

DEPARTMENT OF ENVIRONMENTAL HEALTH

DIVISION OF ENVIRONMENTAL QUALITY

FEBRUARY 14, 2013

FOR THE PERIOD COVERING: JANUARY 1, 2012 – DECEMBER 31, 2012



Vision Alignment

Citywide Vision:

We will deliver a world-class city where everyone matters.

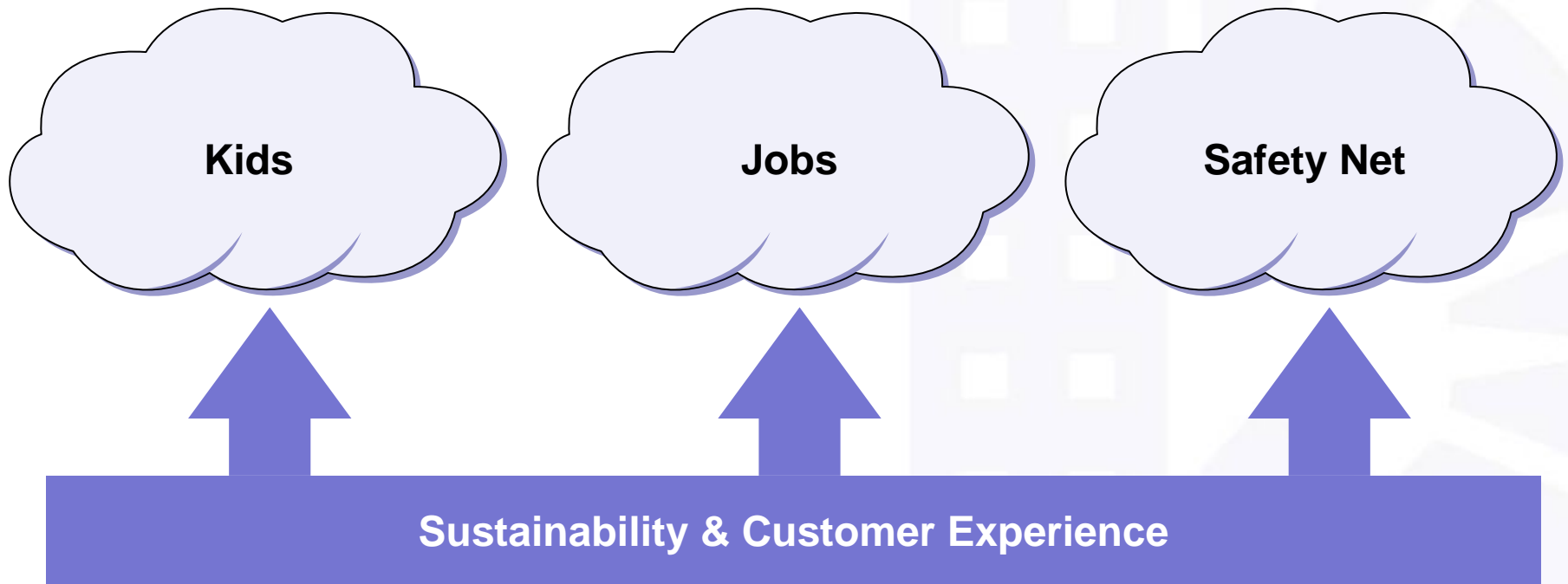
Agency Vision :

Create a city with a world-class environment, healthy communities of all ages and incomes and where the well-being of our pets also matters.

Mission Alignment

Mission

Promote healthy communities by protecting Denver's environment, enhancing sustainability, providing essential public health services and advancing the well-being of the city's pets.

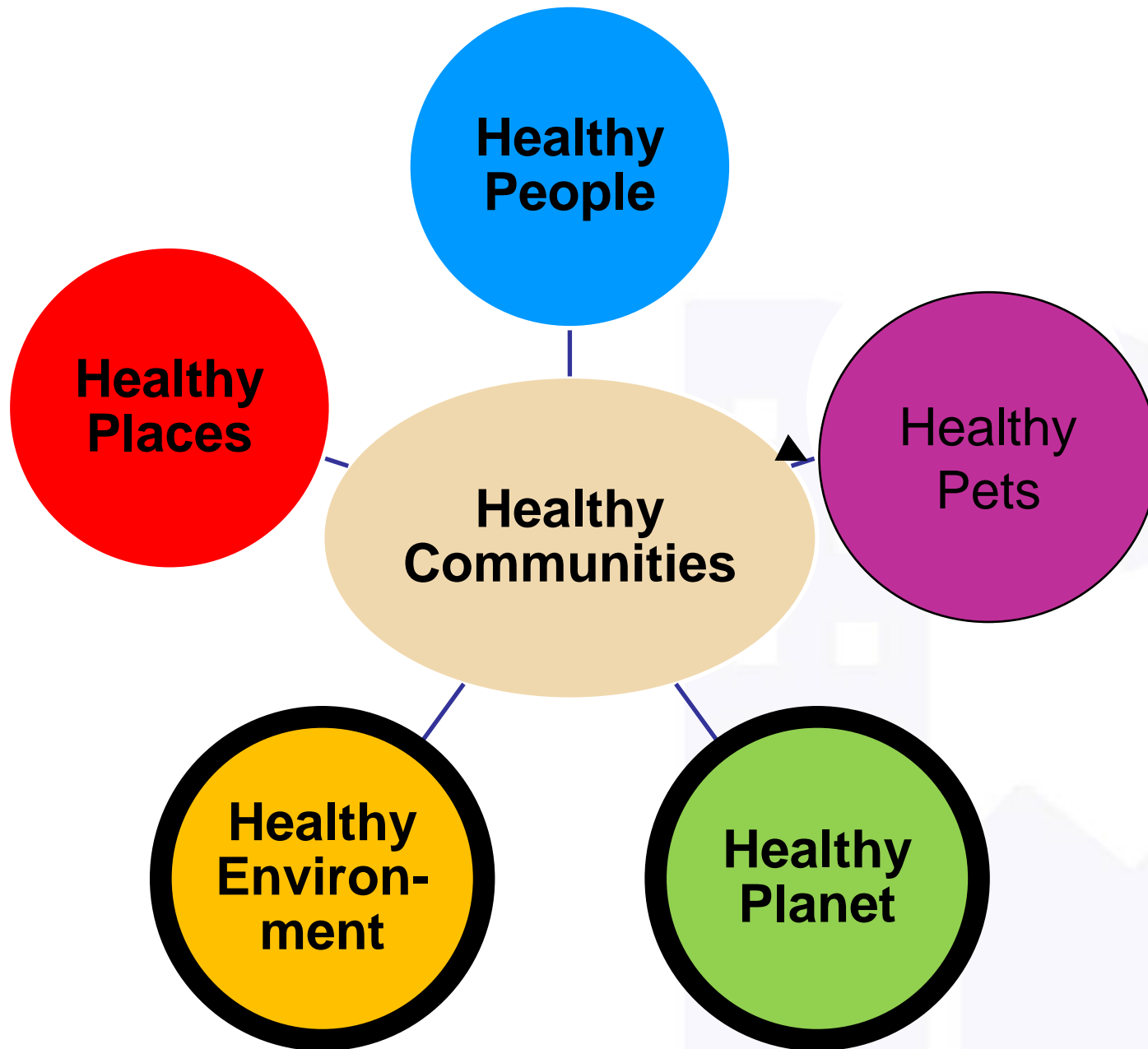


Agency Charter :

Denver Charter Sec. 24-16. - General powers and duties

The manager of environmental health, as provided under the Charter, shall exercise a general supervision over the environmental health of the city, and shall have full power:

- (1) To take all measures necessary to promote the health and cleanliness of the city and its inhabitants and visitors;
- (2) To abate all nuisances related to environmental health of every description on public and private property;
- (3) To prevent the introduction or spreading within the city of malignant, contagious and infectious diseases, and to remove, detail, isolate or quarantine any person attacked by or having any such disease, or who has been exposed thereto;
- (4) To adopt in reference to any such person, any rules, regulations, restrictions or measures that may by the manager be deemed advisable;
- (5) To procure suitable shelter in cases of environmental health emergencies and to establish rules and regulations for the government of the same; and
- (6) To prevent, by such rules or regulations as the manager may deem expedient and adopt, the introduction or the spreading of contagious or infectious diseases within the city and its environs.



Agency Vision:

Create a city with a world-class environment, healthy communities of all ages and incomes and where the well-being of our pets also matters.

Agency Goals:

**Goal 3: Healthy Environment
Goal 4: Healthy Planet**

Environmental
Quality Division
Vision:

Denver is clean, green, and environmentally, socially and economically sustainable.

Environmental Quality 2012 Strategic Plan Results

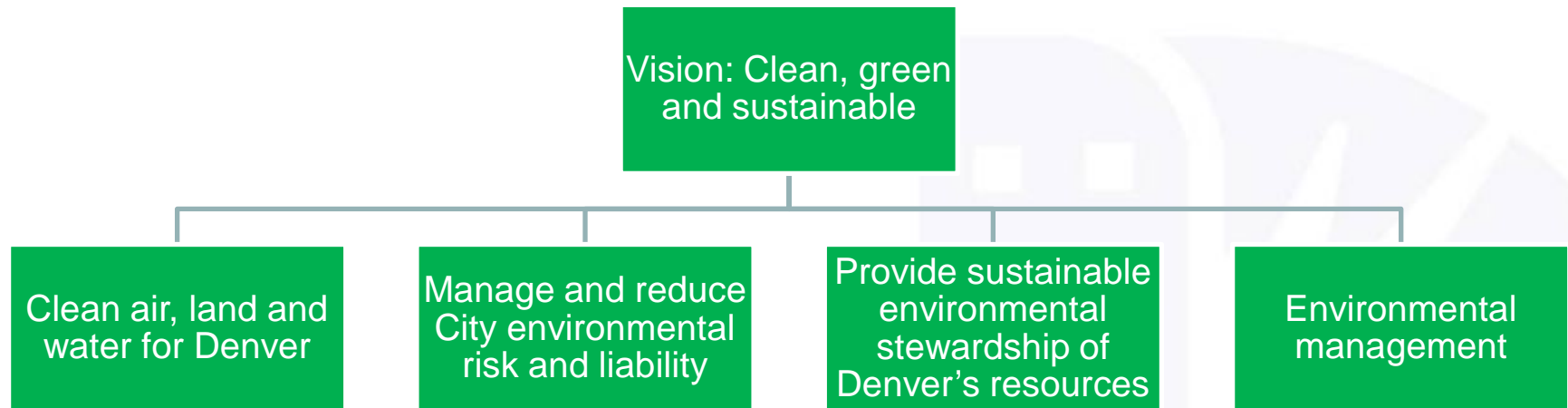
- **Progress on Strategies/Targets reported by:**
 - Data (both Outcomes and Outputs)
 - Qualitative Information (e.g., anecdotes, stories)

- **Some results hard-to-measure**

- **Most results are achieved in partnership with others; some results are outside of our control**

- **Some measures under development**

Environmental Quality (EQ) Strategic Plan



EQ Strategic Plan

Clean air, land and water for Denver

Denver's air quality meets all health-based standards

Denver's streams and lakes achieve swimmable and fishable status by 2020

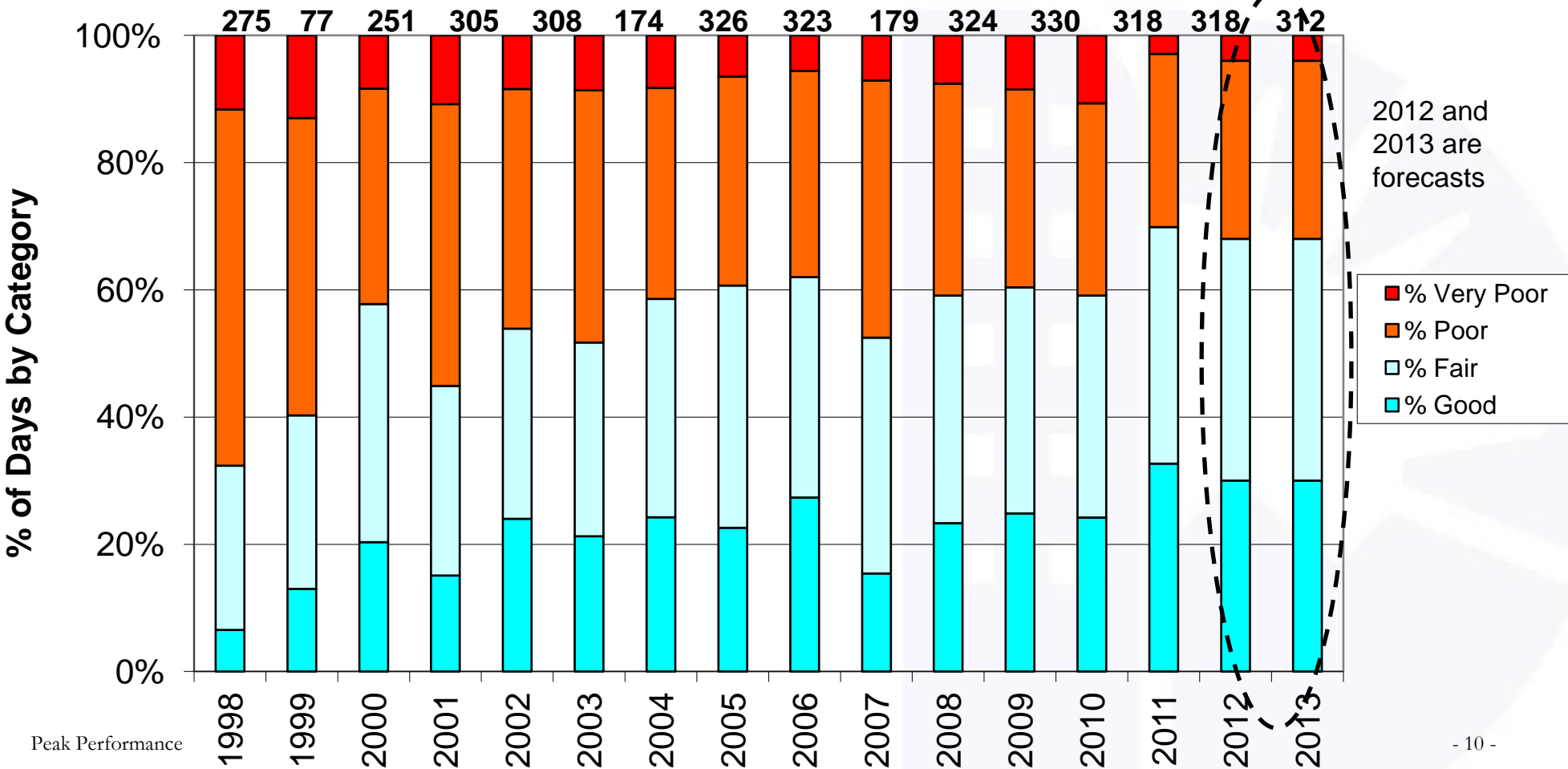
Complaints from Denver residents that concern air, land, and water quality and associated health risks are addressed

Clean Air, Land and Water

Strategy: Denver's air quality meets all health-based standards

Visibility Trends in Denver 1998-2011

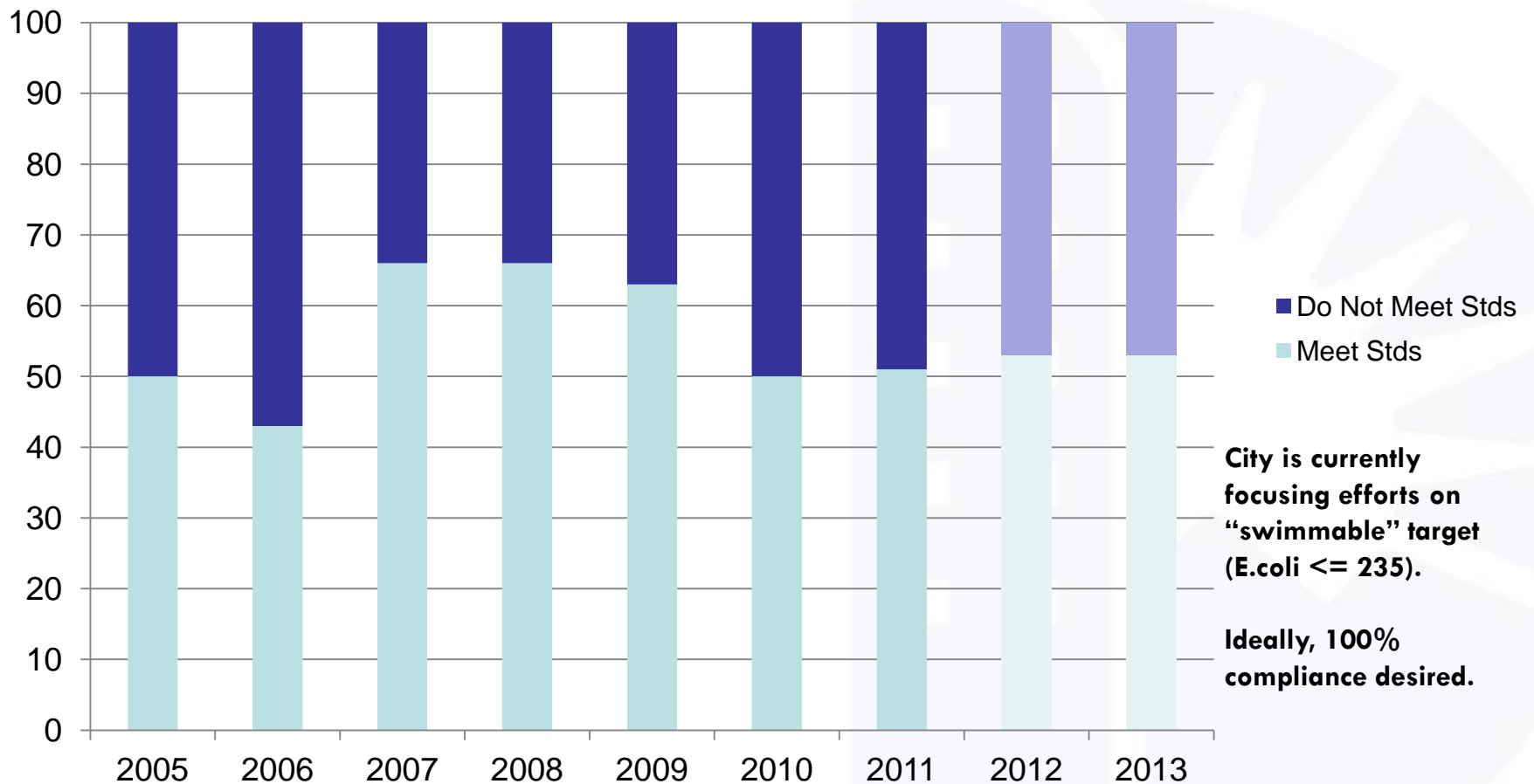
of Days Each Year with Valid Readings



Clean Air, Land and Water

Strategy: Denver's streams and lakes achieve swimmable and fishable status by 2020

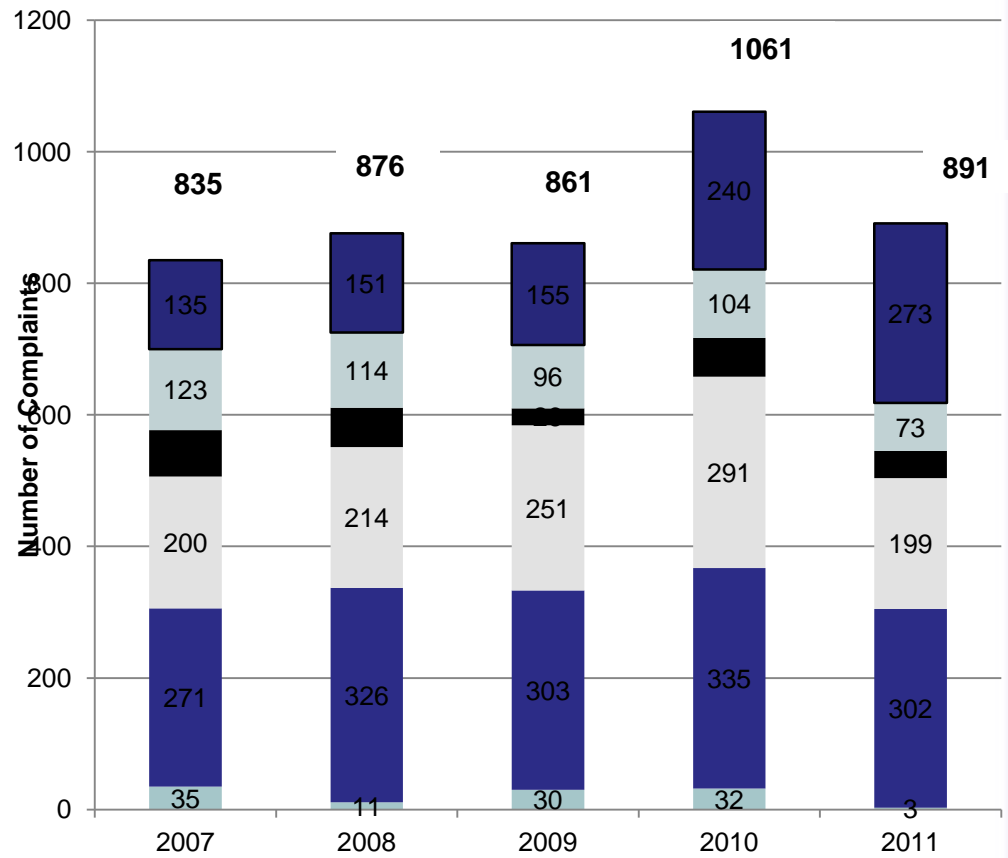
Water Quality % of Time Meets Recreational E. coli Std



Clean Air, Land and Water

Strategy: Complaints from Denver residents that concern air, land, and water quality and associated health risks are addressed

Environmental Quality Complaints



- Air Quality
- Asbestos
- Water/Stormwater
- Solid/Hazardous Waste
- Noise
- Other

EQ Strategic Plan

Manage and reduce City environmental risk and liability

All known contaminated sites are cleaned up

City actions are managed to minimize existing liability and prevent any new liability where possible

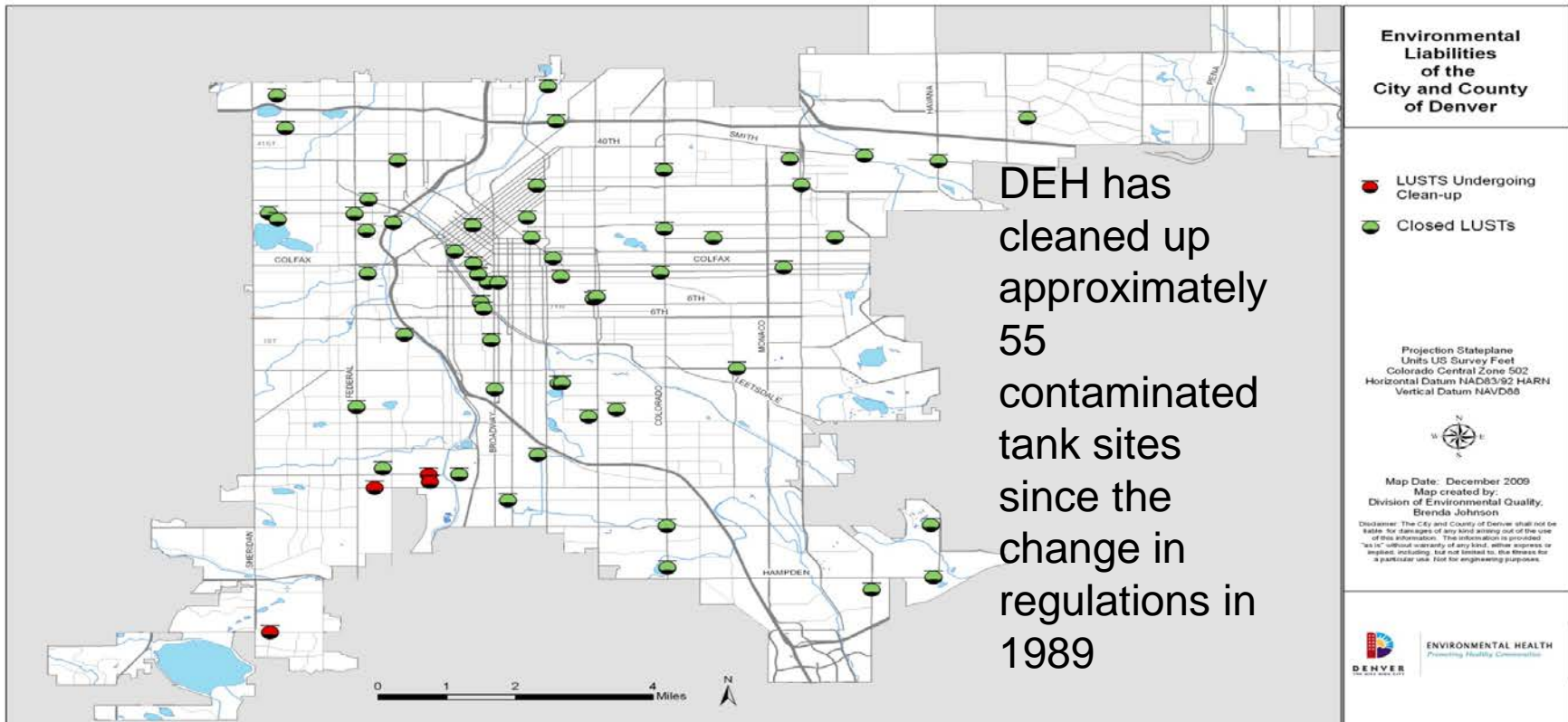
All City facility environmental impacts are managed to ensure compliance with applicable local, state, and federal requirements

Environmental Risk and Liability

Strategy: All known contaminated sites are cleaned up

Strategy: City actions are managed to minimize existing liability and prevent any new liability where possible

City-Owned Historical Contaminated Tank Sites

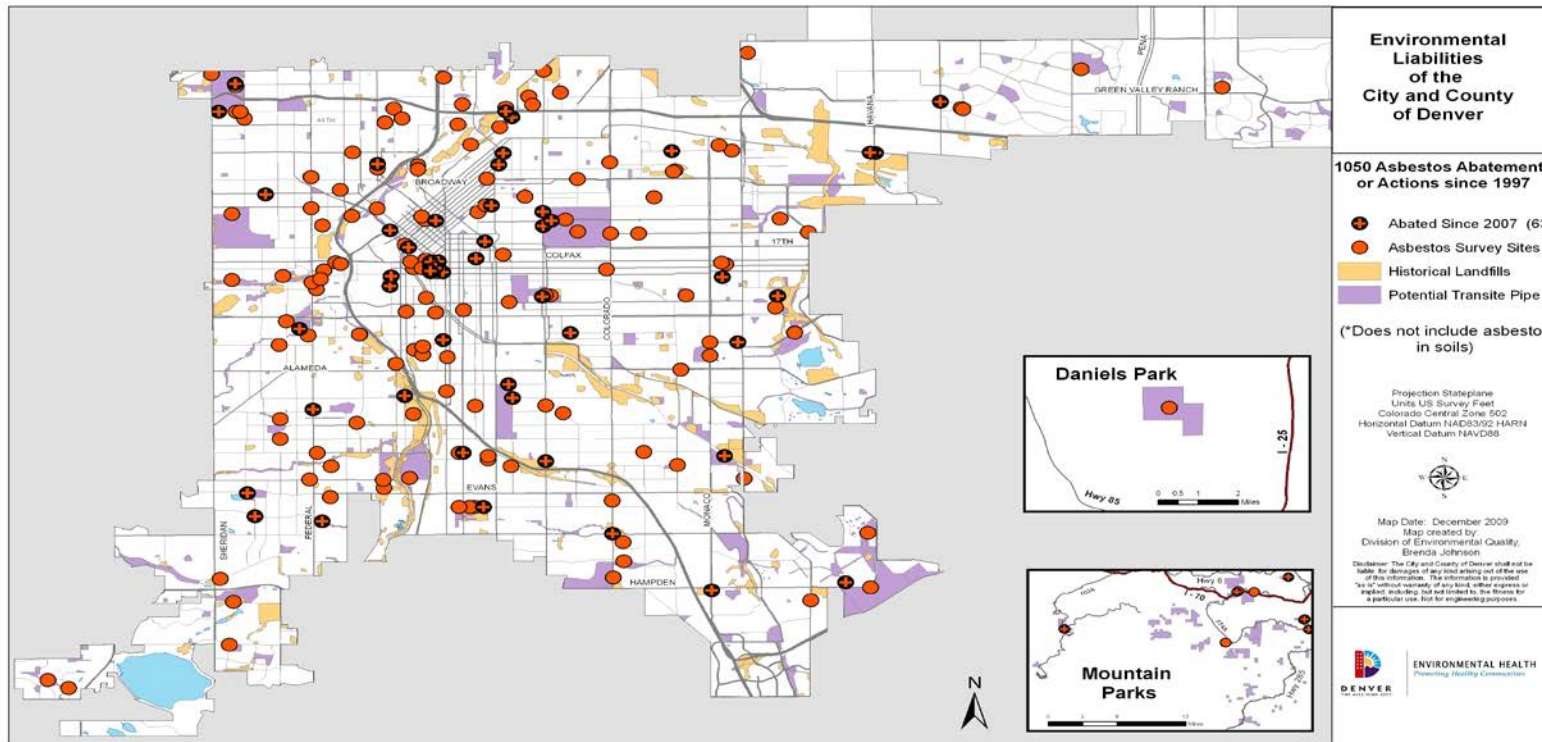


Environmental Risk and Liability

Strategy: All known contaminated sites are cleaned up

Strategy: City actions are managed to minimize existing liability and prevent any new liability where possible

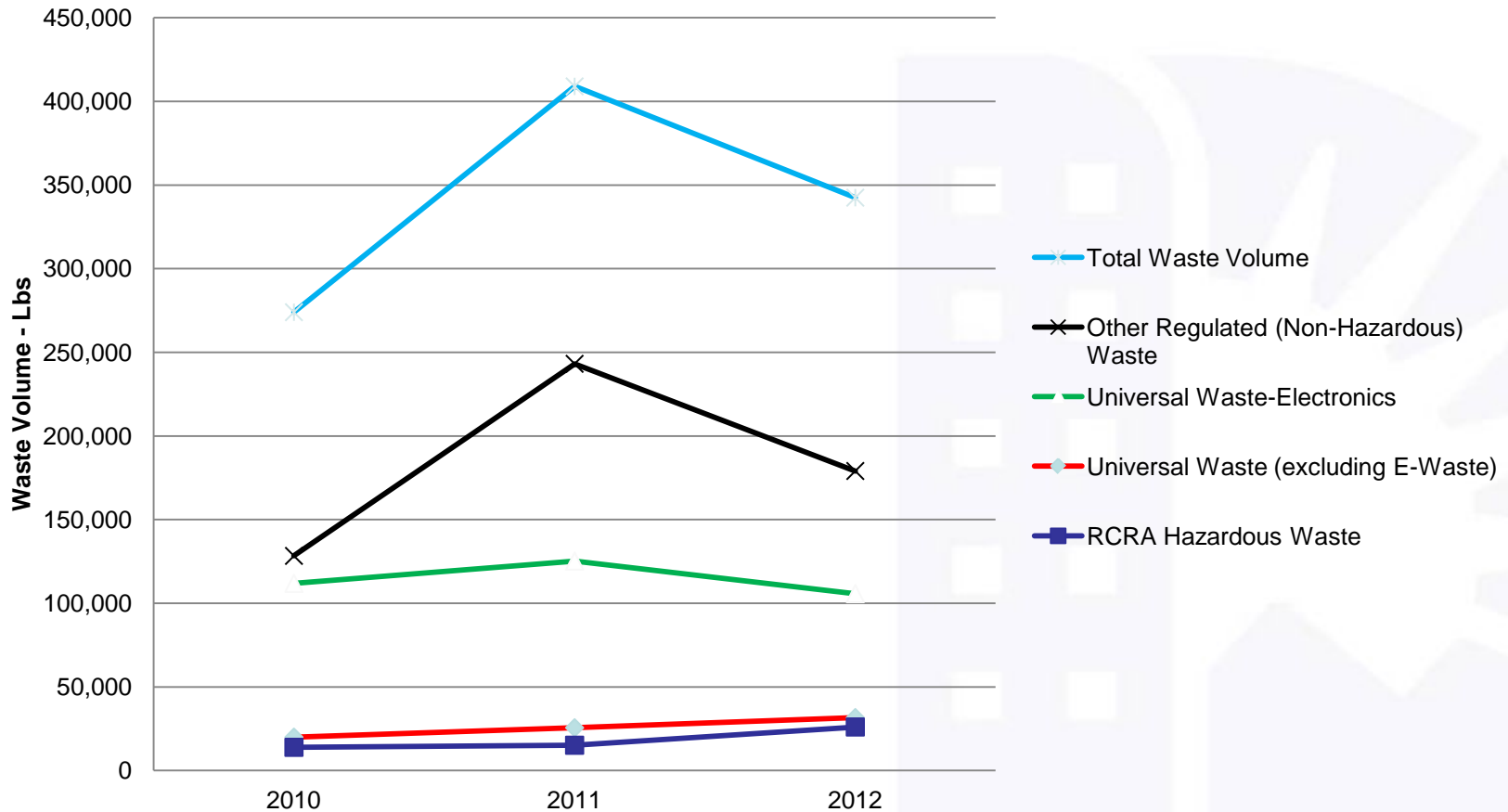
City-Owned Sites w/ Asbestos-Containing Materials



Environmental Risk and Liability

Strategy: City actions are managed to minimize existing liability and prevent any new liability where possible

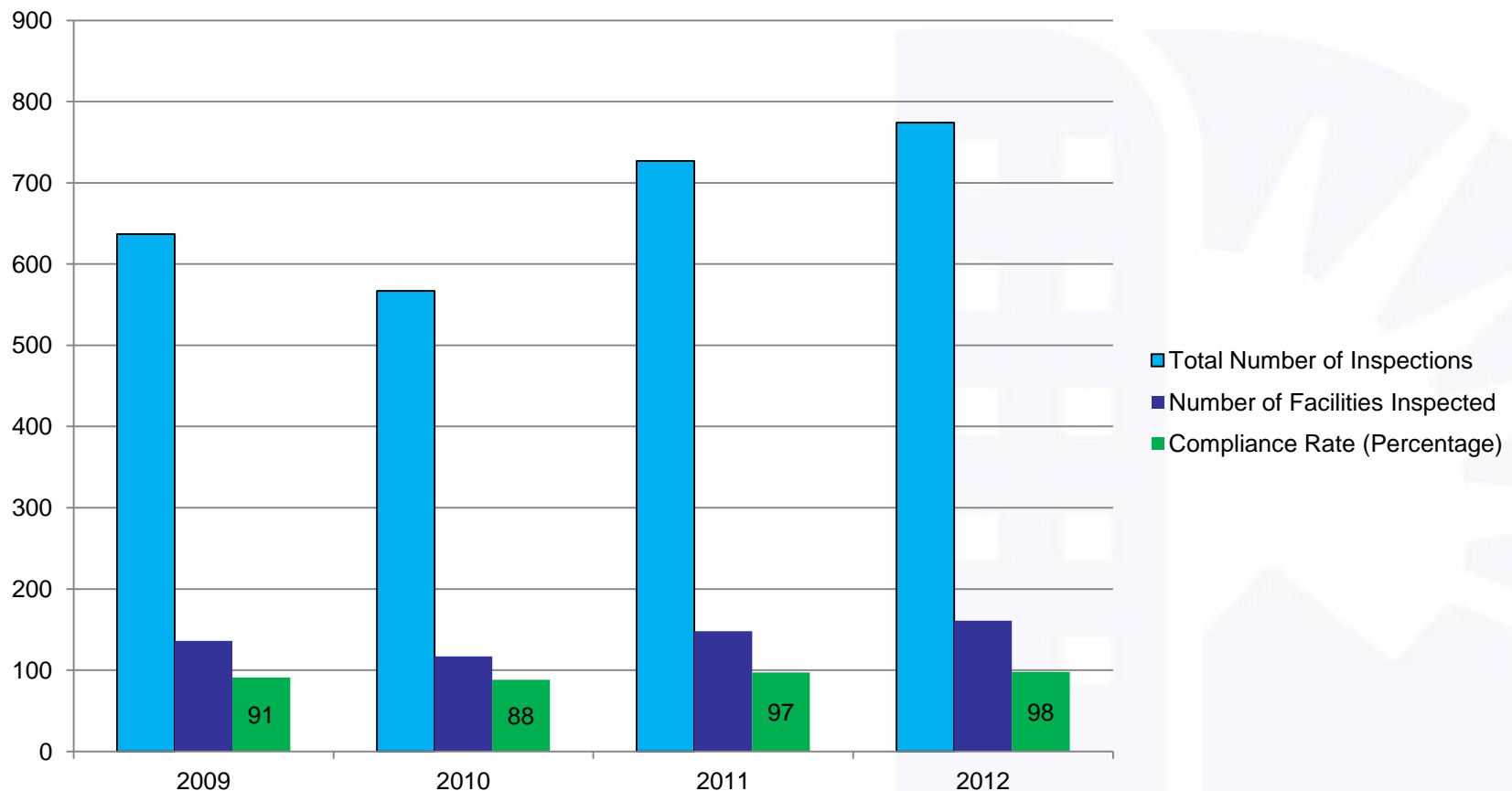
Wastes Managed by EQ



Environmental Risk and Liability

Strategy: All City facility environmental impacts are managed to ensure compliance with applicable local, state, and federal requirements

Municipal Facility Inspection/Compliance Rate 2009-2012



EQ Strategic Plan

Provide sustainable environmental stewardship of Denver's resources

Community environmental sustainability practices increase

Resource conservation is increased in both public and private sectors

Environmentally sustainable land use is increased

Low-income and minority representation in environmental education and careers is increased

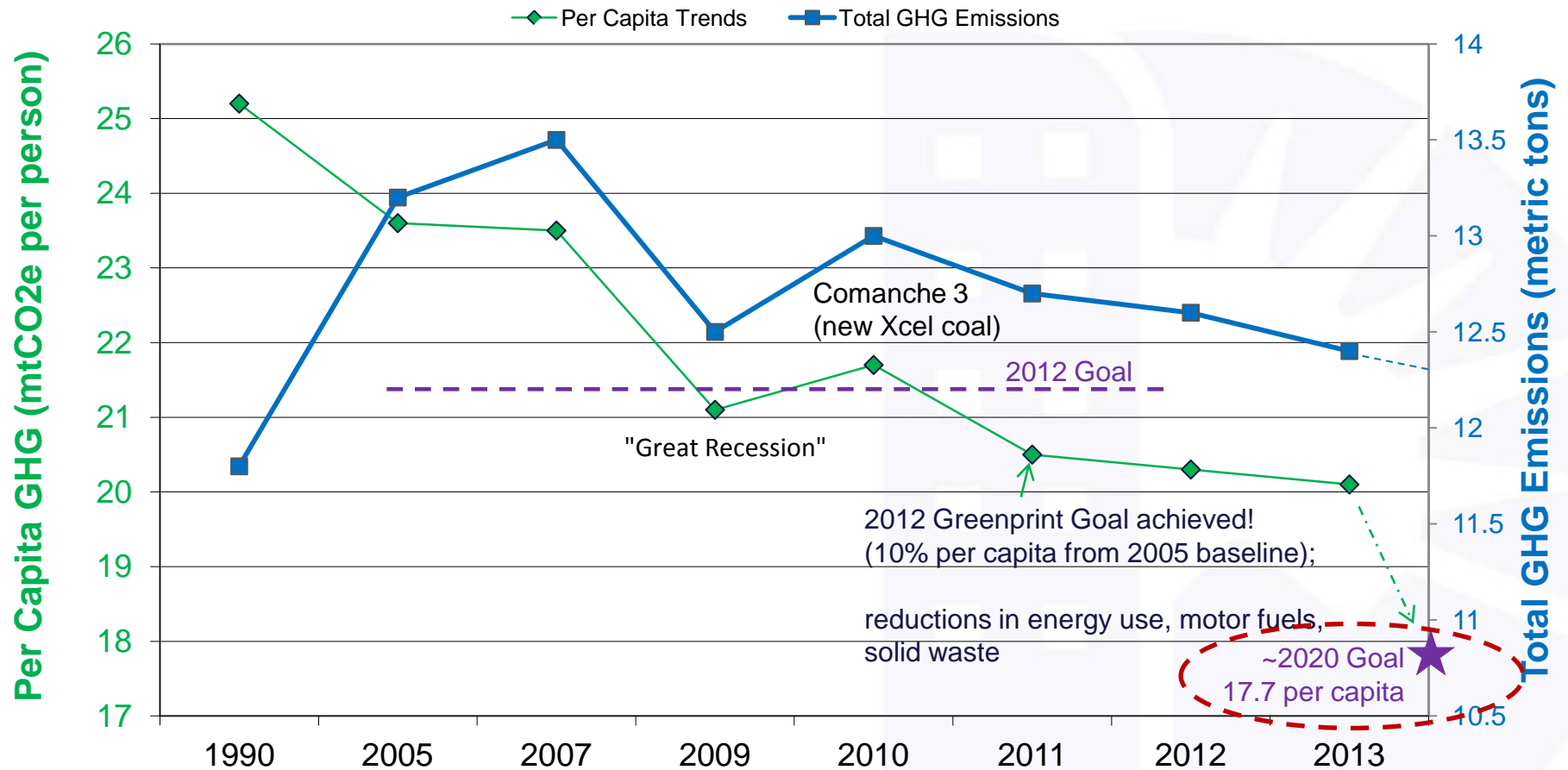
Denver is prepared for and resilient to environmental emergencies and long-term environmental changes

Denver's GHG emissions are reduced to 1990 levels by 2020

Sustainable Environmental Stewardship

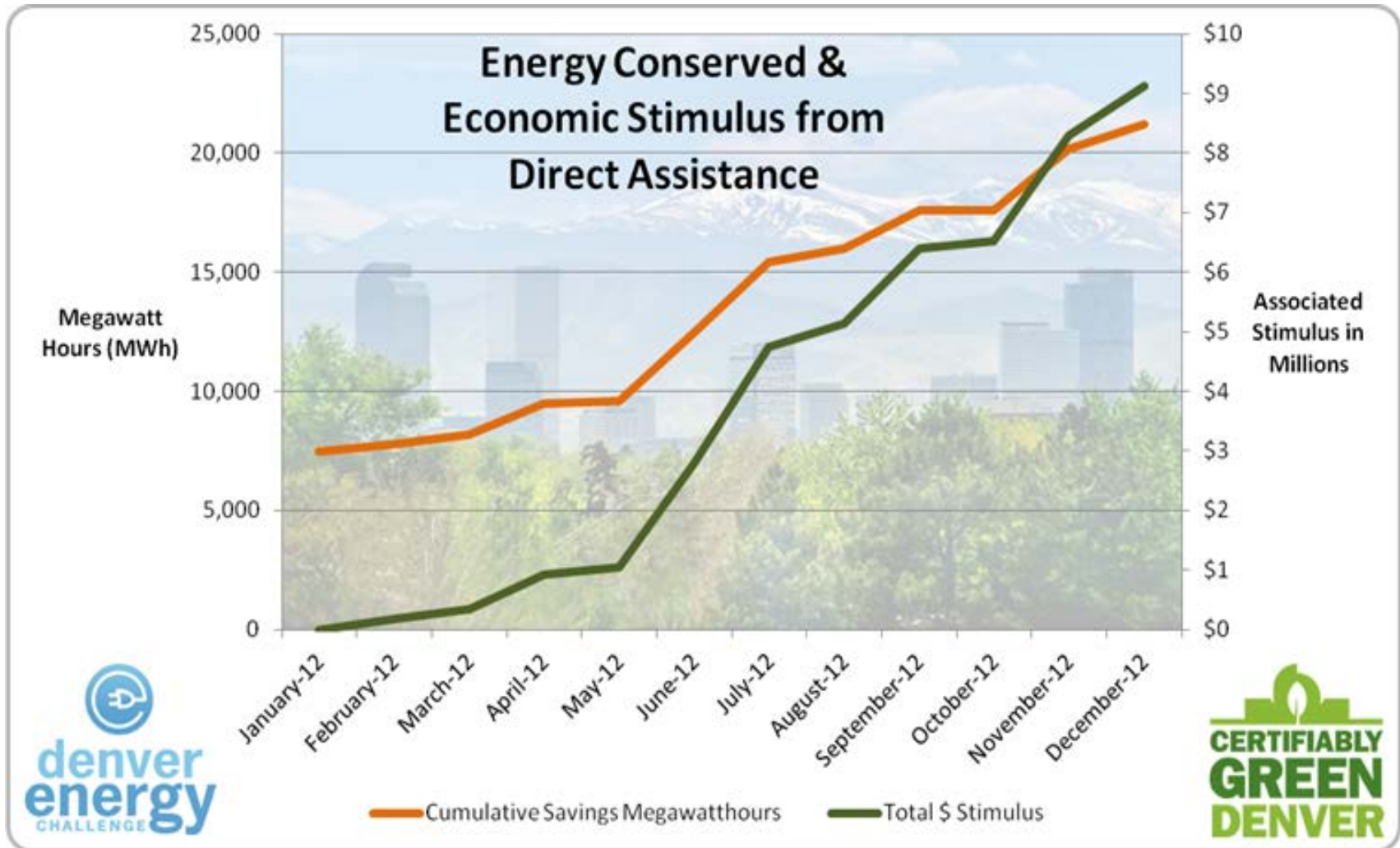
Strategy: Denver's Greenhouse Gas (GHG) emissions are reduced to 1990 levels by 2020

1990-2013 Denver Per Capita GHG Emissions



Sustainable Environmental Stewardship

Strategy: Resource conservation is increased in both public and private sectors



Sustainable Environmental Stewardship

Strategy: Environmentally sustainable land use is increased

Walk Score Rating

Denver ranked #16 in the US for walkability. Scored 60 (out of 100).



Rank	Neighborhood	Score
1	Central Business District	96
2	North Capitol Hill	91
3	Capitol Hill	90
75	Stapleton	37
76	Montbello	36
77	Gateway/Green Valley Ranch	28

New York is the [most walkable](#) large city in the U.S. with a Walk Score of 85.

Sustainable Environmental Stewardship

Strategy: Low-income and minority representation in environmental education and careers is increased

- **Provided exposure to environmental careers to 145 low-income youth in 2012**
 - Service learning environmental projects
 - Education/training on environmental sustainability concepts
 - Soft skills development (reliability, accountability, public speaking, etc.)



Sustainable Environmental Stewardship

Strategy: Community environmental sustainability practices increase

Strategy: Low-income and minority representation in environmental education and careers is increased

Strategy: Denver is prepared for and resilient to environmental emergencies and long-term environmental changes

Measures:



EQ Strategic Plan

Environmental management

Denver's environmental management, processes, and systems continually improve and become more efficient

Environmental Management

Strategy: Denver's environmental management, processes, and systems continually improve and become more efficient

- **1st US City with a certified EMS covering all operations. Next external certification audit in mid-March.**
- **EQ EMS work: leadership, overall management, communication, coordination, continuous sustainability improvement.**

Key Tactics

- **EMS activities are embedded in all agencies.**
- **Establish city-wide environmental objectives, and ensure that city-wide environmental goals are embedded within EMS.**
- **Coordinate and track environmental objectives, targets, corrective actions, accomplishments city-wide, minimum annually.**
- **Audit city environmental performance annually.**
- **Manage data for environmental performance city wide.**
- **Evaluate environmental programs and policies to clarify goals, track progress, and evaluate performance**
- **Challenge: EMS outcome metrics/actions are primarily “owned” by other Depts.**

Environmental Management

Strategy: Denver's environmental management, processes, and systems continually improve and become more efficient

Example Departmental 2012 EMS Targets

Environmental Health: Reduce per capita GHG emissions to 10% of the 2005 baseline by 2012

Public Works: Inspect 2.2 million linear feet of sanitary and storm sewer lines

General Services: 50% of Master Purchase Orders and one-time bids will meet Environmentally Preferable Purchasing criteria

Parks: Increase no mow areas at each golf facility by at least 5 acres per facility

Environmental Management

Strategy: Denver's environmental management, processes, and systems continually improve and become more efficient

Recent Success Stories

- **76 solar-powered emergency sirens installed**
- **Denver Fleet ranked #6 (out of 100 fleets) by Govt. Green Fleets**
- **DEH and Parks/Rec staff collected and disposed of 980 pounds of toxic ceramic craft products from 22 Recreation Centers.**
- **Energy use reduced at core City buildings 23% from 2005 baseline (~\$1.5 million saved)**
- **DPD patrol cars (cost savings):**
 - **New LED light bars: before, 165 alternators replaced per year; now, 15 replaced in 3 years**
 - **New cars get 22 mpg vs. 7 mpg**

The Future -- One Platform: Asset management, energy, sustainability

infor



Possible Sustainability Dashboard

Collection, measurement, reporting of performance across energy, GHG, water, waste, etc.

Lia Minelli - Chicago

Data Management & Reporting | Energy & Sustainability Planning | Portfolio Management

Chicago

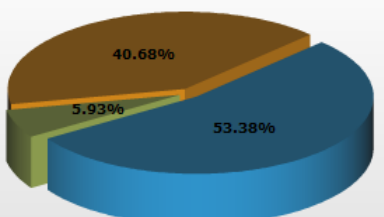
navigate →

Dashboard

The dashboard view is dictated by the navigation within the org. Use the Navigate button on the left to choose the context.

Energy Inventory -

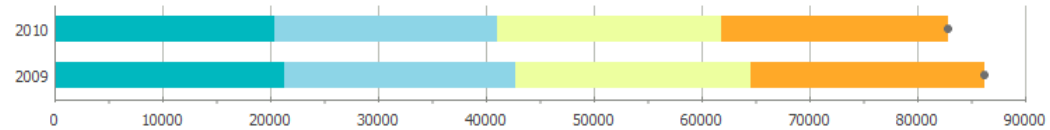
Stationary Source
Mobile
Indirect Emissions



Displaying data from Nov 2010 to Nov 2011

Comparative Analytics

Energy - Quarterly Interval in MWh - (2010 total: 82,920.3, 2009 total: 86,213.4)

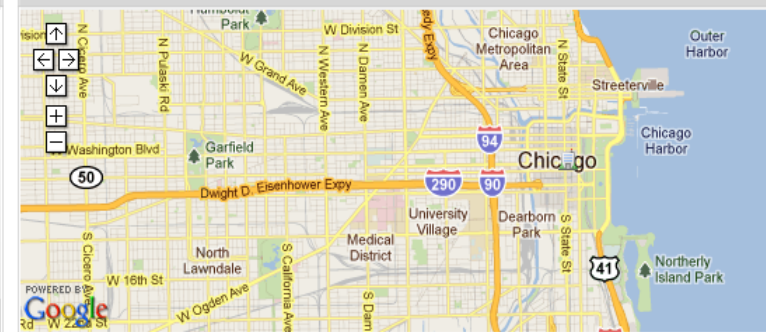


Select Parameters

Type: Unit Type: Interval:

Sub-Type: Comparative Period:

Facilities Map - Top Ten Emissions



Performance Absolute Targets - 10 of 5 (target scorecard data is updated every day at 0:01:00)

Overall Performance

✓ x x x x x x x x x x

Name	Type	Latest Year	Variance %
Transportation	GHG	2010	-21
Waste - Municipal Bldgs	Waste	2010	4.72

Performance Intensity Targets - 6 of 3 (target scorecard data is updated every day at 0:01:00)

Overall Performance

x x x x x x

Name	Type	Latest Year	Variance %
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Peak Performance

- 29 -

Additional Questions?

Divisional Management

Strategy: Denver's environmental management, processes, and systems continually improve and become more efficient

