



# Towards a Climate Resilience Roadmap

## Sonoma County Adaptation Workshop Summary ~ May 21



The Sonoma County Adaptation Workshop gathered 88 leading voices together on May 21, 2015, to discuss how to respond effectively to the climate hazards facing Sonoma County. Our mission: to increase the health and resilience of social, natural, and built resources in Sonoma County to withstand the impacts of climate change. Below are groupings of the main ideas and suggestions we heard from participants.

### Suggested Ideas & Actions



**Innovate and Model Change.** Coordinate the many existing incentives and funding streams to foster resilient behavior on the part of individuals, organizations, and local governments. Target the activities that make up people's everyday lives. Find new or easier ways to value land for its resilience benefits (floodplains, fire buffers, recharge areas) and focus development into infill areas. Apply new tools. Eliminate the idea of waste.



**Foster Social Resilience.** Turn vulnerable communities into resilient communities. Invest in smart urban forestry. Foster a connected community: connected to each other as individuals, to a vibrant public realm, to services, to green spaces, to opportunity through education. Address the affordability crisis. Create walkable, livable communities.



**Manage the Water Cycle as One.** Integrate the management of water for sustainability in each major watershed to assure plentiful water for all uses, reduce water waste, support the natural water system's many benefits, and protect sensitive species and habitats.



**Team with Climate Ready Advisors.** Create a one-stop shop where individuals, neighborhoods, companies, and governments can get advice for how to make their actions and decisions contribute to climate resilience.



**Get Communities Engaged.** Make communication easier; use billboards or newspaper dashboards to make conditions and changes obvious to people in their everyday lives. Social marketing. Integrate climate impacts and solutions into city and county plans and curriculum at Sonoma State University, Santa Rosa Junior College, and K-12.



**Develop a Well-Being Index.** Reviewing the climate adaptation goals implicitly asks the question: how do we dream and hope Sonoma County could or should be? As climate touches everything, climate resilience planning seems to call for better-integrated measures of well-being, measure economic benefits of resilience investments.



### Climate-proof the agricultural and tourism sectors.

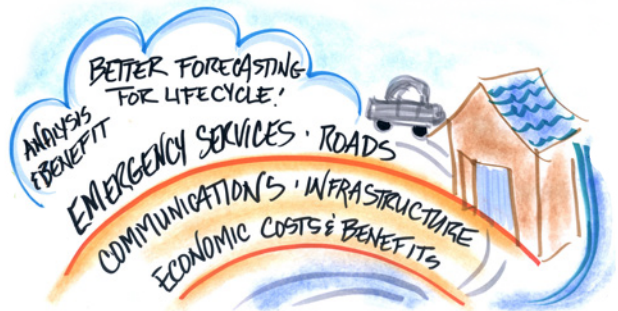
Support more resilient diverse agricultural sector, food security, food access, multiple-crop operations including carbon and water as crops and a soil health action effort.



**Refresh the Climate Adaptation Goals.** Show the cause-and-effect relationships that reveal why we think these goals will be effective. Raise the priority level of a healthy natural world: forests, rivers, soils, wildlife. Make sure actions have multiple benefits and avoid negative consequences (e.g., putting air conditioners into houses that increase energy usage and greenhouse gases). Ensure that greenhouse gas reduction actions increase resilience. Distinguish actions from outcomes. (See our latest version on page 4.)

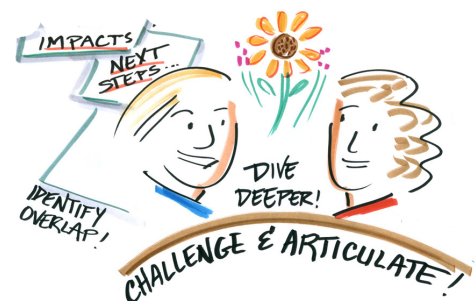


**Consider other topics suggested at the workshop.** Develop resilience strategies to respond to increased fire risk. Address risks to the built environment, such as transportation, buildings, and energy, communications, and water systems. *To be continued!*



## Our Next Steps

- Revise climate adaptation goals, objectives, and opportunities
- Seek input to produce Roadmap by end of 2015
- Host quarterly roundtables to collaborate and act
- Build the Climate Ready Advisor team
- Integrate resilience priorities into near-term plans
- Your input welcome! Contact Caitlin Cornwall or Lauren Casey.  
caitlin@sonomaecologycenter.org (707) 996-0712 x105  
lcasey@sctainfo.org (707) 565-5379

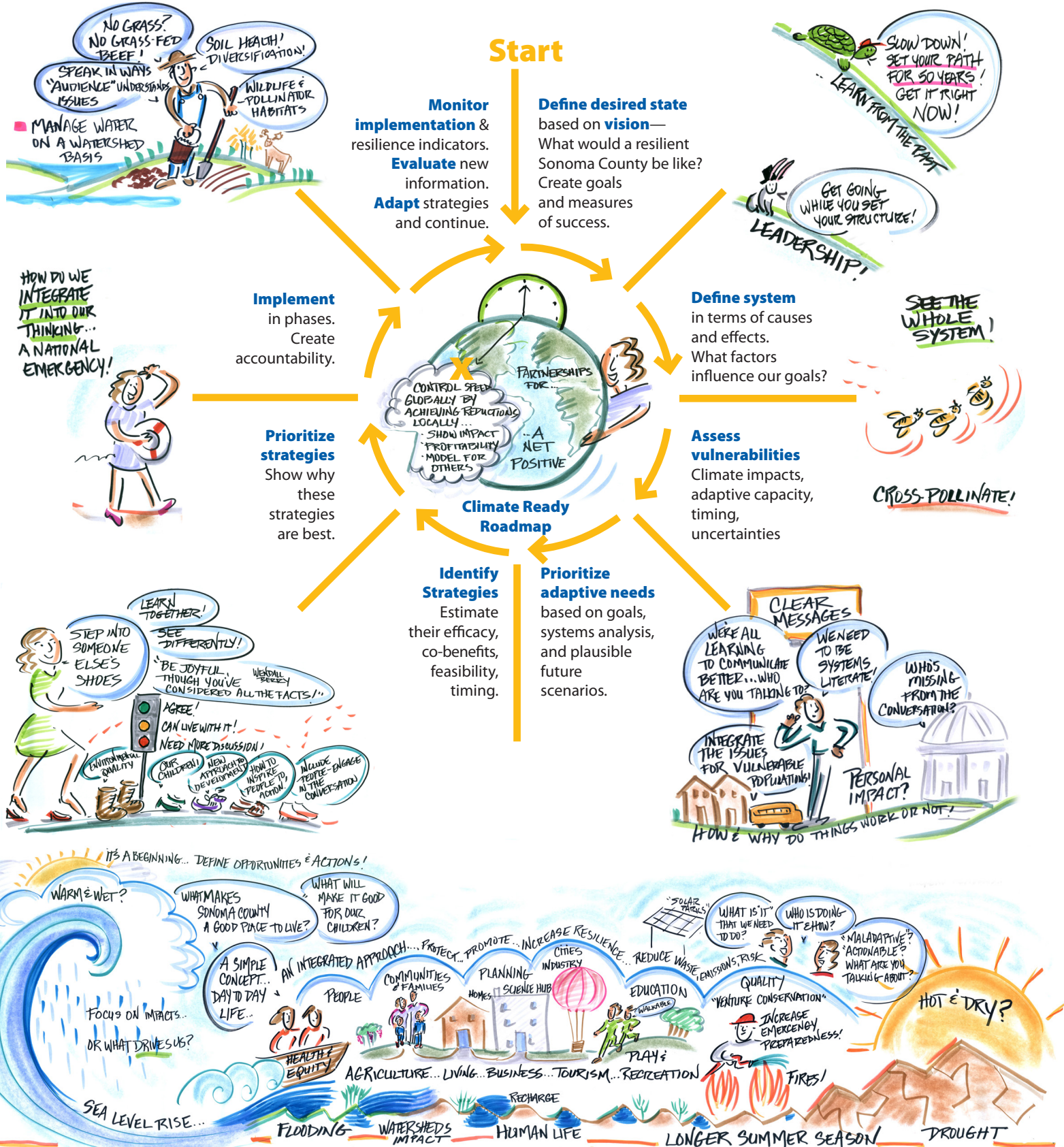






# A Climate Resilience Roadmap

The Sonoma County Adaptation Workshop informs the Climate Ready Roadmap now in progress. The Roadmap has elements of a strategic plan, including defined actions to be taken by specific entities in Sonoma County to achieve high priority, high leverage, multi-benefit adaptation strategies. The graphic below illustrates just how our communities can become climate-ready. Several steps in this process are already in motion.



# Sonoma County Goals for Climate Adaptation

Climate adaptation means taking action to reduce our vulnerability to climate hazards. The mission of climate adaptation is to increase the health and resilience of social, natural, and built resources to withstand the impacts of climate change.

Goals	Opportunities	Climate Hazards Addressed
<b>1 Promote healthy, safe communities</b> 	Invest in measures to increase the knowledge and capacity to respond and adapt to climate hazards, especially in vulnerable populations, such as improving baseline health, well-being, and financial security. Provide education and resources about climate hazards, especially to vulnerable populations. Link vulnerable populations to services that reduce safety, health, and financial risks related to climate hazards. Reduce non-climate economic and health stressors.	All hazards, especially those sensitive to demographic and economic changes 
<b>2 Protect water resources</b>	Conserve and reuse water, protect and enhance ground-water recharge areas, capture storm and flood water, protect streamside areas, invest in natural infrastructure. Reduce non-climate stressors such as hydro-modification, pollution, and overuse.	Drought, flooding, and infrastructure failure risks to water quantity and quality
<b>3 Promote a sustainable, climate-resilient economy</b>	Better define the economic risks of climate change. Communicate to businesses and the broader community what practices contribute to climate resilience and how to adopt them. Reduce non-climate stressors.	All hazards, especially those sensitive to demographic and economic changes
<b>4 Mainstream the use of climate projections (not just past patterns) in plans, designs, and budgets</b>	Educate and share information among government agencies. Create and promote guidelines for how to use climate information in planning and decision making.	All hazards, especially sea level rise, drought and flooding Sea level rise, changing temperature and rain patterns, drought, wildfire
<b>5 Protect coastal, bayside, and inland buffer zones</b> 	Protect, expand, and enhance wetlands, water source areas, flood zones, and fire management zones. Review/revise land management plans, development codes, parks plans, etc. Reduce non-climate stressors on these areas.	Sea level rise, changing temperature and rain patterns, drought, wildfire
<b>6 Promote food system security and agricultural climate preparedness</b>	Promote peer-to-peer agricultural adaptation networking, assess potential need to cultivate alternative crops. Reduce non-climate stressors such as the cost of land for food production.	Changing temperature and rain patterns, drought, higher food prices
<b>7 Protect infrastructure: buildings, energy systems, communications systems, water infrastructure, and transportation systems</b>	Conduct an assessment of risk by evaluating the climate effects on key infrastructure, buildings, and transit systems. Invest in strategies to ensure the long-term sustainability of energy resources. Reduce non-climate stressors such as deteriorating or out-dated infrastructure.	Drought, flooding, wildfire, and extreme heat 
<b>8 Increase emergency preparedness in anticipation of extreme events</b>	Increase inter-agency planning. Educate residents about climate hazards. Assess and address gaps in vulnerable populations' capacity to respond to extreme events. Reduce non-climate stressors such as forest health problems and inadequate funding.	Public health and safety impacts of heat, flooding, and wildfire
<b>9 Monitor the changing climate and its biophysical effects in real time</b>	Measure actual conditions to validate and/or refine models of climate and climate change effects, in order to plan and manage with better information.	All hazards

\* Objective numbers do not indicate priority; all objectives are inter-related and essential to build resilience.

These goals are proposed by RCPA and NBCAI. This draft was revised 7/9/2015 based on input from the May 21 Adaptation Workshop.







MAY 21, 2015 AFTERNOON

# Climate-READY



YOU HAVE ALL THE ANSWERS IN THIS ROOM!

SHARED VISION... SHARED ACTION!

MARRY THE SCIENCE AND THE LEADERSHIP!

GET GOING WHILE YOU SET YOUR STRUCTURE!

SLOW DOWN! SET YOUR PATH FOR 50 YEARS! GET IT RIGHT NOW!

CREATE A MODEL HERE! SHOW THEM HOW TO DO IT!

HUGE BRAIN POWER IN THIS COUNTY!

ASK FOR WHAT YOU NEED!

HIGH LEVERAGE ACTIONS!

CLIMATE CHANGE IS AN OUTCOME OF PROBLEMS... NOT THE PROBLEM

DON'T WASTE A GOOD CRISIS! BE READY WITH YOUR PLAN!



SONOMA COUNTY WELL-BEING INDEX! IT'S HIP!

A GREEN BLUEPRINT FOR LAND-WATER CONNECTIVITY

INTEGRATE CLIMATE ACTION INTO SSU & SRSC CURRICULUMS

TRANSFORMING VULNERABLE COMMUNITIES TO RESILIENT COMMUNITIES

COMMUNITY ENGAGEMENT ACTIONS & STRATEGIES

THERE'S A DIRECT CORRELATION BETWEEN INCOME & EMISSIONS

TRADITIONAL ENVIRONMENTAL KNOWLEDGE

SMILE! SMART INTEGRATED URBAN FORESTRY

INTEGRATE ISSUES AROUND CLIMATE, EDUCATION, OPPORTUNITY...

THESE IDEAS ARE WORTHY EVEN IF WE AREN'T TALKING ABOUT CLIMATE!

A LOT OF OVERLAP!

MANAGE ALL PARTS OF THE WATER CYCLE AS 1!

WHO'S MISSING FROM THE CONVERSATION?

GOV'T!

PERSONAL IMPACT?

HOW & WHY DO THINGS WORK OR NOT?

'ECO-DISTRICTS' - BREAK CYCLES OF POVERTY & CRIME

Christine Walker SEESHAPE.COM

THANK YOU!

FRONT PAGE CLIMATE!

A CITY CAN MAKE A DIFFERENCE... A COUNTRY CAN MAKE A DIFFERENCE!



RISKY BUSINESS REPORT

CLIMATE CHANGE IS AN ENTERPRISE RISK!

PARK BOND - CLIMATE PLANNING

NAACP & ? APPROACHES FOR ALL THE SECTORS

ASAP... AMERICAN SOCIETY OF ADAPTATION PROF.

CAKEX CLIMATE ADAPTATION KNOWLEDGE EXCHANGE

STORM WATER TRADING

HAZARD MITIGATION IS A TOOL!

LONG-TERM IMPLEMENTATION - MONITORING - ADAPTING

TRANSPORTATION SOLUTIONS

INCENTIVIZE STORMWATER

REVISIT WATER REBATE PROGRAM

GREEN VS. GRAY A SYSTEMS APPROACH!

WHAT WILL YOU COMMIT TO...

BIOLOGICALLY DIVERSE SUSTAINABLE FARMING SYSTEMS

CLIMATE IMPACT STRUCTURE FOR CLIMATE ADAPTATION

OPEN SPACE...

MANAGE WATER ON A WATERSHED BASIS

WILDLIFE & POLLINATOR HABITATS

HAPPINESS INDEX!

WE NEED YOUR HELP IN ADAPTATION PLANNING!

BREAKING NEWS!

CLIMATE CHANGE IS AN ENTERPRISE RISK!

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VULNERABILITY

REVIEW

COOPERATION... ECONOMY COMMUNITY COMMITMENT DEFINE "WORKING LANDS"

TRACK WATER USE

INVESTING IN COMMUNITIES SUSTAINABILITY, EDUCATION

UNDERLYING ISSUES OF VULNERABLE POPULATIONS URBAN LANDS & WORKING LANDS CREATE THE SPACE! FOR EVERYONE!

BIGGER CARROTS!

SOIL HEALTH!

HABITAT & WATER CONNECTIVITY INTEGRATE CLIMATE ISSUES INTO LAND TRUST

RECYCLED WATER & RECHARGE ZONES

BETTER FORECASTING FOR LIFECYCLE!

ANALYSIS BENEFIT EMERGENCY SERVICES, ROADS COMMUNICATIONS, INFRASTRUCTURE ECONOMIC COSTS & BENEFITS

