

## Peoria Community Forestry Program

### Executive Summary

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### **Introduction**

The City of Peoria has expressed its desire for a comprehensive Community Forestry Program (CFP), which would be crucial in maintaining the city's resilience against the urban heat island (UHI) effect. Many other cities in Arizona, and across the United States, have adopted shade or forestry plans that aim to lower urban temperatures, create a safe pedestrian space, and maintain general ecosystem health and integrity. Urban heat in Peoria is a true sustainability problem due to its sphere of influence in the society, as well as the local environment and economy; there is no one simple solution. The creation of a CFP would involve changing the urban environment to benefit biodiversity and human health, as well as decrease costs associated with infrastructure damage and electricity for air conditioning. Our team was tasked with identifying whether or not a CFP is feasible or desired through analysis of other municipalities' CFPs and surveys to Peoria homeowners. In the future, Peoria hopes to use this data to make well-informed decisions on CFP creation, budgeting, and eventual implementation.

### **Methods and Interventions**

To accomplish these goals, the team conducted citizen outreach through the survey software Qualtrics. Qualtrics was chosen because of its sophisticated response analysis tools and its built-in features to keep respondents' information confidential. This proved to be a valuable tool because it provided succinct and graphically appealing graphs and tables that can easily communicate citizen preferences. The survey collected 748 responses and will remain open until April 30th. Outreach success was based on the suitability of the survey to collect poignant information and in collecting enough responses to represent the various perspectives and concerns voiced by residents.

The matrices produced for Peoria include information about code and tree shade plans from cities within the Phoenix metro area (such as Chandler, Phoenix, and Tempe) and outside the metro area (such as Tucson, Albuquerque, and San Antonio). By analyzing this information and comparing it to results gathered from the public survey, the team identified existing code points and forestry plan specifics that are similar to Peoria citizen desires. This information will

be incorporated into Peoria's CFP recommendations. Success in this realm was determined by the development of this document and its usefulness to Peoria as a guide.

### **Project Outcomes/Results**

The survey collected information from Peoria residents through the month of April 2021. The information that we collected is informative and indicates public support for the CFP's development. The survey has spread awareness about the CFP and has provided valuable information to Peoria about the scope and priorities that the CFP should encompass. Peoria can use this survey data as a reference for how best to move forward with the CFP in accordance with the resident's vision of the city. Increased collaboration between a city and its residents is a positive outcome that should be a pillar of success for all urban development projects. This is the beginning of an initiative with the potential to improve Peoria's safety and beauty for decades to come.

From creating the CFP matrices, it became evident that education, strategic goal setting, and transparency of sustainability initiatives were some of the most crucial components of CFPs that lead to change. Recommendations follow these principles and additionally include the potential for the creation of a food forest, placing a Peoria resident permanently on a public board for advice on forestry management and development, and the addition of more tree reporting services to Peoria's 311 app.

### **Next Steps**

This project will help Peoria determine if a CFP is a feasible solution to urban heat and its complications; however, it cannot be the only solution. Urban heat is a wicked problem, and needs to be approached from a variety of intervention points. In order for Peoria to be fully prepared to tackle the rising temperatures anticipated in coming years, they will need to work on actions such as mitigating unsustainable social norms and upholding principles for ecological preservation and proper urban development. We suggest that Peoria work with other local municipalities to create a unified force determined to create ambitious plans for sustainable action.