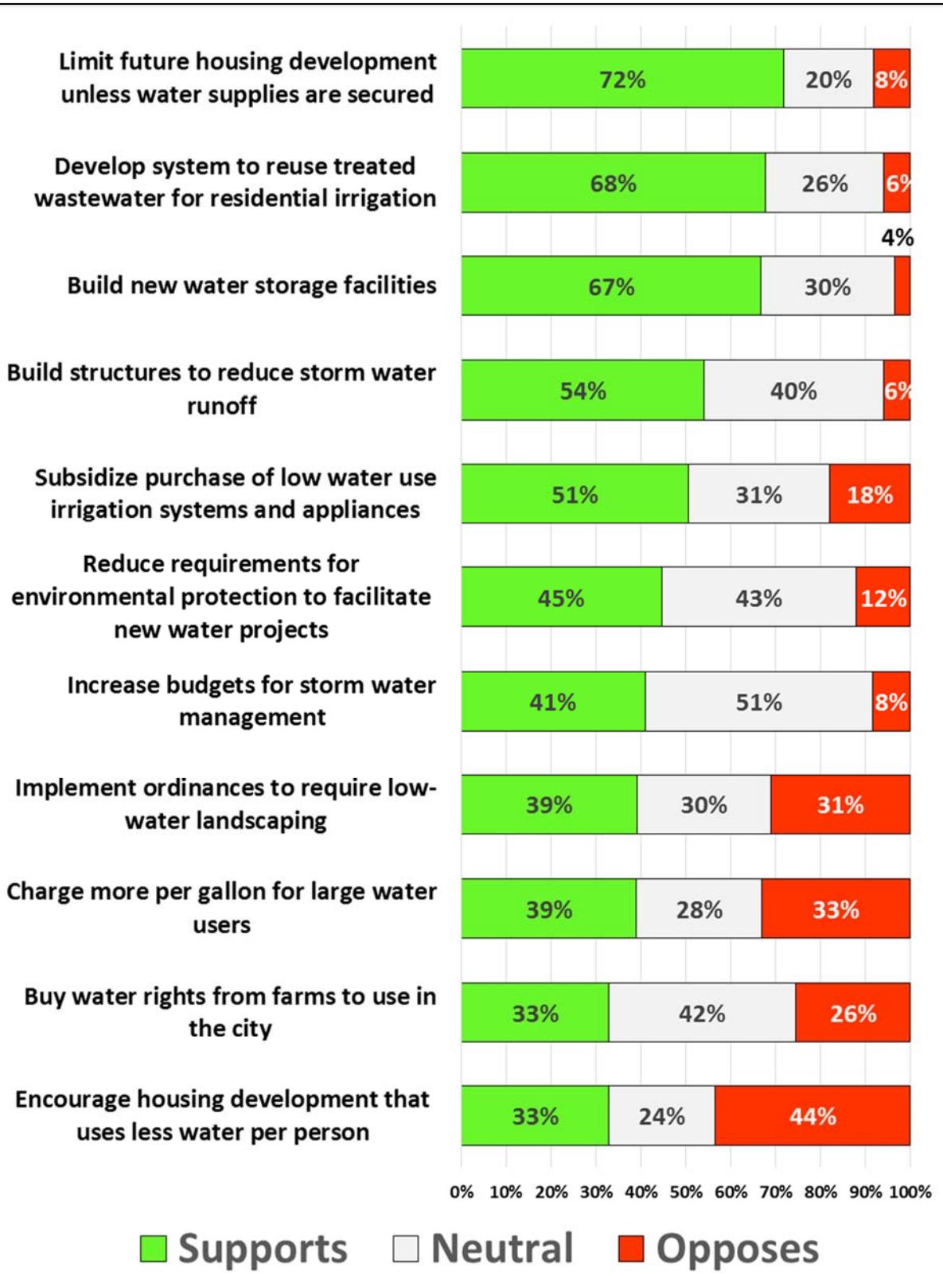
**Figure 4a: Millcreek Canyon Rim Respondent Support for Various Long-Term City Water Management Strategies.**



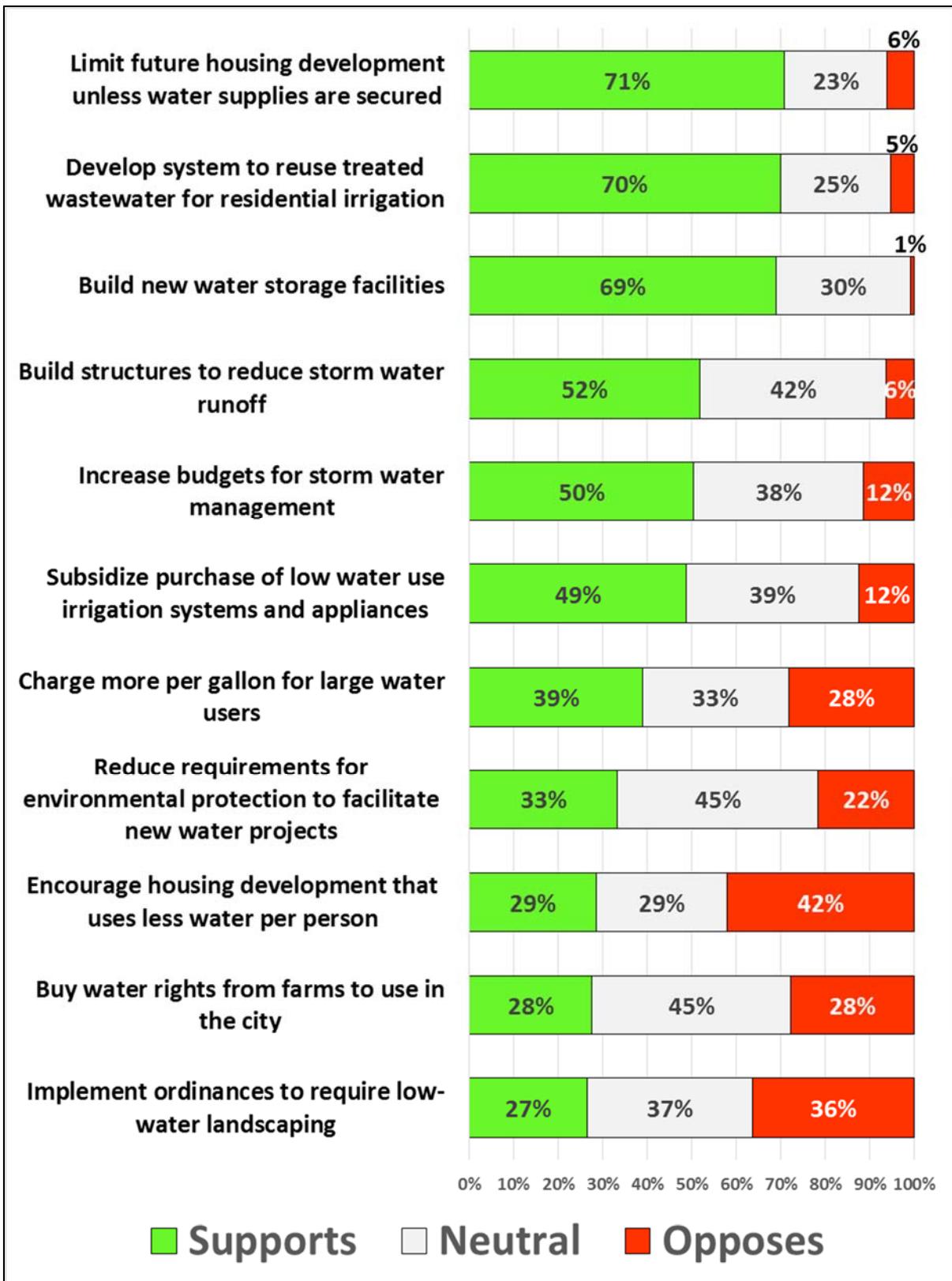
**Figure 4b: Millcreek 1300 E. Respondent Support for Various Long-Term City Water Management Strategies.**



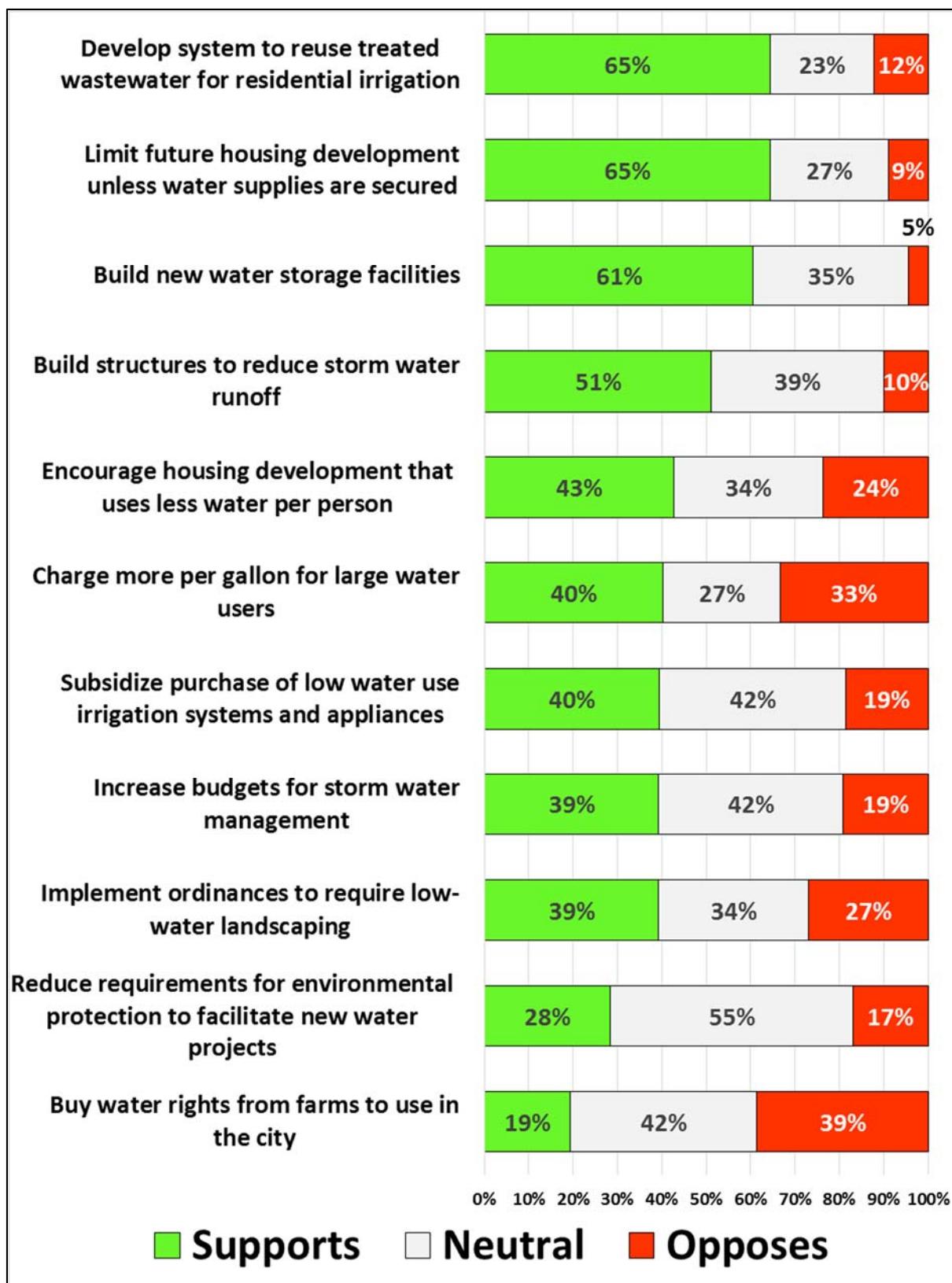
*Figure 4c: Riverton Respondent Support for Various Long-Term City Water Management Strategies.*



*Figure 4d: South Jordan Respondent Support for Various Long-Term City Water Management Strategies.*



**Figure 4e: West Jordan Respondent Support for Various Long-Term City Water Management Strategies.**



**Figure 4f: West Valley City Respondent Support for Various Long-Term City Water Management Strategies.**

## B. Support for State Water Policies

### *State Water Policy Goals*

The survey also asked respondents to indicate their level of support for a variety of possible goals to guide state-level water policies and programs (Table 18). Protecting water quality and ensuring a supply of drinking water were overwhelmingly supported across all six study neighborhoods in the Salt Lake Valley (with support from 92-99%). Ensuring water supply for agriculture was also a high priority for respondents from these neighborhoods (particularly for West Jordan). Protecting wetlands and wildlife habitat was somewhat less supported by respondents from these six neighborhoods, particularly in South and West Jordan. Levels of support for these environmental goals were generally lower than that found among Salt Lake City respondents. Saving taxpayer money was a goal shared by a majority of respondents, but was particularly important to respondents in West Valley City and West Jordan. As was found in Cache and Heber Valley, ensuring a supply of water for economic development was the lowest ranked among these six goals in each of the study neighborhoods.

**Table 18: Percent of Respondents Supporting Different Goals for State Water Policies**

	<b>SALT LAKE VALLEY NEIGHBORHOODS</b>						Comparisons		
	Canyon Rim	Millcreek	Riverton	South Jordan	West Jordan	West Valley City	Salt Lake City	Cache Valley	Heber Valley
<i>Percent Indicating Support or Strong Support</i>									
Ensure supply of drinking water	94	97	97	99	94	97	96	97	96
Protecting water quality	95	94	96	93	92	96	97	94	95
Ensure the supply of water for agriculture	84	79	81	77	88	81	78	86	86
Protecting the wetlands and wildlife habitat	73	65	72	61	60	73	83	68	76
Saving taxpayer money	54	54	59	54	64	71	44	56	59
Ensure the supply of water for economic development	38	38	37	46	46	50	40	47	48

### *State Water Policy Strategies*

We also assessed support among respondents of these neighborhoods for a variety of statewide policies and programs that are currently being considered by state water planners and policy makers (Table 19, and Figures 5a-5f).

There was support from a strong majority of respondents (and relatively little opposition) for the use of state funds to help replace aging city water infrastructure (64-80% support), and to build new reservoirs or storage projects (60-73%). These two state policies were the top ranked by respondents in all six Salt Lake Valley neighborhoods.

More than two-thirds of respondents in the Riverton and two Millcreek neighborhoods supported setting minimum state standards for new private residential construction to reduce water use. Support was slightly lower among respondents in South Jordan, West Valley City, and West Jordan. Opposition to this type of policy was reported by just 9-14 percent of respondents across the six neighborhoods.

A majority of respondents in all six neighborhoods supported state investments in research on water conservation technologies and practices (and this was the second overall ranked choice among respondents in Canyon Rim).

Between 47-69% of respondents in six neighborhoods supported using state funds to pay for efficiency improvement projects in agricultural irrigation systems. Support was strongest in Canyon Rim, lower Millcreek, and South Jordan. Just 9-12 percent opposed this type of program.

A majority of respondents in five of the study neighborhoods (particularly in Canyon Rim) supported a state policy to establish minimum flow requirements for streams to protect fish habitat. Minimum flow requirements had the support of 44% of West Jordan respondents. This policy was opposed by 4-17% of respondents across the six communities.

A state policy that would allow people with water rights to sell water saved from conservation practices received support from a majority of respondents in Riverton and Canyon Rim (and from 45-49% in the other four neighborhoods). That same policy was opposed by 3-14% of respondents in these neighborhoods.

West Jordan respondents were generally less supportive of most state policy options, but particularly for programs that would set spend state funds on water projects, establish minimum environmental flows, and change water rights.

Relatively few Salt Lake Valley respondents would support efforts by the state to construct pipelines to bring water to urban areas from other regions, to prioritize water efficiency over water rights, or to facilitate the transfer of water from agriculture to urban users.

**Table 19: Percent of Respondents Supporting State Water Policy Strategies**

	SALT LAKE VALLEY NEIGHBORHOODS						Comparisons		
	Canyon Rim	Millcreek	Riverton	South Jordan	West Jordan	West Valley City	Salt Lake City	Cache Valley	Heber Valley
<i>Percent Indicating Support or Strong Support</i>									
Use state funds to help replace aging water system infrastructure in cities	80	75	71	75	64	72	81	69	66
Use state funds to build new reservoirs or storage projects	67	73	69	70	60	60	58	60	63
Set minimum state standards for new private construction to reduce water use	67	66	68	60	51	57	73	55	61
Invest in research on new water conservation technologies and practices	77	61	53	60	54	54	76	59	58
Use state funds to pay for efficiency improvements in agricultural irrigation systems	69	61	50	60	47	48	64	57	58
Establish minimum flow requirements for streams to protect fish habitat	67	53	64	51	44	55	73	53	59
Allow people with water rights to sell water saved from using conservation practices	57	48	66	49	45	49	58	55	55
Use state funds to construct pipelines to bring water to urban areas from other regions	38	36	39	55	39	44	37	34	31
Ensure state policy prioritizes the efficient use of water over protecting existing water rights	41	47	44	38	31	48	58	42	39
Facilitate transfers of water from agriculture to urban users	25	27	26	35	22	31	32	26	25

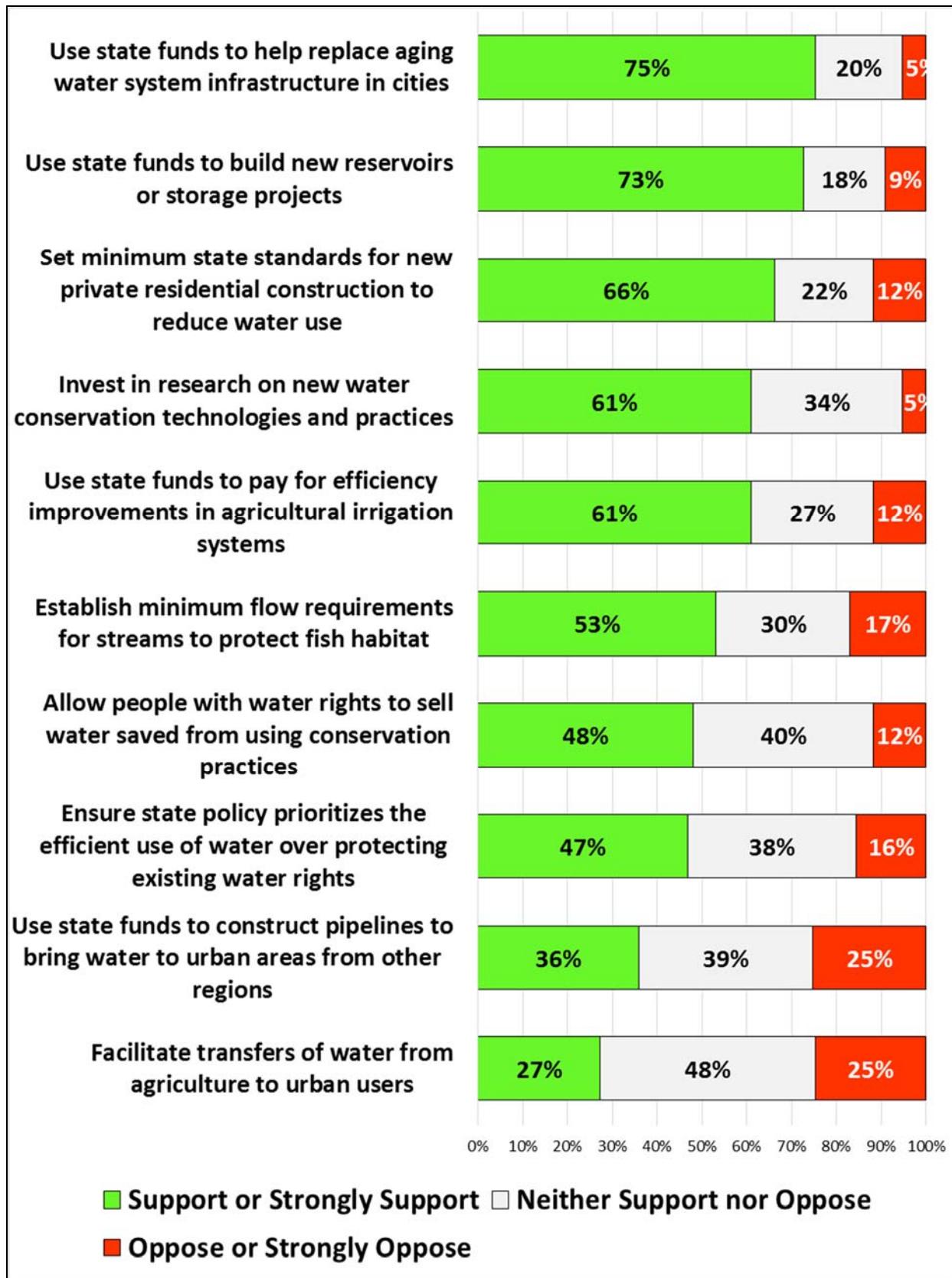


Figure 5a: Percent of Millcreek 1300E respondents supporting/opposing state strategies.

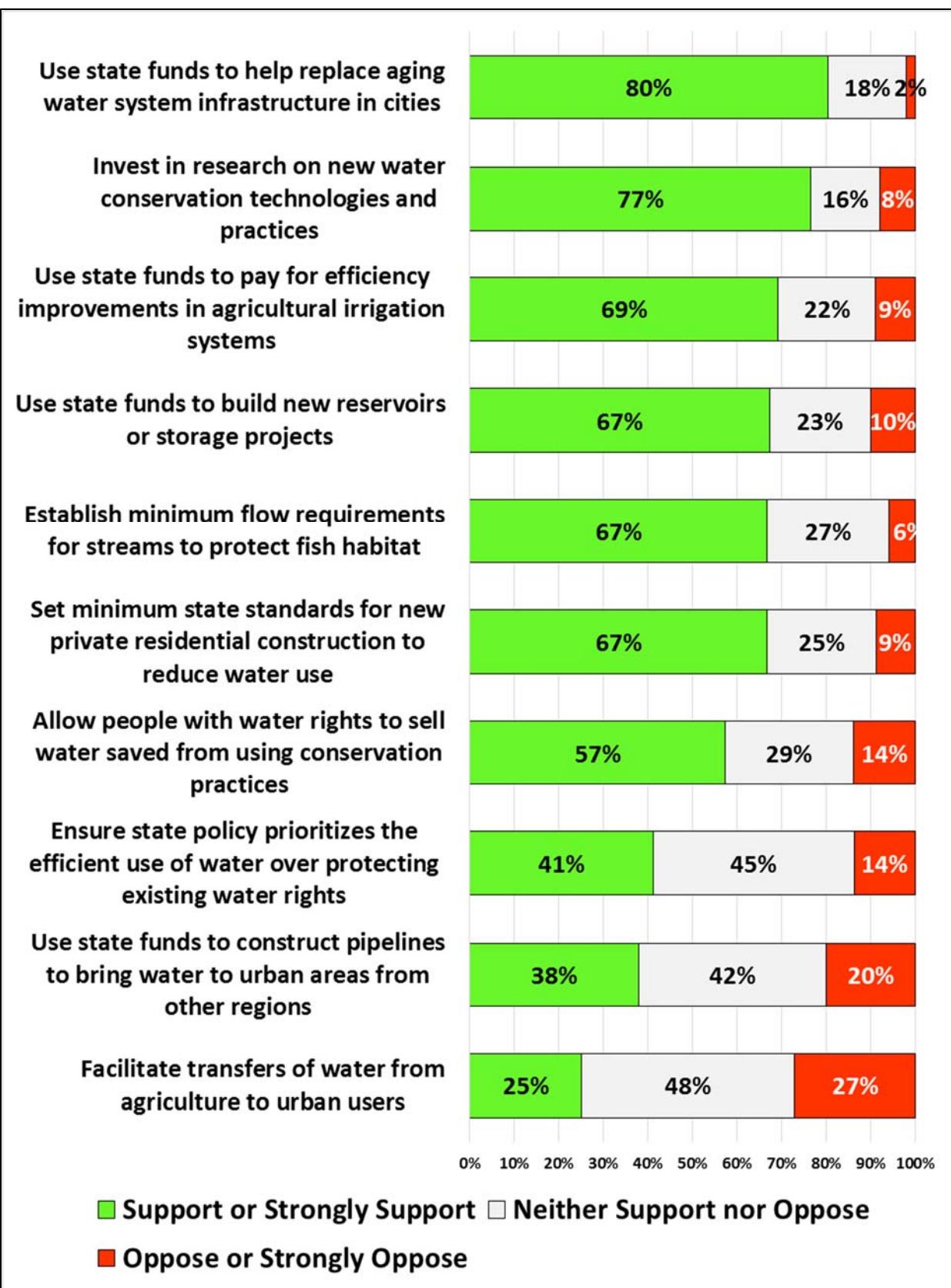


Figure 5b: Percent of Canyon Rim respondents supporting/opposing state strategies.

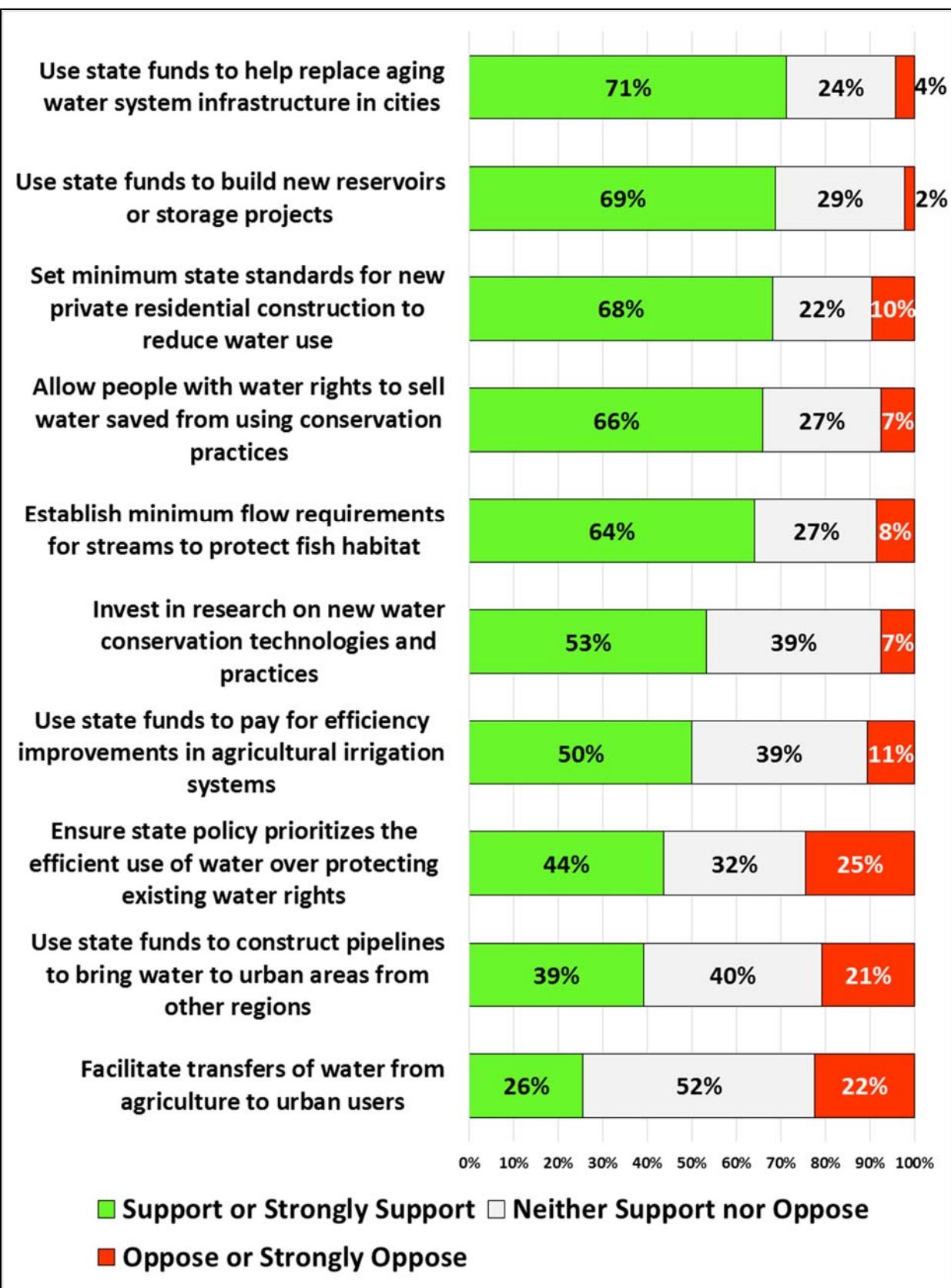


Figure 5c: Percent of Riverton respondents supporting/opposing state strategies.

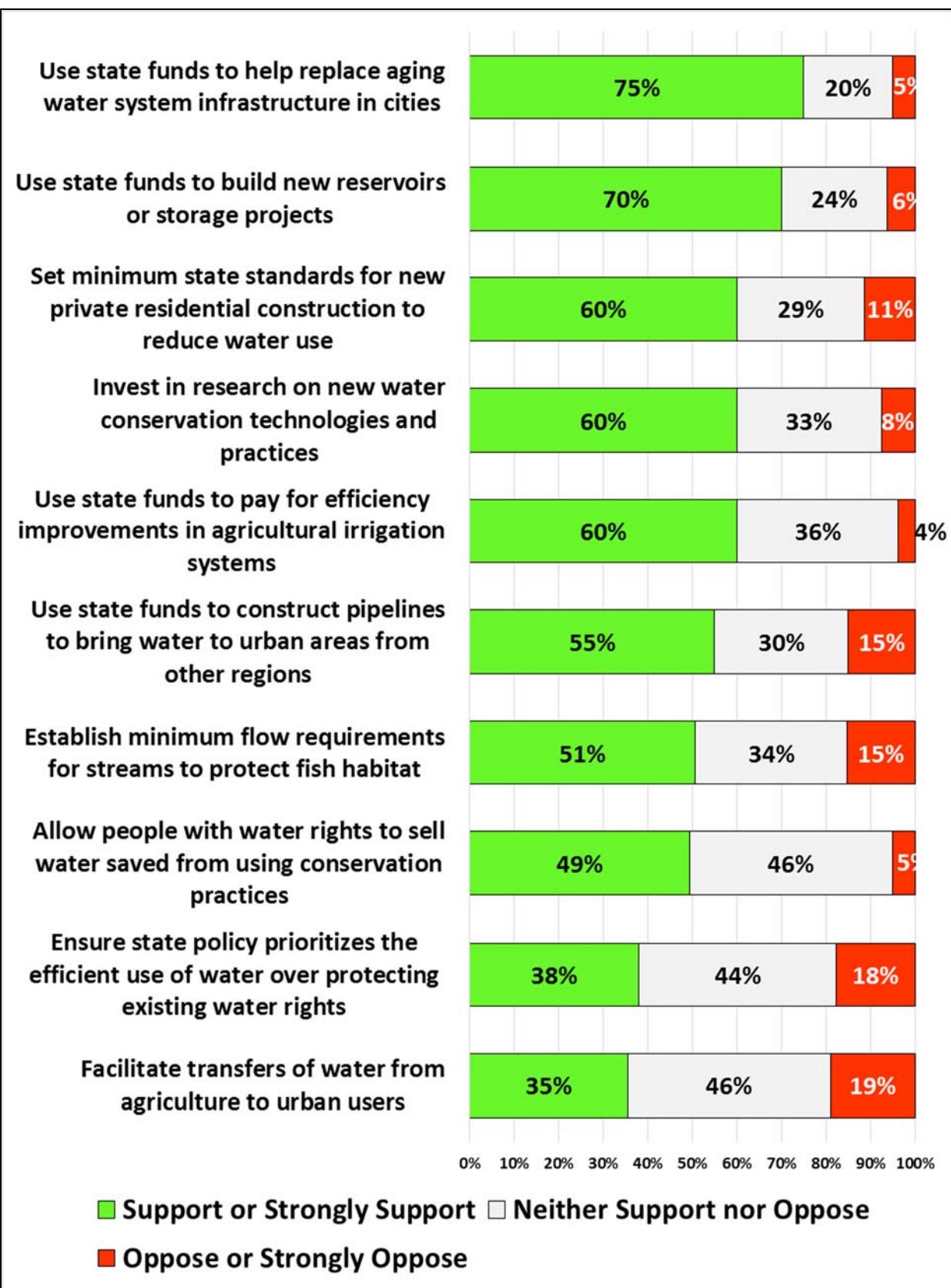


Figure 5d: Percent of South Jordan respondents supporting/opposing state strategies.

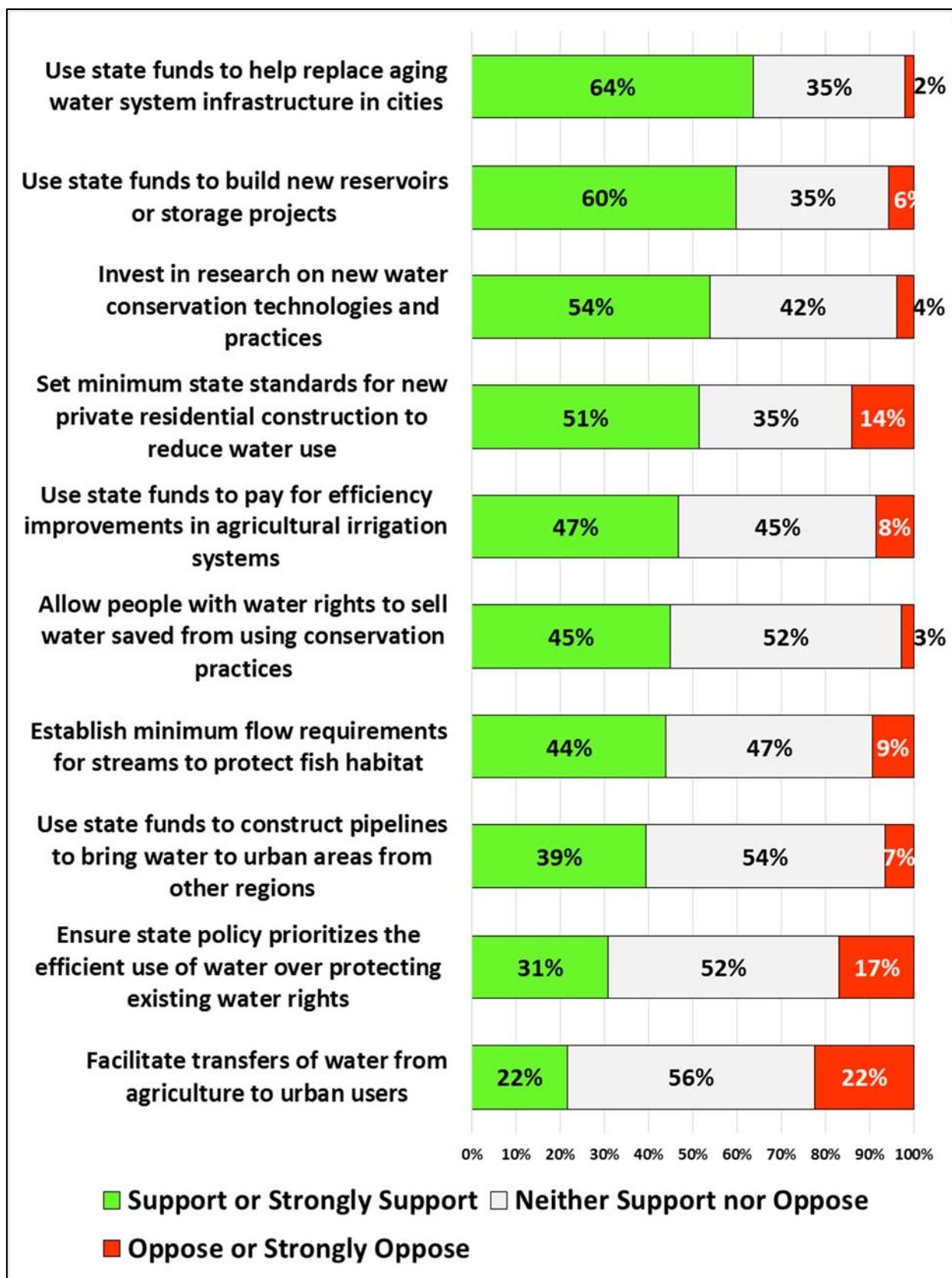


Figure 5e: Percent of West Jordan respondents supporting/opposing state strategies.

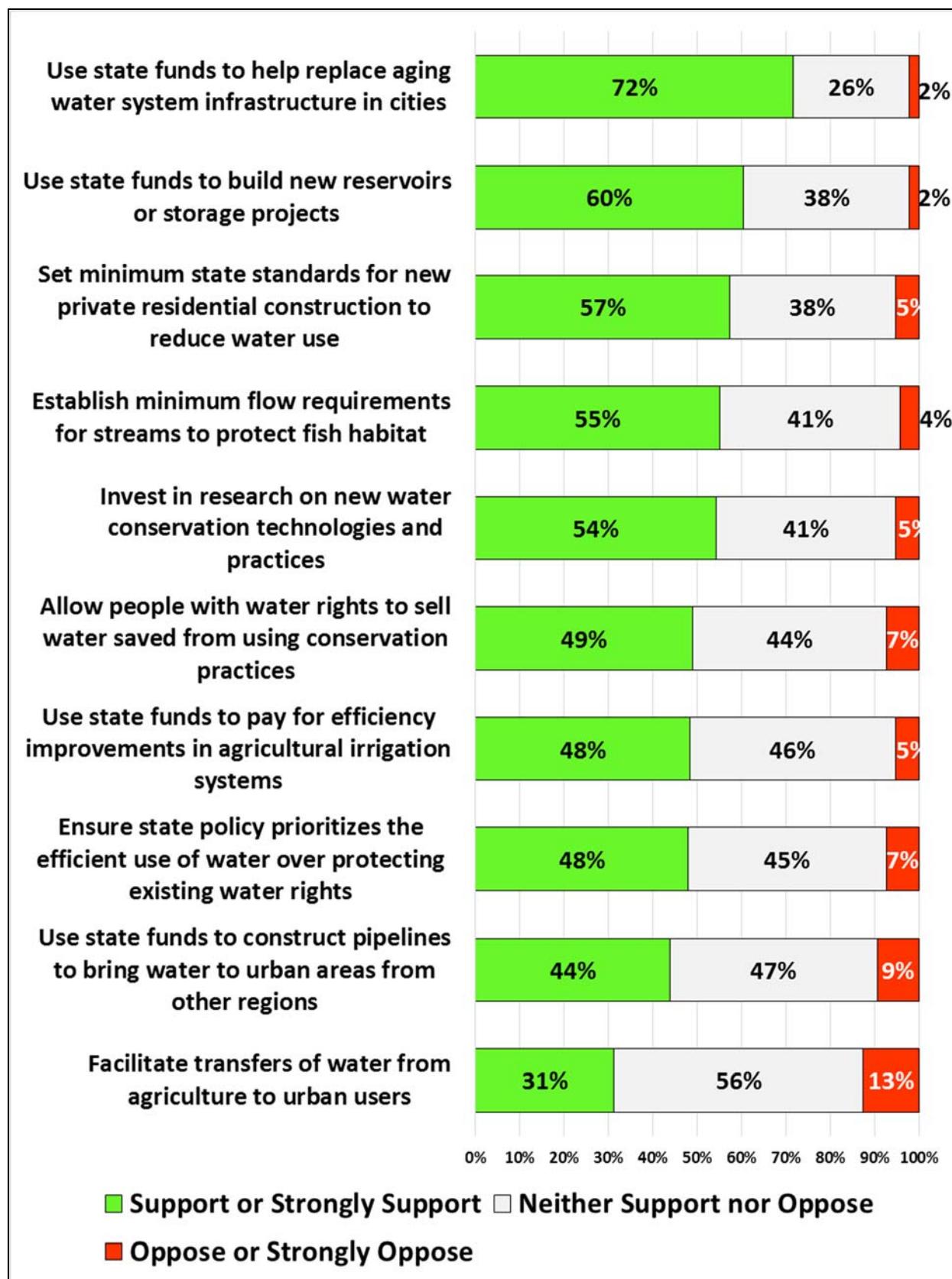


Figure 5f: Percent of West Valley City respondents supporting/opposing state strategies.

## IV. Additional Information

### A. Water Information Sources

Respondents were asked to indicate where they find information about water issues (Table 20). TV and radio were the most common information sources across all six Salt Lake Valley study neighborhoods. Mailings from water providers and the internet or social media were also cited by a majority of respondents in 5 of 6 of these neighborhoods. Newspapers and friends and neighbors were much more important sources of information among respondents in Canyon Rim, lower Millcreek and Riverton (which have an older and more long-term population) than in South Jordan, West Jordan, or West Valley City. The Salt Lake Tribune was the most widely read paper everywhere except Riverton. Homeowner or community associations were relatively minor sources of information for people living in these areas.

**Table 20: Sources of Information about Water Issues**

<i>Sources of Information about Water Issues</i>	<u>SALT LAKE VALLEY NEIGHBORHOODS</u>						<i>Comparisons</i>		
	Canyon Rim	Millcreek	Riverton	South Jordan	West Jordan	West Valley City	Salt Lake City	Cache Valley	Heber Valley
<i>Percent indicating use of source</i>									
TV/Radio	77	82	74	63	71	66	74	65	67
Mailings from providers	58	55	66	49	53	64	46	47	48
Internet/social media	64	61	55	57	57	47	65	54	55
Friends and neighbors	60	56	50	41	40	46	52	58	62
Any newspaper	56	47	45	43	27	33	49	50	56
Salt Lake Tribune	47	38	26	33	22	26	46	13	22
Deseret News	16	20	28	22	12	15	14	11	18
HOA/COA	14	10	3	8	11	14	8	12	21

## B. Satisfaction with Neighborhood and Community

Finally, survey respondents were asked to assess their level of satisfaction with various aspects of their neighborhood and community (Table 21). A very high percentage of respondents in most of these Salt Lake Valley communities were satisfied or very satisfied with their overall quality of life (78-90%). Satisfaction with all aspects of their neighborhood tended to be lower in the West Valley City area than the other locations. In general, lower Millcreek and South Jordan respondents were more satisfied with most aspects of their community.

**Table 21: Percent of Respondents Satisfied with Aspects of their Neighborhood**

<i>Aspect of Neighborhood...</i>	<b>SALT LAKE VALLEY NEIGHBORHOODS</b>						<i>Comparisons</i>		
	<i>Canyon Rim</i>	<i>Millcreek</i>	<i>Riverton</i>	<i>South Jordan</i>	<i>West Jordan</i>	<i>West Valley City</i>	<i>Salt Lake City</i>	<i>Cache Valley</i>	<i>Heber Valley</i>
<i>Percent Satisfied or Very Satisfied</i>									
Overall Quality of life	<b>81</b>	<b>90</b>	<b>83</b>	<b>86</b>	<b>78</b>	<b>61</b>	72	85	88
Appearance of homes and yards	<b>59</b>	<b>66</b>	<b>65</b>	<b>80</b>	<b>75</b>	<b>45</b>	46	65	68
Opportunities to interact with neighbors	<b>52</b>	<b>70</b>	<b>67</b>	<b>69</b>	<b>67</b>	<b>50</b>	45	65	67
Quality of parks and common spaces	<b>63</b>	<b>82</b>	<b>63</b>	<b>61</b>	<b>47</b>	<b>50</b>	67	73	70
Number of shade trees	<b>63</b>	<b>63</b>	<b>57</b>	<b>57</b>	<b>51</b>	<b>52</b>	57	63	59

## V. Summary

This concludes our preliminary reporting of findings from the 2014 iUTAH Household Water Survey for these six Salt Lake Valley neighborhoods. We anticipate continued analysis of data from the survey and we will post additional findings as they become available at [www.iutahepsecor.org/hhsurvey](http://www.iutahepsecor.org/hhsurvey). Please contact us if you have any questions. Dr. Douglas Jackson-Smith can be reached at (435) 797-0582 or [doug.jackson-smith@usu.edu](mailto:doug.jackson-smith@usu.edu).