

Breaking Down Silos between Planning & Public Works

**THIS SESSION WILL BE CONDUCTING
POLLING**

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Breaking Down Silos between Planning & Public Works



APA National Planning Conference
April 3, 2016

Session Agenda

Welcome and Overview of Session

Introduction

APWA's Perspective on Sustainability

Overview of Tools & Resources

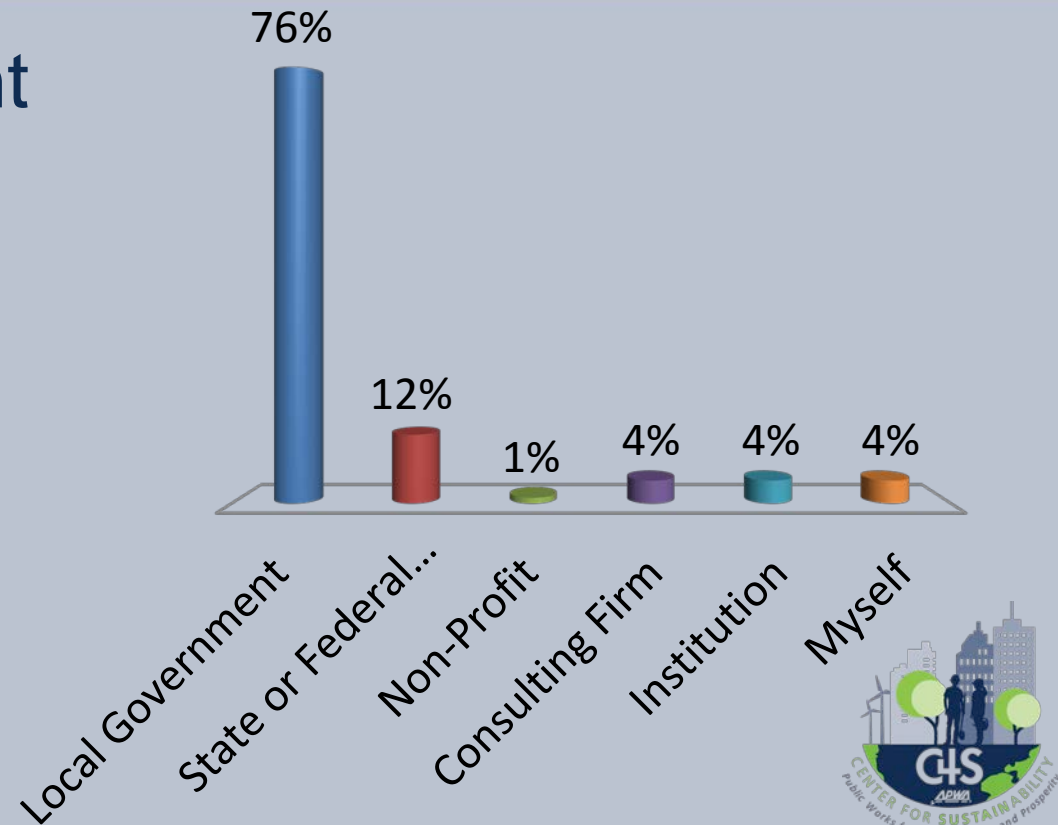
Phoenix Case Study

Q&A



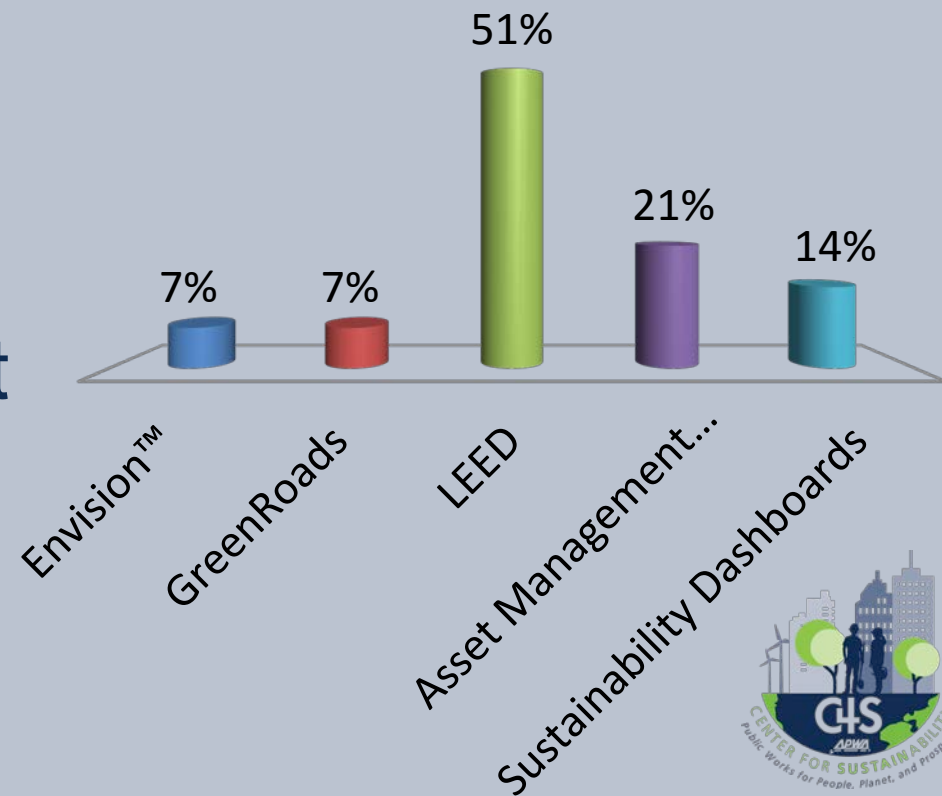
Who are you representing today?

- A. Local Government
- B. State or Federal Government
- C. Non-Profit
- D. Consulting Firm
- E. Institution
- F. Myself



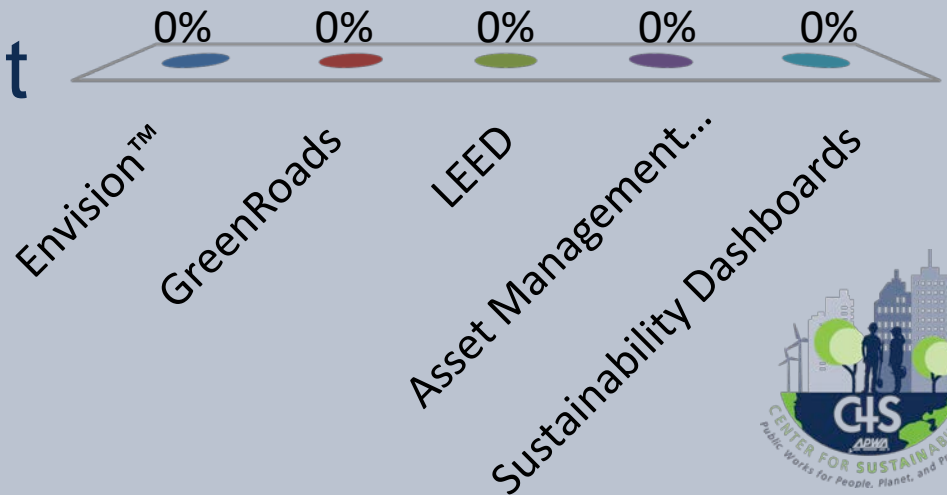
Which tools are you familiar with?

- A. Envision™
- B. GreenRoads
- C. LEED
- D. Asset Management Software
- E. Sustainability Dashboards



Which tools do you actively use?

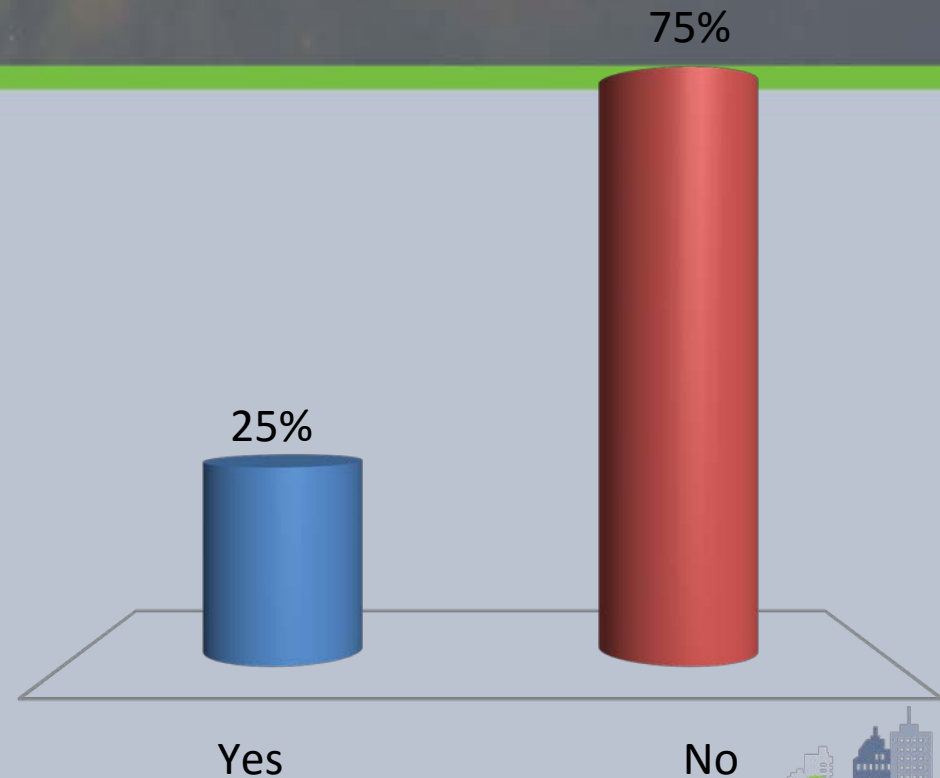
- A. Envision™
- B. GreenRoads
- C. LEED
- D. Asset Management Software
- E. Sustainability Dashboards



Are you the lead in your organization for Sustainability?

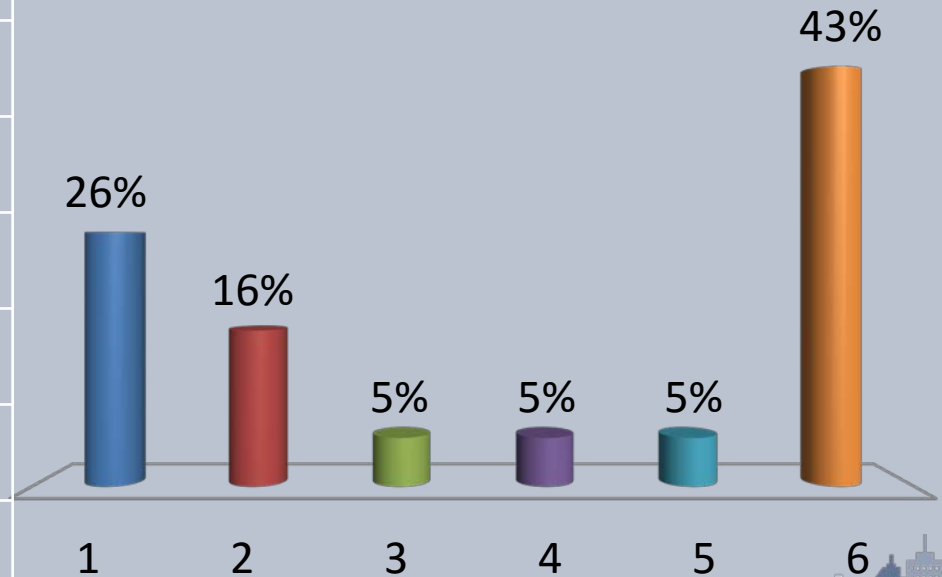
A. Yes

B. No



Which Department is the most challenging to work with on sustainability issues?

Rank	Responses
1	PUBLIC WORKS
2	ENGINEERING
3	FINANCE
4	PLANNING
5	UTILITIES
6	Other



Challenges & Opportunities

- Communication
- Scope of Focus
- Climate & Sustainability



About APWA

- Formed January 1, 1937
- 28,500 members in US and Canada
- 64 chapters
- Promote education, advocacy and networking.
- Public Works covers many different skill sets from engineering, transportation, facilities, solid waste, parks, etc.



About APWA C4S

Created in 2008 to assist Public Works Professionals to confront the challenges facing their communities.

Consists of 12 Leaders from US and Canada

Mission

- Establish and promote framework
- Develop professional development and training
- Identify strategic partners at Federal, State and Local levels
- Advocate for sustainability principles at Federal, State & Local levels



APWA's Perspective on Sustainability

1. Recognize Community as a System
2. Redevelop First
3. Provide Efficient Infrastructure
4. Support Concentrated Development
5. Restore and Enhance the Environment
6. Enhance Recreational and Heritage Resources
7. Plan Regionally; Implement Locally
8. Be Fair
9. Support Community Revitalization and Development
10. Practice Fiscal Responsibility
11. Communication and Civic Engagement
12. Provide Leadership



C4S Activities & Resources

- Sustainability Toolkit
- Click, Listen, and Learns (Webinars)
- May Reporter
- In the Know's

A photograph of a construction site in a park-like setting. Two yellow excavators and a yellow truck are visible. The ground is dirt and gravel, with some blue pipes lying on it. Red and white striped barriers are set up. In the background, there are green trees and a clear sky.

APWA's Tools of Choice

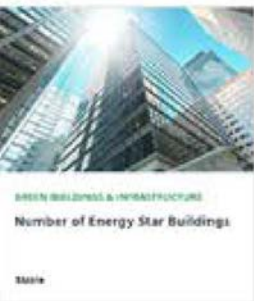
- Sustainable Return on Investment (SROI)
- Sustainability Dashboards
- Asset Management Software
- Envision
- *Other Rating Systems: Greenroads, INVEST, LEED*

SROI

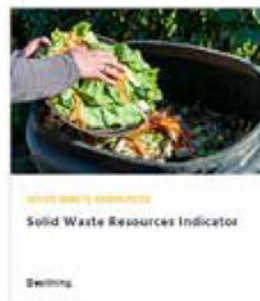
-  Buildings
-  Community Values
-  Corporate Responsibility
-  Emissions
-  Energy
-  Market Conditions
-  Mobility
-  Site Development
-  Waste
-  Water



— Data Inputs — → SROI Process → Cost & Benefit Output —



Solid Waste Resources



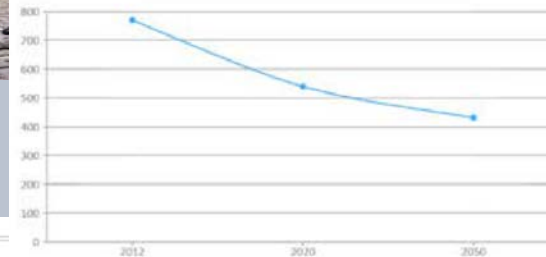
Land Use & Transportation



Our Goals



Total Government Operations GHG Emissions



This graph shows the track that GHG emissions need to follow in order to meet our short and long-term reduction goals for government operations

les that is environmentally healthy, economically prosperous, short term results and long term goals that will transform our city, the nearest-term goals identified in the pLAN. This dashboard are how we —in city operations, and collectively as Angelenos

ENVIRONMENT





Asset Management

What is Asset Management?

A methodology to efficiently and equitably allocate resources amongst valid and competing goals and objectives.



Asset Management

Building Systems List

Level 1	Level 2	Level 3	Expected Life Span	
C Interiors	C20 Stairs	C2010 Stair Construction	50 Years	
C Interiors	C30 Interior Finishes	C3010 Wall Finishes	10 Years	
D Services	D10 Conveying	D1020 Escalators & Moving Walks	40 Years	
D Services	D20 Plumbing	D2010 Plumbing Fixtures	25 Years	
D Services	D20 Plumbing	D2040 Rain Water Drainage	30 Years	
D Services	D20 Plumbing	D2090 Other Plumbing Systems	30 Years	
D Services	D30 HVAC	D3020 Heat Generating Systems	20 Years	
D Services	D30 HVAC	D3030 Cooling Generating Systems	20 Years	
D Services	D30 HVAC	D3040 Distribution Systems	20 Years	
D Services	D30 HVAC	D3050 Terminal & Package Units	20 Years	



City of Tempe

The City of Tempe has identified the following next steps towards promoting asset management.

- Strengthening preventative maintenance programs
- Promote strategic systems improvements
- Increase energy management programs

Envision

- What is Envision®
 - Envision® helps evaluate the sustainability of civil infrastructure.
 - Joint collaboration between the Institute for Sustainable Infrastructure (ISI) and the Zofnass Program for Sustainable Infrastructure at the Harvard Graduate School of Design.



What is Envision®?

- The Envision® system includes:
 - A self assessment checklist
 - The Envision rating tool
 - A credential program for individuals
 - A project evaluation and verification program
 - A recognition program for sustainable infrastructure

60 Credits in 5 Categories



**QUALITY
OF LIFE**

Purpose, Community, Wellbeing



LEADERSHIP

Collaboration, Management, Planning



**RESOURCE
ALLOCATION**

Materials, Energy, Water



**NATURAL
WORLD**

Siting, Land & Water, Biodiversity



**CLIMATE
AND RISK**

Emission, Resilience

What are the Issues?

- Importance of public input from multiple stakeholders
- Starting the conversation
- Willingness to incorporate input

Why Use Envision®?



Gateway Project Kansas City, MO

- Quality of Life
 - QL 1.1 Improve Community Quality of Life
 - QL 1.2 Stimulate Sustainable Growth and Development
 - QL 2.4 Improve Community Mobility and Access
 - QL 2.6 Improve Site Accessibility, Safety, and Wayfinding
- Leadership
 - LD 1.3 Foster Collaboration and Teamwork
 - LD 1.4 Provide For Stakeholder Involvement

Mill Creek Transmission Main and Recreational Trail Kansas City, MO

- Resource Allocation
 - RA 1.3 Use Recycled Materials
 - RA 1.6 Reduce Excavated Materials Taken Off Site
- Quality of Life
 - QL 1.1 Improve Community Quality of Life
 - QL 2.5 Encourage Alternative Modes of Transportation
 - QL 3.3 Enhance Public Space
- Leadership
 - LD 1.4 Provide For Stakeholder Involvement

CITY OF PHOENIX



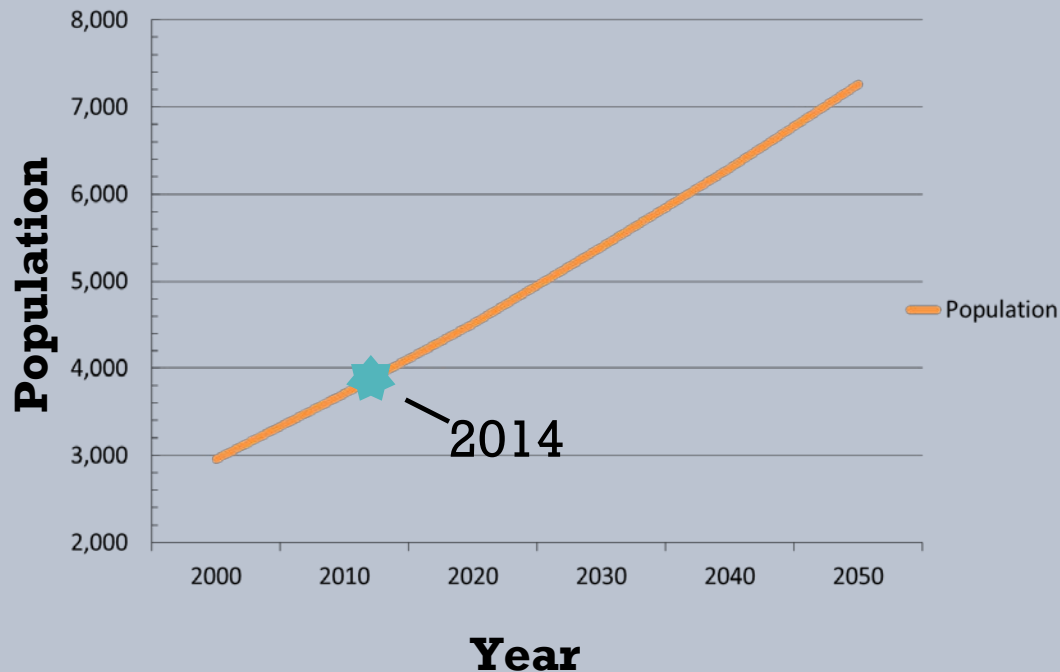
Reimagine Phoenix
Transforming Trash Into Resources



Projected Population Growth

Maricopa County

Population Growth
(in thousands)



**7.3
Million
people in
2050**

Resource Innovation Campus



RISN Resource Innovation and Solutions Network



**Become a
partner**



**Create a
global hub**



**Share a
solution**



Composting/Mulching Facility



Technology Solutions Incubator



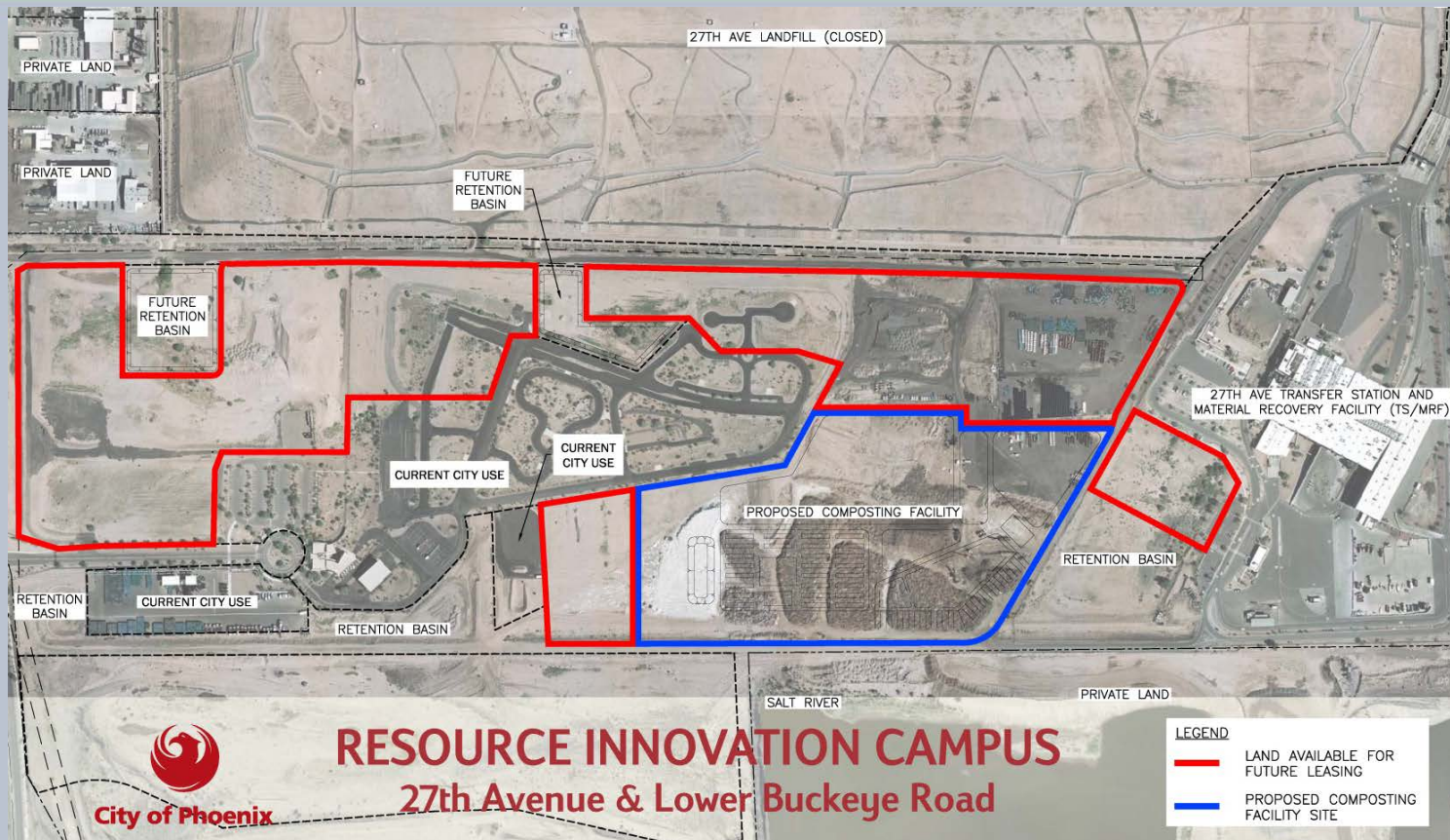
Technology Solutions Incubator

- **Start-Up/Emerging Technologies and Manufacturing Processes**
- **Office, workshop, and/or testing R&D space**
- **Support and technical services**
- **Access to sustainability researchers**

Business Development

- **Recycled Plastics (#1 - #2) Diversion RFP**
- **Recycled Paper Diversion RFP**
- **Recycled Plastics (#3 - #7) Diversion to Liquid Fuel RFP**
- **Glass Diversion RFP**
- **Anaerobic Digester RFP**
- **Boxes and Packing Materials Diversion RFP**
- **Materials Exchange Program RFP**
- **Landfill Gas RFP**
- **Palm Fronds RFP**
- **Education and Communication RFP**
- **Composting/Mulching RFP**

Resource Innovation Campus



Solutions

- Know your audience
- Engage early and often- informally as well
- Understand & take into account our priorities and schedules
- Help us with areas we are weak

A scenic landscape featuring a winding cobblestone path that leads up a lush green hill. The path is made of light-colored, rectangular stones and is flanked by vibrant green grass. In the background, a few trees are scattered across the hilltop, and a small fence is visible. The sky is a bright blue with scattered white clouds. The overall atmosphere is peaceful and inviting.

Q & A

THANK YOU