

# This presentation premiered at WaterSmart Innovations

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# Water Smart Innovations

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How the Integrated Design Process can improve both energy and water efficiency, using both local and national examples

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# What we want to leave you with

- ▶ Issues for tomorrow and alternative design approaches
- ▶ There is no development without water
- ▶ The Integrated Design process leads to better projects through improved water and energy efficiency while lowering operating costs
- ▶ A better project delivered to the user

# So where do we start?

- ▶ Understanding our project delivery past
- ▶ Grounding on a new process of delivery
- ▶ Respect the value of contribution

A vision without a task is a dream,  
a task without a vision is drudgery,  
but, a task with a vision can change the world.

Black Elk (Black Elk Speaks)

# The Traditional Design Process

Less than 150 years ago local natural and human resources were the basis and the limit for what was designed and built.

The Master Builders of their time

Today, we use a process focused on a linear design based on on delivery

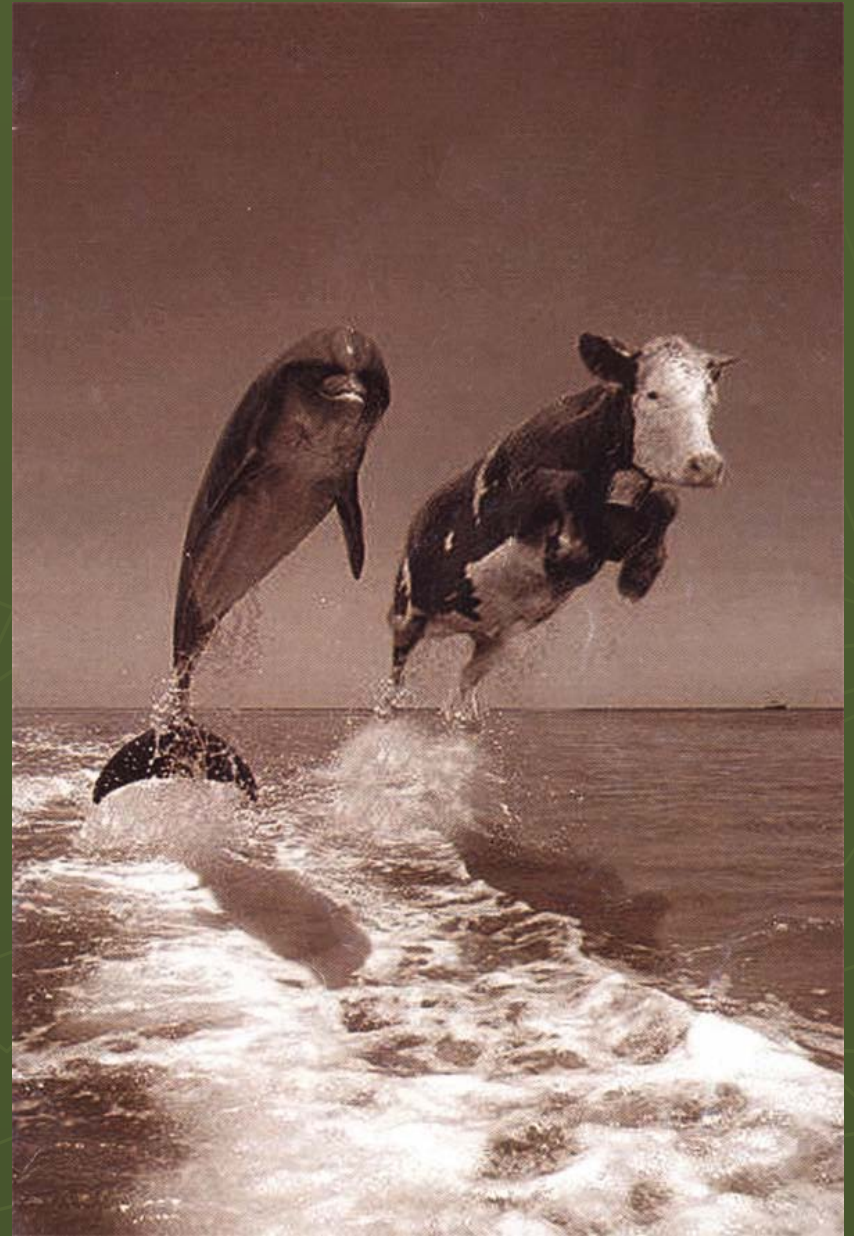


# Indicators of a dis-integrated process

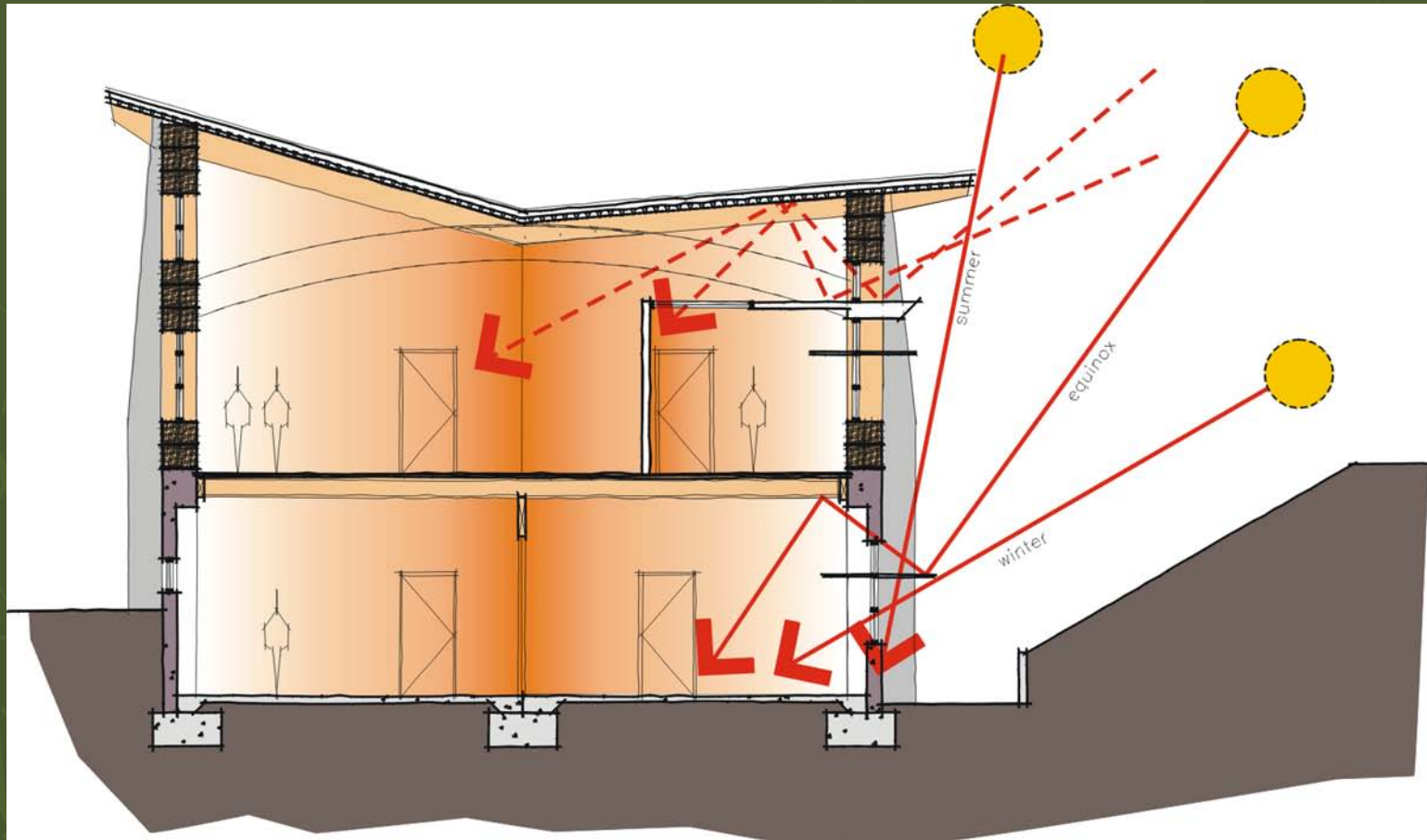
- ▶ Lack of clear and shared understanding
- ▶ Poor communication
- ▶ A heightened degree of mystery
- ▶ Lack of value in meetings, tasks or activities
- ▶ Overlaps in roles and gaps between team
- ▶ Silos - decision making happens without collaboration



- ▶ Using the Integrative Design process requires a change in mindset.

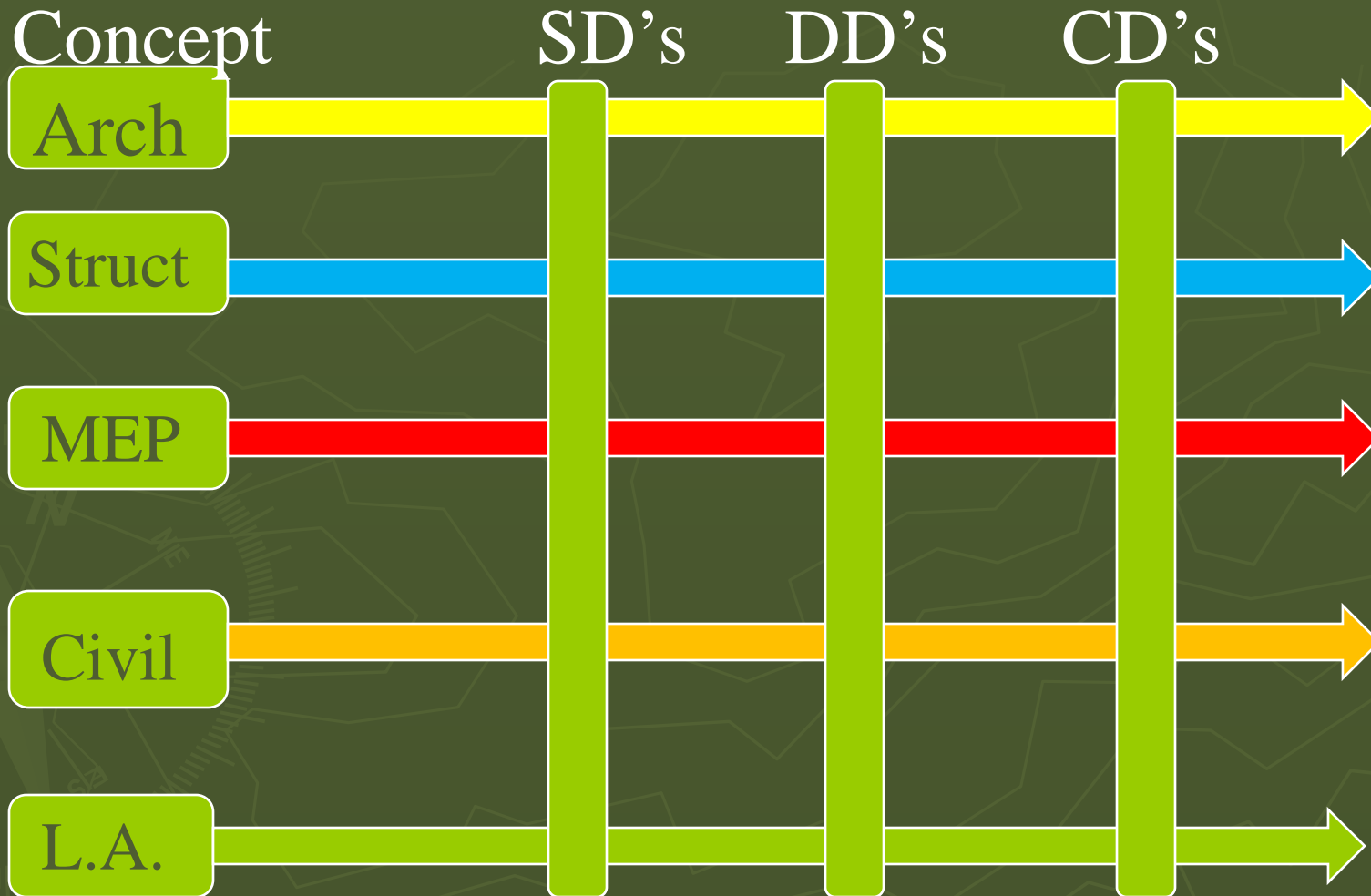


- ▶ Designing with a restorative or regenerative approach requires a change in mindset.





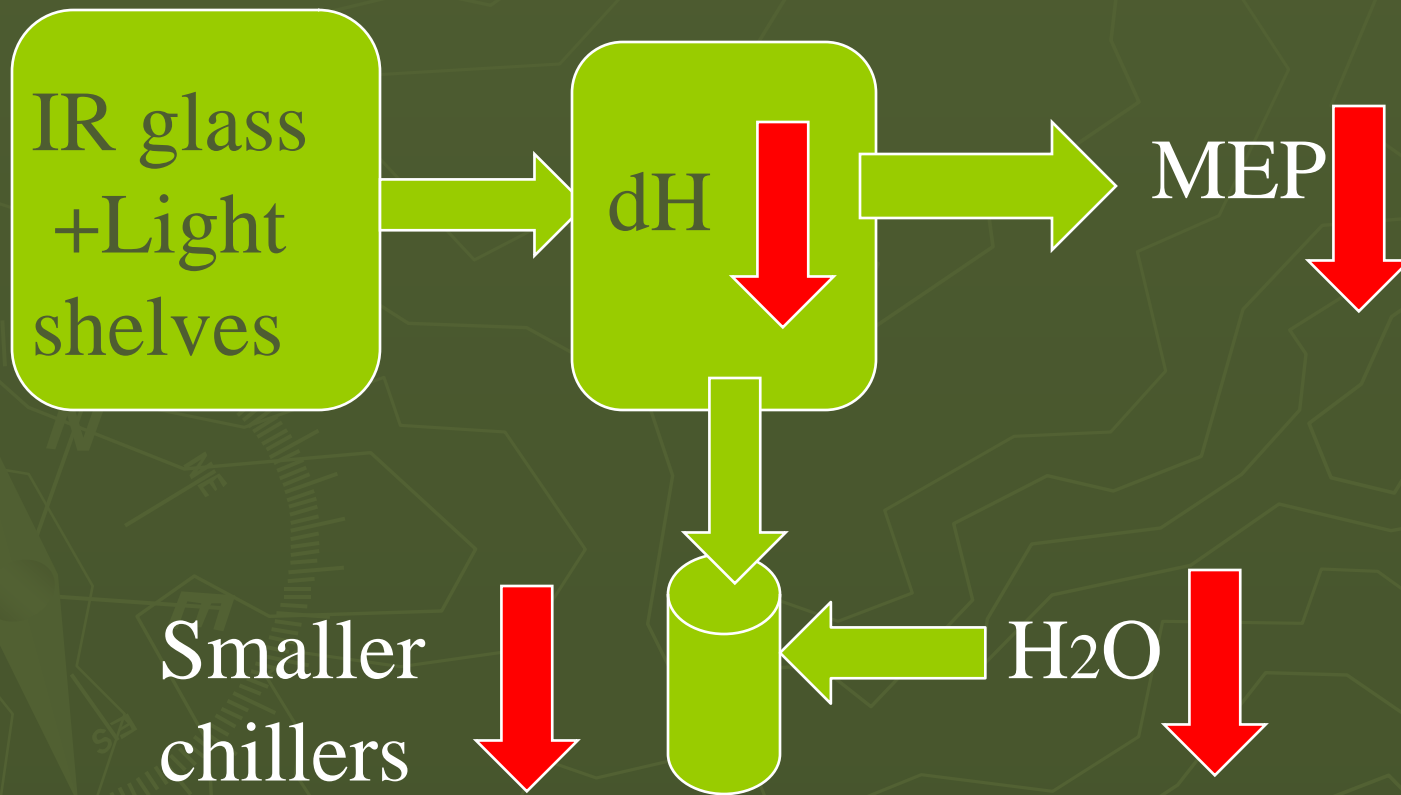
# The Integrative Design Process



# So why should we entertain this?

- ▶ Design considerations such as:
  - Energy Use
  - Water Use
  - Carbon Footprint
  - Materials
  - Life Cycle costs
- ▶ Are now much more effective with the work flow and are now parallel with all participants involved with decision making from the beginning

# Decisions have Consequences



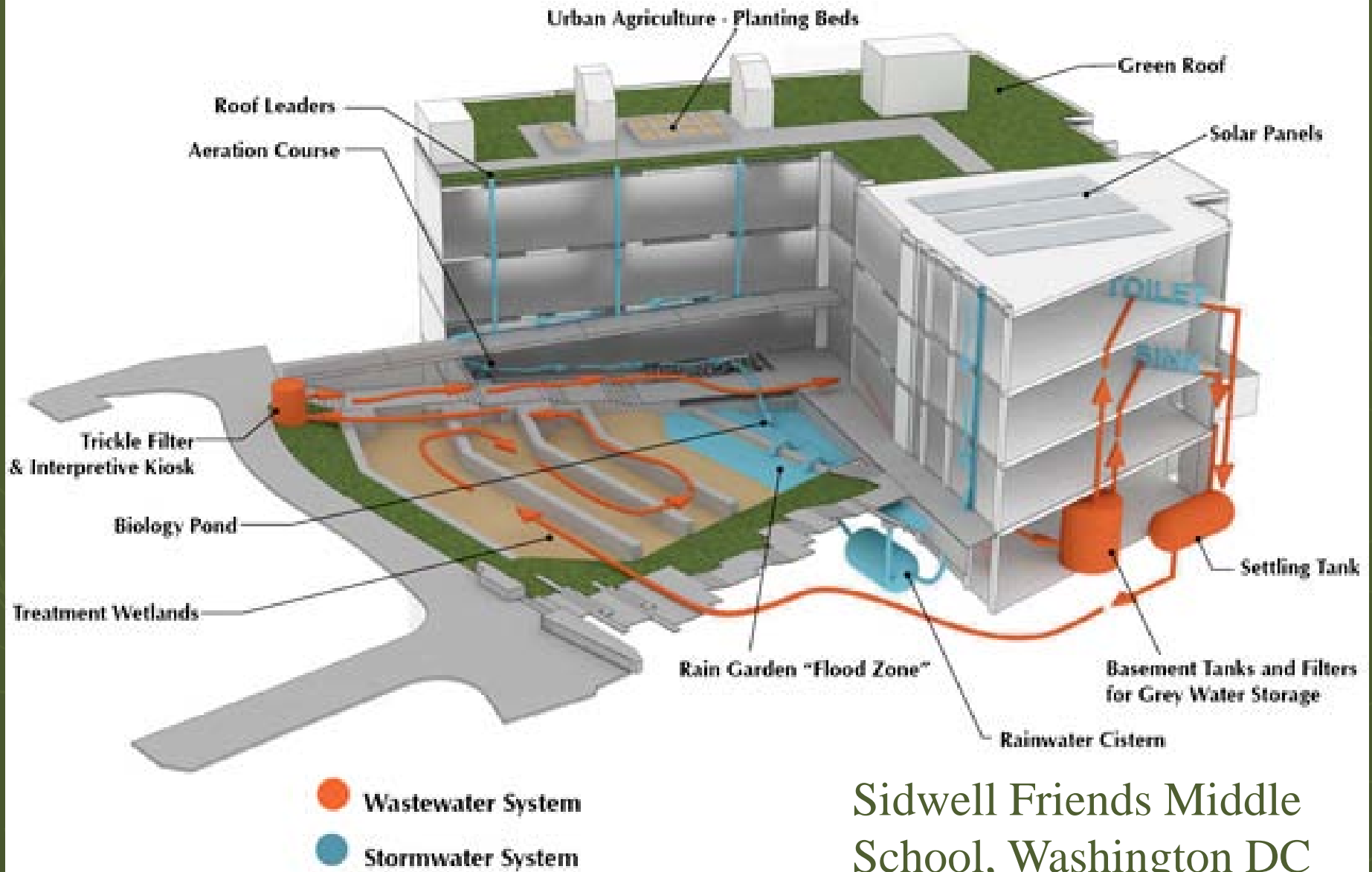
# Indicators of an integrative process

- ▶ You are asked for your input on a wide range of issues - including outside your expertise
- ▶ A number of team members are pushed out of their "comfort zone"
- ▶ The expectations of your work are clearly defined
- ▶ Other peoples work depends on yours; tasks are interdependent
- ▶ Group interactions inspire creativity
- ▶ There is a focus on the process itself, including an early collaborative goal setting session

- ▶ Green lessons can show up in the most unusually locations.....?







Sidwell Friends Middle School, Washington DC







# Tempe Transportation Center, Tempe AZ



# The Cienga at the Springs Preserve, Las Vegas, NV

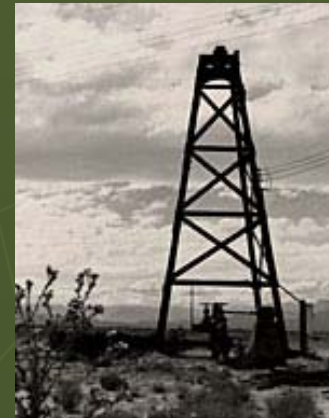
Recharge, 30 acre habitat,  
and open space preserve  
202 AF of flood detention





# Habitat restoration

- ▶ Determining the criteria for design success



# Restorative design starts with "Place"

- ▶ Where do we stand on the globe today?
  - The "Mojave Desert" the driest and hottest desert in North America.



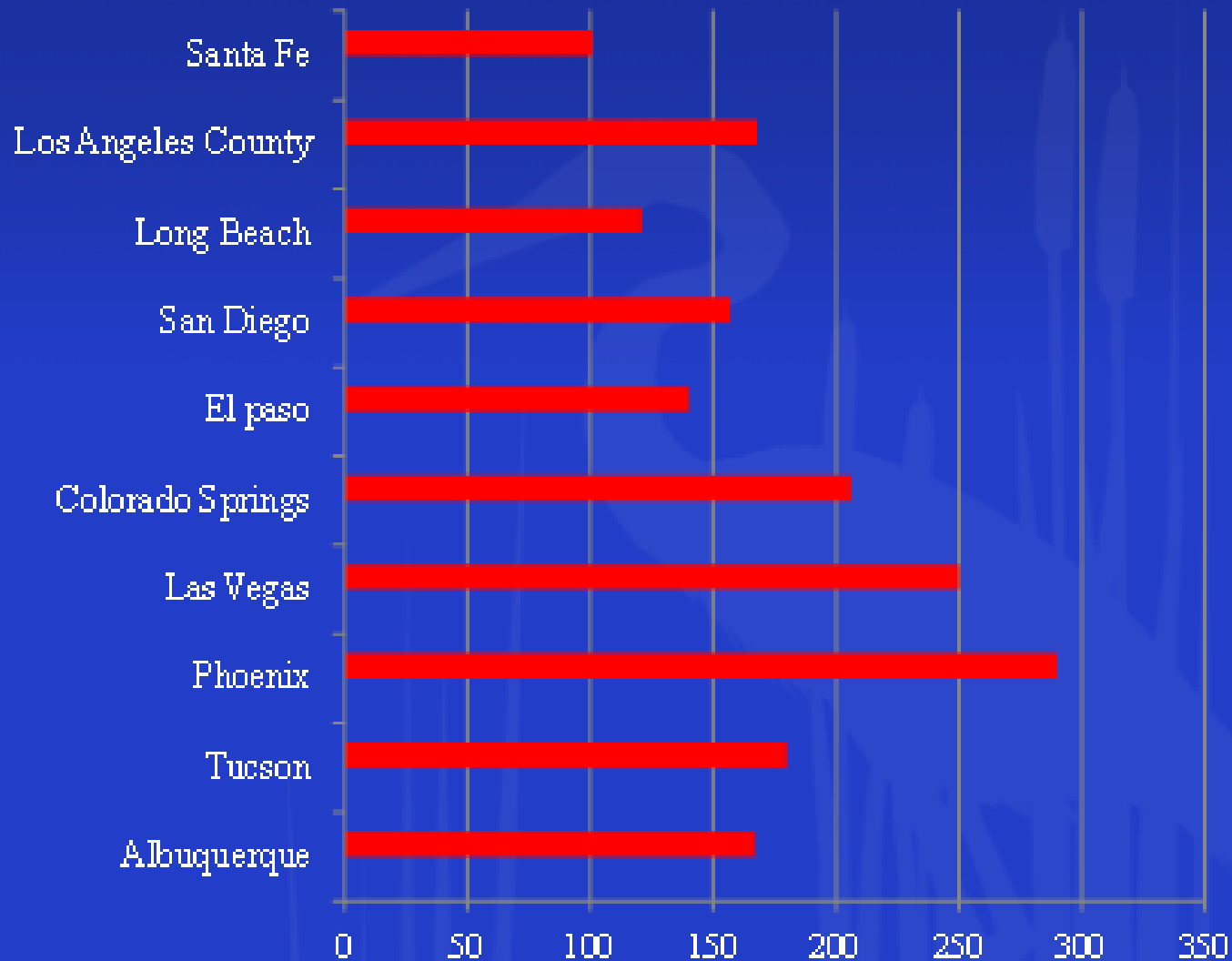


# And this is a unique “Place”

- ▶ We are an eco-island setting in a urban core
  - Las Vegas is the world’s largest city established after 1900.



# Municipal per capital water use



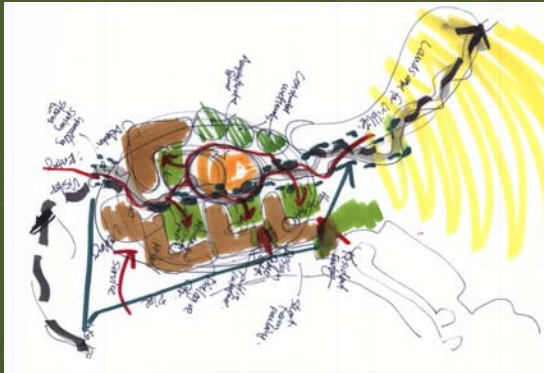


The Desert Living Center, Las Vegas, NV



# The Design Phase

## ► Inspiration



# Cool Towers





# Using Reclaimed Water



# Using Reclaimed Water





# Wastewater treatment in garden





# Water use education

- ▶ Community education that is fun



# Is this "the end"? Or the start?

- ▶ We did not inherit the earth from our parents, we are borrowing from our children
  - Chief Seattle
- ▶ What is the use of a house if you don't have a tolerable planet to put it on?
  - Henry David Thoreau
- ▶ Whiskey is for drinking, water is for fighting over!
  - Old Western Expression