Environmental Operating Principles

1. Strive to achieve Environmental Sustainability.
2. Recognize the interdependence of life and the physical environment.
3. Seek balance and synergy among human development activities and natural systems
4. Continue to accept corporate responsibility and accountability
5. Seek ways and means to assess and mitigate cumulative impacts
6. Build and share an integrated scientific, economic & social knowledge base
7. Respect the views of interested individuals and groups

“Leaders set the Direction”
Environmental Sustainability

A process whereby environmental and economic considerations are effectively balanced in project planning, design, construction, operation and maintenance ...

... Not “bolted on” at the end
Policy for Environmental Sustainability

- Consistent with *Principles and Guidelines*
- Formulate multi-purpose plans that produce both economic and environmental benefits
- More fully integrate the consideration of the environment throughout the life cycle of the project

“Build projects for all stakeholders”
Civil Works Strategic Plan
March 2004

Goal 1: Provide sustainable development and integrated management of the Nation’s water resources

Goal 2: Repair past environmental degradation and prevent future environmental losses

Goal 3: Ensure that projects perform to meet authorized purposes and evolving conditions
Goal 4: Reduce vulnerabilities and losses to the nation and the Army from natural and man-made disasters, including terrorism

Goal 5: Be a world-class public engineering organization
Comprehensive Everglades Restoration

Multiple Purpose Focus

Framework for restoring this ecosystem and providing for other water-related needs of the region
Comprehensive Everglades Restoration

Collaborative Partnership

16 county governments,
over 130 municipalities
2 tribal governments,
numerous special interests
6 Metropolitan Planning organizations
5 Regional Planning Councils

South Florida Water Management District
5 State environmental and planning agencies
8 Federal agencies
Sustain a coastal ecosystem with the essential functions and values of the natural ecosystem through development of a comprehensive plan.

- Study will identify and explore long-range, large-scale ecosystem restoration strategies to restore and protect coastal Louisiana.
- Corps-State partnering agreement signed in Baton Rouge, 31 Jan 05.
Proposed Actions from Coast 2050 Studies

- Protect Shoreline
  Keep shoreline in place in critical areas.
- Maintain Shoreline Integrity
  Let shore roll back, but prevent interior marsh erosion.
- Maintain Sabine River Inflow
- Maintain Atchafalaya Mudstream
  Continue shoreline accretion along Chenier Plain.
- Improve Hydrology/Drainage
  Lower water levels in swamps. Allow more natural flow of water. Provide flood protection if necessary.
- Reduce Sedimentation in Cote Blanche Bays and Vermilion Bay and Maintain as Brackish
- Lower Water Levels
  Modify flow patterns to tidal marshes in the south.
- Move Fresh Water South into Tidal Marshes
  Move Atchafalaya waters into tidal marshes in Chenier Plain, use water from lakes to refresh southern brackish marshes.
- Beneficial Use of Dredged Material or Dedicated Dredging
  Create marsh in various sites along the coast.
- Maximize Land Building in Atchafalaya Delta
  Separate navigation from delta to train flow toward Four League Bay.
- Maintain Land Bridges
  Preserve the three land bridges to prevent marine forces from moving island and large lakes from joining.
- Small Diversions from Mississippi River (≤ 4,000 cfs)
  Allow river water and nutrients to nourish swamps and marshes. Flood protection where needed. Provide outfall management.
- Optimize Atchafalaya Flow to West and East
  Use Atchafalaya sediments and nutrients to preserve marshes.
- Conveyance Channel from Mississippi River to Build Deltas
  Build marsh and nourish adjacent wetlands in area of highest land loss.
- Solve the Mississippi River Gulf Outlet Problem
  Close MRGO when deep-draft container facilities are available or river. In interim, stabilize north bank, purchase-oyster leases, create marsh in southern bays of Lake Borgne.
- Delta-building Diversions from Mississippi River (15,000-100,000 cfs)
  Build marsh and nourish adjacent marsh. Address oyster issues.
- Multi-purpose Control of Navigation Channels
  Prevents saline waters from continuing to damage marshes to north. Retain fresh water.
- Restore/maintain Barrier Islands, Headlands, Shorelands
  Use most cost-effective means to protect these first lines of defense from storms.
- Prevent Loss of Sediments into the Deep Gulf
  Separate navigation from mixing processes. Build sediment trap and pump out to create marsh.
HOUSE RESOLUTION 2425, ADOPTED MAY 17, 1994

GILA RIVER AND TRIBUTARIES, FLOOD CONTROL ACT OF 1938
STUDY PURPOSE

- ESTABLISH FEASIBILITY OF ENVIRONMENTAL RESTORATION, FLOOD CONTROL AND RECREATION
- PRESENT STUDY RESULTS AND FINDINGS
- SHOW COMPLIANCE WITH STATUTES, EXECUTIVE ORDERS, AND POLICY GUIDANCE
- DOCUMENTATION REPORT FOR DECISION MAKERS
100 YEAR WITHOUT

Depth Grid
## Flood Damages

<table>
<thead>
<tr>
<th>Type</th>
<th># of Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structures and Contents</td>
<td>611</td>
</tr>
<tr>
<td>Agriculture</td>
<td>2005 Acres</td>
</tr>
<tr>
<td>Emergency and Clean-up Costs</td>
<td></td>
</tr>
</tbody>
</table>
CONSTRUCTED WETLANDS
RIPARIAN CORRIDORS
RIO SALADO, SALT RIVER, AZ

TYPE: Construction General – Environmental Restoration

LOCATION: City of Phoenix between I-10 and 19th Avenue. City of Tempe along 1.3 miles of Indian Bend Wash and portions of the Salt River both upstream and downstream of Tempe Town Lake.

AUTHORIZATION: Water Resources Development Act of 1999

NON-FEDERAL SPONSOR: Cities of Phoenix and Tempe.
Tempe Town Lake
After Construction
Rio Salado Water Supply
Five Wells Installed
CONSTRUCTED WETLANDS
RIO SALADO PROJECT COST

- **Total Restoration First Cost**
  - Phoenix: $78,652,000
  - Tempe: $6,974,000
    - Cost Sharing 65% Federal & 35% Sponsor

- **Total Recreation First Cost**
  - Phoenix: $6,837,000
  - Tempe: $726,000
    - Cost Sharing 50% Federal & 50% Sponsor
Performance Based Budgeting

- Concept: Fund government activities providing most benefits per tax dollar.
- Authorized in Gov’t Performance & Results Act, 1993; introduced in FY05 and FY06 budgets.
- Funding prioritization, amounts going to projects and activities, will vary greatly from that traditionally seen.
- Priority to activities best meeting performance measures
- No business, account or regional element guaranteed a "pot".
- All activities will live by their performance.
### Which Projects Make the Cut?

#### Performance Measures
- Remaining benefit-cost ratio (project specific)
- Annual Net Benefits
- % of projects recommended that apply watershed principles
- % of time navigation infrastructure with high levels of commercial traffic sustains functional purpose
- % of Corps administered mitigation acres meeting requirements

#### Ranking Criteria
- Remaining Benefit-Cost Ratio
- # People at risk in 100-year floodplain
- Years to complete phase (study, PED or project)
- Continue construction at last year’s level, then Remaining Benefit-Cost Ratio
- Last year feasibility
- “Normal” operations high use
- Loss prevention for significant natural resources
- Endangered Species Act activities
FY 06 Budget by Business Line

Total = $4,513 M

- Navigation $1,713 M 38%
- Flood & Storm Damage Reduction $1,075 M 24%
- Environment & Regulatory $906 M 20%
- Hydropower $264 M 6%
- Recreation $266 M 6%
- Exec. Dir. & Mgmt. $162 M 3%
- Emergency Management $75 M 2%
- Other $48 M 1%

$1,713 M 38%
$1,075 M 24%
$906 M 20%
$264 M 6%
$266 M 6%
$162 M 3%
$75 M 2%
$48 M 1%
$4,513 M Total
The Budget Future

- Continued operations in a fiscally constrained environment
- Growing Congressional interest in 5-Year plan to focus $ on high pay-off projects and hold back others
- Refine performance and prioritization measures
- One Team!