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2014 Great Bend of the Wabash Watershed Rain Barrel Adoptee Survey Executive Summary

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2014 Great Bend of the Wabash Watershed
Rain Barrel Adoptee Survey
Executive Summary

This executive summary highlights key findings from the mail and online survey of residents in the Great Bend of the Wabash watershed conducted in summer 2014. The survey asked respondents about their perceptions about local water quality, their constraints in adoption and maintenance of rain barrels, their awareness of various best management practices, and themselves in terms of background and demographics. The survey results aimed to determine specific watershed management planning recommendations for setting adoption goals and reaching potential adopters for the environmental non-profit organization, Wabash River Enhancement Corporation (WREC) working in the Region of the Great Bend of the Wabash River.

Survey Methods

The survey results presented here comes from the mail and online survey conducted by the Natural Resources and Social Science lab at Purdue University in summer 2014. Questions included in the survey focused on respondents' perceptions about local water quality, their constraints in adoption and maintenance of rain barrels, their awareness of various best management practices, and themselves in terms of background and demographics. The list of addresses was compiled from the entire list of 461 rain barrel adoptees in Wabash River Enhancement Corporation (WREC). Of the 461 surveys sent out, 41 were returned as bad addresses, 127 were completed by mail, and 188 were completed via online survey (the alternative option noted in the mail survey). The Dillman (2000) Tailored Design Method was used with to contact those on the list up to five times (advance letter, 1st mailing of paper survey, reminder postcard, 2nd mailing of paper survey, 3rd mailing of a paper survey with a reminder postcard), which achieved a response rate of 70.0% (n=294, excludes the bad addresses, duplicated responses, and invalid responses).

Key Findings

Perception about Local Water Quality

- For the water pollutants and conditions listed in the survey, more than half of the respondents stated that they had no idea about the following water impairments in their area is a problem or not:
    - Nitrogen (50.9%, n=283)
    - Phosphorus (51.3%, n=279)
    - Not enough oxygen in the water (50.5%, n=281)
    - Flow alteration (54.8%, n=281)
- For the sources of water pollution listed in the survey:
    - 51.1% of the respondents (n=280) stated that they didn't know whether channelization of streams is a problem in their area.

    - While, 27.8% (n=281) thought excessive use of fertilizers for crop production, and 27.1% (n=280) thought soil erosion from farm fields, were severe problems as the sources of water pollutions.
- For the consequences of poor water quality:
    - 38.4 % respondents (n=281) didn't recognize contaminated drinking water as a problem in their area.
    - While, 24.0% (n= 283) responded that loss of desirable fish species, 19.9 % (n=282) stated that contaminated fish, and 19.9% (n=282) said reduced opportunities for water recreation, was a severe problem in their area.
- For their opinion about water quality:
    - Most of the respondents agreed that "it is my personal responsibility to help protect water" (92.1%, n=281), and "it is important to protect water quality even if it slows economic development" (86.4%, n=280).
    - On the other hand, which was also consistent with their agreement, most of them disagreed that "it is okay to reduce water quality to promote economic development" (93.2%, n=281), and "what I do on my land doesn't make much difference to overall water quality" (82.0%, n=279).

Specific Constraints

- The majority of respondents (77.9%, n=289) said they installed it and currently use it.
- Among the respondents who installed the rain barrels, when asking about their purpose for getting a rain barrel, a high percentage of them (90.7%, n=237) said they used it to reduce water use for their yard and house, and 65.8% of them (n=222) regarded it as the most important single factor for getting a rain barrel. From their specified other reasons for getting the rain barrel, some of them mentioned that the inexpensive cost was their main consideration, many of them said they used the rain barrel to water their plants or vegetables in their garden
- Many of them (62.6%, n=230) responded that they bought their rain barrels for $25 from the City of Lafayette, Tippecanoe County.
- In response to the factors making it difficult for them to continue use the rain barrels, 6.2% (n=227) regarded water pressure issues as a factor influencing them a lot, and 5.8% (n= 226) thought equipment malfunction as a factor concerned them much.
- Over half of them (52.0%, n=223) stated they emptied their rain barrel within a week of filing.
- Near most of them (95.6%, n=228) said they used water from the rain barrel to irrigate a vegetable or flower garden.
- For the question about how do they learn about rain barrels, 34.5% of them (n=229) said they learnt from City water bill. Among the other specified learning sources (36.2%, n=229), many of them said they heard from their friends, relatives, neighbors; four of them mentioned Master Gardeners; two of them mentioned they

learnt it from employee in Food Finders Food Bank; two of them mentioned River Feast of 2013.

Awareness of Various Best Management Practices

The result is shown in the Figure 1. A high percentage of respondents said they never heard of downspout disconnection (51.5%, n=227), grass swales (48.3%, n=230), and French drains (39.5%, n=228)

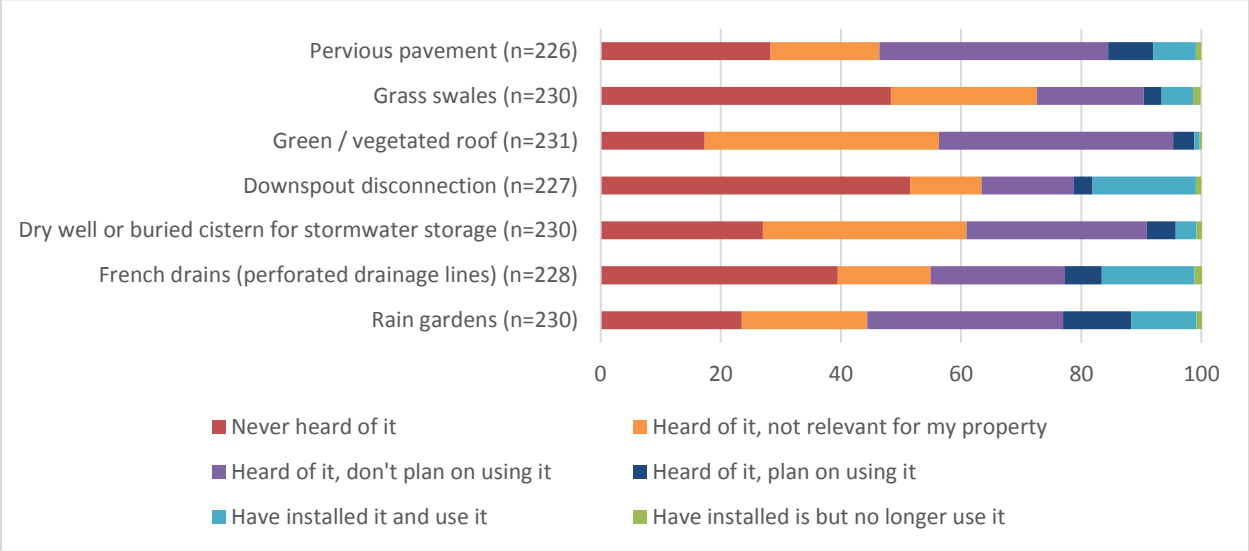

Figure 1 Experience about other BMPs

Respondents Profile

- 42.6% of the respondents were male, and 57.4% of them were female. (n=282)
- The ages of the respondents were ranged from 25 to 92 (n=273), which is shown in Figure 2.

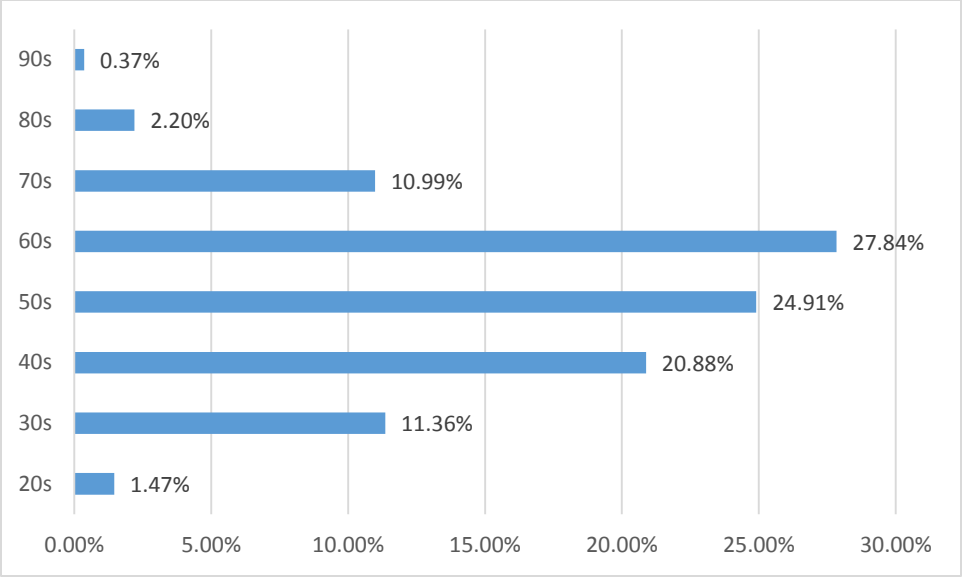

Figure 2 Age of Respondents

- 68.9 % earned a bachelor degree or higher. (n=279)
- The income distribution of the respondents (n=252) is shown in Figure 3.

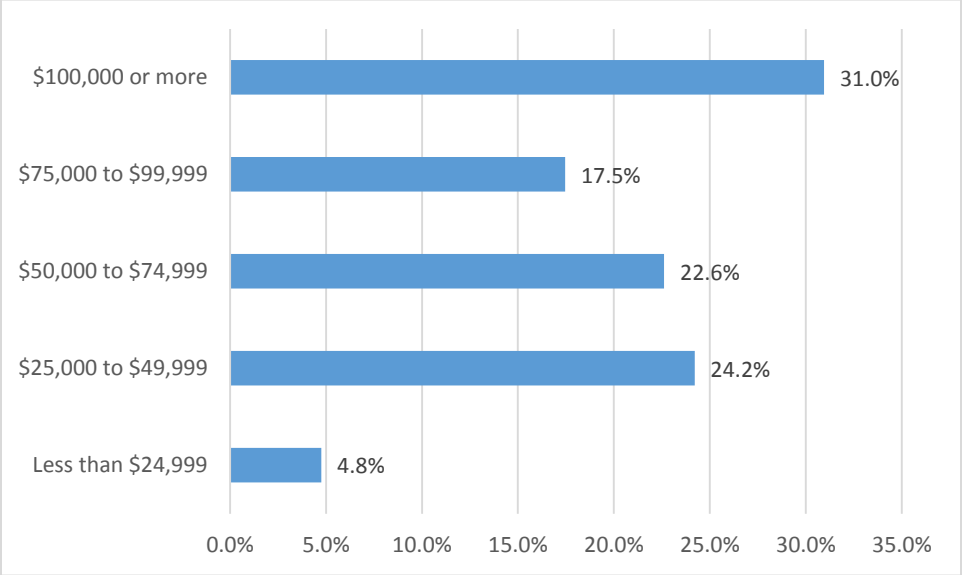

Figure 3 Income of Respondents

- 34.2% of the respondents said they lived in a watershed, 21.0% said they didn't lived in a watershed, and 44.8% didn't know whether they lived in a watershed or not. (n=281)
- 8.5% of the respondents said the property they owned touched a stream, a river, a lake or wetland, and 91.5% said no to this question. (n=284)
- 97.0% of the respondents said they owned their home, and 2.1% said they rented it. (n=282)
- Over half of the respondents' residential lot size was one quarter acre or less (63.7%, n=278), which is shown in Figure 4.

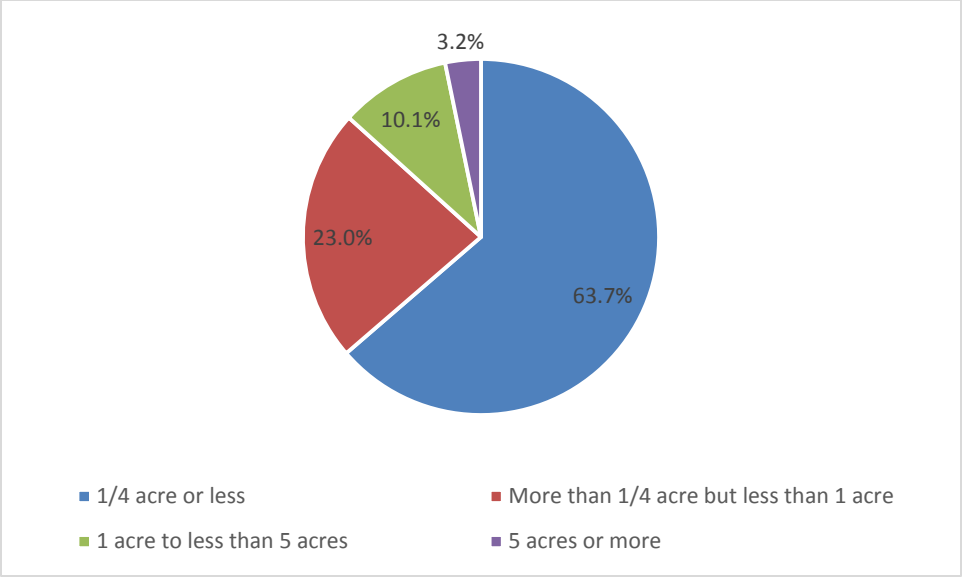

Figure 4 Size of Residential Lot

- The years that the respondents lived at their current residence were ranged from 1 to 71 (n=278), which is shown in Figure 5.

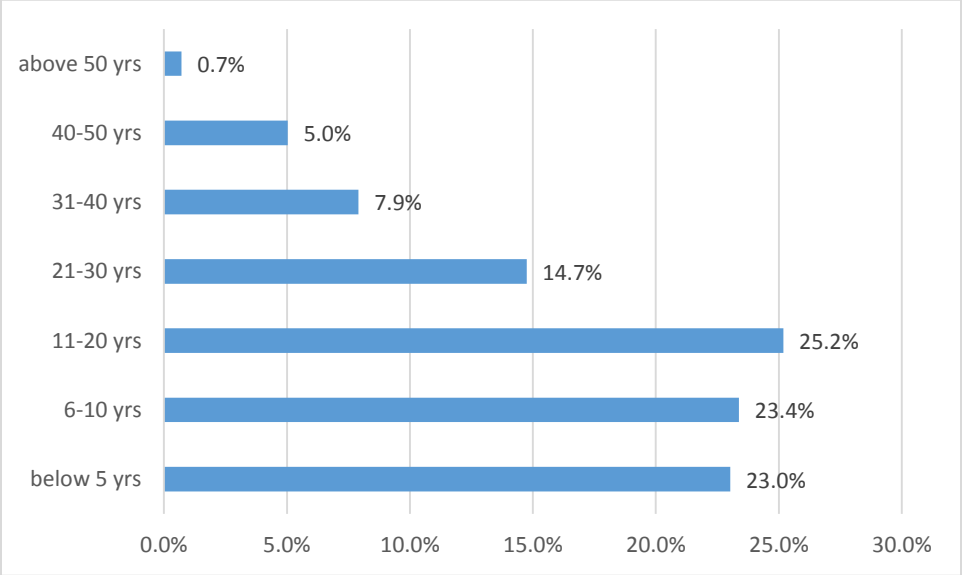

Figure 5 Years of Residence

- Most of the respondents reported they lived in a town, village, or city (81.9%, n=281), which is shown in Figure 6.

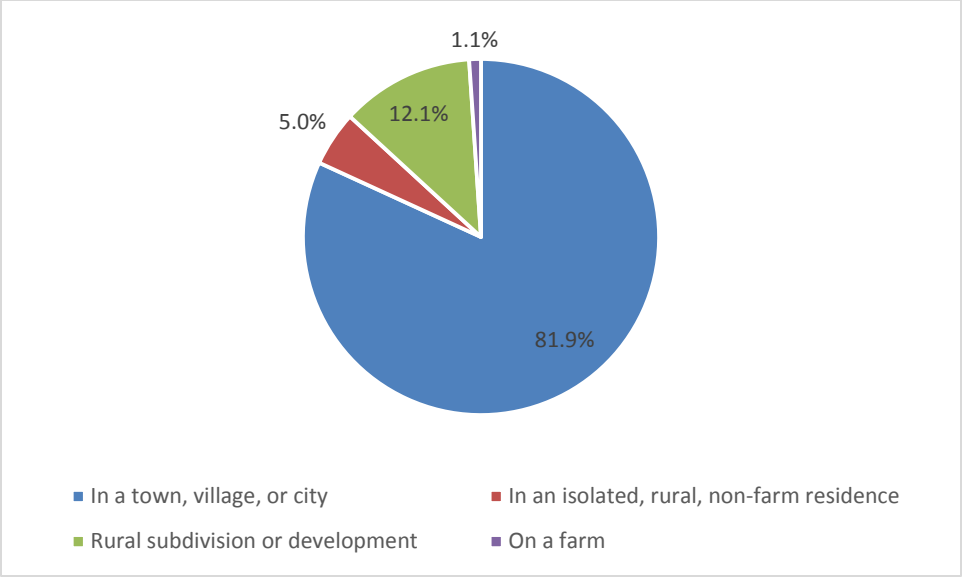

Figure 6 Residence Area