



County of Santa Clara Update On Mitigation and Adaptation

BayREN Codes and Standards Regional Forum
Climate Action Planning and Local Energy
January 15, 2014

Santa Clara Multiple Jurisdiction Climate Action Planning Project

The Unincorporated County and the Cities of:

Cupertino

Gilroy

Morgan Hill

Mountain View

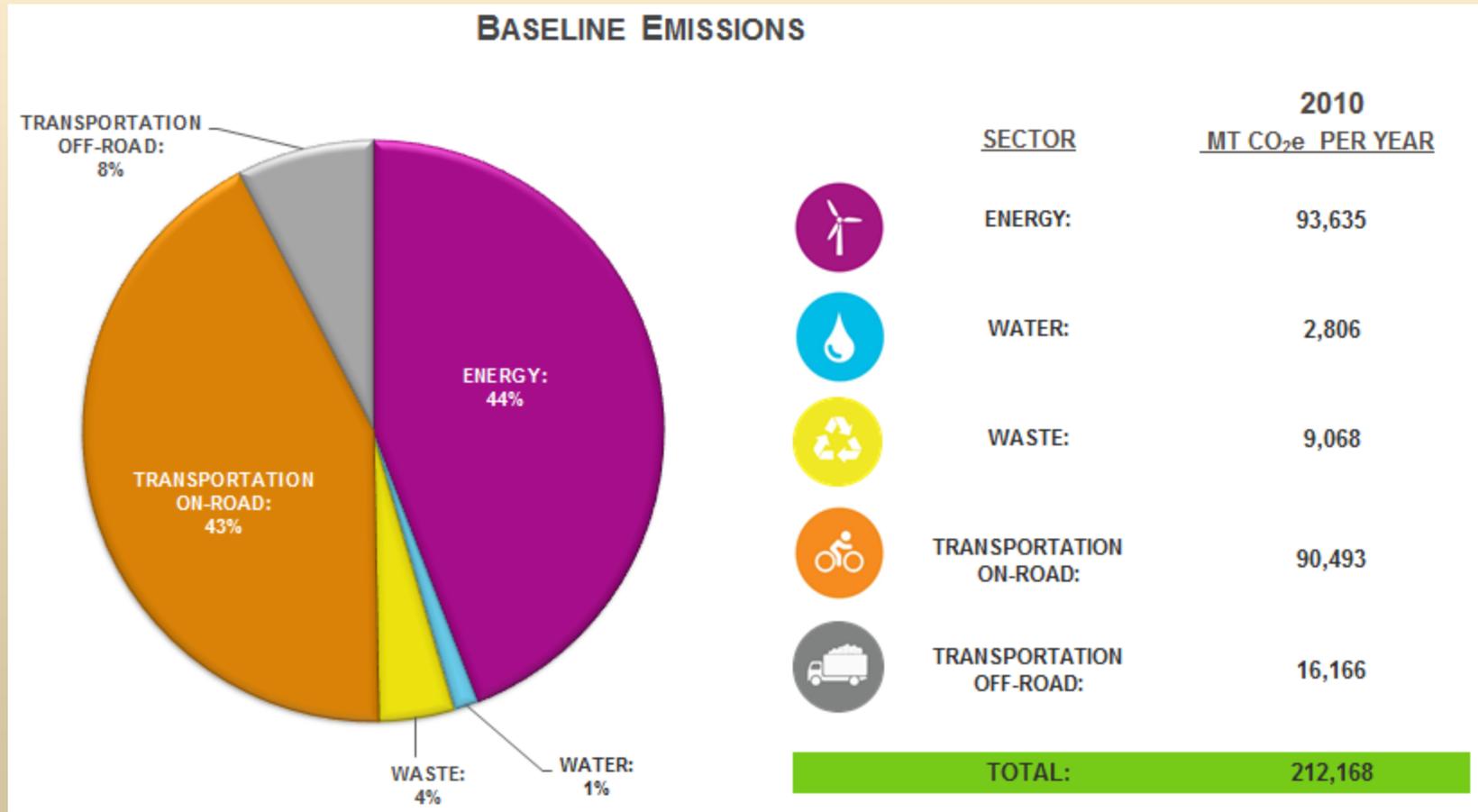
San Jose

Saratoga



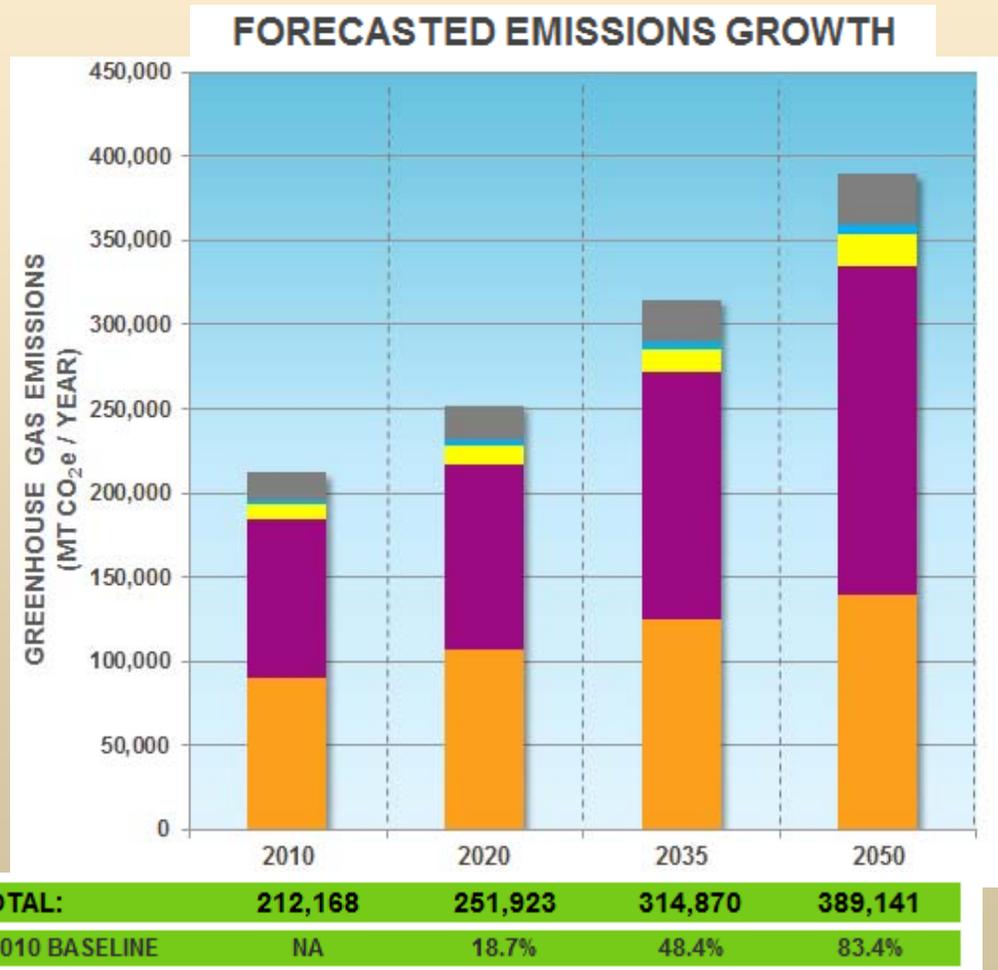
Step 1 - Greenhouse Gas Inventory

Emissions



Step 2 - Greenhouse Gas Forecasts

Emissions



Step 3 - Emission Reduction Targets

Summary of State Guidance on Local Government Targets

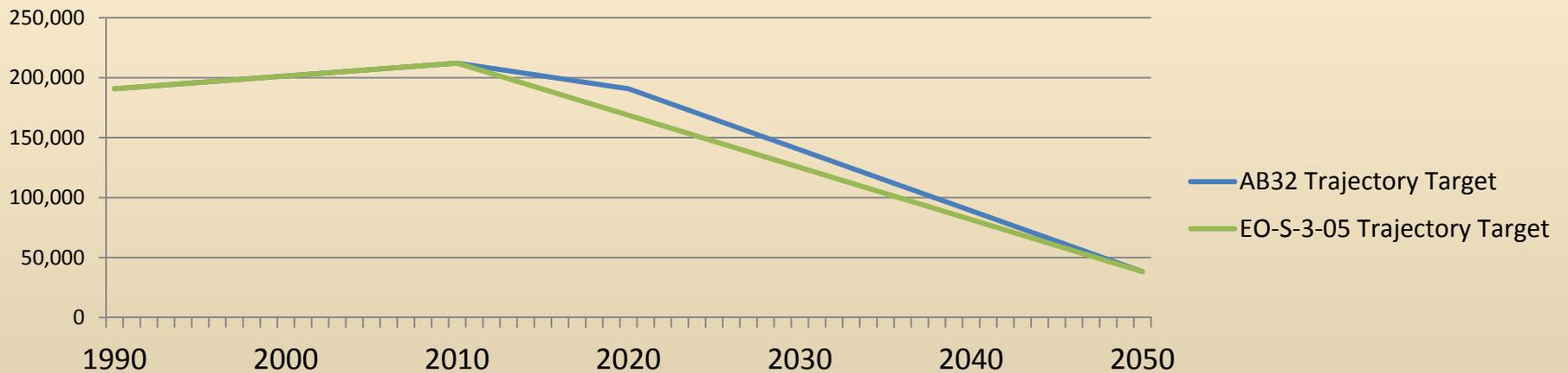
Target Year	2020	Interim Year Between 2020-2050	2050
AB 32 Scoping Plan Recommended Target	15% below 2005-2008 levels	NA	NA
Attorney General's Office Guidance	15% below 2005-2008 levels	Demonstrate a trajectory toward 2050 levels <i>(e.g., 49% below 2005-2008 levels by 2035)</i>	80% below 1990 levels or 83% below 2005-2008 levels

Proposed Targets:

- 15% below 2010 baseline by 2020 (minimum)
- 21% below 2010 baseline by 2020 (more aggressive)
- 46% below 2010 baseline by 2035 (minimum)
- 52% below 2010 baseline by 2035 (more aggressive)
- 82% below 2010 baseline by 2050

Step 3 - Emission Reduction Targets

MCAP Target Options - Local



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- 15% below 2010 baseline by 2020 (minimum)
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Step 4 -

CAP

Measure Development

1

Review Community
Context

- Review City and utility existing policies/programs

2

Identify Potential
Measures

- Identify other best management practices
- Select measures to fit community

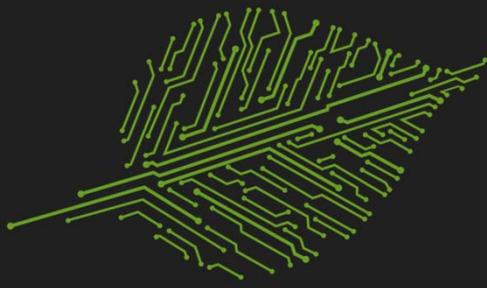
3

Measure
Refinement

- Discuss measures at MCAP meetings to identify regional implementation efficiencies

Next Steps

- Identify Additional Measures
- Develop Implementation Actions
- Draft Administrative Draft CAP
- Conduct CEQA Review of Plan
- Draft Public Review Draft CAP
- Public Review Period
- Adopt Final CAP and Environmental Doc
- Implement CAP and Monitor Progress



SILICON VALLEY 2.0

THE
Strategic Growth Council



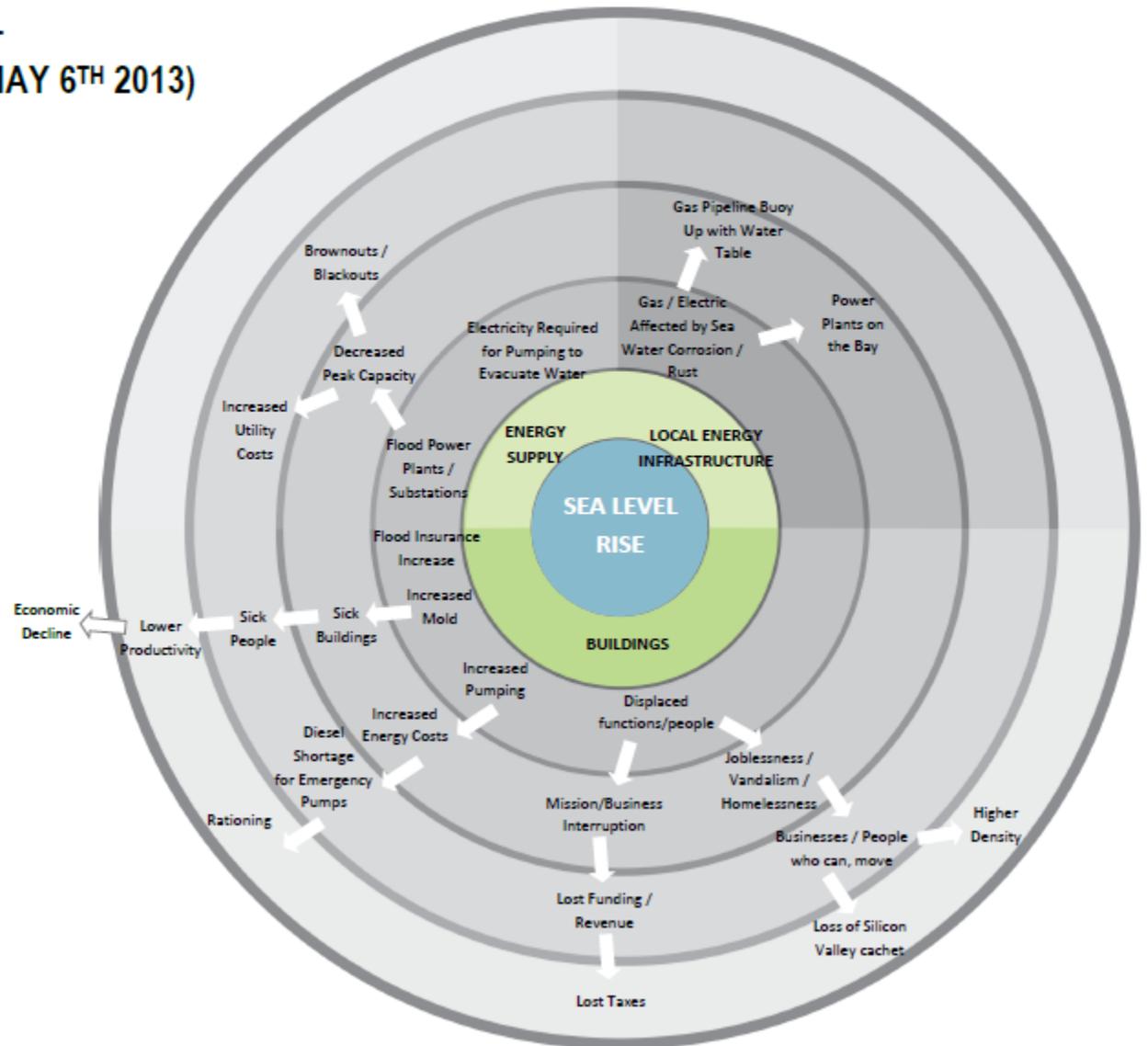
CASCADING IMPACTS EXERCISE – PROJECT PARTNER’S MEETING (MAY 6TH 2013)

SECTOR: Buildings and Energy

CLIMATE VARIABLE: Sea Level Rise

PRIORITY IMPACTS IDENTIFIED:

- Energy infrastructure damaged
- Buildings damaged
- People and activities displaced



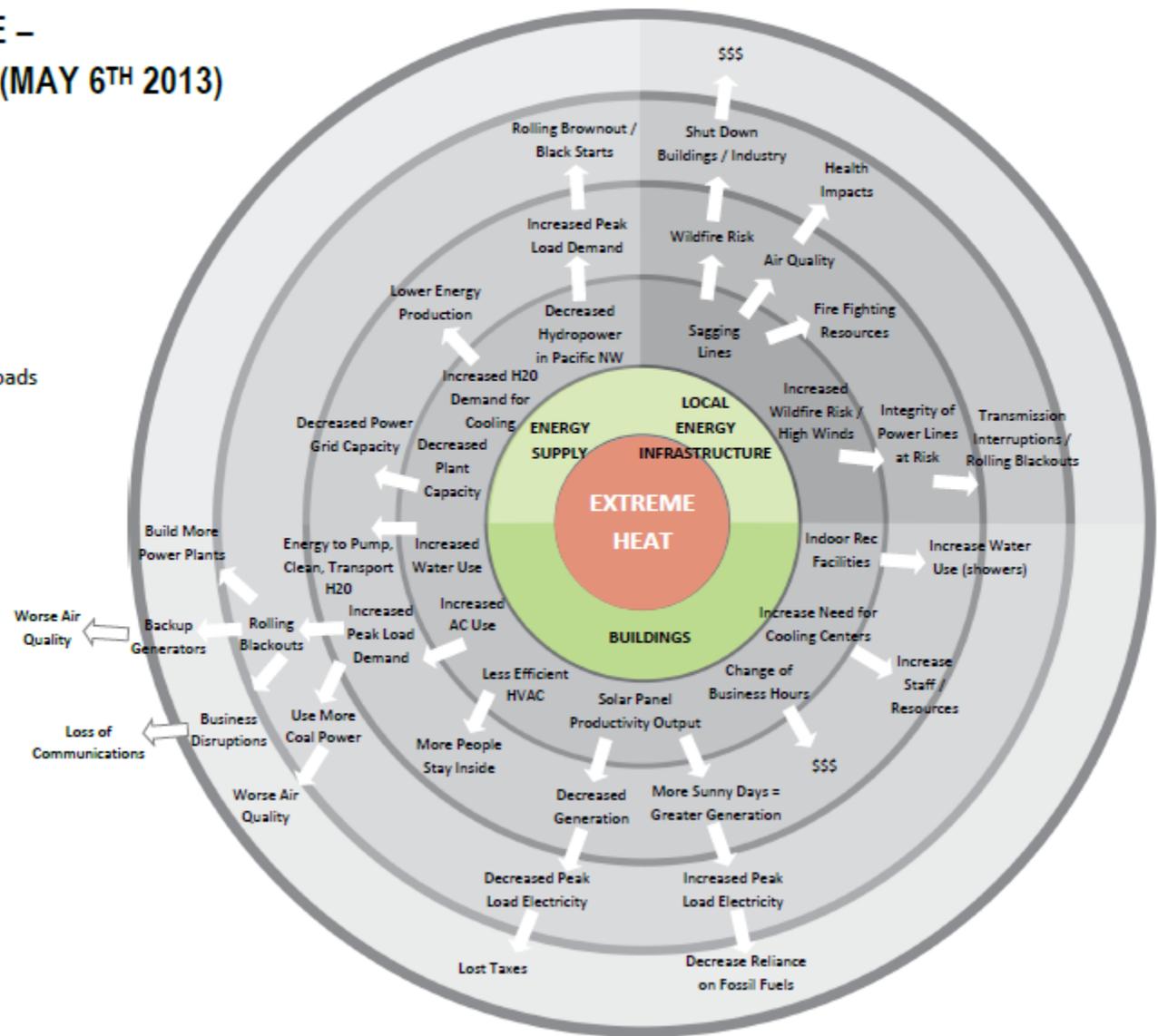
CASCADING IMPACTS EXERCISE – PROJECT PARTNER'S MEETING (MAY 6TH 2013)

SECTOR: Buildings and Energy

CLIMATE VARIABLE: Extreme Heat

PRIORITY IMPACTS IDENTIFIED:

- Decreased power grid capacity / higher peak loads
- Increased reliance on fossil fuels
- Power distribution interruptions



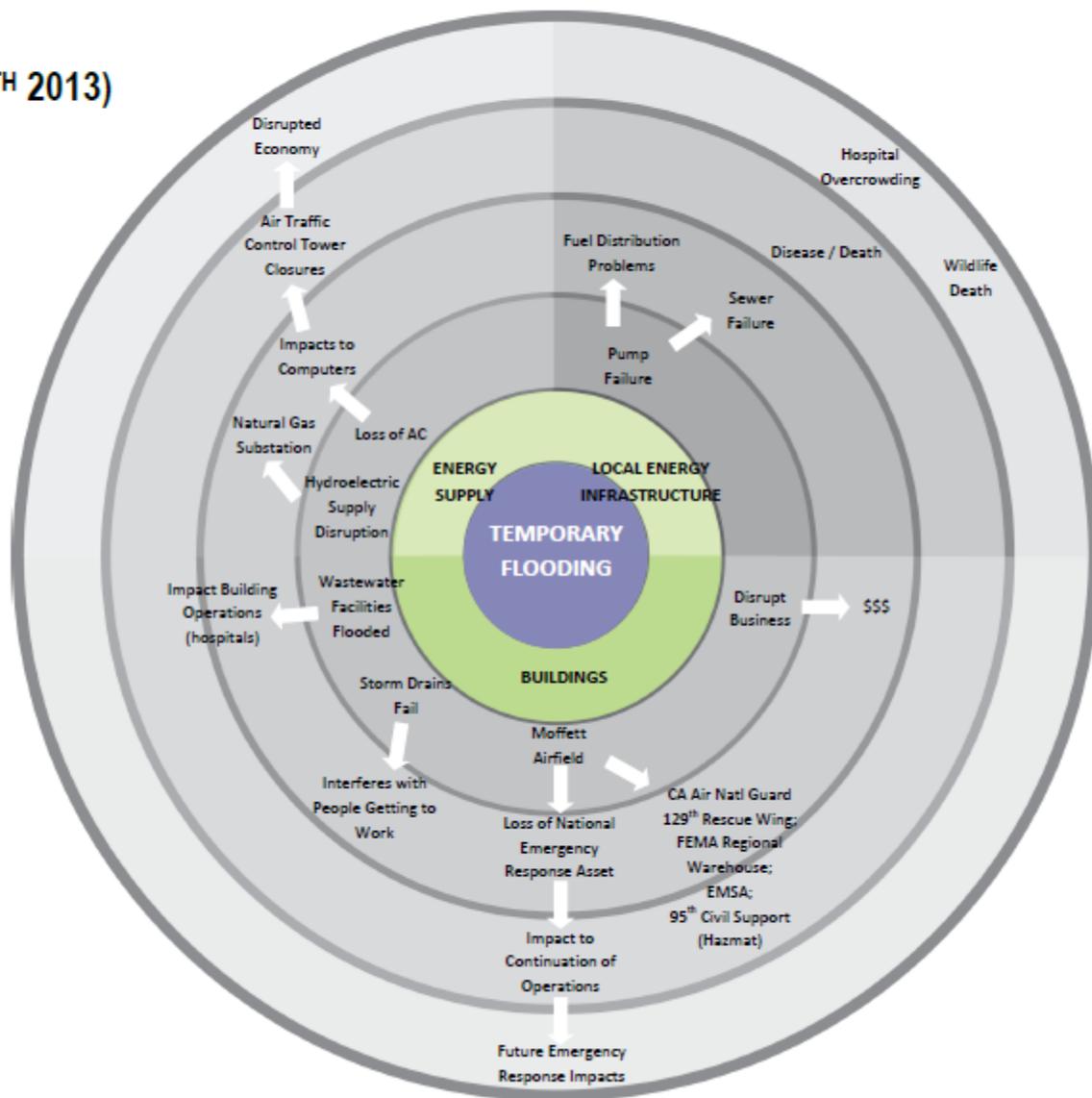
CASCADING IMPACTS EXERCISE – PROJECT PARTNER’S MEETING (MAY 6TH 2013)

SECTOR: Buildings and Energy

CLIMATE VARIABLE: Temporary Flooding

PRIORITY IMPACTS IDENTIFIED:

- Reduced emergency response from Moffett Airfield
- Sewer system failure
- Power grid disruptions



SILICON VALLEY 2.0 DECISION SUPPORT TOOL

- **Objective:** Allow jurisdictions to evaluate vulnerability to and risk of climate change so they can integrate this information into their planning and decision making efforts.
- **Target End-Users:** Jurisdictions
- **Functionality:**
 - Exposure
 - Vulnerability Analysis
 - Risk Analysis (*economic consequence*)
 - Strategy Prioritization (*multi-criteria qualitative analysis for specific assets*)
- **Climate Variables Covered** (*in first iteration*):
 - Sea Level Rise
 - Storm Surge
 - Riverine Flooding (select watersheds)
 - Extreme Heat
- **Assets Covered:** Infrastructure, populations (disadvantaged; medically challenged), landscapes (natural, working)
- **Geographic Scope:** Santa Clara County and relevant adjacent areas (hydraulically-connected area)
- **Analysis Boundaries:** Countywide, cities, single asset, [Custom polygon?]
- **Spatial Resolution:**
 - Parcel level, census block, infrastructure
 - Varies depending on asset data type and confidentiality issues

TOOL MOCKUP



SILICON VALLEY 2.0 - CLIMATE CHANGE PREPAREDNESS DECISION SUPPORT TOOL

HOME | CLIMATE VARIABLE & ASSET SELECTION | EXPOSURE | VULNERABILITY | **RISK**

GEOGRAPHY
SAN JOSE

HORIZON YEAR
CUSTOM SEA LEVEL

EMISSIONS SCENARIO
CUSTOM SEA LEVEL

SEA LEVEL
2.0 FEET

MAP LEGEND
PROPERTY VALUES OF INNUNDATED PARCELS

Dark Blue	> \$5,000,000
Teal	\$1,000,000 - \$5,000,000
Light Green	\$500,000 - \$1,000,000
Yellow	\$150,000 - \$500,000
Pink	\$<150,000



ECONOMIC RESILIENCY CHAPTER

LIVABILITY INDICATORS AND BUSINESS DRIVERS

- Rating chart for businesses and commerce
- Which most attract and bring value-added

LOCAL CLIMATE COSTS AND IMPACTS

- Identify & value those affecting employees
- Identify & value those impacting operations / costs

PRIVATE SECTOR PRIORITIES

- Identify/map private sector vulnerabilities (physical and market) triggered by climate volatility
- Identify private sector priority strategies & measures

POTENTIAL FOR ECONOMIC DEVELOPMENT & INNOVATION

- Potential for public-private partnerships
- Promote climate & resource resilience
- Businesses that develop relevant products & technology