



Sustainability Metrics & Targets

M.S. Sustainability Management - Capstone Fall 2011

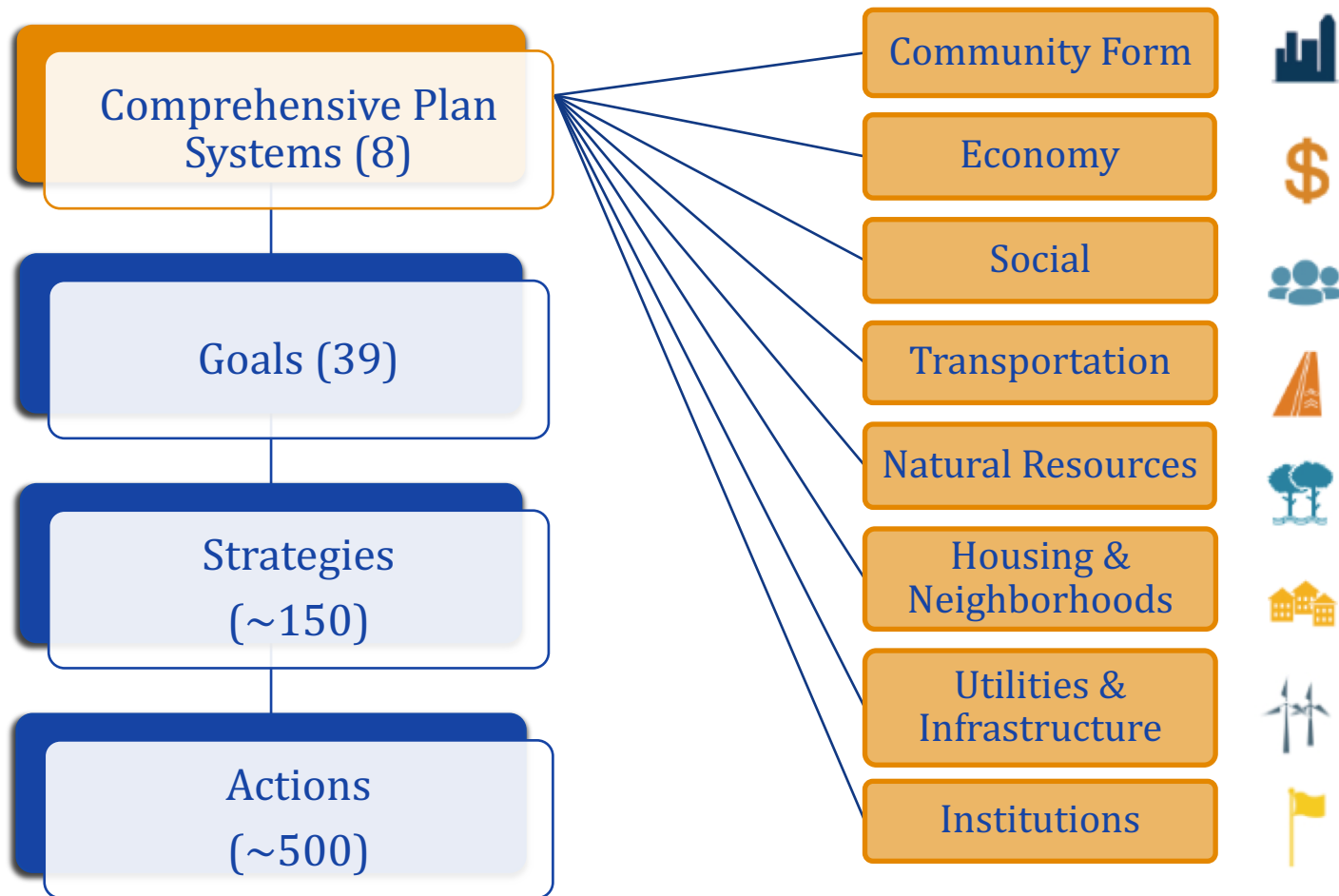
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Agenda



- ❑ Overview of Albany 2030 Plan
- ❑ Plan Structure
- ❑ Research Methodology & Analytic Framework
- ❑ Challenges
- ❑ Research Findings and Recommendations
- ❑ Analysis
- ❑ Next Steps

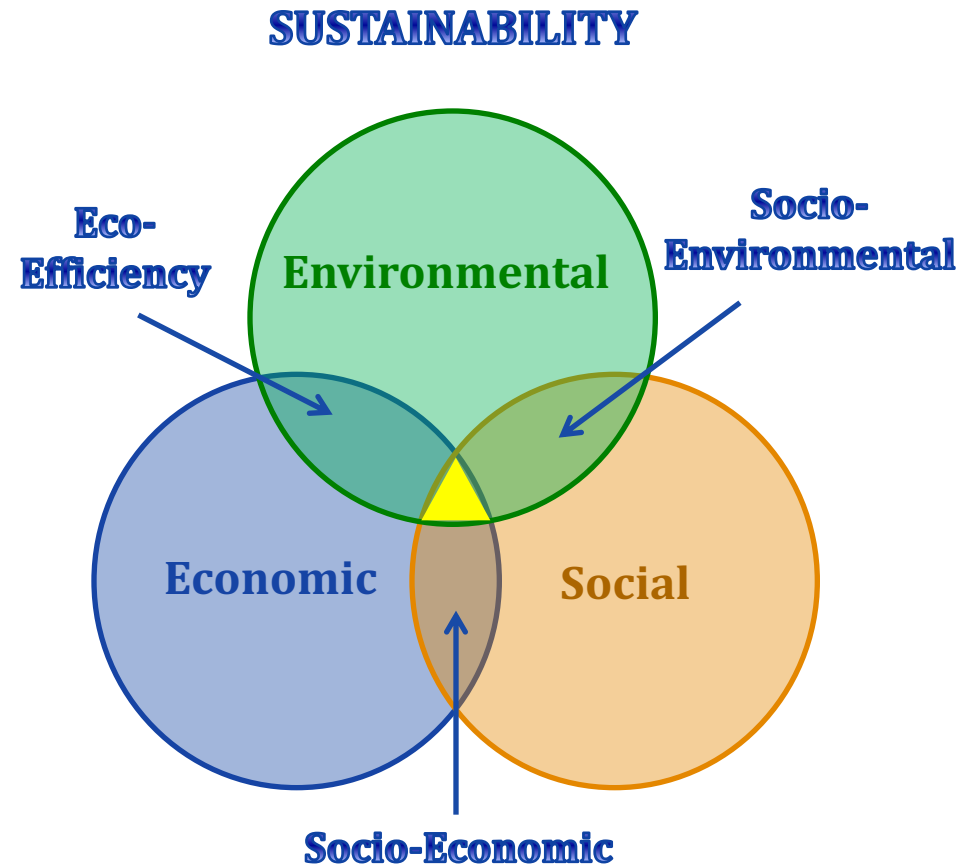
Plan Structure



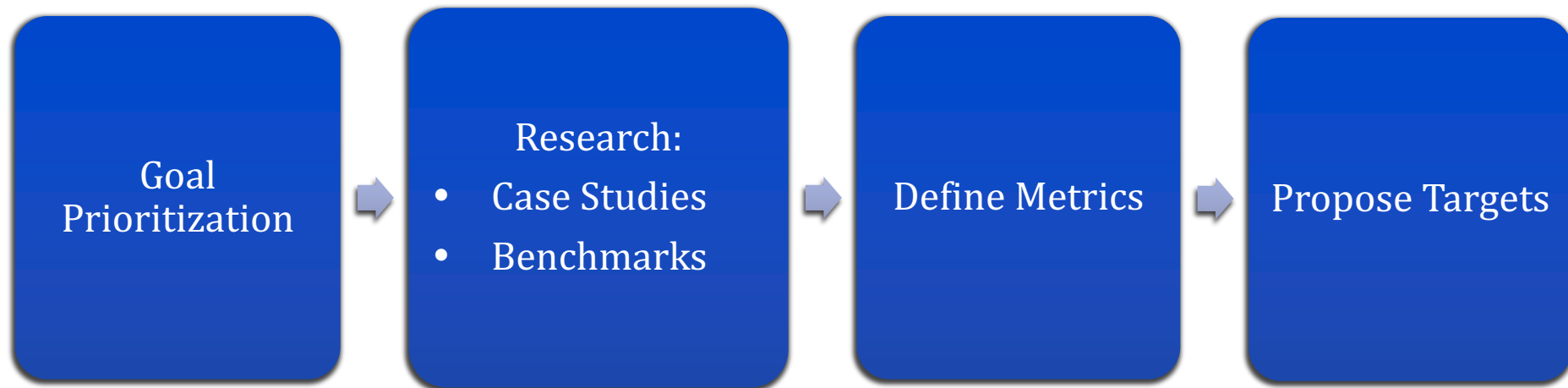
Analytic Framework

True sustainability requires:

- ❑ Holistic thinking
- ❑ Interconnectedness
- ❑ “Triple bottom line” metrics



Research Methodology



Challenges

- ❑ Developing criteria for **prioritizing** the goals
- ❑ Integrating environmental, social and economic components to create **holistic** metrics
- ❑ Finding cities with sustainability plans that **quantitatively** measure success
- ❑ Setting appropriate **targets** for Albany given their capacity and available resources

Recommendations

For each of the 23 high priority goals, we researched and recommended the following items:

- ☐ Metric and metric category
- ☐ Alternate metrics
- ☐ Metric Rationale
- ☐ Target
- ☐ Benchmarks / Case studies
- ☐ Data needed

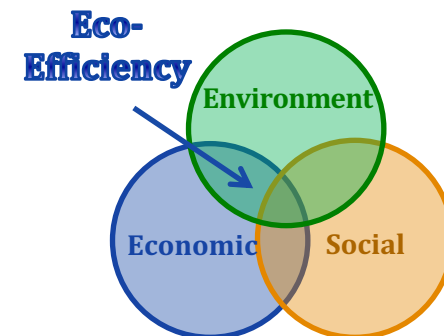


Stormwater

Goal Description: Use stormwater management best practices to reduce impacts on water quality and mitigate costs of engineered stormwater systems

Metric Category: Eco-Efficiency

Metric: Amount of stormwater diverted into green infrastructures



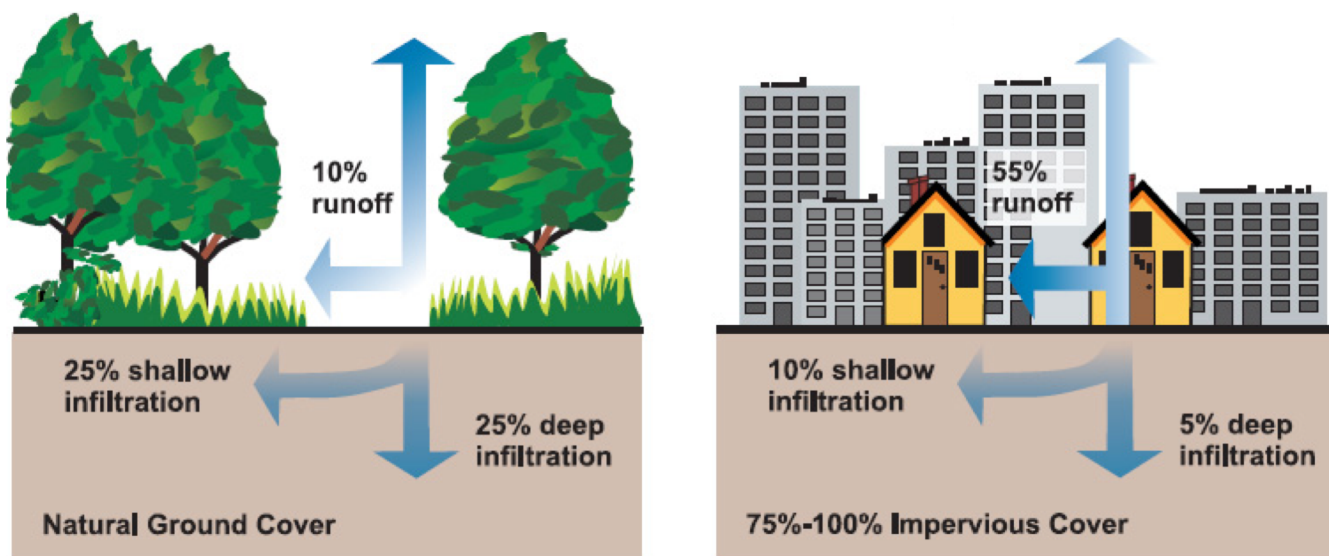
Target: Capture the first inch of rainfall on 10% of the impervious areas in combined sewer watersheds through detention or infiltration source controls by 2030



Stormwater

Alternative Metrics:

- ❑ Eco-Efficiency: Cost savings from reducing the number of annual CSOs
- ❑ Eco-Efficiency: Stormwater management costs mitigated per unit of water absorbed by impervious surfaces



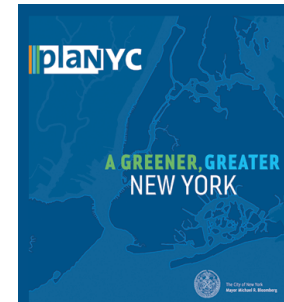


Stormwater



Benchmarks / Case Studies:

- ❑ New York, NY: Capture the first inch of rainfall on 10% of the impervious areas in combined sewer watersheds through detention or infiltration source controls by 2030
- ❑ Philadelphia, PA: “Green infrastructure” ordinances require developers to manage the first inch of stormwater on-site



Recommendations Summary

Goal	Metric	Target
Land Use Pattern	Percent of vacant lots occupied/restored	Reduce percentage of vacant and unoccupied lots by 15-30% by 2030.
Architectural Character	Number of Historic Resources Commission "approved" projects that are repurposed vacant lots, brownfields, or 'Registered Historic Structures.'	Identify baseline of vacant lots, brownfield sites and Registered Historic Structures
Employment	Percentage of households that earn a living wage	95% of Albany's households earn a livable wage by 2030.
Investment	Percentage of employment/income coming from small businesses	50% of employment and payroll is attributed to small business by 2030.
Urban Forest	Percent of tree canopy coverage by neighborhood	Increase tree canopy coverage by 5-15% per neighborhood by 2030.
Natural Habitat	Number of native flora & fauna species present in the Albany Pine Bush Preserve	Create a baseline and database of native flora and fauna and set target increase.
Air Quality	Number of days air pollutants achieve a "good" rating on the Air Quality Index (AQI)	Reduce AQI levels. Maintain 100% "good"-rated days on the EPA's Air Quality Index.
Housing & Diversity	Percent of affordable housing per neighborhood and percent of existing affordable stock	5% of revenue collected as PILOT
Fiscal Impacts	Amount of PILOT money collected as percentage of total budget	5% of revenue collected as PILOT

Employment Goal
Increase employment opportunities at all education/skill levels, and raise local incomes

Employment Metric
Percentage of households that earn a living wage

Employment Target
95% of Albany's households earn a livable wage by 2030

Air Quality Goal
Maintain and improve the air quality in the city of Albany

Air Quality Metric
Pollutant levels and number of days air pollutants achieve a "good" rating on the EPA's Air Quality Index (AQI)

Air Quality Target
Reduce pollutant levels by 20% and maintain 100% "good"-rated days on the EPA's Air Quality Index

Analysis



- ❑ Few cities have sustainability plans that are using a TBL approach or **quantitatively** measuring success
- ❑ Cities with more **funding** are more likely to have quantitative goals
- ❑ Cities that use quantifiable metrics will likely be more successful at tracking and **achieving** their sustainability goals
- ❑ **TBL metrics** will more effectively measure social, economic and environmental success

Next Steps

MSSM Capstone Team

Present to Albany's Planning
Department



Albany's Planning Department

Refine targets



Present metrics and targets to
stakeholders



Integrate metrics and targets
into the final Albany 2030 plan

Questions?

