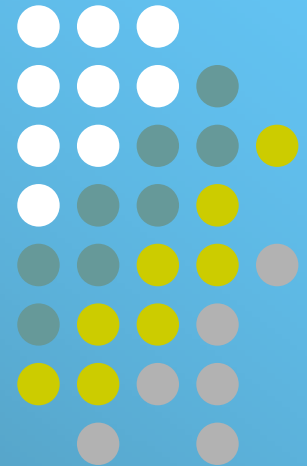


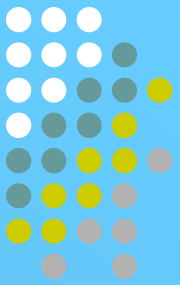
ESC EMS Management Review



December 17, 2008

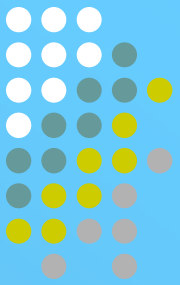


Today's Agenda



- **Management Review - expectations**
- **Calendar Year's Accomplishments**
- **ISO 14001:2004 Requirements Review**
 - a. Internal Audit, Surveillance Audit, Compliance Results
 - b. External Communications
 - c. Environmental performance
 - d. Objectives and Targets status
 - e. Corrective and Preventive Action Status
 - f. Annual Management Review Follow-up
 - g. Changes/Issues
 - h. Recommendations for Improvement

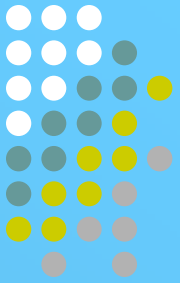
Expectations – as always...



Determine if the EMS is **suitable, adequate, and effective**....and...

Determine if there is a need for changes or if there are opportunities for improvement.

2008 Accomplishments – linked to our Policy

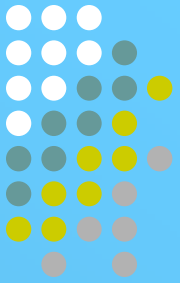


1...To comply fully with the letter and spirit of all Federal, State, and local environmental laws and regulations.

- **EMS Documents reviewed and updated:**
 - Two Environmental Procedures
 - Legal and Other Requirements
 - Aspects/Activities

2...To consider environmental factors when making planning, purchasing, and operating decisions.

- Continued use of Green Purchasing BPA.
- Renewed efforts to replace/remove unnecessary mercury thermometers.
- Installed paper towel “adaptors” to reduce waste.
- Installed water saving devices (low flow aerators and dual flush valves).
- DI Water recovered for reuse in boiler system.
- Tracking mileage and gas use of GSA vehicles.
- Reduction of lighting in common areas without compromising operations.

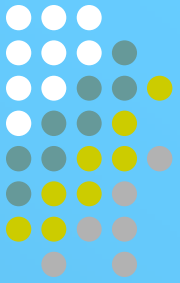


2008 Accomplishments – linked to our Policy

3...To work continuously to improve the effectiveness of our environmental management programs.

- **Addition of a SEE employee (yea!!)**
- **Worked on Fuel EMP targets:**
 - Poster blitz showing benefits of rideshare/carpooling, flexiplace, hybrids, public transportation
 - Created rideshare/carpool signup site
 - Recognized new carpoolers
 - Promoted vehicle/tire maintenance to improve mileage
- **Created EMP to cover all of the support activities the EMS Team does throughout the year.**
- **Proposed two new EMPs to incorporate activities of the FMSB for energy and water conservation.**

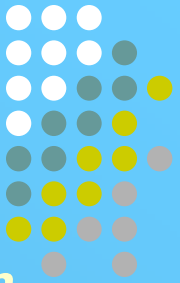
2008 Accomplishments – linked to our Policy



4...To provide appropriate training and educate employees to be environmentally responsible on the job.

- Gave 42 new employee presentations.
- ESC Staff completed required SHEMD EMS training.
- Earth Day event in April promoting renewable energy sources and “rain barrel ceremony”- a gift from a Ft. Meade school.
- Kept EMS intranet website updated.
- Added (ESC only) EMS information on FMSB website.
- Sponsored showing of environmental movie at lunch.
- Sent e-mails educating staff on “waste-free” lunches, use of reusable bags, carpool/rideshareing, household hazardous waste recycling.
- Presented 3 Golden Groundhog awards
- Gave out several Eco-Tip awards.

2008 Accomplishments – linked to our Policy



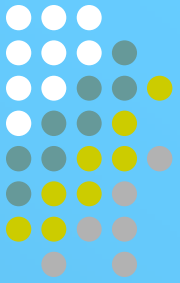
5...To monitor our environmental performance regularly through rigorous evaluations.

- **Management review 12/07.**
- **Internal audit and surveillance audit.**
- **Tracking of waste, purchasing and recycle streams.**
- **Annual SHEMD survey.**

6...To seek to prevent pollution before it is produced, reduce the amount of waste at our facility, re-use and recycle whenever possible, and support pollution prevention by our customers and suppliers.

- **America Recycles Day- collected shoes and phones.**
- **Improved our ChemShare program and made three donations.**
- **Set up book re-use table in lunchroom.**
- **Set up collection box for recycling personal printer cartridges.**

2008 Accomplishments – linked to Policy



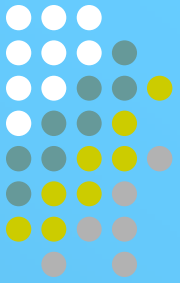
7...To maintain and improve the grounds of the ESC in an environmentally sensitive manner including land, water, wildlife and natural resources.

- **Continued maintenance of rain garden to control soil erosion and water runoff including installation of rain barrel.**
- **Awarded landscape contract to vendor committed to use of environmentally friendly chemicals on ESC grounds.**

8...To use energy efficiently throughout our operations, and support the efficient use of gas and electricity in our facility.

- **Laboratory Optimization Control Project (LCOP)**
 - **Running 4 air handlers to decrease total kilowatt usage.**
 - **Dual switches installed in labs to decrease air volume.**
 - **Decreased amount of grassy areas being mowed to save on gasoline use.**

2008 Accomplishments – linked to Policy



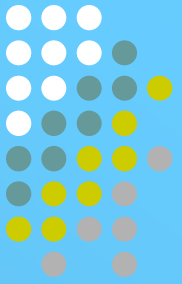
9...To work cooperatively with the local community and other stakeholders to further common environmental objectives.

- Participated in SHEMD monthly conference calls.
- Participated in Ft. Meade's monthly Internal Transportation Workgroup and BRAC discussions.
- Completed annual SHEMD survey.
- Attended SHEM/EMS Workshop on improving and maintaining EMS where SHEM gave presentation on our ChemShare program.
- Attended Federal Environmental Symposium.
- Gave science project presentation on bluebirds to a local school.
- Presentation on the Successes and Challenges of the ESC EMS for the Environmental Compliance/EMS/P2 Workshop for Federal Laboratories

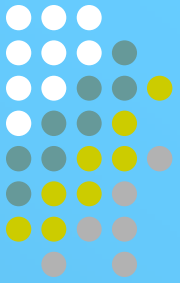
10...To communicate and reinforce this policy throughout our organizations.

- Wrote one story for the Region 3 employee newsletter (The Protector) and submitted at least nine (9) salients to EAID.

School ChemShare Deliveries

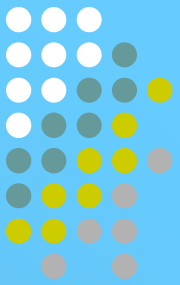


Franklin's excellent year!



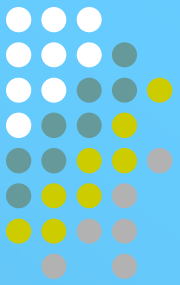
- wrote at least 6 salients and helped with articles
- created a filing (“library”) system for EMS environmental information
- participated in SHEMD monthly conference calls
- participated in periodic Green Metrics and Electronics conference calls
- attended SHEMD EMS conference in New Orleans
- helped organize and run Earthday events
- helped organize movie showing event
- written numerous Awareness emails
- participated in ChemShare program and school deliveries
- researched information on tire recycling, mattress recycling, (what else?)
- attended Lynda’s bluebird talk at a nearby school
- attends monthly Ft.Meade Transportation meetings
- keeps EMS documents up-to-date in the library
- created Home Hazardous Waste/Recycling spreadsheet
- helped update Legal and Other Requirements document
- took EMS Internal Audit training
- attended ESC hazardous waste committee meetings
- attended the Federal Environmental Symposium , (June 2-4 Bethesda, MD)
- assisted Internal and External auditors during the 2008 audits
- made posters for the transportation EMP.
- participated in community outreach such as shoes donation for overseas.

Audit status ISO14001:2004



- **Internal audit May 14-15, 2008 (led by EHS contractor).**
 - **1 observed non-conformance - minor - (Missing info on how we measure and monitor)**
 - **Non-conformance CA IN PROGRESS.**

Audit status ISO14001:2004

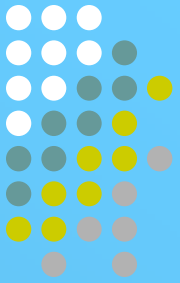


- External Surveillance audit Aug 19-20, 2007 (QSR)
 - Two minor non-conformances (non-use of CA/PA forms and not including Microbial contamination as a Sig.Aspect)
 - Both are Closed
 - 1 opportunity for improvement - not responded to yet.

ESC is recommended for continued registration by QSR!

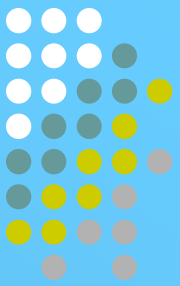
NOTE: Region 3 Philly handling contract now. Will need PR for a new contract by early 2009. Next year will begin our 3-yr cycle over again with a full 3-day audit.

External Communications

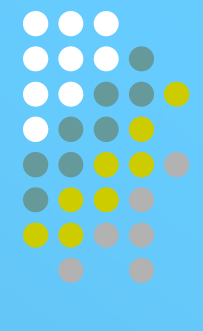


- **Communications from external parties...no complaints!**
 - Maintaining contact with Ft. Meade Cross Functional Team as they develop their EMS, ie. communications with EMS Coordinator.
 - Maintaining contact with José Jiménez of the Federal Facilities Program, Region III, Philadelphia
 - Website new and improved...seeing use by the public.
 - Participated in National EMS Coordinators SHEMD monthly calls.

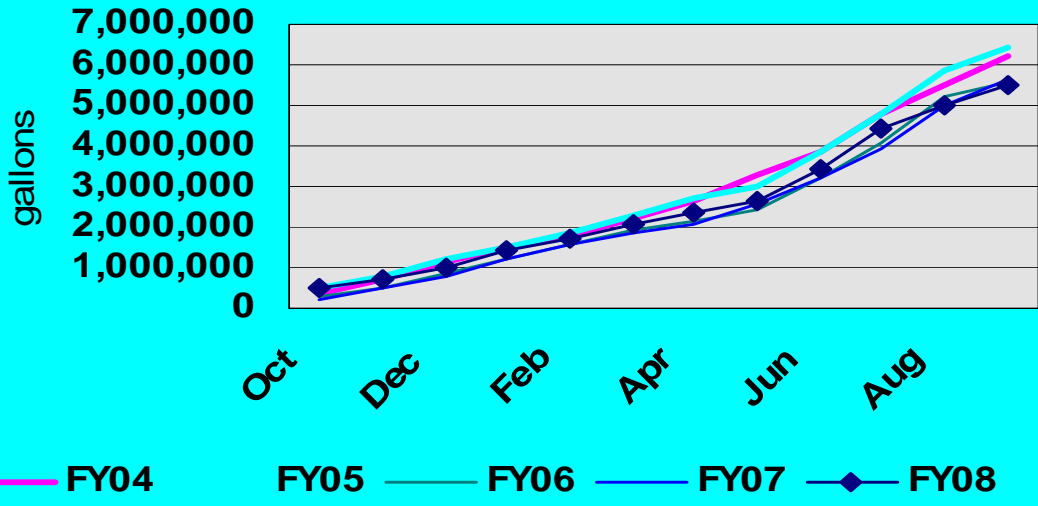
Environmental Performance:



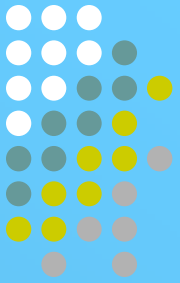
- Water (from OPM ESC EOY report FY08)
- Energy (from OPM ESC EOY report FY08)
- Hazardous Waste Generation (from OPM ESC EOY report FY08)
- Recycling (see OPM ESC EOY report FY08)



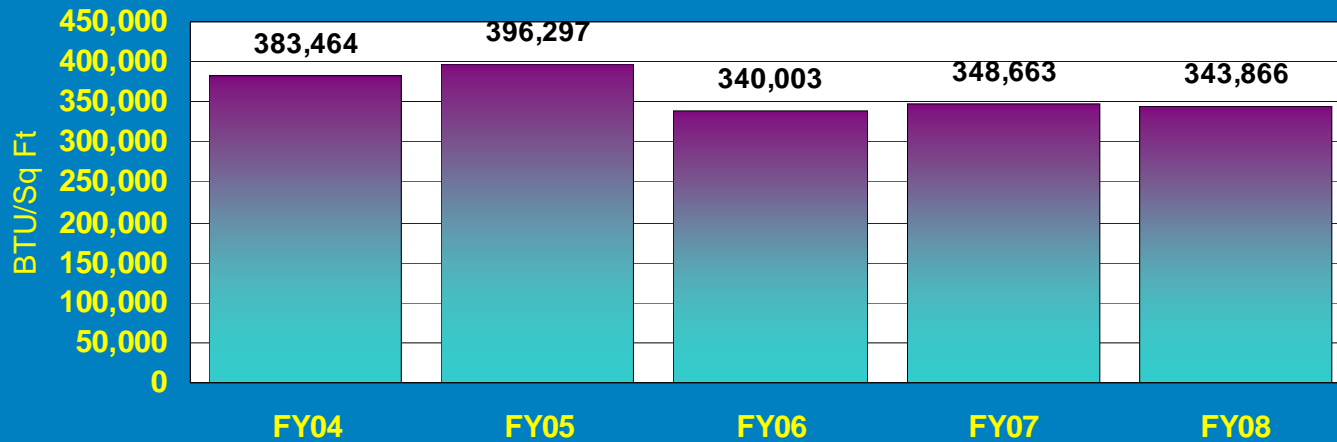
Cumulative Water Consumption Total Water Intake



FY08 overall water consumption lowest since FY03, although domestic water consumption was up appreciably (▲ 6.6%). Conservation efforts in other areas resulted in net loss of total water consumed such as reductions in boiler feed water and cooling tower use.

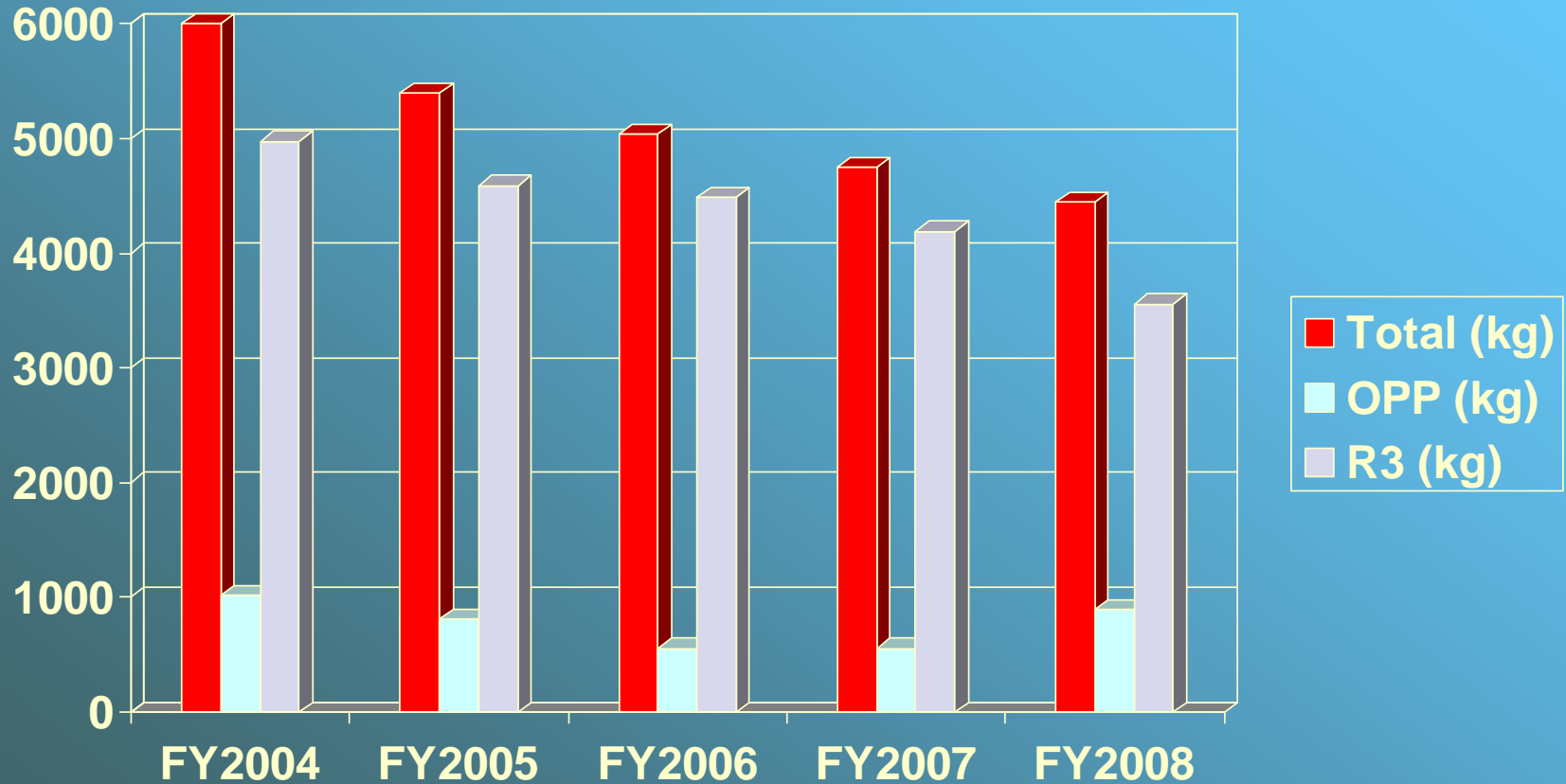
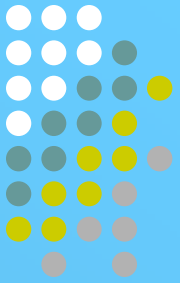


ESC Energy Total Consumption Average per Year

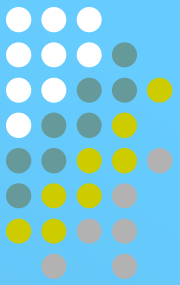


Even though overall energy consumption decreased by 1.4%, electrical demands were increased...probably due to things like increased security lighting and additional AC units for computers.

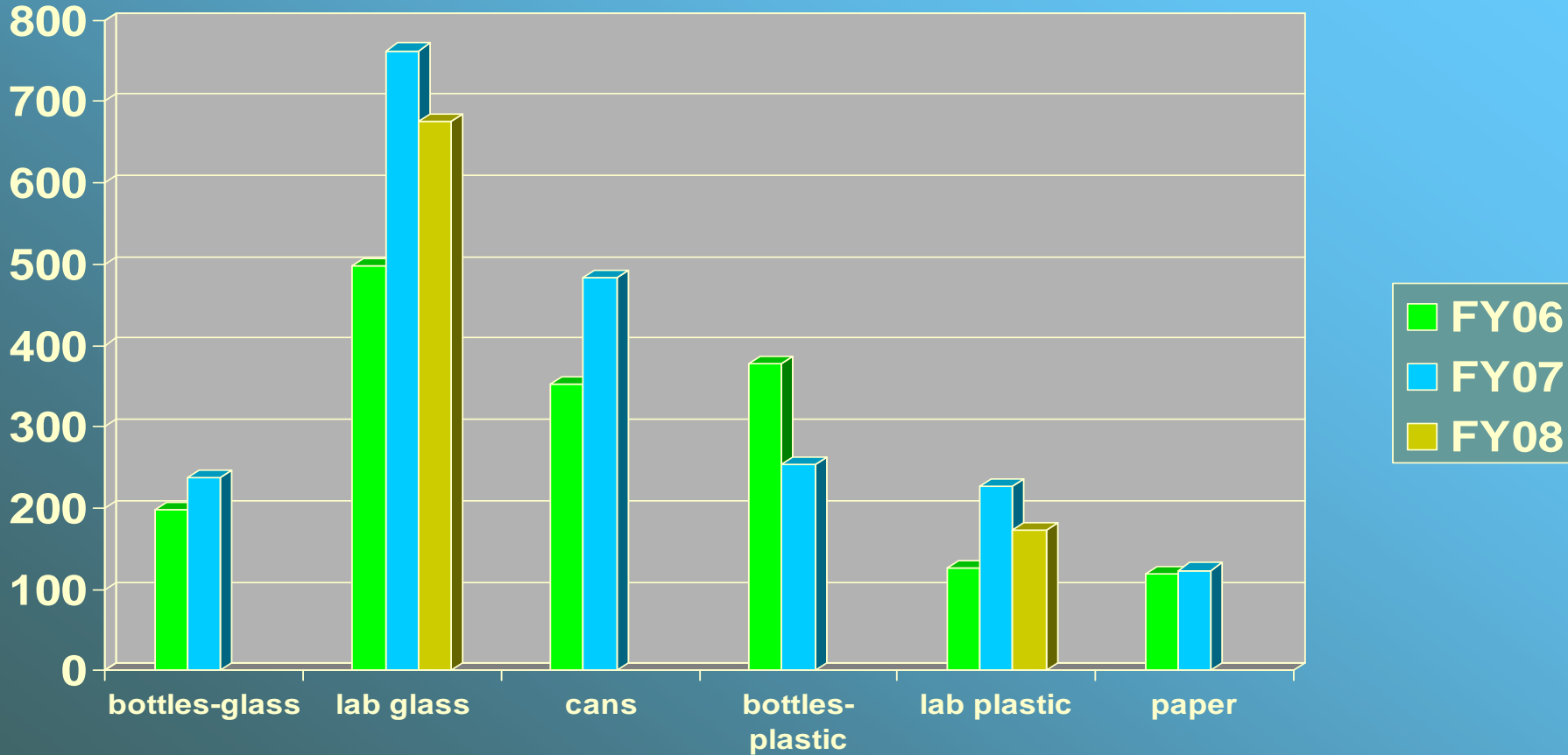
Hazardous Waste Generation



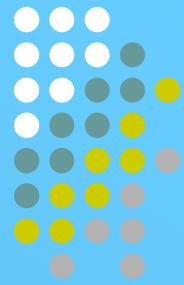
Recycling trends



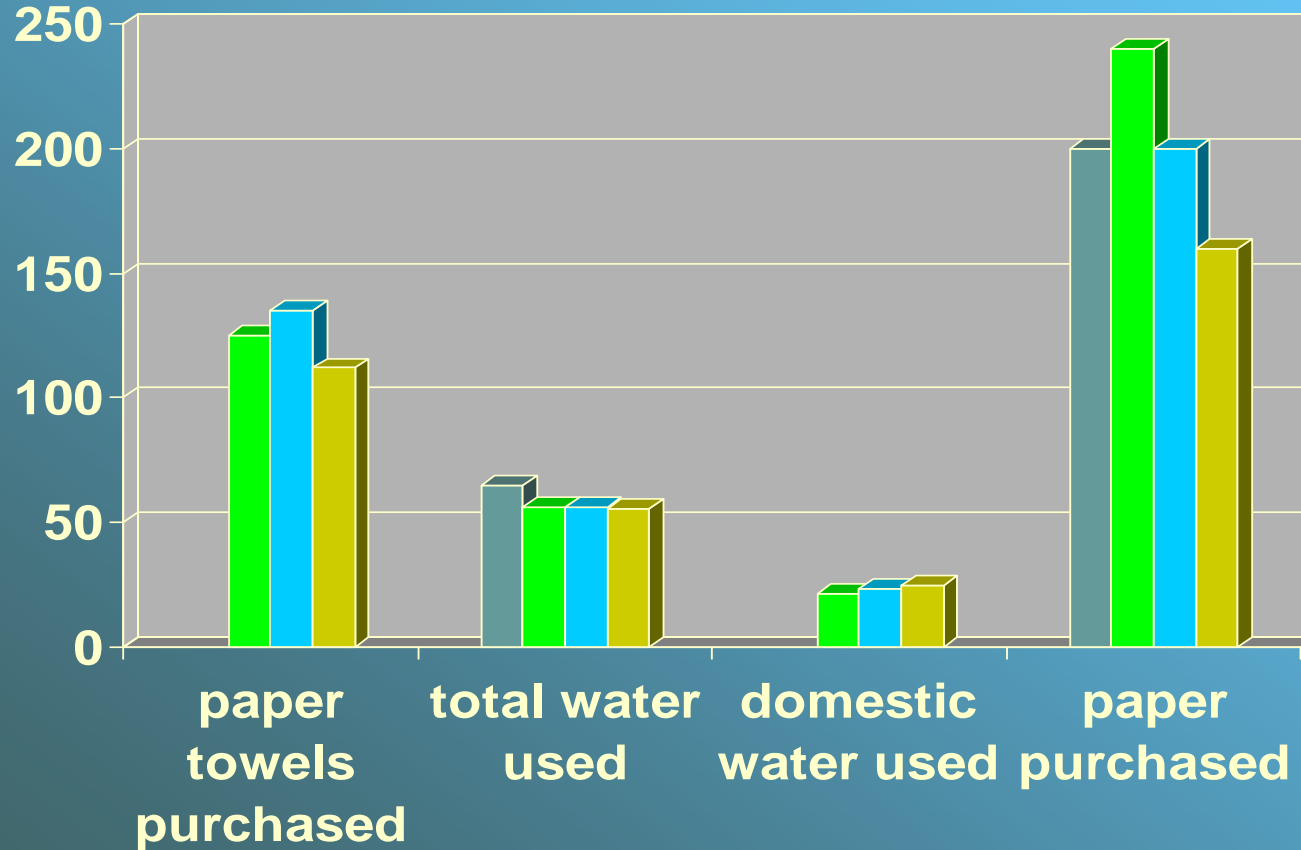
note: FY07- incomplete data, FY08- not all data available



Usage trends

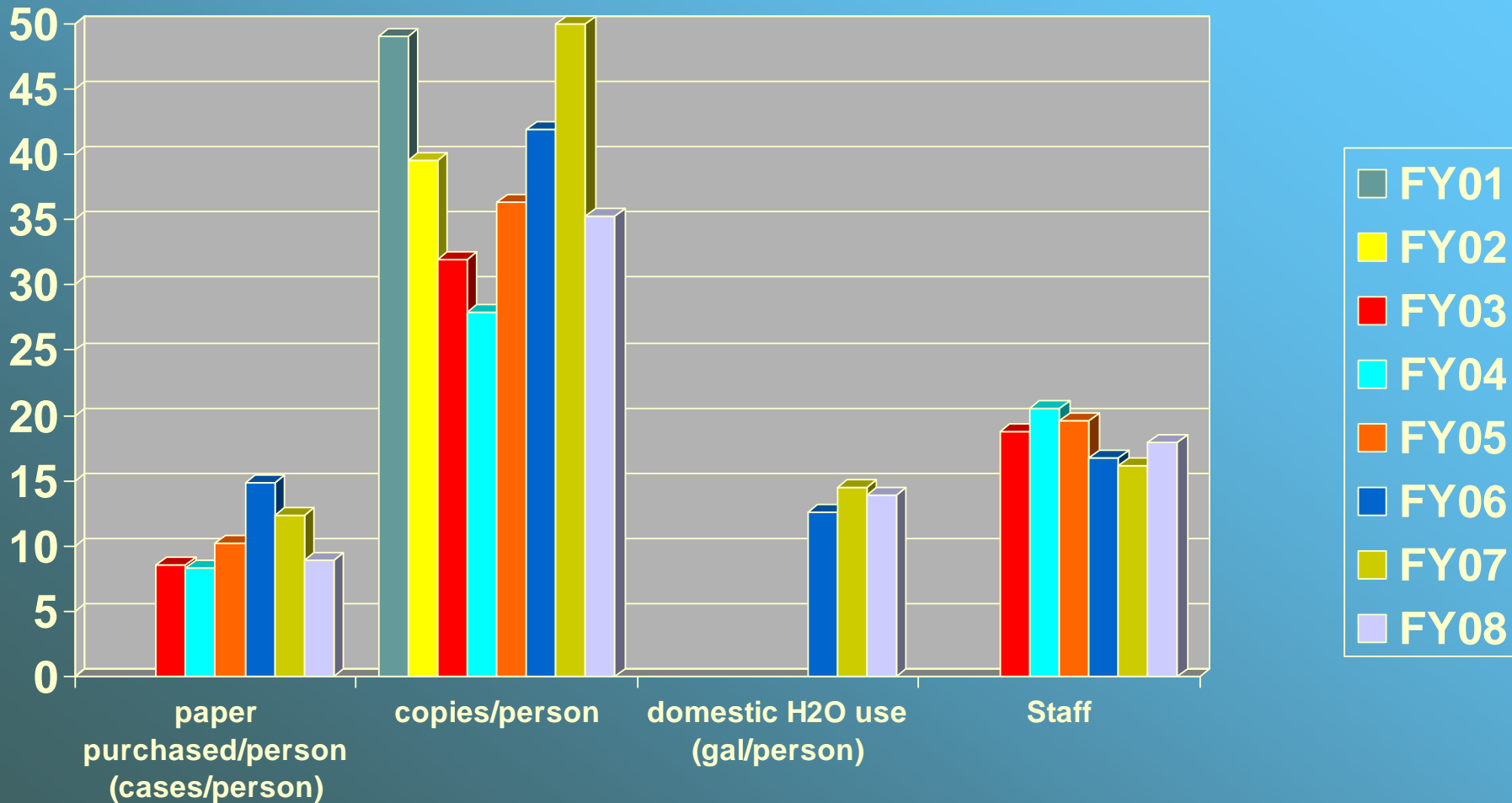


NOTE: amounts do not include Repository paper purchase



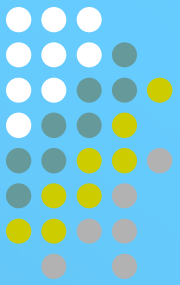
Trends per Person

NOTE: amounts do not include Repository paper



Current Objectives and Targets

Fuel Use - Mobile sources



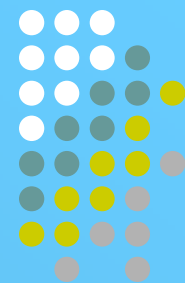
Objective 1: Increase use of the hybrid vehicle.
Target time period: 1 year from effective date

Target 1.1 Promote awareness of the hybrid vehicle among ESC employees by sending out emails to staff, making posters for display in building, conduct driving demo/s.

Target 1.2 Enhance and formalize ESC's vehicle reservation and tracking procedures by creating and implementing an efficient tool with input from all appropriate parties.

Target 1.3 Create a tool to monitor the use of the hybrid to determine if there is an increase in times of use or numbers of miles driven.

Current Objectives and Targets, cont



Objective 2: Promote use of public transportation, ridesharing and flexiplace and develop a system to help ESC employees participate in a rideshare program. *Target time period: 1 year from effective date*

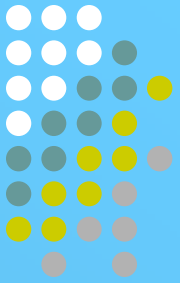
Target 2.1 Promote awareness of the carpooling/ridesharing among ESC employees by sending out emails to staff and making posters for display in building.

Target 2.2 Establish a formal rideshare matching program.

Target 2.3 Promote use of 'Episodic Flexiplace' by educating staff on process.

Target 2.4 Coordinate with Fort Meade's EMS coordinator, Andrea Tun, to evaluate joint rideshare matching opportunities between ESC and Fort Meade employees.

Current Objective and Target accomplishments



- Set up a carpool sign up process on the FMSB website.
- Sent out awareness emails on carpooling/vanpooling, use of the hybrid car, episodic workplace options.
- Incorporated car and tire maintenance in Earthday events.
- Sending representative to the Ft. Meade Transportation Workgroup meetings.
- Reviewing the tracking procedures set up by FMSB for car use.



ESC Facility Management



Environmental Management System

- Of Events
- Employee List
- and Links
- ation
- endars
- ions
- & Procedure
- Helpdesk

[ESC Car Pool Ride Finder Database.pdf](#)

[Ft. Meade Carpool/Rideshare Bulletin Board](#)

[Household Hazardous Waste & Recycling Information by County.pdf](#)

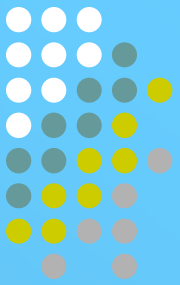
[ESC EP09.04 Environmental Management System Procedure for Handling Non-conformances and Preventive and Corrective Actions.pdf](#)

[Environmental Science Center EMS Corrective/Preventive Action Form.doc](#)

[Environmental Science Center EMS Suggestion and Idea Form.doc](#)

ESC Energy Consumption Tracking						
Data as of the end of: October FY09						
Utility	FY08 month end	FY09 month end	% difference	FY08 YTD	FY09 YTD	% Difference
Electric (kWh)	528,150	426,342	-19.3%	528,150	426,342	-19.3%
Natural Gas (therms)	19,096	19,858	4.0%	19,096	19,858	4.0%
Water (g)	530,060	286,000	-46.0%	530,060	286,000	-46.0%

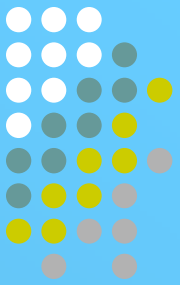
Corrective Actions and Preventive Actions (suggestions)



- Corrective Actions - none issued
- Suggestions - a total of 51 received since 2003
 - ✧ 14 suggestions were received this in 2008
 - ✧ 9 were addressed and closed in 2008

2007 Mgmt Review Follow up

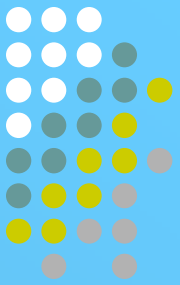
Action Items



- RD suggested finding another auditor to perform the 1/3 of the full audit for 2008 because of problems with the contract.
 - R3 Philly has taken responsibility for contracting Surveillance Audits.
- It was suggested that the EMS team measure/track the amount of fuel saved by participating in episodic flexiplace.
 - Discussed at EMS Team meeting but not completed yet.
- CM suggested having an environmental film festival several times a year, allowing people to take an hour out of their day during lunchtime to participate.
 - It has been difficult to schedule more than one movie so far because of demanding time schedules. Plans are to show King Corn in Jan 09.

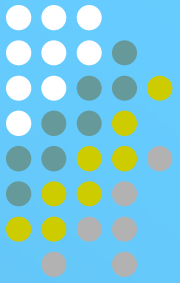
2007 Mgmt Review Follow up

Action Items



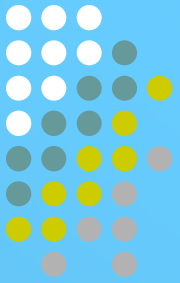
- SL suggested holding a waste free lunch at the ESC, maybe coupling the waste free lunch with the environmental film festival.
 - So far, have sent out awareness emails.
- RP suggested that employees target their submissions to the “Tip of the Month” contest toward the reduction of paper/water/energy at the ESC.
 - The EMS Team announced that an award, in addition to the parking place, would be given to any tip directly related to work.
- SL suggested tracking the use of video/teleconferencing and relating it to how much fuel (and time) is saved by using those capabilities instead of attending meetings/presentations in person.
 - Discussed at EMS Team meeting but not completed yet.

Annual EMS activities

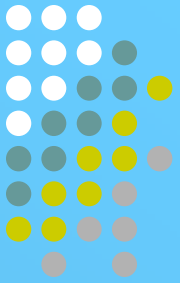


- Respond to audit reports
- Activity/Aspect analysis
- Update EMS web site
- Conduct new-employee briefings on EMS
- Conduct EMS awareness activities
- Review EMS documentation
- ISO 14001 Surveillance Audit
- Internal Audit
- Management Review
- Meet EMP objectives & targets
- Respond to SHEMA surveys

Changes



- Have been using Awareness EMP for first time. Meeting target by documenting all awareness activities on the J:drive
- Major effort will be needed to update OCs and all of the records during FY09
- Need to use CA/PA Forms



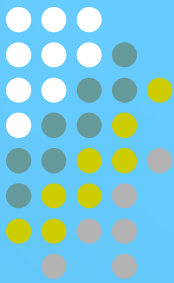
Environmental Science Center EMS Corrective/Preventive Action Form

+ Corrective/Preventive Action Control Number [track by Submitter/Date]	
Submitted by:	Date:
Observed Non-conformance or Potential Non-conformance:	
Root Cause of Non-conformance or Potential Non-conformance:	
Corrective/Preventive Action Needed:	
Projected Date(s) for completion:	
Responsible Individuals:	
Corrective/Preventive Actions Completed:	
Date(s) Completed:	
Completion Determined by:	Date:
EMS Team Comments:	

**New
And
Improved
Form**

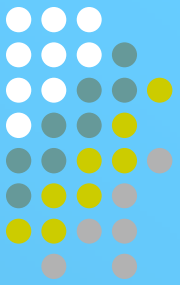
**Can be found on
FMSB website**

Issues



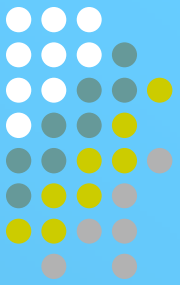
- **What O & T to address in FY09**
 - Are we expected to incorporate the SHEMD National O&Ts?
- **Are we done with the Mobile Fuel Targets (EMP)?**
 - Does management promote use of Episodic Flexiplace (EF) enough?
 - Is it really practical to track fuel saved by use of EF?
 - Is it useful to track savings in fuel and hours by use of video conferencing?

Issues



- Is staffing makeup on the EMS Team still acceptable?
 - 3 OASQA (includes one SEE and one Co-coordinator)
 - 2 OPM
 - 1 ACB (includes one Co-coordinator)
 - 1 MLB
 - 1 FIP

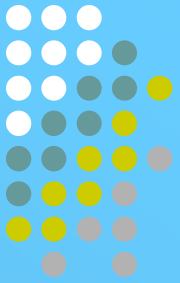
Recommendations for Improvements



- o Need to approve new EMPs for Energy Consumption and Water Consumption (email with attachments sent before meeting.)
- o Should require ESC EMS Refresher Training again in FY09
- o NEXT T&Os? Stormwater?

FOR REVIEW

Team Succession plan – adopted at 2004 Mgmt Review



- **Co-Coordinator Positions (2)**
 - **Overlapping Term 3 years: one from Region 3 and one from OPP**
 - **Add to Performance Plan: EMS duties - 20% of time**
 - **Recognition: performance evaluation; annual award (money/time-off/possible promotion?)**
 - **Transition determined by team: will prepare new coordinator at halfway point**
- **Team members:**
 - **Representatives from most organizations: at least 8 members**
 - **Add to Performance Plan: EMS duties - 5% of time**
 - **Term 2 years (can extend)**
 - **Recognition: annual award (money/time-off)**
 - **Management will solicit for new members when Team makes a request.**
- **Note: the idea would be to try this structure knowing that we could re-evaluate it at the annual EMS Management Reviews.**

So what do you think....?

- Is the EMS suitable, adequate, and effective?
- Feedback time.....

