



Implementing an Environmental Management System in Denver

On the path to 2011

June 2007





What are our environmental management goals?

- Common environmental commitment
- Minimize environmental impact from City practices
- Reduce costs and save time
- Safer work environment
- Proactive environmental management (vs. reactive)
- Properly managed risks and opportunities
- Support Greenprint Denver



What is an Environmental Management System (EMS)?

- A structured approach towards managing environmental assets and liabilities to pursue a policy of continual improvement
- In English...an accepted process to better manage our environmental work and efficiently use our limited resources

The EMS cycle





What are key EMS elements?

- A common environmental commitment throughout the City
- Identification and understanding of environmental risks and opportunities
- Programs and initiatives as needed to manage priority environmental risks and opportunities
- Performance measurement linked to coordinated planning processes



What are key EMS elements?

- Environmental controls integrated within business processes
- Internal and external training and communications
- Continual improvement through management reviews, inspections, audits, corrective action programs



Environmental Policy Statement

The daily environmental action plan for the employees of the City and County of Denver.

- Reduce, Reuse, Recycle
- Prevent Pollution
- Adopt Best Management Practices
- Rethink Behaviors
- Respect the Environment
- Conserve Energy & Natural Resources



Environmental Public Health Policy

The City and County of Denver (CCD) is dedicated to environmental public health stewardship and leadership. CCD commits to environmental public health policies, actions, and programs that:

- ❖ Maximize environmental, social, and economic benefits.
- ❖ Empower, seek input from, partner with, inform, respect, and value individuals, organizations, and communities.
- ❖ Use prevention to reduce environmental health and safety risks and responsibly manage remaining risks.
- ❖ Conserve energy and natural resources through efficient use, reuse and recycling, preference for renewable over non-renewable resources, purchasing, planning and design.
- ❖ Prevent pollution.
- ❖ Promote best management practices.
- ❖ Utilize sound business practices and demonstrate accountability.
- ❖ Meet or exceed all legal requirements and voluntary commitments.
- ❖ Continually improve performance, measure progress, and communicate results to employees and the public.

This policy shall be communicated to all employees, individuals working on behalf of or under the direction of CCD or one of its agencies, and others operating on CCD premises. Each is expected to follow this policy and report any environmental, health, or safety concern to the Mayor's Office or to management of the applicable CCD agency. Managers are expected to take prompt action.



The improvement sequence

Aspect: Greenhouse gas emissions



Impact: GHG emissions to atmosphere; global warming



Objective: Minimize GHG from city operations



Target: 25% reduction in GHG emissions by 2020



Program: Energy efficiency, education programs



The improvement sequence

Program Results: Measure performance and report results



Feedback: Management review

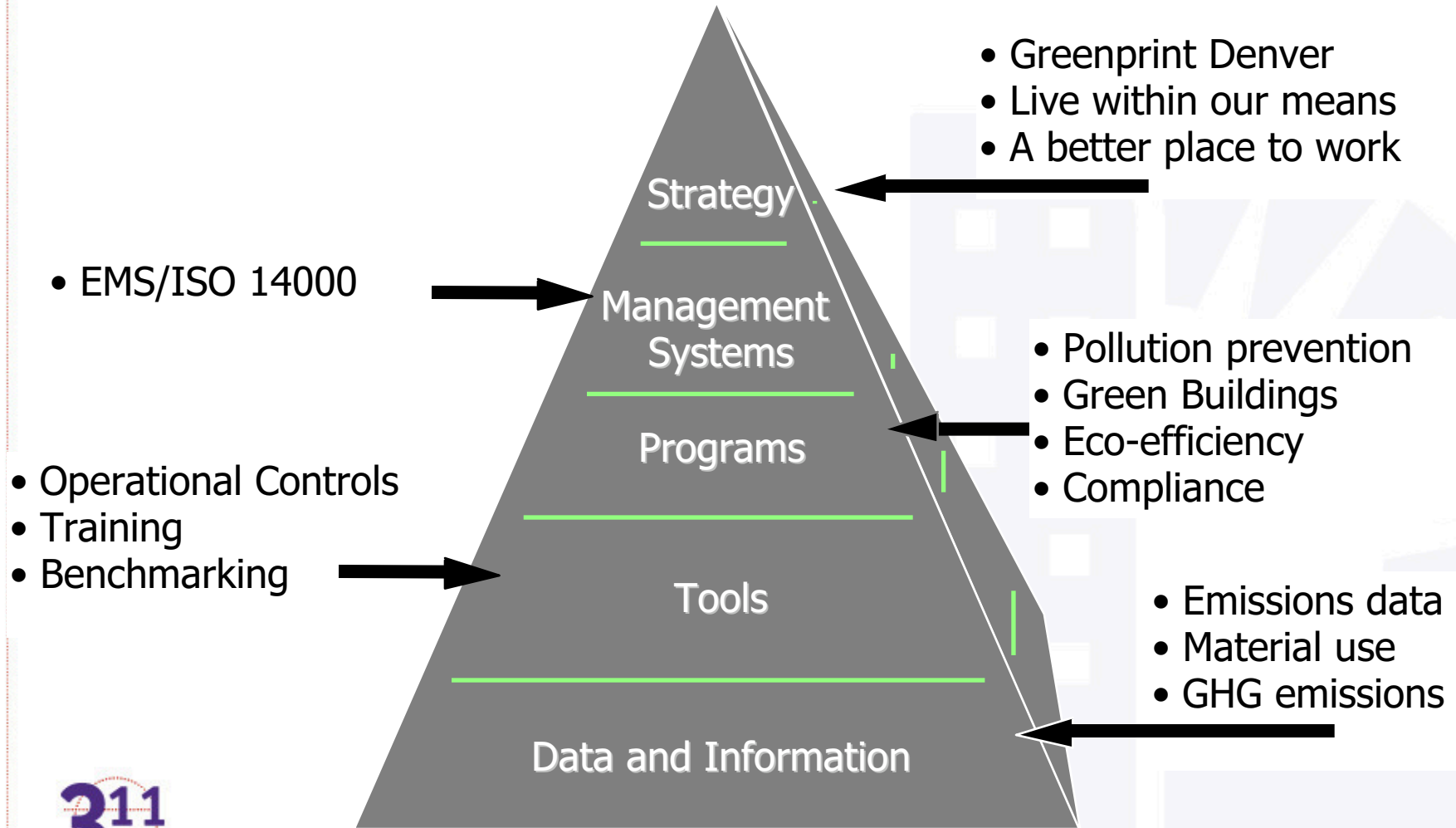


Planning: Set new targets and revise programs as needs



Continual Improvement

Using the EMS to link it all together





How will we know that we've succeeded?

- Objective processes in place to understand all environmental risks and opportunities
- Increase ability to set targets, adopt best practices, and implement improved systems
- Accountability for environmental controls is placed on those who can most easily prevent impacts
- Awareness of environmental issues and responsibilities across all staff
- Show environmental benefits and cost savings



This is a good idea, because...

- Environmental Management Systems have become best practice in businesses and is increasingly in use by the public sector
- EPA and CDPHE recognize an EMS as the best mechanism to ensure compliance
- DIA has had an EMS since 2003, certified to the International EMS Standard since 2004
 - No non-compliance issues for three years running, cost savings, and improved proactive planning



More EMS results from DIA

- Increased environmental compliance, which reduces costs
- Reduced waste generation
- Increased environmental awareness by all staff
- Favorable results in recent insurance review
- Assurance to airport managers that environmental risks are managed appropriately



Denver examples to build upon:

- Traffic Operations switched from solvent- to water-based paints for street striping, eliminating ~4,700 pounds of hazardous waste annually and reducing harmful emissions.
- Denver bought \$121,363 in retread tires in 2004 at about half the cost of new tires.
- The Police firing range stopped generating 14,000 gallons of hazardous wastewater annually by altering practices.
- Public Works installed 6 water-based parts washers, reducing waste generated by ~90% and cutting city costs by ~50%



We can accomplish:

- Reduced hazardous waste generation
- Improved fuel efficiency
- Improved water quality by implementing best management practices at city facilities
- Increased diversion of total solid waste from the landfill by increased recycling
- Increased water conservation at city facilities
- Increased recognition and reward for environmental excellence in city employees

How do we do it?

- Build on the Water Quality EMS underway
- Two Departments will begin the EMS work in 2007 – DEH and another to be selected
- Success breeds success – publicize efforts
- Over the long term, work with each section of the City to integrate the EMS into their business practices
- Continual Improvement



What do we need from you?

- Commitment to and support of the EMS, including dedicating staff resources
- Encourage cooperation from City Agencies
 - Push for City-wide business value
 - Emphasize continual improvement
 - Support environmental accountability in operations
 - Participate in training, documentation
- Engagement during development and implementation



Resource commitments

- Time:
 - For Core Team members (1 representative from each Division), 8 month commitment at 1-2 hours/week.
 - For other staff, 1-2 hours/month
- Who:
 - Knowledgeable and motivated managers, supervisors and/or staff. Those involved serve as resources to the effort and liaison/point of contact to their Division.
- When:
 - For DEH and additional agency, start in July 2007. Other city agencies will be phased in over the next 3 years.

- Paul Schmiechen, Program Manager
Department of Environmental Health
paul.schmiechen@denvergov.org
720-865-5412
- Kurt Schlomberg, Program Administrator
Department of Environmental Health
kurt.schlomberg@denvergov.org
720-865-5416