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# Final Report

## Supply Chain Management (SCM)

### EPIP

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Business Operations Board Briefing

March 21, 2006

Revised March 24, 2006 (BOB Comments)

Revised April 18, 2006 (Employee Comments)

Revised May 30, 2006 (Final BOB Approval)

This information is being released externally by BPA on May 31, 2006, as analysis generated for BPA's Enterprise Process Improvement Program (EPIP) studies. Although baselines were sourced from the Financial System, they do not track directly back to official financial statements. In some instances subsequent analysis was performed to better represent the particular scope of the process being reviewed. Projections of savings should be considered as initial targets and may or may not convert to future budgets.



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Supply Chain Management (SCM) EPIP Core Team	
John Quinata <sup>1</sup>	TOE – Scheduling and Estimating
Judy Chipman <sup>2</sup>	TLP – Supply Chain Business Management
Nadine Coseo	KFW – Capital and Risk Management
Greg Dondlinger	KEWB – Business Operations Support
David Gens	AFGE Rep – American Federation of Government Employees
Scott Hampton	KFS – Financial Analysis and Requirements
Mike Johns	TNP – Project Management
Damian Kelly	CK – Supply Chain Policy and Governance
Trudy Linson	TLOS – Supply Chain Sourcing Services
Jaci Margeson	LC – Corporate/Fish and Wildlife (Attorney)
Ingrid Mosey	DKC – Communications
Tina Polizos	JM – IT Program Management
Ann Marie Sherman	DN – Internal Audit
David Smith	CIBER Contractor – Administrative Support

<sup>1</sup>Team Leader

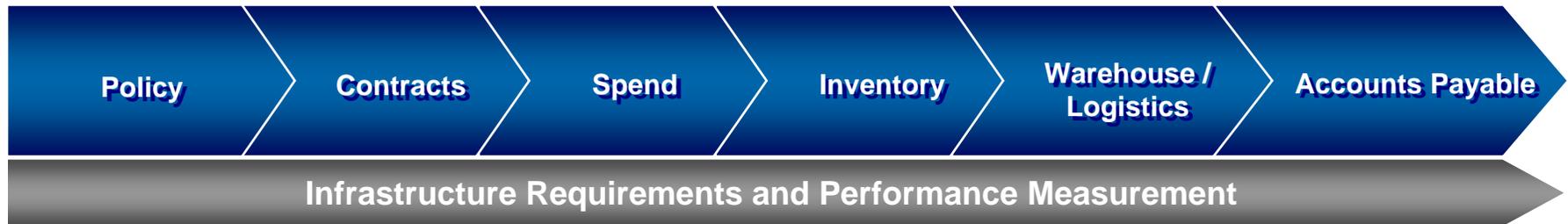
<sup>2</sup>Added for Future State

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# Project Summary

# Supply Chain Management (SCM) EPIP Overview

- ◆ Four Primary Goals
  - Assure consistency and appropriateness of enterprise-wide supply chain policies and guiding principles
  - Identify opportunities to reduce costs and improve process and resource efficiencies
  - Develop a SCM model that meets internal customer expectations while optimizing resources
  - Construct a strategic direction plan as a high-level roadmap for achieving the project goals
- ◆ Scope – All aspects of the Supply Chain value chain



- ◆ Progress – The SCM EPIP has completed the Current State Assessment and the Future State Definition
- ◆ BPA Employee Involvement
  - Current State Assessment was conducted by 6 sub-teams, included focus groups with 30+ Contract Officers (COs) and Contract Officer Technical Representatives (COTRs), and included interviews with employees throughout Accounts Payable, Supply Chain Services (TL), and Supply Chain Policy and Governance
  - Future State Definition was conducted by 8 primary sub-teams
    - Accounts Payable, Contracting and Agency Policy (5 further sub-teams), Inventory and Stocking Policies, Outsourcing Potential, Strategic Sourcing, E-Commerce Strategy, Technology Applications, and Supply Chain Organization, Governance Models, and Performance Metrics
    - Total Direct Sub-Team Involvement – 70 Employees (Organizations represented include: AFGE Rep, CGF, CK, DKC, DN, JB, JM, JSD, JSDD, KEWB, KFRM, KFS, KFRD, KFS, LC, TFH, TFO, TLO, TLOS, TLOT, TLOU, TLP, TNCD, TNFC, TNP, TNSB, TNTC, TOE, and PNK)

# Supply Chain Management (SCM) EPIP Results

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## ◆ Recommendations

- Sixty-four (64) separate recommendations, concentrated in Contracting and Agency Policy (30) and Inventory and Stocking Policies (13)
- Most of the recommendations can be implemented within a 6 – 12 month timeframe, though a few stretch as far as 36 months

## ◆ Benefits

- Direct labor cost reductions savings of \$2.6 million due to the outsourcing of the Agency's internal transportation function and staff reductions resulting from improvements identified in the PDB EPIP, \$1.0 million and \$1.6 million respectively
- \$29.5 million to \$37.5 million in efficiency benefits due to improved supply chain processes, namely better, more disciplined contracting processes and the implementation of leading practices around strategic sourcing
- \$21.5 million one-time inventory reduction – Achieved through a combination of efforts of the SCM and PDB EIPs
- Optimal inventory levels
- Increased skill levels among procurement and contracting professionals
- A single Agency-wide Supply Chain system, under the responsibility of a single Supply Chain Officer
- Supply Chain FTE reductions are limited in the short term to a reduction of 7 BPA TL FTEs from the current level of 133, offset by an increase of one in Contractor FTEs from the current level of 17. The limited reduction is due to the business model changes, including process improvements, inventory decreases, strategic sourcing, more automated procurement methods, and new skill requirements that will result in a shift of workload from certain areas (such as warehousing and materials procurement) to other areas (inventory management and vendor management) – This includes the 16 FTE reduction identified in the PDB EPIP

## ◆ Costs

- Many of the recommendations have no out-of-pocket costs associated with implementation; i.e., implementation costs are limited to internal implementation team costs
- \$4.0 million to \$7.3 million in one-time implementation costs over the next 12 to 36 months – primarily technology functionality
- Estimated on-going costs of \$0.5 million to \$1.0 million annually

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# The EPIP Process

# SCM EPIP Goals and Objectives

The Supply Chain Management (SCM) EPIP has four primary goals:

1. Assure consistency and appropriateness of enterprise-wide supply chain policies and guiding principles
2. Identify opportunities to reduce costs and risks and improve process and resource efficiencies
3. Develop a SCM model that meets internal customer expectations while optimizing resources
4. Construct a strategic direction plan as a high-level roadmap for achieving the project goals

The key objectives for each of these goals is as follows:

Goals	Objectives
<b>1. Policies and Guidelines</b>	<ul style="list-style-type: none"> <li>◆ Validate and develop, where necessary, policies and guidelines that provide a solid foundation for the application of leading SCM business practices and techniques, particularly with respect to requirements planning, procurement, vendor relations and inventory management</li> <li>◆ Achieve and effectively communicate consistent BPA-wide application of key policies, processes, and guiding principles</li> <li>◆ Assure compliance with current guiding regulations and polices is appropriately interpreted to maximize supply chain efficiencies</li> <li>◆ Incorporate risk analysis into the supply chain decision making process</li> </ul>
<b>2. Improvement Opportunities</b>	<ul style="list-style-type: none"> <li>◆ Coordinate efforts with other EIPs and projects to leverage spend savings and cost avoidances; coordinate efforts to optimize inventory investment; assure efficiency and effectiveness of contracting processes</li> <li>◆ Identify spend that should be leveraged and identify associated improvement opportunities</li> <li>◆ Establish the ability to operate a true enterprise-wide “virtual warehouse”</li> </ul>

# SCM EPIP Goals and Objectives (continued)

Goals	Objectives
<b>2. Improvement Opportunities (con't)</b>	<ul style="list-style-type: none"> <li>◆ Mitigate financial and political risk through effective application of personal property policies and procedures</li> <li>◆ Achieve cost savings/avoidances by optimizing the vehicle fleet and warehousing and storage facilities</li> <li>◆ Improve service delivery by optimizing the performance of logistics and delivery networks and establishing appropriate performance metrics</li> <li>◆ Create a process that assures all vendor invoices are tracked, accurate, and minimize penalty payments</li> </ul>
<b>3. Supply Chain Infrastructure</b>	<ul style="list-style-type: none"> <li>◆ Create a supply business process model and organizational model that assures appropriate and visible control over the annual spend and inventory investment</li> <li>◆ Consider expanding the current definition of “inventory” to include all materials and equipment not physically in-plant to assure corporate visibility and accountability</li> <li>◆ Clearly define all key stakeholder roles, responsibilities and accountabilities through all stages the supply chain business processes</li> <li>◆ Develop “Best in Class” capabilities (resources and processes) in the areas of contract development and contract management</li> <li>◆ Identify competencies required to support the future-state model of Supply Chain</li> <li>◆ Develop Agency supply chain performance measures and an associated performance management model</li> <li>◆ Identify technology needs to support the SCM infrastructure</li> <li>◆ Resolve special supply chain management issues as identified</li> </ul>
<b>4. Strategic Direction Plan</b>	<ul style="list-style-type: none"> <li>◆ Outline a strategic plan encompassing approved improvements, project recommendations, and suggested timeline</li> </ul>

# SCM EPIP Scope

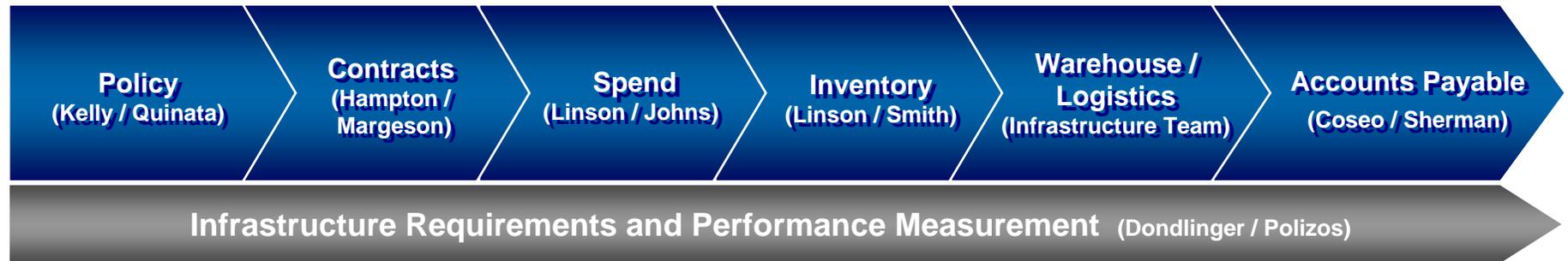
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## The Supply Chain Management EPIP scope includes the following:

- ◆ Identify process improvement and cost savings opportunities – improvements not already identified through other EIPs
- ◆ Integrate and leverage other “improvement” efforts into BPA-wide SCM initiative – for implementation planning and prioritizing purposes we are creating a single point of reference under the SCM EPIP for all supply chain related improvement opportunities regardless of original source, including:
  - TL’s Strategic Sourcing Initiative and Transportation Study
  - Other EIPs
    - Supply Chain-related recommendations from the PDB EPIP
    - O&M EPIP Initiative 19 – Field Inventory Management
    - Recommendations from IT and Energy Efficiency EIPs as they apply to standards and contracting
  - Other Supply Chain initiatives, including process improvements, contracting initiatives across BPA, and e-procurement projects
- ◆ Develop a BPA-wide Supply Chain Management model
  - Enterprise-wide policies and processes
  - Tier 1 performance measures
  - Organization structure

# SCM EPIP Scope (continued)

During the Current State Assessment, sub-teams were set up to align with the elements of the Supply Chain value chain

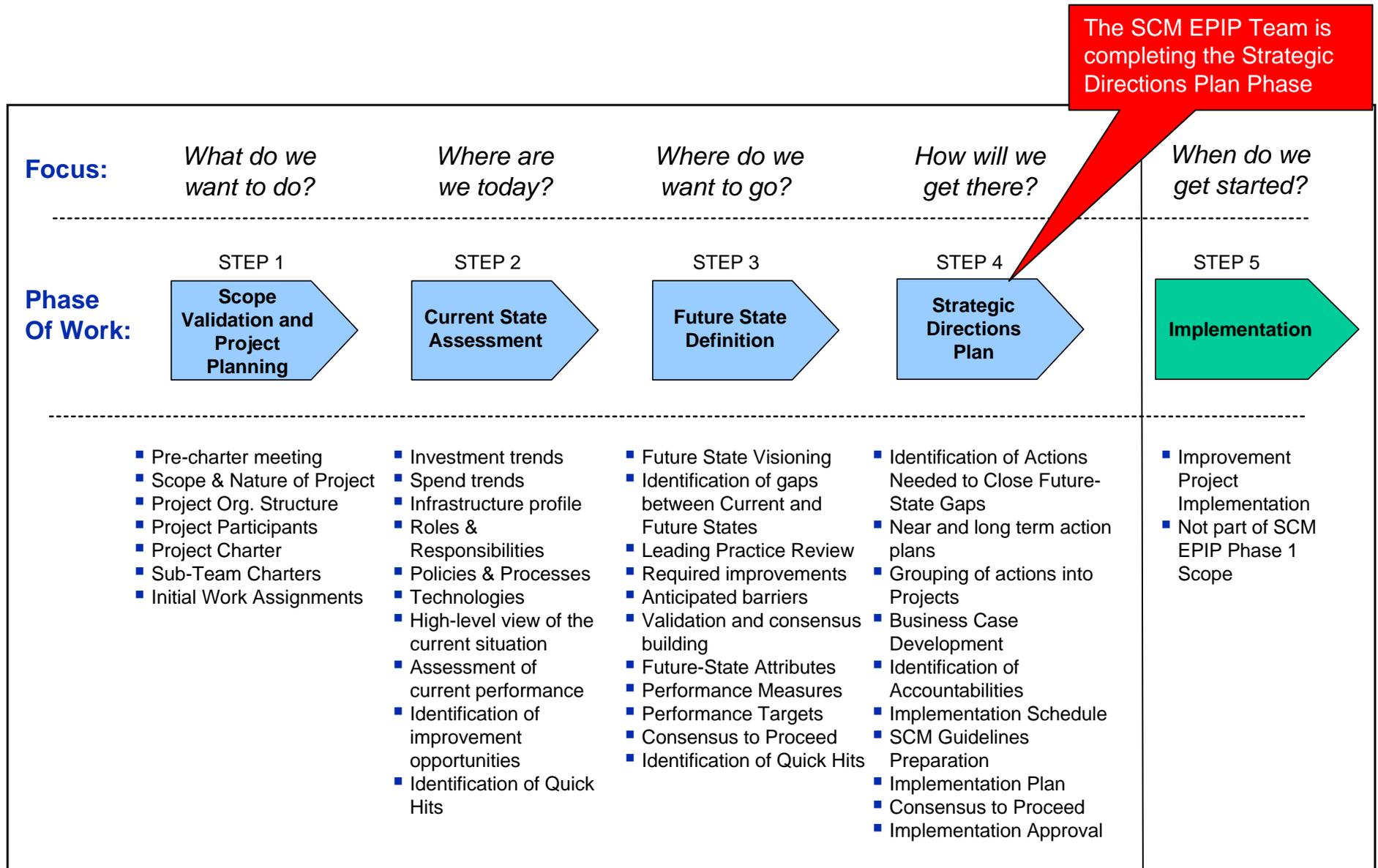


<u>Policy</u>	<u>Contracts</u>	<u>Spend</u>	<u>Inventory Management</u>	<u>Warehouse / Logistics</u>	<u>Accounts Payable</u>
<ul style="list-style-type: none"> <li>Review Bonneville Purchasing Instructions (BPI) for constraints / impediments to good supply chain practices</li> <li>Review A-123 for applicability to supply Chain processes</li> <li>Assess property tracking policies</li> </ul>	<ul style="list-style-type: none"> <li>Summarize types and values of contracts</li> <li>Analyze contract development, contract administration, and contract management processes, including performance evaluation</li> <li>Summarize and analyze CO and COTR roles, responsibilities, and implementation</li> </ul>	<ul style="list-style-type: none"> <li>Review and evaluate Strategic Sourcing analysis</li> <li>Investigate use of e-commerce applications, including reverse auctions and eMall</li> <li>Analyze vendor management initiatives</li> <li>Analyze use of supplemental labor</li> <li>Analyze P-card usage</li> </ul>	<ul style="list-style-type: none"> <li>Analyze definitions of inventory versus materials in the field</li> <li>Analyze stocking policies</li> <li>Analyze inventory in terms of days supply or turns and lead time</li> <li>Investigate vendor-managed inventories and virtual warehousing</li> <li>Analyze surplus, obsolescence, and untracked inventory processes</li> </ul>	<ul style="list-style-type: none"> <li>Summarize storage locations and associated materials.</li> <li>Analyze warehouse, hazardous material, and investment recovery operations</li> <li>Analyze logistics – Review and evaluate the Transportation Study</li> </ul>	<ul style="list-style-type: none"> <li>Analyze accounts payable processes as they apply to Supply Chain actions, primarily invoice matching</li> <li>Analyze discounts taken and discounts lost</li> </ul>

## Infrastructure Requirements and Performance Measurement

- Analyze organization structure and staffing of Supply Chain
- Analyze performance measurement approach
- Summarize and evaluate current enabling technologies

# Where We Are Today



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# SCM EPIP Current State Assessment

## Supply Chain at BPA is Significant

**Note to Reader:** The data that follows is an abridged version of that documented in the Current State briefing to the COO on 12/6/05

# Supply Chain at BPA is Significant

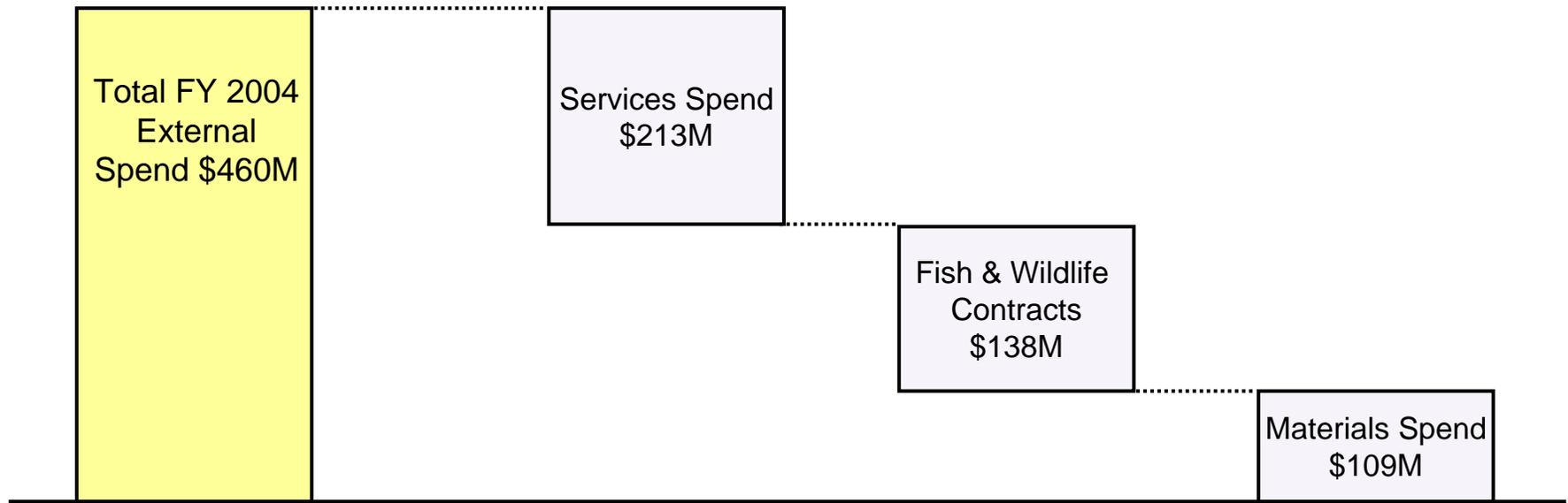
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**The supply chain management process at BPA is significant when considered in terms of :**

- ◆ Annual spend on materials and services
- ◆ On-hand inventory investment
- ◆ Infrastructure costs and physical resources

# (Spend) In FY 2004, BPA's external spend was \$460 million

FY 2004 BPA External Spend

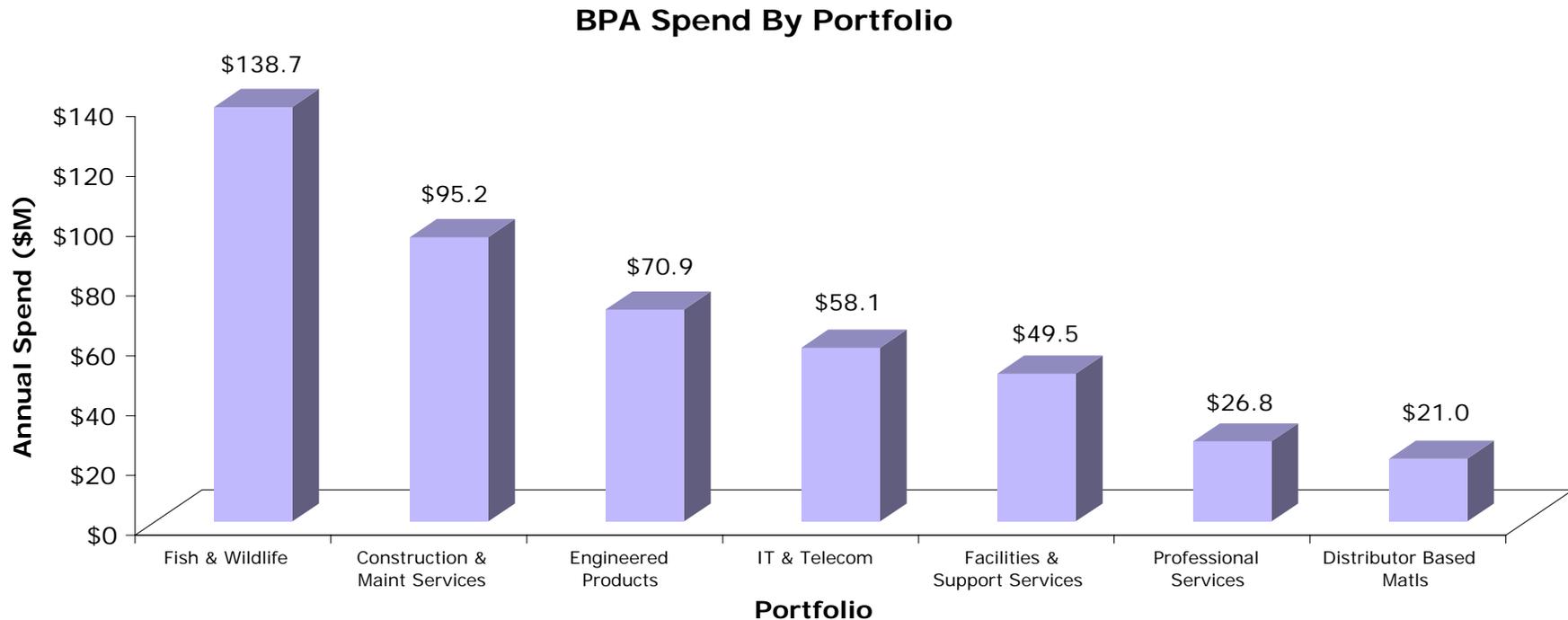


**Note:** 1. Data and graphic comes from Strategic Sourcing Initiative Final Report dated September 16, 2005 (Denali Consulting)

- ◆ Of the \$460M FY04 spend, \$89 was associated with EDS Furnish & Install projects
- ◆ Additional Spend details can be found in Appendix A

***In FY 2005, external spend is expected to drop to approximately \$360 million due to a decrease in major infrastructure projects.***

(Spend) Spend is divided into 7 portfolios, each made up of services or materials, except IT, which includes both



**Note:** 1. Data (FY04) and graphic comes from Strategic Sourcing Initiative Final Report dated September 16, 2005 (Denali Consulting)

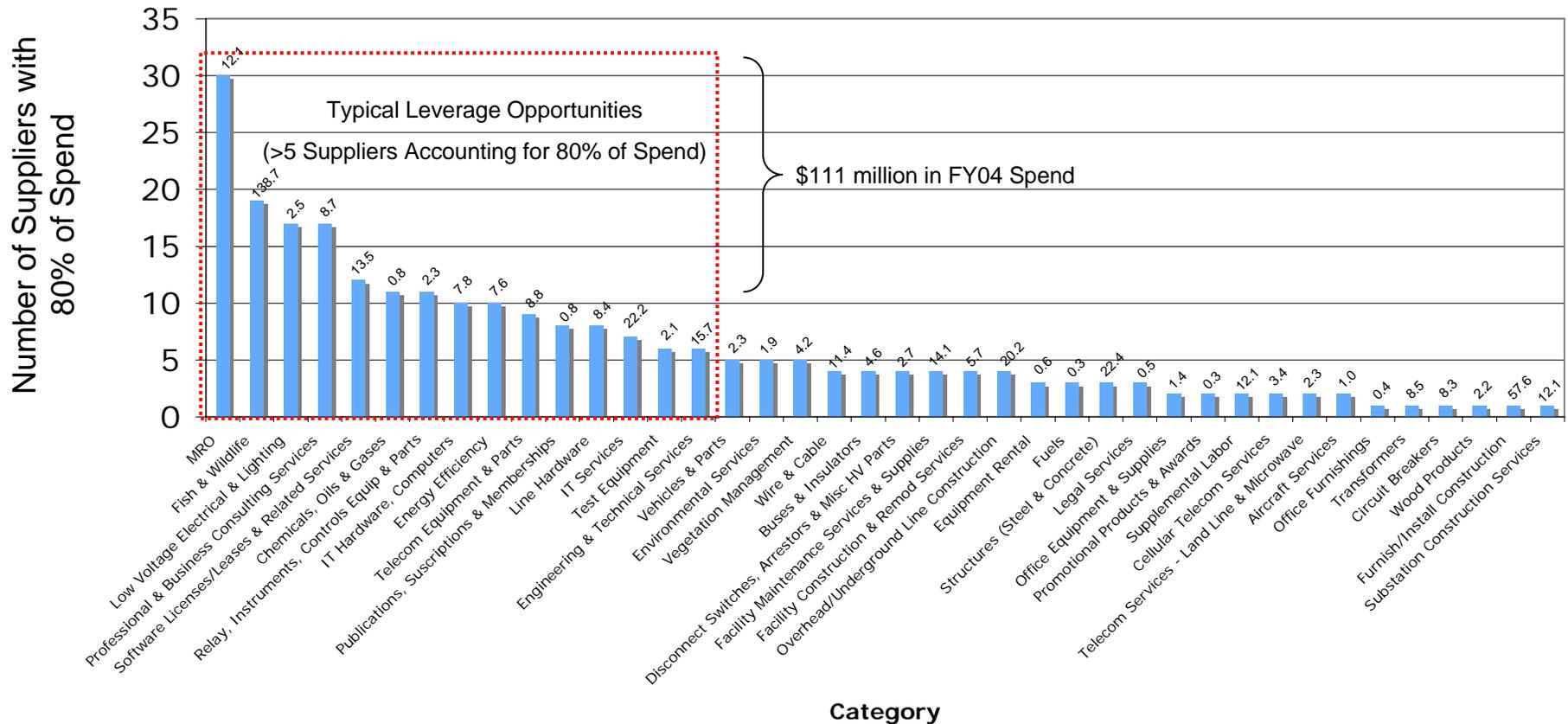
- ◆ Total Spend is further divided into 41 categories, ranging from \$282,000 to \$138.7 million in annual spend
- ◆ Additional Spend details can be found in Appendix A

***Materials spend (24% of total external spend) was comprised of Engineered Products (65%), Distributor-Based Products (19%) and IT & Telecom materials (16%).***

# (Spend) 252 suppliers account for 80% of FY04 spend; an additional 1,481 account for the remaining 20%

## Spend Fragmentation

(FY04 Spend Per Category Listed Atop Each Column – \$ millions)

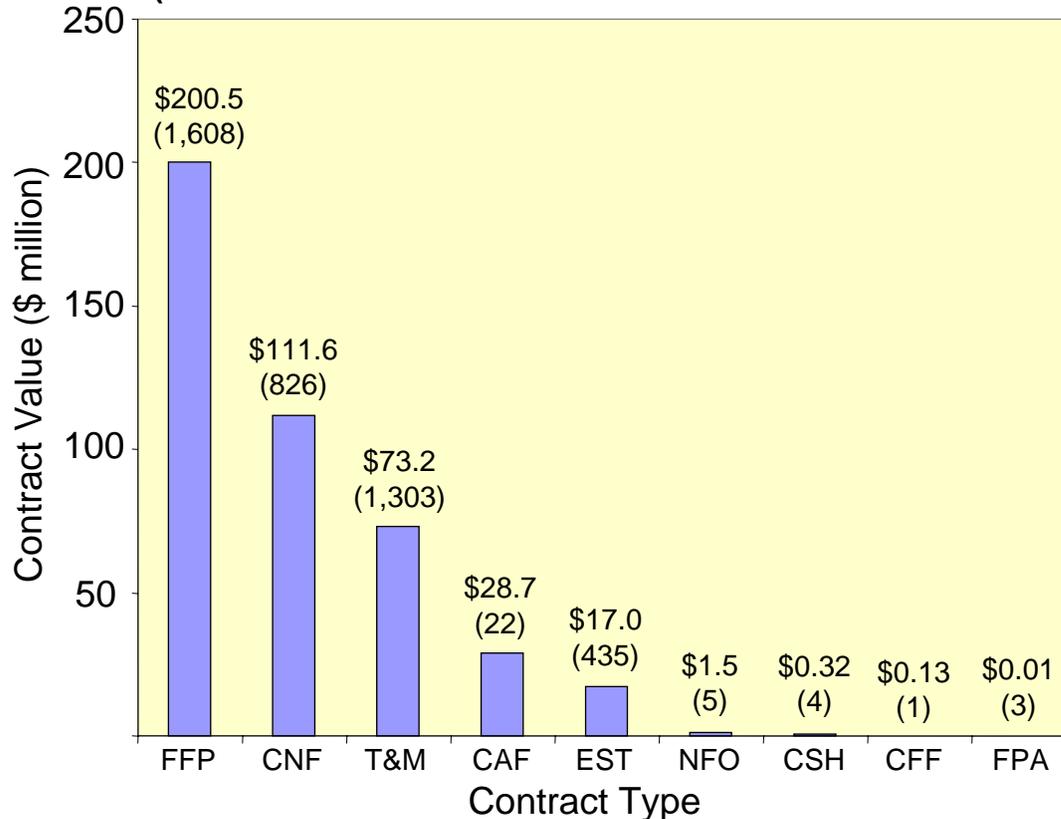


- Notes:** 1. Data (FY04) and graphic comes from Strategic Sourcing Initiative Final Report dated September 16, 2005 (Denali Consulting)  
 2. MRO is Maintenance, Repair, and Operations

***Fifteen of the 41 categories have more than 5 suppliers accounting for 80% of that categories' annual spend, an indicator that opportunities may exist to use leverage to gain better terms for BPA. The other categories may also present opportunities when taking into account the additional 1481 suppliers and the development of strategic relationships with suppliers representing considerable spend.***

# (Contracts) In FY04, BPA had 4,200 active contracts & contract amendments representing \$433 million in commitments<sup>1</sup>

**Value of Contracts and Amendments by Contract Type (FY04)**  
(Total Number of Contracts and Amendments in Parentheses)



**Details of Contract Type Values (FY04)<sup>2,3</sup>**  
(\$ millions)

Contract Types		Contracts	CAs	Total
FFP	Firm Fixed Price	\$187.13	\$13.33	\$200.46
CNF	Cost, No Fee	\$39.20	\$72.38	\$111.58
T&M	Time & Materials	\$34.49	\$38.67	\$73.16
CAF	Cost, plus Award Fee	--	\$28.66	\$28.66
EST	Estimate	\$10.32	\$6.70	\$17.01
NFO	No Funds Obligated	\$1.50	--	\$1.50
CSH	Cost Share (no fee)	\$0.32	--	\$0.32
CFF	Cost Plus Fixed Fee	\$0.13	--	\$0.13
FPA	FFP w/Award Fee	\$0.00	\$0.01	\$0.01
<b>Total</b>		<b>\$273.08</b>	<b>\$159.76</b>	<b>\$432.84</b>

CA = Contract Amendments

**Notes:** 1. Commitments are actual FY04 commitments of dollars; e.g., if a \$10 million contract is \$2 million over 5 years, FY04 commitment would be \$2 million

2. Data (FY04) from SCM EPIP Team analysis. Contract value data (\$) includes materials Purchase Order (PO) spend data (\$68.1 million in FFP). Number of contracts and contract amendments does not include PO data. Transmission and power contracts are **not** included.

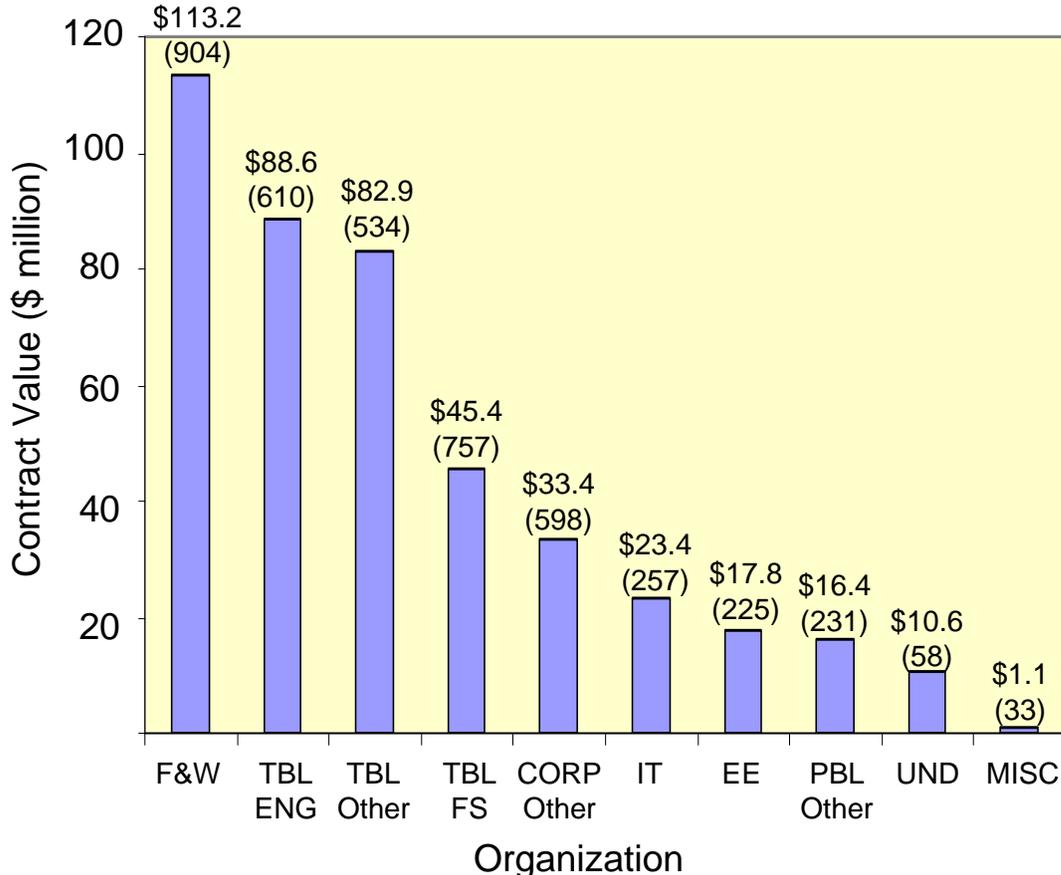
3. Additional Contracts details can be found in Appendix A

**Contract Amendments account for 37% of the FY04 contract commitments in terms of dollar value. Contract Amendments may simply lead to contract extensions, which may side-step the competitive process and additional due diligence around price, terms, and Statements of Work.**

# (Contracts) Over 75% of the value of contracts results from the needs of TBL (50%) and F&W (26%)

## Contract Information by Organization

Value of Contracts and Amendments by Organization (FY04)  
(Total Number of Contracts and Amendments in Parentheses)



Details of Organization Contract Values (FY04)<sup>1,2,3</sup>  
(\$ millions)

Organization	Contracts	CAs	Total
F&W	\$42.67	\$70.56	\$113.24
TBL - Engineering	\$55.27	\$33.29	\$88.56
TBL - Other	\$74.42	\$8.52	\$82.95
TBL - Field Services	\$40.24	\$5.19	\$45.43
Corporate - Other	\$14.63	\$18.76	\$33.39
IT	\$13.29	\$10.10	\$23.38
Energy Efficiency	\$14.18	\$3.61	\$17.79
Power - Other	\$7.73	\$8.63	\$16.36
Undefined	\$10.05	\$0.55	\$10.60
Miscellaneous	\$0.60	\$0.53	\$1.13
<b>Total</b>	<b>\$273.08</b>	<b>\$159.76</b>	<b>\$432.84</b>

CA = Contract Amendments

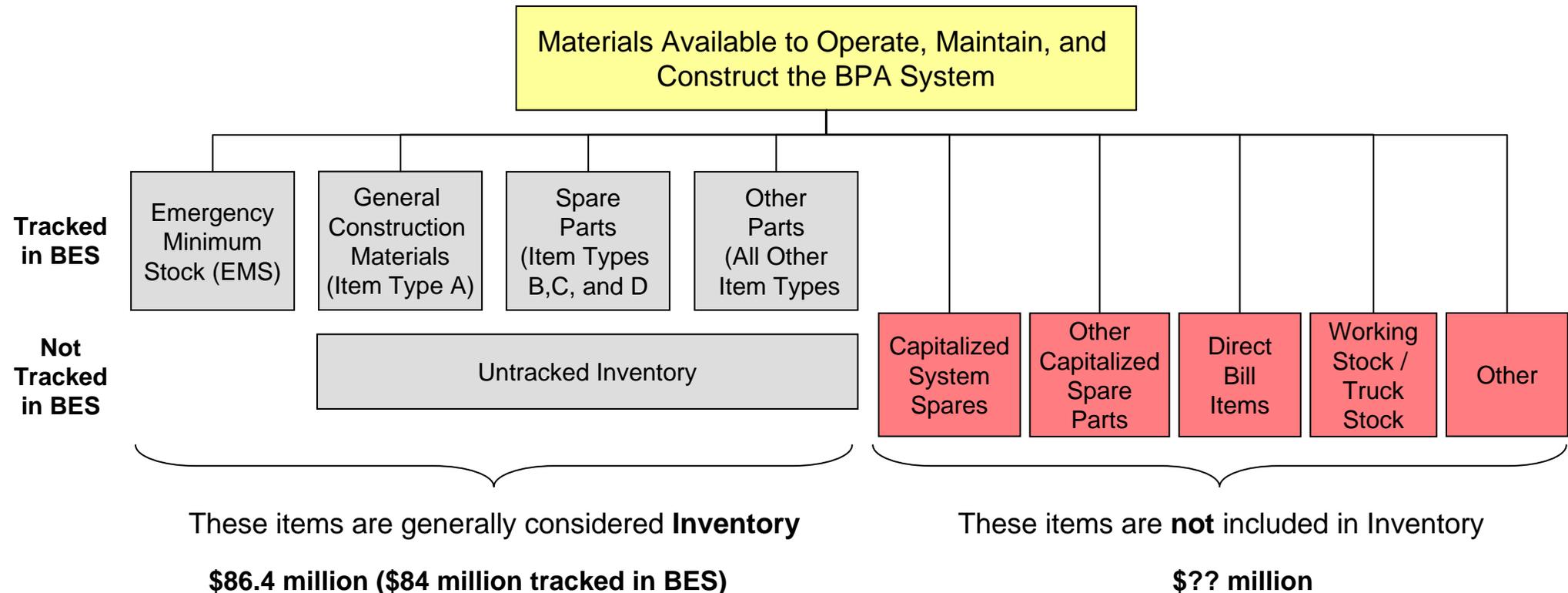
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3. Additional Contracts details can be found in Appendix A

**Three organizations (F&W, Corporate – Other, Power – Other) have over 50% of their FY04 contract value in contract amendments; IT and TBL – Engineering are close behind with 43% and 38%, respectively.**

# (Inventory) \$84 million in inventory is tracked in BES, but this does not represent all available materials

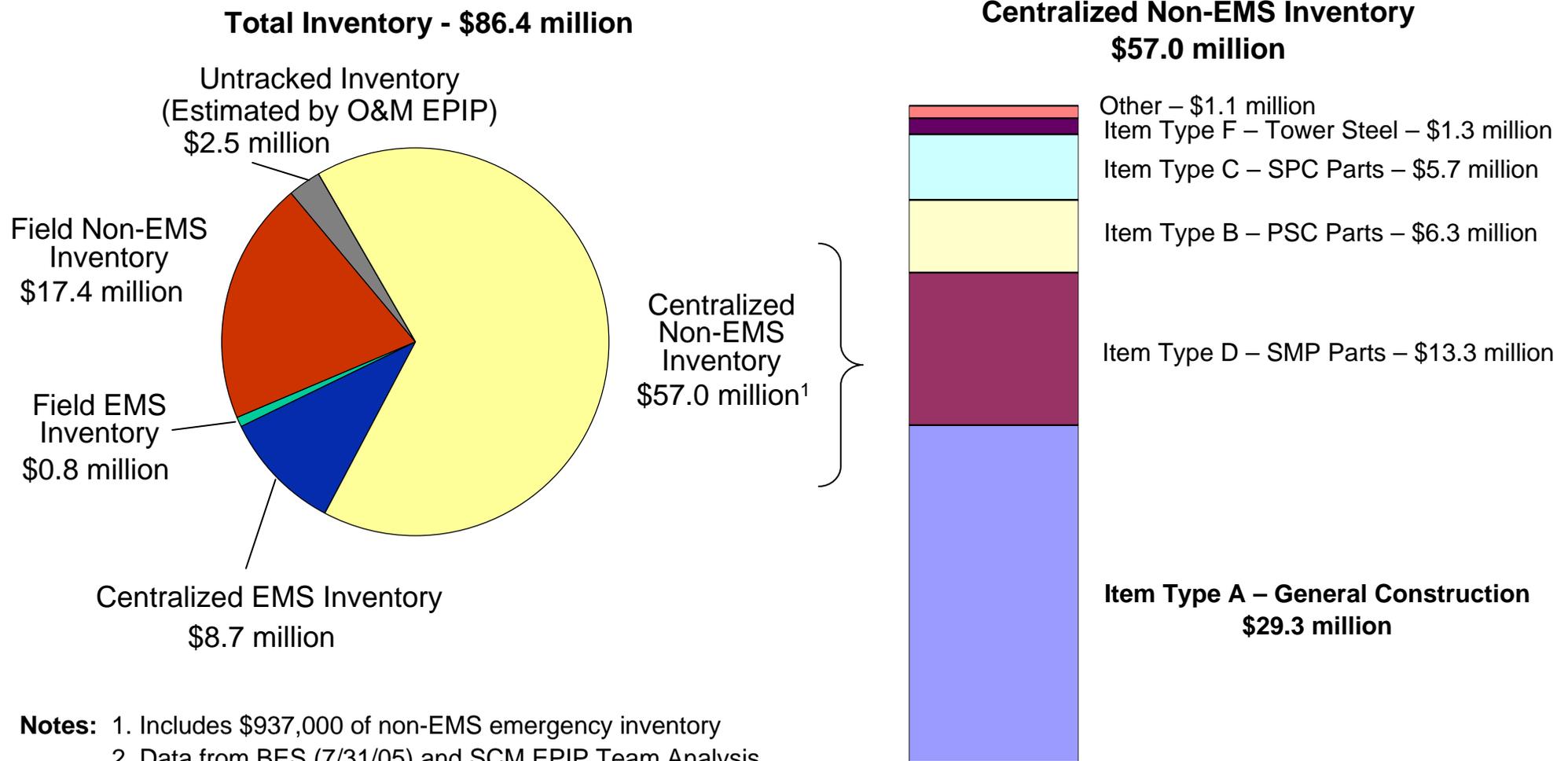


- ◆ EMS inventory – \$9.5 million (\$8.7M centralized / \$0.8M field)
- ◆ Non-EMS inventory – \$74.4 million (\$57.0M centralized / \$17.4M field)
  - General Construction Materials (Item Type A) – \$37.7M
  - Power Systems Control (PSC) Parts (Item Type B) – \$6.3M
  - Systems Protection Control (SPC) Parts (Item Type C) – \$6.0M
  - Substation Maintenance Parts (SMP) (Item Type D) – \$22.0M
- ◆ \$2.5 million of untracked inventory in the field (estimated)

- ◆ Capitalized material - Tracked on various spreadsheets
- ◆ Truck Stock and Working Stock - Not tracked
- ◆ Direct Bill Items - May sit in the warehouse or in the staging areas for months
- ◆ Other – Includes office furniture, publications, etc. (Estimated to be \$2.1 million)

**Note:** 1. Additional Inventory details and definitions can be found in Appendix A

# (Inventory) Greater than 75% (\$65.7 million) of the \$86.4 million inventory is in the centralized Ross complex

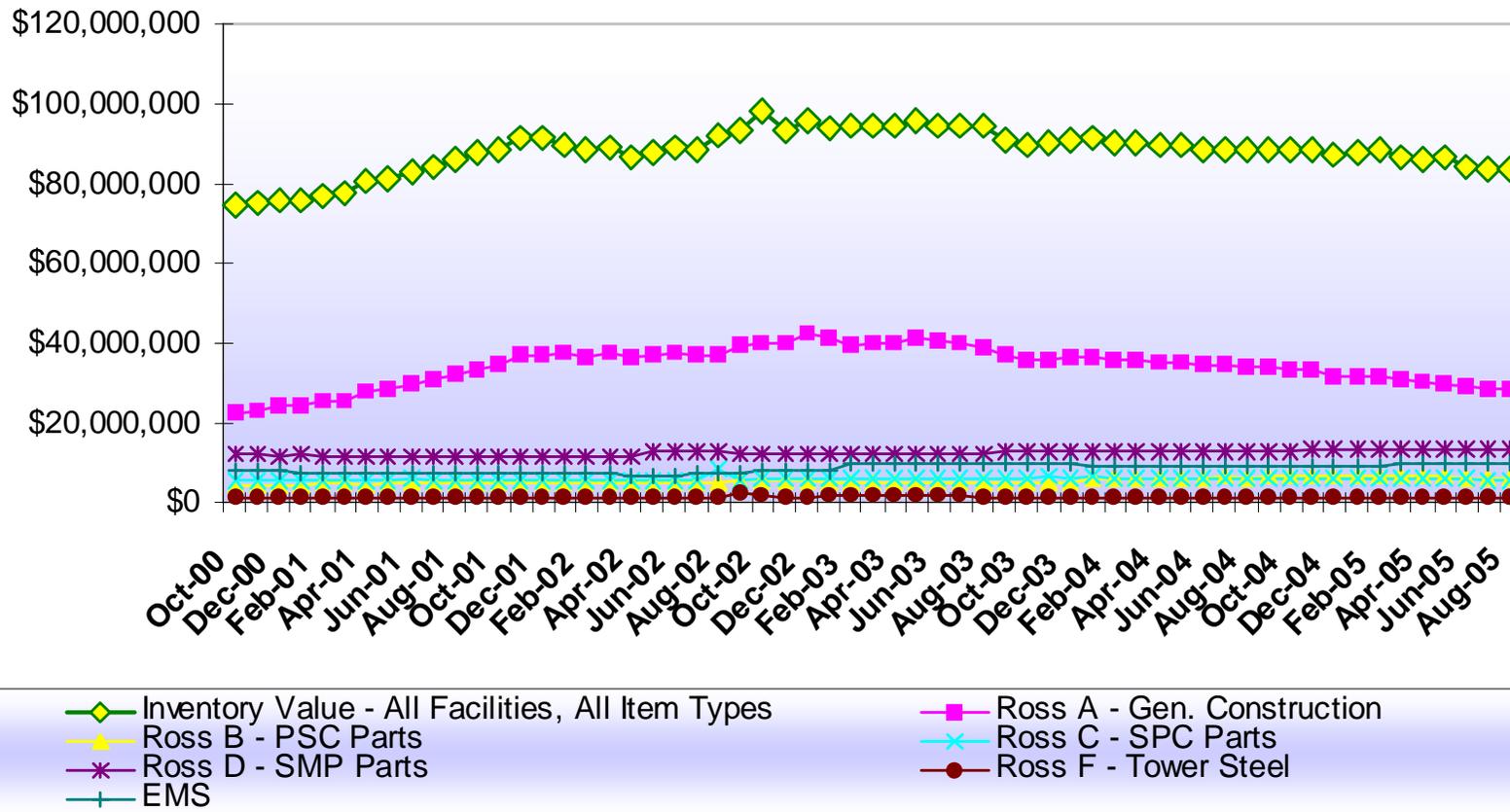


- Notes:**
1. Includes \$937,000 of non-EMS emergency inventory
  2. Data from BES (7/31/05) and SCM EPIP Team Analysis
  3. Additional Inventory details can be found in Appendix A

**Supply Chain manages only the non-EMS Type A (General Construction) material that resides in the Ross Warehouse – 34% of the total inventory at BPA.**

# (Inventory) The value of inventory is down from its peak in October 2002, but has been fairly stable the last 3 years

**Inventory Value**  
**All Facilities, Ross (A,B,C,D,F) and EMS**  
**(October 2000 - August 2005)**



**Note:** 1. Additional Inventory details can be found in Appendix A

# (Costs) Direct costs for the dedicated Supply Chain organizations were almost \$16.5 million in FY 2005

## Cost Baseline

Organization	Resource Type	2004 Costs	2005 Costs
CK	General Contracts	\$150.00	\$823.00
CK	Internal	--	--
CK	Materials and Equipment	\$2,404.38	--
CK	Personnel Comp and Benefits	\$625,295.55	\$628,113.98
CK	Rents, Utilities, and Land	\$ 4,722.04	--
CK	Total	\$632,571.97	\$628,936.98
TL	General Contracts	\$1,495,191.16	\$2,121,737.43
TL	Internal	(\$314.38)	\$ 47,175.50
TL	Materials and Equipment	\$1,888,728.27	\$1,577,304.20
TL	Personnel Comp and Benefits	\$12,040,244.34	\$11,949,086.24
TL	Rents, Utilities, and Land	\$61,128.73	\$50,398.53
TL	Total	\$15,484,978.12	\$15,745,701.90
Supply Chain	Grand Total	\$16,117,550.09	\$16,374,638.88

**Notes:** 1. Data supplied by Marsha Ard of Managerial Accounting in Financial Operations (KFRM)  
2. Additional Cost details can be found in Appendix A

**Supply Chain baseline costs have increased 1.6% between fiscal years 2004 and 2005, primarily due to an increase in General Contracts.**

## Cost Baseline Notes

- ◆ Organizations
  - CK – Supply Chain Policy & Governance
  - TL – Supply Chain Services
- ◆ Resource Types
  - General Contracts – Includes supplemental labor (consulting, engineering/design, hourly craft, administrative, etc.), services (consulting, IT, maintenance, R&D, etc.) and agency memberships
  - Internal – Primarily includes claims and indemnities
  - Material and Equipment – Includes items purchased for the everyday operations of the organization, including fuel, office supplies, publications, spare parts, tools, and shipping charges
  - Personnel Comp and Benefits – Includes labor, benefits loading, leave loading, awards, transportation of employees, and training/conference tuition
  - Rents, Utilities, and Land – Includes leases, rents, telephone services (local, long distance, cellular, PCS), etc.
- ◆ Costs
  - Data does not include costs external to CK and TL, such as COTR costs, costs associated with maintaining inventories outside of the Ross complex (field locations), Technical Services' costs associated with setting inventory levels, factory visits associated with vendor evaluation, and non-Supply Chain receiving and initiation of requisitions

# (Personnel) Currently, the resource level of the dedicated Supply Chain organizations stands at 137 FTEs

Organization	BPA FTEs	Associated Job Titles
Supply Chain Policy and Governance (CK)	6	Procurement Analyst (1) Supply Management Officer (1), Supply Systems Analyst (4)
Supply Chain Services (TL)	2	Chief Supply Chain Officer (1), Office Manager (1)
Supply Chain Operations (TLO)	5	Manager of Supply Chain Operations (1), Property Management Specialist (1), Supply Systems Analyst (1), Transportation Policy Manager (1), Contracting Intern (1)
Sourcing Services (TLOS)	52	Commodity Analyst (1), Contract Specialist (37), Material Coordination Specialist (3), Procurement Analyst (1), Procurement Technician (1), Purchasing Agent (4), Supervisory Contract Specialist (3), Supply Cataloging Specialist (2)
Warehouse and Transportation Services (TLOT)	48	Electric Utility Materials Handler (22), Electric Utility Materials Handler Foreman IA (3), EU Materials Handler Foreman II (4), Heavy Truck Driver (5), Inventory Management Specialist (1), Quality Assurance Specialist (2), Supervisor of Warehouse and Transportation Services (1), Supervisory Supply Systems Analyst (1), Supply Systems Analyst (1), Supply Technician (4), Traffic Management Specialist (2), Truck Foreman IA (1), Truck Foreman III (1)
Asset Utilization (TLOU)	12	Environmental Assistant (1), Environmental Protection Specialist (1), Equipment Specialist (2), Property Disposal Officer (1), Property Management Specialist (2), Supervisor of Asset Utilization (1), Supply Systems Analyst (1), Supply Technician (1), Transportation Assistant (1), Transportation Specialist (1)
Business Management (TLP)	12	Budget Analyst (1), Client Services Manager (2), Contract Specialist (3), Procurement Analyst (2), Supervisory Contract Specialist (1), Supply Systems Analyst (3)
<b>Total</b>	<b>137</b>	

- Notes:** 1. Data from official TL Staff Listing dated 11/08/05  
2. Data does not include Supply Chain contractor positions

***Additional FTEs throughout BPA perform Supply Chain-related activities, but are not included in this analysis in order to align with provided baseline costs.***

# (Personnel) In addition to dedicated Supply Chain organizations, personnel throughout BPA are part of the Supply Chain process through the performance of Supply Chain-related activities

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- ◆ Supply Chain Contractor Positions (15 CFTEs): 6 in Sourcing Services (Admin personnel), 6 in Warehouse and Transportation Services (5 Warehousemen, 1 truck driver, and 1 admin), 1 admin in Asset Utilization, and 1 admin in Business Management
- ◆ COTRs located throughout BPA (30 - 50 FTEs estimated from the 450 designated COTRs)
- ◆ FTEs external to TL, yet performing supply chain-related activities, including
  - Managing field inventory (TF) (2.5 - 19.0 FTEs)
  - Setting selected inventory levels and managing spare parts inventory (TN) (5.0 – 10.0 FTEs)
  - Completing requisition forms and ordering materials (BPA)
  - Creating and managing contracts, excluding leases, Power contracts, and Transmission contracts (BPA)
  - Creating contracts and resolving contract issues (Legal)
  - Performing receiving functions (IT)
  - Payment processing
  - Budgeting

***Including all BPA employees performing Supply Chain-related activities in an FTE analysis could result in an enterprise-wide Supply Chain FTE count of 225 – 250 FTEs.***

# (Facilities / Equipment) BPA stores materials in over 100 locations and maintains 59 pieces of handling equipment

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## ◆ Facilities:

- Ross Warehouse Complex – There is 188,000 square feet of inside storage and 25 acres of outside storage that hold \$65.7 million in inventory (76% of total inventory)
- Field “warehouse” locations – There are 101 physical “warehouse” locations in the field that are tracked in BES and that hold a total of \$18.1 million in inventory (Quantity and value data from BES as of 7/31/05)
- Miscellaneous other storage sites
  - Vendor-managed facility for office furniture (\$1.7 million in inventory)
  - Vendor-managed facility for publications (\$375,000 in inventory)
  - Dittmer Basement – Operations IT spare parts (\$25,000 in inventory)
  - IT facility at Ross Complex – Inventory of desktops, monitors, laptops, mice, keyboards, memory, etc. (Inventory value unknown)
  - Vendor-managed inventory of auto parts (\$60,000 in inventory)

## ◆ Materials Handling Equipment:

- 38 powered fork lifts and other material handlers
- 9 tractor trailer trucks
- 1 flat bed truck
- 6 tanker trailers
- 4 other trailers
- 1 street sweeper

**Note:** 1. Additional Facilities / Equipment details can be found in Appendix A

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# SCM EPIP Current State Assessment

## Observations and Findings

**Note to Reader:** The Observations and Findings that follows is an abridged version of that documented in the Current State briefing to the COO on 12/6/05

# Current State Observations and Findings

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## ◆ General

- There are no fatal flaws in BPA's current approach to supply chain management. However, achieving and sustaining leverage in the market place for goods and services, while maintaining acceptable levels of internal customer satisfaction, may require a different approach and philosophy in the future.
- Supply Chain Services (TL) has implied but not specific responsibility for those business processes that comprise BPA's materials and services supply chain function. Although there are many utilities that advocate this supply chain management model, the emerging trend among industry leaders is one that assigns greater responsibility and authority with a high-level, strategically oriented organization.
- There are many tactical and selected strategic measures of supply chain management business activities and performance. These measures are appropriate and provide valuable performance information. What is lacking, however, are Agency wide measures that present a comprehensive and on-going assessment of the supply chain process performance and provide a basis for baseline performance assessment of all key attributes of the supply chain.

## ◆ Policy

- The Agency has sound supply chain management policies and procedures as evidenced by the Bonneville Purchasing Instructions (BPI) and Asset Management Instructions (AMI). There are however, instances noted where current policies and procedures are disregarded or misapplied resulting in policy violations, labor inefficiencies, revenue losses, and relaxed financial controls.
- Contract Officer (CO) and Contract Officer Technical Representative (COTR) responsibilities are adequately delineated in the BPI, yet the practical application of these responsibilities across the Agency is inconsistent.
- The BPI is a comprehensive document that accurately lists the purchasing policies of BPA, yet opportunities for improvement exist.

# Current State Observations and Findings (continued)

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## ◆ Infrastructure

- Customers of Supply Chain see great value in the Business Unit Advocate (BUA) program
- Current IT support systems do not address all of the functionality required for efficient operation of supply chain processes
- Potential savings may exist in outsourcing the management and operation of the Ross Warehousing Complex, Investment Recovery operation, and the HazMat operation.

## ◆ Spend

- Opportunities exist to better leverage BPA's purchasing (Spend) in the marketplace through supplier consolidation and supplier development. The recently completed Strategic Sourcing assessment identifies upwards of \$19.5 M in potential annual savings. A savings of \$10 million may be more realistic in BPA's environment.

## ◆ Inventory

- Stocking policy development is somewhat of an informal process even though there are quantitatively based algorithms for calculating needed inventory investment. Preliminary estimates suggest that application of more rigorous stocking criteria will have a net effect of significantly reducing on-hand inventory over time.
- The definition of "inventory" for asset management purposes is limited (when compared to the "accounting" definition of inventory) and as such not all available materials are subject to management and control. Although Agency-wide there is an approximate \$84.0 million on hand inventory investment (tracked in BES, only 33% (\$28.5 million) is subject to management by Supply Chain Services (TL). (Supply Chain Services manages only the General Construction Materials that resides in the Ross Warehouse)

# Current State Observations and Findings (continued)

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## ◆ Contracts

- Contract development and management in general is an area of potential improvement:
  - Varying levels of CO experience and skills lead to inconsistent implementation of contract processes and uneven work loads among the CO population
  - Education and training for COs and COTRs needs to be standardized and ongoing
  - Unclear roles and responsibilities between COs, Contract Officer Representatives (COR – infrequently used at BPA), COTRs, and Field Inspectors (not in policy, but in practice)
  - Vague and inconsistent statements of work lead to an inappropriate use of Time and Materials contracts – these contracts also increase the risk to BPA.
  - Inconsistent interpretation of responsibilities and authorities of COs
  - Few lessons learned assessments of completed contracts – often look at the contracts with extreme negative outcomes, but rarely review successful contracts
  - Minimal library of correct statement of work (SOW) and correct evaluation criteria examples that can be used to introduce standardization in the contract arena. Fish & Wildlife has done well in this area with a standardized list of 80 work elements and the associated performance measurements
  - No performance measures or targets exist to evaluate the process of developing contracts or the management of contracts
  - Program Office managers are uneducated in the BPI and roles and responsibilities
- The “Contracts Strategy Panel” is a good conceptual mechanism for improving contract development, management and execution, but there is a lack of clarity around its purpose, structure, and participants’ roles.

# Current State Observations and Findings (continued)

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## ◆ Accounts Payable

- COTR issues affecting Accounts Payable appear to generally stem from a lack of process documentation, training, and understanding of their specific responsibilities.
- Invoices for contracts are received throughout the Agency, instead of at a central point, resulting in some invoices not being reported in a timely fashion, thereby leading to the payment of interest/penalties, the loss of discounts, and the potential for management to make decisions based on inaccurate information.

***Benchmarking data and Leading Practice information was utilized in evaluating current processes and performance and identifying improvement opportunities.  
(See Appendix B)***

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# **SCM EPIP Current State Assessment**

## Areas of Opportunity & Quick Hits

# Areas of Opportunity

The following improvement opportunities were identified by the SCM EPIP Team during the Current State Assessment and are being analyzed as part of the Future State Definition phase. The “Potential Benefits” listed are initial high-level estimates that are being refined as part of Future State analysis. Benchmarking data and Leading Practice information was utilized to assist in identifying improvement opportunities. (See Appendix B)

Improvement Opportunity	Potential Benefits Summary
1. Implement Strategic Sourcing pilot and program*	\$19.5 million cost reduction; Fewer vendors; Better vendor performance <i>(The BOB has already recommended this for early implementation)</i>
2. Outsource Transportation* – Move to contract drivers using BPA equipment and augment with outside 3 <sup>rd</sup> party logistics (3PL) providers as needed	\$415,000 first year savings; Three year savings (NPV) of \$1 million; Flexibility
3. Redefine “inventory” from a Supply chain perspective versus the existing “accounting” perspective	Visibility to all materials available system-wide
4. Refine inventory investment optimization/stocking policies (Increase management by Supply Chain; involve Supply Chain in the planning process; Utilize virtual inventories and vendor-managed inventories)	Based on lead time analysis, one time inventory reduction of \$18 million; Carrying Cost savings of \$3 million; Fewer stock items; Less materials handling (Note: This has not been evaluated with regards to the perceived needs of PDB.)
5. Clarify the responsibilities and authority of the Contracts Strategy Panel	Uniform contract development and management methodologies; Cost avoidances; Reduced contract risks
6. Explore outsourcing of warehousing, investment recovery operations, and HazMat operations	Potential for annual cost savings of based on comparison to average benchmark data; Flexibility

*\*Analysis performed outside of the Supply Chain EPIP and presented to BOB separately*

# Areas of Opportunity (continued)

The following improvement opportunities were identified by the SCM EPIP Team during the Current State Assessment and are being analyzed as part of the Future State Definition phase. The “Potential Benefits” listed are initial high-level estimates that are being refined as part of Future State analysis. Benchmarking data and Leading Practice information was utilized to assist in identifying improvement opportunities. (See Appendix B)

Improvement Opportunity	Benefits Summary
7. Optimize contract development and management, including clarifying roles, responsibilities, qualifications, and training of Contract Officers (CO) and Contract Officer Technical Representatives (COTRs), creating performance measures and metrics to assess contract performance, developing library of “Statements of Work” illustrations, and developing “Best in Class” skills for contract managers	A-123 consistency; Improved resources management; General process consistency; Performance measurement base; Improved contract development and administration; Improved productivity of COs and COTRs; Improved contract enforcement; Reduce the number of contract amendments
8. Develop SCM enterprise wide performance measures and performance baseline	Spend, inventory and infrastructure resources cost optimization; Better internal customer service; Performance expectations
9. Assess Perfect Commerce arrangement	Service provider competition; Lower costs; Improved functionality
10. Transfer the management of IT requirements to Supply Chain	Improved control of processes; Lower purchasing unit costs
11. Streamline and optimize invoice matching business activities	Improved productivity; Decreased processing times
12. Push responsibility for inventory down to end-user level	Include all of BPA (those that hold or use inventory) in the management of inventory in order to optimize the stocking of materials

# Areas of Opportunity (continued)

The following improvement opportunities were identified by the SCM EPIP Team during the Current State Assessment and are being analyzed as part of the Future State Definition phase. The “Potential Benefits” listed are initial high-level estimates that are being refined as part of Future State analysis. Benchmarking data and Leading Practice information was utilized to assist in identifying improvement opportunities. (See Appendix B)

Improvement Opportunity	Benefits Summary
13. Define/develop the skills matrix required of the Future-State Supply Chain organization	Creation of an efficient Supply Chain with the right people and the right processes
14. Assess new technology for applicability to BPA supply chain management, to include RFID, bar-coding, upgrades to BES functionality, advanced e-commerce methods, and eMall	Improve process efficiency and effectiveness; Gain greater control over materials; Standardize processes; Eliminate manual processes
15. Assess risk management strategies, including hedging strategies	Lower costs; Mitigate risk
16. Establish BPA-wide SCM business model	Compliance with A-123; Uniform check and balance over \$460 million annual spend (FY04 – FY05 expected to decrease to \$360 million), \$86.4 million inventory investment; \$16.4 in direct costs (2005 TL/CK Cost Baseline) ; Facilitate implementation of EPIP recommendations

# Quick Hits

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**The SCM Core Team and Sub-Teams have also classified some of these opportunities as “Quick Hits” or “Fast Track” opportunities**

- ◆ Concur with acceptance of the Strategic Sourcing initiative and initiation of pilot programs **(Started)**
- ◆ Concur with acceptance of the results of the Transportation Study and proceeding with the next steps **(Started)**
- ◆ Right size the number of COs and COTRs prior to implementation of the new training curriculum
- ◆ Move IT miscellaneous purchasing/receiving from IT to Supply Chain **(Started)**
- ◆ Create a Statement-of-Work (SOW) library of examples and lessons learned
- ◆ Analyze and streamline the receiving inspections process
- ◆ Streamline the contract invoicing process
- ◆ Assess and implement the acceptance of electronic invoices as official documentation (revise BPI as required)
- ◆ Assess and implement the electronic date stamping of received electronic invoices (typically PDF) in order to alleviate the print, stamp, scan cycle
- ◆ Create a table or matrix of responsibilities in the BPI which delineates the responsibilities of COs and COTRs, thereby providing easier reference and review
- ◆ Create a detailed Supply Chain contact list that identifies who to contact with specific issues and questions
- ◆ Develop a streamlined Inventory Policy or Supply Chain policy manual; a type of BPI Light or Playbook that is not an operating manual, but more of a high-level policy guideline

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# SCM EPIP Future State Definition

# The Future State Vision of BPA's Supply Chain Business Model – Initial Brainstorming Session

Infrastructure	Policy	Process
<ul style="list-style-type: none"> <li>◆ Enterprise-wide supply chain, managed by Supply Chain, in collaboration with end users, with accountability defined for performance</li> <li>◆ Talented, efficient, respected workforce</li> <li>◆ SCM career opportunity</li> <li>◆ Performance measurement/metrics system</li> <li>◆ Mobile, flexible workforce</li> <li>◆ Flexibility</li> <li>◆ Management understanding of Supply Chain</li> <li>◆ Valued and respected</li> <li>◆ New personal advancement system i.e. technical career path</li> <li>◆ User-friendly technology system and one data source, with good data</li> <li>◆ Clearly defined roles for supply chain personnel, and governance</li> </ul>	<ul style="list-style-type: none"> <li>◆ Dedicated to customer service</li> <li>◆ Issues always addressed</li> <li>◆ Right stuff at the right place, at the right cost, at the right time, delivered by the right people</li> <li>◆ Flexibility</li> <li>◆ BPI – consistent and enforced</li> <li>◆ Clearly defined understanding of needs</li> <li>◆ Partnership with strategic vendors</li> <li>◆ Partnership with Program Offices</li> <li>◆ User trained in understanding of supply chain</li> <li>◆ Global focus</li> <li>◆ 2F Authority &amp; taking more risk</li> <li>◆ Clear agency-wide direction on A-123 compliance</li> </ul>	<ul style="list-style-type: none"> <li>◆ Cost-effective and consistent processes</li> <li>◆ Users know the process</li> <li>◆ Paperless</li> <li>◆ Status is visible – easy to check</li> <li>◆ Virtual warehouse &amp; automated</li> <li>◆ eMall self-service shopping</li> <li>◆ Direct ship from suppliers</li> <li>◆ Flexibility</li> <li>◆ Good forecasting &amp; planning</li> <li>◆ Valued and respected</li> <li>◆ Uses market intelligence</li> <li>◆ Advanced technology</li> </ul>

# Future State Sub-Teams

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The Future State Definition phase is focusing on seven areas for improvement opportunities

- ◆ **Accounts Payable** – Includes invoice matching activities and discount/penalty policies/processes (Team Lead – Scott Hampton)
- ◆ **Contracting and Agency Policy** – Includes general Supply Chain policies and specific policies, processes, training, and performance measures associated with contracting (Team Lead – Damian Kelly)
- ◆ **Inventory and Stocking Policies** – Includes inventory definitions, stocking policies, and target inventory optimization levels (Team Lead – Trudy Linson)
- ◆ **Outsourcing Potential** – Business case to pursue outsourcing of operations, including warehouse operations, transportation, Investment Recovery Center (IRC) and HazMat (Team Lead – Scott Hampton)
- ◆ **SCM Organization, Governance Models, and Performance Metrics** – Includes enterprise-wide SCM process and organization model definition and supply chain process performance metrics (Core Team Responsibility – Team Lead – John Quinata)
- ◆ **Strategic Sourcing and E-Commerce Strategy** – Includes services and commodity pilots and vendor management initiatives (Team Lead – Judy Chipman)
- ◆ **Technology Applications** – Includes technology requirements definitions and business cases associated with new technologies (Team Lead – Tina Polizos)

**Note:** 1. Previously listed Quick Hits efforts will be assigned to the above teams based on topic area

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# **SCM EPIP Future State Definition**

## **Major Themes**

# SCM Future State Definition

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## ◆ What will be different in the Future

- SCM Business model
- Materials and Services Contracting Process
- Strategic Sourcing
- Inventory Accountability

# What Will be Different in the Future – Major Themes – SCM Business Model

The SCM Business Model	Expected Results
<ul style="list-style-type: none"> <li>◆ Supply Chain Services (SCM) assumes an organizational position in the Agency hierarchy that assures it has sufficient “clout” to facilitate adoption of enterprise-wide supply chain management practices determined to be in the best interest of the Agency</li> <li>◆ SCM becomes the single point of accountability for materials and services spend efficiency and inventory accountability</li> <li>◆ A shift in the perception of SCM as a “service” (at any cost) organization to an integrated “value-added business process”</li> <li>◆ Agency-wide process performance measures that focus on critical supply chain attributes: Costs, Asset Management Efficiency, Responsiveness, Reliability/Accuracy, Effectiveness, and Shareholder Interests</li> <li>◆ Compliance monitoring and enforcement of the BPI, the use of the BES, and other supply chain management policies</li> <li>◆ More clearly defined authority, responsibility, and accountability for supply chain business processes among all stakeholders</li> <li>◆ A structured forecast of major procurements by Program Offices driving the sourcing strategy with market and vendor intelligence provided by SCM to support decision making</li> <li>◆ A renewed emphasis on BES functional training</li> </ul>	<ul style="list-style-type: none"> <li>◆ Facilitates the ability of the Agency to embrace leading practice techniques such as: lean supply chain; <u>collaborative planning, forecasting and replenishment</u>; virtual warehousing; and others</li> <li>◆ Assigned responsibility for oversight of annual \$375 MM to \$400 MM spend and more structured methodology for assessment of procurement risks</li> <li>◆ Better ability to measure supply chain management as an Agency-wide business process and assure alignment with the One BPA concept</li> <li>◆ A more disciplined adherence to the BPI and other supply chain related policies</li> <li>◆ More effective utilization of the BES</li> <li>◆ 100% ownership / management of inventory stocking policy development (as opposed to 34% today) and charter to “right-size” routine and spare parts requirements – estimated 25% less inventory than today</li> </ul>

# What Will be Different in the Future – Major Themes – Contracting

Materials and Services Contracting Processes	Expected Results
<ul style="list-style-type: none"> <li>◆ An oversight mechanism, the Contracts Strategy Panel, for assuring more rigorous contract development, execution, and management business processes are employed</li> <li>◆ Development of two-year rolling forecasts of major procurements by each Program Office coordinated with SCM in order to assure sufficient lead time for a cost-effective procurement decisions</li> <li>◆ Standardized contract development templates, including a “statement of work” library, to assure process consistency</li> <li>◆ More clearly defined responsibilities, qualifications and on-going training requirements for the Contract Officer (CO) position. Skill sets requirements for COs (and COTRs) based on contract type and complexity. An aggressive emphasis on acquiring Contracting continuing education credits and certifications.</li> <li>◆ COs are embedded in their respective client organizations to assure an understanding of the business drivers for procurements and contract management needs</li> <li>◆ A requirement that “critical/risky” procurements flow through a “Contracts Strategy Panel” risk assessment process prior to award and that they are frequently reviewed during execution</li> <li>◆ Rigorous emphasis on post contract lessons learned improvements</li> <li>◆ A right-sized CO and COTR workforce that is fully dedicated to contract management</li> </ul>	<ul style="list-style-type: none"> <li>◆ Mechanisms that assure risk and market conditions are adequately addressed prior to contract development and award</li> <li>◆ A process for continual monitoring of contract progress and performance and capturing lessons learned from all contracts</li> <li>◆ More discipline in enforcing BPI policy</li> <li>◆ Improved contract writing and contract management that reduces or eliminates those contracts that do not fulfill Agency expectations. (It is estimated that the implementation of recommendations and leading practices will save the Agency between \$10.0 MM to \$18.0 MM annually through the more rigorous development and monitoring of critical contracts, the reduction in contract amendments, the improvement in statements of work, and the avoidance of formal claims (\$4.5 MM over the past two years).)</li> <li>◆ More knowledgeable, more experienced, and more professional COs and COTRs</li> <li>◆ A smaller, more dedicated COTR workforce</li> </ul>

# What Will be Different in the Future – Major Themes – Strategic Sourcing

Strategic Sourcing	Expected Results
<ul style="list-style-type: none"> <li>◆ Institutionalized process for leveraging Agency spend in the marketplace through the application of strategic sourcing principles and techniques, including market and vendor intelligence gathering</li> <li>◆ Fewer vendors and more long-term, mutually-beneficial supplier alliances</li> <li>◆ Reduction in procurement risk through the sharing of risk between BPA and vendors</li> <li>◆ More aggressive development and application of E-Commerce business techniques that take advantage of the electronic marketplace in order to reduce transaction costs, minimize on-hand inventory investment, and improve internal customer satisfaction. Strategies being pursued include: eMall, reverse auction, and e-negotiation applications.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Two current strategic sourcing pilots are on track to reduce applicable unit costs of 6% and 12% respectively. The overall program, when fully implemented, is expected to result in savings of \$19.5 MM or 7% of applicable spend. Some companies embracing strategic sourcing have saved as much as 20% in their initial spend. Leading utilities in recent years have saved 11% to 14% of applicable spend.</li> <li>◆ Strategic Sourcing supports efforts of PDB and Field Services to standardize construction and maintenance materials</li> <li>◆ The new process will establish and institutionalize business practices that will result in: fewer vendors, fewer line items, and fewer labor intensive manual transactions</li> <li>◆ Continue to grow the number of e-commerce transactions from the current 35% level to 75% of procurement transactions</li> </ul>

# What Will be Different in the Future – Major Themes – Inventory

Inventory Accountability	Expected Results
<ul style="list-style-type: none"> <li>◆ Inventory is set on a system-wide basis and allocated to Ross or field locations based on business need</li> <li>◆ All inventory, regardless of type (General Construction Materials, Spare Parts, and Emergency Materials) and location (Ross and Field), is managed by the Supply Chain organization. We know what we have and where it is!</li> <li>◆ Stocking policies are based on quantitative algorithms. System-wide minimums and maximums are set by Supply Chain in <u>collaboration</u> with Technical Services and Field Services.</li> <li>◆ Inventory is managed by value, number of line items, and number of units.</li> <li>◆ Less on-hand inventory investment because items are obtained from vendor-managed/consigned inventories and/or directly from an eMall procurement website</li> <li>◆ Supply Chain and the Agency have visibility of all materials available, not just those materials falling under the accounting classification of “inventory”. This includes capitalized spare parts and equipment.</li> <li>◆ All Agency employees involved in the ordering of materials will have a good working knowledge of inventory ordering systems (BES today) and an understanding of roles and responsibilities. Metrics will measure performance and compliance with policies and procedures.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Inventory optimized at least 25% lower than the current level of \$86 million</li> <li>◆ A more robust and disciplined approach to setting stocking policies</li> <li>◆ Supply Chain ownership of inventory stocking policy development, management of all inventory, and enforcement of minimums and maximums</li> <li>◆ Visibility into all available materials (Virtual Warehousing)</li> <li>◆ Fewer disruptive/unplanned stock outs</li> <li>◆ Less obsolete and excess material – Seek to reduce to zero</li> <li>◆ The Field more effectively uses BES to order from the warehouse and e-commerce methods (eMall) to obtain specific materials from suppliers</li> </ul>

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# **SCM EPIP Future State Definition**

## Recommendations

# Recommendations

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- ◆ The following pages list the 64 recommendations developed by the SCM EPIP Team
  - Accounts Payable (AP) – 4 recommendations
  - Contracting and Agency Policy (C) – 30 recommendations
  - Inventory and Stocking Policies (I) – 13 recommendations
  - Outsourcing Potential (O) – 2 recommendations
  - Strategic Sourcing (SS) – 1 recommendation
  - E-Commerce Strategy (EC) – 4 recommendations
  - Technology Applications (T) – 4 recommendations
  - Supply Chain Organization, Governance Models, and Performance Metrics (O&G) – 6 recommendations
- ◆ See Appendix C for a summary table of all 64 recommendations and their respective, high-level benefits and costs

# Accounts Payable

## Future State Definition Focus Areas

### Accounts Payable

- ◆ Improvement of the invoice matching process
- ◆ Improvement in COTR performance with respect to invoice receipt and data entry into PassPort
- ◆ Exploration of invoice receipt centralization
- ◆ Paperless processing of all invoices

SCM EPIP Accounts Payable Sub-Team	
Scott Hampton <sup>1</sup>	KFS – Financial Analysis and Requirements
Carol Babb	KFRD – Disbursement Operations
Mike Caldwell	KFRD – Disbursement Operations
Ann Marie Sherman	DN – Internal Audit

<sup>1</sup>Sub-Team Leader

# Accounts Payable (continued)

## Accounts Payable Recommendations

Recommendation	Details
<p><b>1. Improve maintenance of contract data in the system</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> \$15,000 potential annual cost avoidance; Improves BES data integrity; Improved A/P productivity; More efficient invoice payment process; Better vendor relations</li> <li>◆ <u>Costs:</u> Data field addition to BES; Possibility of some discipline issues with employees who do not comply with the process</li> </ul>	<ul style="list-style-type: none"> <li>◆ Not all contracts for which invoices are processed are entered into PassPort – this includes contracts that have not yet been entered, PO None contracts, and advance pay contracts in F&amp;W. In addition, often times a COTR is not assigned or the information in PassPort is not current and accurate.</li> <li>◆ Ensuring we have correct and timely data in our enterprise system will increase the efficiency of Accounts Payable (AP)</li> <li>◆ Implementation will require more discipline on the part of users of the PassPort system, a business process to ensure that all new contracts get entered into the system, and technical modifications to make COTR a required field</li> </ul>
<p><b>2. Centralize invoice processing</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> BES data entry consistency; Improved invoice matching efficiency; Better vendor relations</li> <li>◆ <u>Costs:</u> Increased A/P work load; Possible staff addition until full electronic payment processing is achieved</li> </ul>	<ul style="list-style-type: none"> <li>◆ Invoices come into BPA throughout the organization. Many COTRs and managers do not place a high enough priority on the processing of invoices, resulting in lost invoices, inconsistent review and payment, delayed payments and interest charges or penalties. (This can directly affect BPA's compliance with the Prompt Pay Act)</li> <li>◆ By having all invoices received in the AP area, BPA will achieve a level of consistency throughout the data entry and invoice payment process. This improvement will ensure a customer invoice is properly formatted and has all the right information.</li> <li>◆ In order to implement this recommendation, some Accounts Payable personnel will need to expand their skills in order to have the proper skill set required to process all types of invoices</li> <li>◆ This is a required first step to automation and paperless processing</li> </ul>

# Accounts Payable (continued)

## Accounts Payable Recommendations (continued)

Recommendation	Details
<p><b>3. Establish “receiver” policy (creation of the “receiver record in PassPort) with accompanying metrics</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Reference recommendation #1; (\$15,000 savings is not duplicated)</li> <li>◆ <u>Costs:</u> Reference recommendation #1</li> </ul>	<ul style="list-style-type: none"> <li>◆ The processing of the “receiver” information needs to be done in a more timely and accurate manner. In addition, the process for correcting mismatches needs to be given a higher priority by COs and COTRs.</li> <li>◆ When purchasing goods, the item needs to be received and a “receiver” created in the PassPort system. By establishing a policy with metrics, TL will establish expectations, measure performance, enforce policy, and identify and improve delays in the process.</li> <li>◆ This recommendation will create additional duties for Field personnel</li> <li>◆ When an invoice is received that varies from the items ordered on the Purchase Order, a mismatch occurs. The invoice cannot be paid until the mismatch is confirmed and the Purchase order corrected in the PassPort system. Once a policy is created and implemented and appropriate training occurs, AP can then measure against the policy and seek improvements in the process.</li> </ul>

# Accounts Payable (continued)

## Accounts Payable Recommendations (continued)

Recommendation	Details
<p><b>4. Create systems, policies, and procedures to allow paperless processing of invoices</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Improved labor productivity (reduced handling of upwards of 5000 paper invoices); Consistent with E-Commerce strategy; Leading practice; Improved BES data integrity</li> <li>◆ <u>Costs:</u> Exact system upgrade costs are to be determined. Preliminary estimates are \$1.0 MM+. May cause hardship on vendors to comply with BPA requirements.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Design and develop an enterprise system for processing invoices electronically. This could be through the use of e-settlement tools or “time ticket management” systems.</li> <li>◆ Currently a significant majority of the 5,000 invoices received and processed each month by COTRs and Accounts Payable organizations are paper copies. When AP receives the invoice they then scan the original into the Sharepoint system – thus creating an electronic copy.</li> <li>◆ Some invoices received electronically are printed out, then date stamped (for compliance with the Prompt Payment Act) and scanned back into the system. An image system that can electronically date/time stamp the invoice would save this manual labor.</li> <li>◆ If invoices are sent to BPA thru a web-based portal (secure site) as electronic information, the COTR could review the invoice, accept, and recommend for payment and A/P could process the payment without anyone ever having paper copies</li> <li>◆ This recommendation may involve supplier requirements to use specific electronic tools, though non-technical providers (specifically in F&amp;W) need to be considered as well</li> <li>◆ Any technical solution would need the ability to scan and catalog the significant amount of backup documentation that could accompany some invoices</li> </ul>

# Contracting and Agency Policy

## Future State Definition Focus Areas

### Contracting and Agency Policy

- ◆ Construct a future state model for contracting and identify key attributes: Contracting criteria, development and management processes, roles and responsibilities of key parties, performance measures, management and control structure, and skill set requirements.
- ◆ Assure compliance with A-123 and risk management objectives.
- ◆ Define the responsibilities and authorities of the Contract Strategy panel.
- ◆ Identify IT support requirements.
- ◆ Specify policy requirements to assure an effective and efficient contracts development and administrative process.

SCM EPIP Contracting and Agency Policy Sub-Team	
Damian Kelly <sup>1</sup>	CK – Supply Chain Policy and Governance
Janet Burnett	CGF – Workplace Services – Office Facilities
Carol Edwards	TLOS – Supply Chain Sourcing Services
Scott Hampton	KFS – Financial Analysis and Requirements
Jaci Margeson	LC – Corporate/Fish and Wildlife (Attorney)
Chris Nielsen	TLP – Supply Chain Business Management
Ron Roth	TLP – Supply Chain Business Management
Patricia Tawney	PNK – PBL / EE – Contract Administration
Kristi Van Leuven	TLP – Supply Chain Business Management

<sup>1</sup>Sub-Team Leader

**NOTE:** The scope and complexity of the Agency's contracting process necessitated the inclusion of additional personnel to the assessment and organization into five future state teams.

# Contracting and Agency Policy (continued)

The Contracting and Agency Policy Sub-Team created five teams to look at the end-to-end contracting process.

SCM EPIP Contracting and Agency Policy Sub-Team Contracting Strategy and Requirements Planning Team	
Damian Kelly <sup>1</sup>	CK – Supply Chain Policy and Governance
Carol Edwards	TLOS – Supply Chain Sourcing Services
Nancy Faber	CK – Supply Chain Policy and Governance
Scott Hampton	KFS – Financial Analysis and Requirements
Jaci Margeson	LC – Corporate/Fish and Wildlife (Attorney)
Kristy Norton	TLOS – Supply Chain Sourcing Services

SCM EPIP Contracting and Agency Policy Sub-Team Pre-Award Processes Team	
Robb Pierson <sup>1</sup>	CK – Supply Chain Policy and Governance
Patricia Baker	CK – Supply Chain Policy and Governance
Matt Balogh	TLOS – Supply Chain Sourcing Services
Kim MonBarren	TLOS – Supply Chain Sourcing Services

SCM EPIP Contracting and Agency Policy Sub-Team Award Processes Team	
Ron Roth <sup>1</sup>	TLP – Supply Chain Business Management
Theresa Hughes	TLOS – Supply Chain Sourcing Services
Chris Nielsen	TLP – Supply Chain Business Management
Lori Pitzer	TLOS – Supply Chain Sourcing Services
Lulu Zhang	TLOS – Supply Chain Sourcing Services

SCM EPIP Contracting and Agency Policy Sub-Team Post-Award Processes Team	
Kristi Van Leuven <sup>1</sup>	TLP – Supply Chain Business Management
Anita Camarillo	TLP – Supply Chain Business Management
Nancy Faber	CK – Supply Chain Policy and Governance
Christine Read	TLOS – Supply Chain Sourcing Services
Diane Roth	TLOS – Supply Chain Sourcing Services
Nancy Faber	CK – Supply Chain Policy and Governance

SCM EPIP Contracting and Agency Policy Sub-Team Property Management Processes Team	
Patricia Baker <sup>1</sup>	CK – Supply Chain Policy and Governance
Kathy Baker	JSD – IT – Asset Management Applications
Mike Conners	TLOU – Supply Chain Asset Utilization
Robb Pierson	CK – Supply Chain Policy and Governance

<sup>1</sup>Sub-Team Leader

# Contracting and Agency Policy (continued)

## General Contracting Recommendations

Recommendation	Details
<p><b>1. Standardize and streamline contracting processes, to the extent possible</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Industry leading practice; Prudent business practice; Time savings; Assists in alleviating errors</li> <li>◆ <u>Costs:</u> Minimal</li> </ul>	<ul style="list-style-type: none"> <li>◆ This recommendation is an overarching recommendation that encompasses several parts of recommendations detailed on the following pages</li> <li>◆ Standardizing the items to be included on all contracts (specific language may change per contract) will assist in alleviating omissions and reduce contract creation time, thereby increasing the professionalism of COs and COTRs</li> <li>◆ Create guides for matching contract type to procurement requirement</li> <li>◆ Standardizing review processes will add predictability to contract creation timelines</li> </ul>
<p><b>2. Aggressively develop and expand the skill sets of Contract Officers (COs) and Contract Officer Technical Representatives (COTRs)</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Marketplace leverage; Professional representation of BPA by COs and COTRs; Downstream cost savings in terms of contract development costs, contract prices, and reduced errors and amendments</li> <li>◆ <u>Costs:</u> Annual costs of \$100,000 - \$200,000 for training, publications, seminars, and certification (Many of these costs are captured in other recommendations)</li> </ul>	<ul style="list-style-type: none"> <li>◆ This recommendation is an overarching recommendation that encompasses several parts of recommendations detailed on the following pages</li> <li>◆ Expanding and developing the CO and COTR skill sets will come through a combination of               <ul style="list-style-type: none"> <li>— Standardizing processes</li> <li>— Implementing tools such as Statement of Work (SOW) and Lessons Learned libraries, cost analysis methodologies, and reviews of model contracts and contracts for which BPA did not receive the expected value</li> <li>— Internal and external training classes on subjects ranging from market hedging and vendor intelligence to contract writing</li> <li>— Enhanced CO/COTR certification/recertification programs</li> <li>— Mentoring for newer COs and COTRs</li> </ul> </li> </ul>
<p><b>3. Create Supply Chain staffing strategy that aligns staffing with new skill and workload requirements</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Gets the right skills into the required jobs; Retain expertise among the Contract Officers (COs)</li> <li>◆ <u>Costs:</u> Minimal implementation costs; Possibility of increased pay grades (\$135 K - \$270K)</li> </ul>	<ul style="list-style-type: none"> <li>◆ New and improved Supply Chain processes will require additional skills that may not be present today; obtaining these skills will be achieved through hiring and/or training</li> <li>◆ Expanding skills may drive some targeted salary increases – Current limitations to the CO pay grade (current limitation is GS-12) creates a situation where the talented, experienced COs routinely move on to other jobs</li> <li>◆ Creation of a stratified CO career path could result in a more experienced and more professional CO workforce</li> </ul>

# Contracting and Agency Policy (continued)

## General Contracting Recommendations (continued)

Recommendation	Details
<p><b>4. Right-size / optimize the number of COTRs</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> More rigorous control mechanism; More standardized processes; Reduced BPA training and certification requirements; More professional and dedicated COTR workforce; Removal of secondary workload from many employees</li> <li>◆ <u>Costs:</u> Transfer of workload as some COTRs become full-time COTRs and others lose all COTR responsibility</li> </ul>	<ul style="list-style-type: none"> <li>◆ The number of COTRs is estimated at approximately 450</li> <li>◆ A large number of COTRs only perform COTR activities for one or two contracts. The removal of this responsibility from part-time COTRs will allow for more time dedicated to primary job functions.</li> <li>◆ The concentration of COTR functions in a more dedicated COTR workforce will allow for more standardized processes, more concentrated training, more control over the contracting process, and a reduction in risk associated with contracts</li> <li>◆ The creation of Admin COTRs to handle the less technical contracts (e.g., contracts for admin resources) will allow specialization among the COTR ranks</li> </ul>

# Contracting and Agency Policy (continued)

## Contracting Strategy and Requirements Planning Recommendations

Recommendation	Details
<p><b>5. Integrate Supply Chain into the Agency Strategy and Corporate Planning processes</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Industry leading practice; Increased spend leverage in marketplace; Prudent business practice</li> <li>◆ <u>Costs:</u> Minimal; Change in Agency culture</li> </ul>	<ul style="list-style-type: none"> <li>◆ Supply Chain should assist in shaping planning and strategy across the Agency, whether it be corporate planning, capital planning, IT strategy and infrastructure planning, F&amp;W Council expenditure decisions, or supplemental labor planning</li> <li>◆ Skill levels in Supply Chain will need to be enhanced</li> </ul>
<p><b>6. Prepare two-year forecasts of major procurements and contracting requirements. Budget requirements for a two-year period. Assign ownership of the process policy development and execution to Program Offices.</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Marketplace leverage</li> <li>◆ <u>Costs:</u> Minimal; At some point an IT enabling tool may be required</li> </ul>	<ul style="list-style-type: none"> <li>◆ This recommendation assures that contracting requirements are identified with sufficient lead time to exercise the Agency's procurement leverage in the market place</li> <li>◆ Collaborative effort between SCM and individual program offices. Forecasts due July 30 with bi-annual updates of needs.</li> <li>◆ Forecasts will drive the Agency's strategic sourcing efforts</li> <li>◆ Standard templates and measures will be developed to assess ongoing process effectiveness and efficiency</li> </ul>
<p><b>7. Clearly define the responsibilities and authority for market and vendor research between Program Offices and SCM. Institutionalize the results in the form of formal "vendor management" policies and business practices</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Processes and labor efficiencies; Market place leverage; Better vendor relations; Career path opportunity in Supply Chain</li> <li>◆ <u>Costs:</u> Minimal; Set up of new function in SCM; Possible staffing additions at a later time</li> </ul>	<ul style="list-style-type: none"> <li>◆ This recommendation assures that an appropriate pool of vendors are identified to support Agency requirements</li> <li>◆ Determine upfront who has what responsibility with respect to market and vendor research. Program Office typically researches technical capabilities while Supply Chain researches supplier capabilities.</li> <li>◆ Market and vendor research to support the procurement of goods and services is a joint effort between the Program Office and SCM</li> </ul>

# Contracting and Agency Policy (continued)

## Contracting Strategy and Requirements Planning Recommendations (continued)

Recommendation	Details
<p><b>8. Institute a process for writing a “statement of work” (SOW) consistent with leading practices, which can lead to more definitive contracts</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Process consistency and efficiency; Fewer contract additions; Avoided costs associated with claims, lawsuits; Promotes contract performance measurement; Better vendor relations</li> <li>◆ <u>Costs:</u> Minimal over the long term; Short term costs for training in SOW development</li> </ul>	<ul style="list-style-type: none"> <li>◆ This recommendation assures that clear and specific statements of work are developed prior to soliciting RFIs/RFPs from the market place and vendor community</li> <li>◆ This recommendation will lead to less change orders and less scope creep. Additionally, more definitive contracts should lead to more Firm Fixed Price (FFP) contracts and less Time and Materials (T&amp;M) contracts.</li> <li>◆ The preparation of statements of work is the responsibility of each Program Office. Supply Chain is responsible for developing preparation guidelines and maintaining a database/library of SOW examples.</li> <li>◆ Additional staffing may be required to support program offices in preparing the statements of work (Skills are not currently present)</li> <li>◆ Metrics will be created to track scope creep, change orders, and contracts that exceed budget</li> </ul>
<p><b>9. Provide a single point of control for the Agency’s contract development and management process by better defining the responsibilities and authorities of the “Contracts Strategy Panel”</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Effective mechanism for assessing procurement risks and mitigating; Clear understanding of contract expectations; Avoided costs for claims, lawsuits (\$1.0 MM to \$3.0MM annually); Marketplace leverage</li> <li>◆ <u>Costs:</u> Senior management time to participate in Panel; Potential for CO dissatisfaction at perceived micro-managing by a “committee”</li> </ul>	<ul style="list-style-type: none"> <li>◆ This recommendation institutionalizes a business process that assures risks, terms, conditions, and performance expectations for critical contracting needs of the Agency are well understood prior to going to the marketplace (pushed forward into the planning stage). In addition, assure that there is an ongoing review of critical or significant contracts during their planned life.</li> <li>◆ The Contract Strategy Panel will consist of selected COs, COTRs, relevant Project Managers, and personnel from Program Office, Supply Chain, HCA, and Legal (both permanent and ad hoc members) as a function of the procurement decision being considered</li> <li>◆ Clear roles and responsibilities of key stakeholders will be developed and institutionalized via the BPI</li> <li>◆ Not all contract requirements will be subject to Panel assessment and review. Criteria for inclusion into a formal review process will need to be developed. The most important consideration is “risk” to the Agency.</li> </ul>

# Contracting and Agency Policy (continued)

## Contracting Strategy and Requirements Planning Recommendations (continued)

Recommendation	Details
<p><b>10. Institute a Policy Change Board</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Assures consistency of policy development and application; Provides mechanism for assessing policy performance</li> <li>◆ <u>Costs:</u> Primarily time of the Board membership to review and approve policy changes</li> </ul>	<ul style="list-style-type: none"> <li>◆ The intent of this recommendation is to implement a review group which is charged with determining which policy change proposals are incorporated into the Bonneville Purchasing Instructions</li> <li>◆ This Policy Change Board will be an instrument to implement changes to supply chain policies from the bottom-up; i.e., policies that are developed within Supply Chain that need assessment / review by parties external to Supply Chain</li> <li>◆ Decision makers such as HCA and Supply Chain Officer will remain empowered to implement many policies</li> <li>◆ Members will include General Counsel, Finance, Supply Chain Policy, and Supply Chain Operations</li> </ul>
<p><b>11. Create a Supply Chain Management module for new manager training and new employee orientation</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Provides a mechanism for assuring consistency of SCM policy and business practices</li> <li>◆ <u>Costs:</u> Time to develop and printing costs</li> </ul>	<ul style="list-style-type: none"> <li>◆ The intent is to produce a “Playbook” that is an abridged version of the BPI, Organization charts; business practices, key procedures and a reference document for the Agency’s SCM business model</li> <li>◆ The “playbook” would also contain a chart that shows the responsible parties for each different type of procurement</li> <li>◆ The “playbook” would be developed and maintained by SCM</li> </ul>
<p><b>12. Develop Agency-wide strategy and policies regarding supplemental labor and supplemental labor contracting (This recommendation will require implementation in the broader context of a BPA Workforce / Human Capital Strategy and/or HR EPIP)</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Assessment of market conditions; selection of desired vendor base; forecast of requirements</li> <li>◆ <u>Costs:</u> Strategic sourcing team (three to five months)</li> </ul>	<ul style="list-style-type: none"> <li>◆ Supply Chain will be responsible for coordinating the development of Agency-wide strategy and accompanying policies concerning supplemental labor (contractor and workforce management). The task would be assigned to a cross functional strategic sourcing team.</li> <li>◆ Supply Chain will be responsible for various aspects of the contracting process for supplemental labor, including the types of contracts, sourcing of contracts, and evaluation of performance relative to contracted requirements</li> </ul>

# Contracting and Agency Policy (continued)

## Pre-Award Processes Recommendations

Recommendation	Details
<p><b>13. Move toward an all electronic RFI/RFP solicitation process</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Labor efficiency gains; Improved response time for solicitations; better vendor relations; consistent with industry practice to pursue electronic procurement options</li> <li>◆ <u>Costs:</u> Unknown at this time. Will be determined as part of the E-commerce strategy</li> </ul>	<ul style="list-style-type: none"> <li>◆ The intent of this recommendation is to improve control and gain economies by utilizing Electronic Records Management System (ERMS) and other electronic means to transmit solicitations to prospective vendors</li> <li>◆ An effort to standardize transmittal media templates such as correspondence, contract documents, specifications, drawings, and the like will be required</li> <li>◆ This recommendation is consistent with the Agency's e-commerce goals and objectives</li> </ul>
<p><b>14. Standardize contract and solicitation development forms</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Improved contract solicitation process; Labor efficiencies due to standardization</li> <li>◆ <u>Costs:</u> Minimal – A CO project team could develop</li> </ul>	<ul style="list-style-type: none"> <li>◆ Updating/consolidating current forms and templates, implementing standardized procedures, and re-enforcing policies and processes will improve existing contract and solicitation development. The goal will be to eliminate, combine, and/or redesign documents currently being used by Contracting Officers (CO).</li> <li>◆ Recommended forms are as follows: contract face page, contract checklists, documentation of award decision, ASIS template (consider new program), personalized CO template letters, e-forms, Attachment-1 instructions to offeror, Attachment-2 representation and certification (eliminate by adopting CCR), Attachment-3 terms and conditions (boilerplate T&amp;Cs by dollar threshold)</li> </ul>
<p><b>15. Raise the non-competitive procurement dollar threshold from \$5,000 to \$25,000</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Shorter procurement timelines; Less "paperwork"; Improved labor productivity</li> <li>◆ <u>Costs:</u> Minimal – But there is a higher potential for abuse with a higher threshold</li> </ul>	<ul style="list-style-type: none"> <li>◆ Currently, a large number of contracts, approximately 1300, primarily Purchase Orders (POs), fall into this category and the risk involved does not warrant the requirement to seek competitive bids. (Would have to assure the maintenance of small business contracts)</li> </ul>

# Contracting and Agency Policy (continued)

## Pre-Award Processes Recommendations (continued)

Recommendation	Details
<p><b>16. Standardize vendor proposal preparation instructions and vendor evaluation criteria, by Program</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Promotes efficiency; Improves vendor relations</li> <li>◆ <u>Costs:</u> Minimal; Primary costs will be in developing the initial templates and maintaining an on-line catalog</li> </ul>	<ul style="list-style-type: none"> <li>◆ This recommendation will provide clarity and consistency through the development and application of standardized procedures, templates and guidelines. As a result preparation time for new proposals is minimized.</li> </ul>
<p><b>17. Mandate review, by Office of General Council (OGC), of all contracts identified as critical and sensitive, as per BPA risk management approach</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Minimize risk of protest, claims, disputes, etc.; Maximize likelihood of legally sustainable contracts</li> <li>◆ <u>Costs:</u> Minimal; Change in Agency culture</li> </ul>	<ul style="list-style-type: none"> <li>◆ As is the case with power and transmission sales contracts, this recommendation mandates a review and sign off of critical and sensitive contracts by OGC</li> </ul>

# Contracting and Agency Policy (continued)

## Pre-Award Processes Recommendations (continued)

Recommendation	Details
<p><b>18. Implement service-level agreements between HCA and OGC in order to formalize the support required for the adjudication of protests through the protest review board</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Minimizes the risk that BPA's protest decisions will be submitted to GAO for further adjudication; Maximizes the likelihood that BPA protest decision are judicially sustainable; Ensures timely and appropriate support</li> <li>◆ <u>Costs:</u> Minimal; Change in Agency culture</li> </ul>	<ul style="list-style-type: none"> <li>◆ This recommendation ensures that BPA is effectively represented by both OGC and Supply Chain Policy in increasingly judicialized protest decisions</li> </ul>

# Contracting and Agency Policy (continued)

## Award Processes Recommendations

Recommendation	Details
<p><b>19. Require COs to develop pre-negotiation objectives through the use of tools or other methods</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Promotes contract development due diligence; Results in better contracts and thus assuring objectives are met; Improved CO skill sets</li> <li>◆ <u>Costs:</u> Minimal; Preparation of templates and algorithms will be required as well as training of the COs; Some additional time may be required for contract preparation and award as the assessments are conducted</li> </ul>	<ul style="list-style-type: none"> <li>◆ This recommendation develops the skills and/or tools of the Contracting Officers (COs) in order to achieve cost savings and mitigate risk in contracting</li> <li>◆ The Bonneville Purchasing Instruction (BPI) briefly covers the process of negotiations but doesn't offer any guidelines or tools to assist COs in preparing for negotiations such as establishing pre-negotiation objectives</li> <li>◆ Require cost analysis be done by cost element breakdown, establishing pre-negotiation objectives for each element. DOD has a worksheet that can be altered and adopted to assist COs with this task.</li> </ul>
<p><b>20. Improve SCM contracting capabilities relative to cost and price analysis</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Ensures Contractor cost elements on T&amp;M and Costs contracts are fully evaluated for reasonableness and allowability prior to award</li> <li>◆ <u>Costs:</u> CO training or hiring cost and price analysts to perform this effort for SCM</li> </ul>	<ul style="list-style-type: none"> <li>◆ The function of the costs analysis would be to examine all cost contracts, examine time and materials (T&amp;M) contracts, analyze F&amp;W overhead increases, and audit labor / timesheets</li> <li>◆ Ideally, this skill/capability would be developed and reside within the CO ranks</li> <li>◆ Depending on budget considerations and cost/price analysis requirements, a specific cost analyst function/role may be required</li> </ul>

# Contracting and Agency Policy (continued)

## Award Processes Recommendations (continued)

Recommendation	Details
<p><b>21. Change review levels for internal contract quality reviews from \$50,000 to \$100,000 (Quick Hit)</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Quicker contract development for low risk contracts</li> <li>◆ <u>Costs:</u> Minimal - A pilot effort would need to be conducted for a reasonable time period in order the assess the appropriate threshold values for the new policy</li> </ul>	<ul style="list-style-type: none"> <li>◆ A Supply Chain Purchasing Operating Procedure (POP) requires that a peer review be conducted for solicitations and contract awards estimated over \$50,000 up to \$500,000 (when a higher level review is required). These review levels are presently higher (\$300,000 to \$1,000,000) for Intergovernmental Contracts (IGCs) and Financial Assistance (FA). It is proposed that the review level be raised above \$50,000 to \$100,000 for peer reviews, any review below this amount would be at the Contracting Officer's (COs) discretion.</li> <li>◆ Raising the mandatory peer review level to \$100,000 would reduce the number of reviews required for relatively low risk actions. The CO would retain the discretion to request a peer review if there were concerns about a particular low dollar action. This would free up COs time to concentrate on more significant actions. Managers may still require peer review for less experienced COs at a lower amount for training and mentoring purposes.</li> <li>◆ A tiered level system would be put in place based on the amount of the contract, experience/reputation of the CO, and other criteria such as contract length or contract risk</li> <li>◆ Initially a selected number of these contracts would be audited to assure the intent of the recommendation is achieved</li> </ul>
<p><b>22. More rigorously enforce ratification policy so that programs or individuals with a pattern of abuse are held accountable for their behavior</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> More rigorous control mechanism</li> <li>◆ <u>Costs:</u> Possible personnel issues if policy is applied</li> </ul>	<ul style="list-style-type: none"> <li>◆ Currently, program offices and program staff who commit unauthorized commitments are not held personally accountable for their actions</li> </ul>

# Contracting and Agency Policy (continued)

## Award Processes Recommendations (continued)

Recommendation	Details
<p><b>23. Utilize electronic signatures on contracts and related documents</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Improved productivity; Fewer manual transactions and thus less chance of errors; better vendor relations</li> <li>◆ <u>Costs:</u> A one time cost of less than \$25,000 for program change</li> </ul>	<ul style="list-style-type: none"> <li>◆ A Bonneville Purchasing Instruction (BPI) revision is required to promulgate policy for electronic signatures on all types of contracts and related award documents. This should apply to both BPA and contractors. (DOD currently uses electronic signatures.)</li> <li>◆ Digital signatures would preferably be available in the BES; possible technology to accomplish this has been identified in the Supply Chain Applications EPIP team report. This would be inexpensive.</li> <li>◆ Electronic signature capability outside of BES in order to sign non-BES award documents such as COTR delegation letters and correspondence to contractors is also recommended, such as using ADOBE digital signature capability as a standard for these types of documents</li> </ul>
<p><b>24. Improve debriefings of unsuccessful offerors in order to further develop supplier capabilities, reduce the number of protests, and mitigate risk</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Improved vendor relations: Better award decision making; Better suppliers; Less risk</li> <li>◆ <u>Costs:</u> Some additional CO time</li> </ul>	<ul style="list-style-type: none"> <li>◆ The Bonneville Purchasing Instructions (BPI) requires that debriefings for unsuccessful offerors be conducted when requested or when deemed appropriate to preserve or enhance the business relationship. The team feels there has been inadequate emphasis on the value of debriefings and guidance on how to properly conduct debriefings.</li> <li>◆ By emphasizing the value of debriefings and providing training to the Contracting Officers (COs) on their purpose and conduct, BPA will improve the quality of its supplier base. This would be accomplished by informing unsuccessful offerors of the strengths and weaknesses of their proposals, enabling them to prepare stronger proposals to better meet our future requirements.</li> </ul>

# Contracting and Agency Policy (continued)

## Post-Award Processes Recommendations

Recommendation	Details
<p><b>25. Implement pre-performance (post-award) conferences for service contracts and enforce their use on other contracts</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Assures compliance with policy; Improved vendor relations; Assures requirements of the contract are well understood by all parties; Potential for minimizing claims</li> <li>◆ <u>Costs:</u> Time commitments could be significant depending on the scope and complexity of the contracts</li> </ul>	<ul style="list-style-type: none"> <li>◆ Currently BPI Appendix 14-A, Section 3.3.1 states that the CO and technical representative <u>should</u> hold a post-award orientation meeting with the contractor. This meeting provides a means for reviewing the contractor's plans for performing the contract, for uncovering misunderstandings about contract requirements, and for resolving and clarifying matters on what the contract requires of the contractor. If a formal post-award orientation conference is not practical, telephone discussions can serve the same.</li> <li>◆ Although this policy is in place it is not routinely enforced across the board which can lead to claims and disputes at a later date. Pre-Construction conferences are common and extremely helpful in minimizing problems in contract performance.</li> <li>◆ As all contract items are critical to the performance of the contract, recommend that the BPI policy be revised to make post award meetings mandatory for urgent, complex and /or high dollar and sensitive procurements</li> <li>◆ For service contracts, pre-performance conferences are rare. Establishing a package for both construction and service contracts and creating policy to mandate these conferences for high risk contracts (and recommended for all high dollar transactions) would benefit the Agency in reduced administration problems (e.g. unauthorized commitments, claims, protests, etc.) and minimized risk.</li> </ul>

# Contracting and Agency Policy (continued)

## Post-Award Processes Recommendations (continued)

Recommendation	Details
<p><b>26. Clarify and define the CO/COTR roles and responsibilities and ingrain into the culture of BPA</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Prudent management; Structures COTR process relative to the Program requirements; Assures contracting process is well defined; Promotes career paths for COs and COTRs</li> <li>◆ <u>Costs:</u> Minimal if using an internal focus group to develop; Periodic compliance audits and training would also be required</li> </ul>	<ul style="list-style-type: none"> <li>◆ Currently, the CO is not always recognized as the only person who is authorized to commit funds and hire contractors, while the role and importance of the COTR is not clearly understood. Often, COTR responsibilities are shifted to the newest staff member, someone in an administrative position, or an employee with performance issues.</li> <li>◆ Develop and publish a matrix of roles and responsibilities for COs and COTRs, highlighting areas of overlap/issue with respect to PM duties</li> <li>◆ Develop super-COTRs – Full-time COTRs who have an advanced understanding of the COTR role and processes and is capable of reviewing the work of other COTRs as well as assisting other COTRs as needed</li> <li>◆ Create an Administrative COTR position to deal with administrative, non-technical contracts</li> <li>◆ Have managers at BPA attend COTR training session and include a lesson on procurement activities / policies in both the New Supervisor Training and Annual Ethics Training</li> </ul>
<p><b>27. Improve contract close-out processes (BES and hard copies)</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Prudent management; Assures compliance with BPI; Improved vendor relations; Reduces potential for contractor over billing</li> <li>◆ <u>Costs:</u> Minimal – Periodic audits will be required; May result in personnel discipline issues when enforced</li> </ul>	<ul style="list-style-type: none"> <li>◆ Contracts are administered in the BES and hard copy files until their expiration date. The BPI currently recommends that closeout begin 3 months after expiration and be completed within 12 months. When contracts are in an issued status, but not yet closed, the contractor can still invoice and receive payments, the COTR can become confused on which contract to use, and reporting on BPA contracting actions is skewed. COs have historically viewed this activity as a low priority. BES currently automatically closes any contract where all funds are expended and the expiration date has passed. However, most service contracts do not expend all funds and therefore do not automatically close.</li> <li>◆ Enforce policy for COs to take an initial action within 3 months of expiration of any contract – documenting in BES the status of the above actions. Include such a requirement in the performance appraisal of the CO and require 100% of completed contracts be closed within 12 months (or noted)</li> </ul>

# Contracting and Agency Policy (continued)

## Post-Award Processes Recommendations (continued)

Recommendation	Details
<p><b>28. Develop and institute a formal process, using the BES system, to conduct and document a post-award vendor performance evaluation for “critical procurements”</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Prudent management; Improves contracting process by institutionalizing “lessons learned” feedback mechanism; Supports continuous improvement of contracting</li> <li>◆ <u>Costs:</u> Minimal – The primary cost is time spent conducting the evaluation and the communication of the lessons learned to the appropriate parties</li> </ul>	<ul style="list-style-type: none"> <li>◆ The intent of this recommendation is to evaluate the performance of the contractor, perform a value analysis of the contract, and generate lessons learned from the contracting process</li> <li>◆ The CO should lead a well-structured “Lessons Learned Panel”</li> <li>◆ This process should include a contractor evaluation of BPA processes</li> </ul>

# Contracting and Agency Policy (continued)

## Property Management Recommendations

Recommendation	Details
<p><b>29. Standardize and enforce personal property tracking</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Compliance with Circular A-123; Prudent management</li> <li>◆ <u>Costs:</u> Initial cost would be to assess the degree of non-compliance. Internal resources can perform this assessment. A significant cost could be incurred depending on the solution developed.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Personal property is defined as non-real property and not attached to real property over \$1000 purchase price and all IT purchases (includes art, test equipment, and tools, but does not include furniture).</li> <li>◆ Currently BPA organizations are using multiple, non-Agency approved applications (spreadsheets) to track the life cycle of Agency personal property.</li> <li>◆ The recommendation is to begin with the Dittmer and Munro Control Centers to work towards transitioning them to the BES Sunflower system to track personal property.</li> <li>◆ Training, overcoming resistance to change, and retagging will all need to be addressed</li> </ul>
<p><b>30. Develop and enforce a policy which requires individuals with a pattern for losing government personal property to pay for all or a portion of the costs of that lost property</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> More rigorous control mechanism; Will result in some costs avoidances</li> <li>◆ <u>Costs:</u> Possible personnel issues if policy is applied</li> </ul>	<ul style="list-style-type: none"> <li>◆ The intent of the recommendation is to assign consequences to the loss of government property, either a monetary consequence or documentation in the employees file (the government can forgive, but the loss would still be documented).</li> </ul>

# Inventory and Stocking Policies

## Future State Definition Focus Areas

### Inventory and Stocking Policies

- ◆ Development of strategy to develop, implement, and enforce stocking policies
- ◆ Optimization of inventory
- ◆ Creation of an Inventory Policy Manual, including Agency-wide definitions of all relevant terms; i.e., spare parts, emergency materials, etc.
- ◆ Expansion of definition of “inventory” to include more of the materials available
- ◆ Identification of materials for vendor-managed inventory, free bin, consignment, eMall, etc
- ◆ Creation of a “One BPA” inventory that is owned by Supply Chain

SCM EPIP Inventory and Stocking Policies Sub-Team	
Trudy Linson <sup>1</sup>	TLOS – Supply Chain Sourcing Services
Dennis Benson	TLOT – Warehouse & Transportation Services
Doug Browning	KFRM – Managerial Accounting
Kyle Doan	TLOS – Supply Chain Sourcing Services
David Gens	AFGE Rep – American Federation of Government Employees
Randy Gibson	TNCD – TBL – System Protection & Control
Kathy Gish	TLOT – Warehouse & Transportation Services
George Green	TNFC – TBL – Structural Engineering
Dan Krauss	TFO – TBL Field Services (Deputy Reg Mgr)
Melissa McMullen	TLP – Supply Chain Business Management
Robb Pierson	CK – Supply Chain Policy and Governance
John Pospisil	TNSB – TBL – Substation Design
Tom Rhew	TLP – Supply Chain Business Management
David Smith	CIBER Contractor – Administrative Support
Tim Thompson	TLOT – Warehouse & Transportation Services
Lana Winn	TNTC – TBL – Telecommunications (PSC)

# Inventory and Stocking Policies (continued)

## Inventory and Stocking Policy Recommendations

Recommendation	Details
<p><b>1. Review and update all inventory policies and create an Inventory Playbook / Policy Manual</b></p> <ul style="list-style-type: none"> <li>◆ <b>Benefits:</b> Assure consistency in the application of inventory management policy across the enterprise; Supports compliance with Circular A-123; Improves inventory management processes efficiency and productivity</li> <li>◆ <b>Costs:</b> Minimal; Playbook can be developed with current Supply Services resources</li> </ul>	<ul style="list-style-type: none"> <li>◆ Create the Inventory Playbook / Policy Manual, to include an objective statement, definition of different inventory and stock types and other important terms, and guidelines/procedures on cataloging, ordering/purchasing, delivery/receipt, storage, inventory tracking and management, transportation, returns/excess, and salvage/untracked inventory for each category of commodities. In addition, the manual will address inventory management methods such as free bin, vendor-managed inventory (VMI) and inventory-by-consignment.</li> <li>◆ An Inventory Policy Manual will improve consistency on methods used to manage inventories for each type of commodity. To remain current, the manual will require periodic maintenance (annual review), from Supply Chain with guidance from the HCA Office and affected organizations.</li> <li>◆ Develop understanding of all materials available, not just those materials falling under the accounting classification of “inventory”</li> </ul>
<p><b>2. Optimize inventory through development and implementation of system-wide inventory stocking and cataloging policies</b></p> <ul style="list-style-type: none"> <li>◆ <b>Benefits:</b> Reduction in inventory investment and number of line items over time; Assures materials spend is more consistent with construction and maintenance programs; One time cost avoidance of a minimum of \$21.5 MM (25% of \$86.4 MM) over the next 3 to 5 years by working down current excess above maximum and adjusting selected maximum values</li> <li>◆ <b>Costs:</b> \$40,000 to \$50,000 to purchase inventory optimization tool (software); Time commitment by SCM to conduct analyses, adjust stocking policies, and execute the work down strategy</li> </ul>	<ul style="list-style-type: none"> <li>◆ Existing inventory investment is \$86.4 MM.</li> <li>◆ This will be a collaborative effort between Supply Chain and other organizations (TN, TF, etc.) in setting appropriate system-wide minimum/maximum inventory values and inventory locations.</li> <li>◆ Different stocking parameters will be set and enforced for different item types and different line items</li> <li>◆ Catalog ID numbers will not be required for all items, including tools and consumables</li> <li>◆ Develop policy/process for early Supply Chain involvement in project planning</li> <li>◆ Establish policies for vendor-managed, free bin, and consigned inventories</li> <li>◆ Redesign inventory metrics to balance inventory value view (\$) versus views of number of line items and number of units</li> <li>◆ Address financial/accounting policies associated with decreasing inventory by more than \$1 million a year through excessing unneeded materials</li> </ul>

# Inventory and Stocking Policies (continued)

## Inventory and Stocking Policy Recommendations (continued)

Recommendation	Details
<p><b>3. Reinforce emergency material policies and processes</b></p> <ul style="list-style-type: none"> <li>◆ <b>Benefits:</b> Will assure that adequate investment in emergency materials are maintained and consistent with an acceptable level of risk</li> <li>◆ <b>Costs:</b> Minimal – This effort would be part of normal operations</li> </ul>	<ul style="list-style-type: none"> <li>◆ Develop and implement an inventory rotation policy for emergency materials</li> <li>◆ Ensure biannual reviews of emergency materials</li> <li>◆ Investigate the use of Mutual Emergency Materials Support (MEMS) to augment non-BPA specific emergency material supply</li> <li>◆ Optimize emergency material storage across BPA</li> <li>◆ Ensure appropriate capitalized costing of emergency materials. Separating emergency stocks is an acceptable practice and should be maintained</li> </ul>
<p><b>4. Optimize spare parts inventory processes</b></p> <ul style="list-style-type: none"> <li>◆ <b>Benefits:</b> Will assure that minimal investment in spare materials are maintained and consistent with an acceptable level of risk; Current levels can be reduced by at least \$4.0 MM (one-time)</li> <li>◆ <b>Costs:</b> Minimal – This effort would be part of normal operations. SCM may choose to assign dedicated personnel initially as part of a project team to identify large savings candidates.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Ensure Supply Chain Emergency Response Procedures are appropriate</li> <li>◆ Develop a pricing policy for returning used spare parts to inventory</li> <li>◆ Develop a methodology for continuously reviewing/adjusting the average unit price of items currently in inventory</li> <li>◆ Improve storage for PSC and SPC parts               <ul style="list-style-type: none"> <li>— Perform a cost/benefit analysis of combining the storage of SPC and PSC parts inventories</li> <li>— Explore using other available storage facilities for storing electronic equipment (primarily Type C – SPC materials)</li> </ul> </li> <li>◆ Review all spare parts inventory (specifically looking for obsolescence, deteriorated, and/or excess inventory)</li> <li>◆ Develop spare parts inventory management knowledge in Supply Chain (not specific technical spare parts knowledge). This knowledge will be developed in collaboration with the Equipment Specialists in Technical Services.</li> </ul>

# Inventory and Stocking Policies (continued)

## Inventory and Stocking Policy Recommendations (continued)

Recommendation	Details
<p><b>5. Develop an efficient and cost effective process for tracking/managing IT equipment and parts from requisition through disposal</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Improved control over IT procurement process; Better accountability of IT assets; Improved and more efficient procure to pay process</li> <li>◆ <u>Costs:</u> Minimal</li> </ul>	<ul style="list-style-type: none"> <li>◆ Establish master contracts through Perfect Commerce for the majority of IT equipment and accessories. Explore the cost and benefits to connect directly to suppliers web sites.</li> <li>◆ Establish a minimal “emergency” stock that is visible through BES</li> <li>◆ Change IT procurement processes to match standard supply chain processes for tracking and managing equipment (Though Supply Chain Services performs all of the actual purchasing, IT still performs some of the Supply Chain functions such as vendor analysis, vendor selection, etc.)</li> </ul>
<p><b>6. Develop and implement ordering and purchasing policies and processes that more efficiently support the Agency’s administrative, construction, and maintenance efforts</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Assures consistency in the application of prudent business processes; Consistent with intent of Circular A-123; Significantly reduces manual requisitioning and procurement transactions: makes all inventory more visible to all potential users</li> <li>◆ <u>Costs:</u> eMall costs could be significant</li> </ul>	<ul style="list-style-type: none"> <li>◆ Develop unit of issue/unit of purchase policies for acquisition of inventory</li> <li>◆ Develop general policies around minimum order quantity for materials and equipment used by BPA organizations</li> <li>◆ Reevaluate current P-card policies in the acquisition of materials and equipment in light of other Supply Chain recommendations</li> <li>◆ Develop and implement the use of virtual warehousing and eMall</li> <li>◆ Increase the use of direct ship of supplies used by field locations</li> </ul>

# Inventory and Stocking Policies (continued)

## Inventory and Stocking Policy Recommendations (continued)

Recommendation	Details
<p><b>7. Improve the receiving processes, including Ross receiving, field receiving, and receiving inspection</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Assures more cost effective procurement process for BPA specific items</li> <li>◆ <u>Costs:</u> Training costs estimated at \$50,000</li> </ul>	<ul style="list-style-type: none"> <li>◆ Develop a standard and consistent policy for Q-level items based on value and risk to the agency. Develop and implement a decision tree by category, name, and type, for all Cat IDs present and future.</li> <li>◆ Design and implement processes and procedures for field receiving and monitoring incoming shipments to the field, including advance notification</li> <li>◆ Develop and implement a process for requesting, purchasing, and receiving items as a “lot”</li> <li>◆ Investigate distribution of receiving inspection authority in BES and develop/implement training (as appropriate) for those personnel</li> </ul>
<p><b>8. Improve warehousing efficiencies in order to improve inventory accuracy and keep operating costs down</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Brings the warehousing operation in line with planned policy and processes improvements; Assures staffing is based on proven work management techniques and principles; Right sized staffing based on work load</li> <li>◆ <u>Costs:</u> Minimal</li> </ul>	<ul style="list-style-type: none"> <li>◆ Evaluate current staffing strategies. Identify core Electrical Utility Material Handler work and develop (train and cross train) staff in those areas.</li> <li>◆ Develop and staff a customer service center</li> <li>◆ Develop a cross functional policy for field inventory management and position material handler staff (normal inventory and emergency materials) to meet requirements (cycle counts, storage maintenance, MRs, and facility transfers)</li> <li>◆ Study the need for additional covered storage (could include 40’ Sea-Vans)</li> <li>◆ Develop and implement a Stock Rotation Plan</li> <li>◆ Develop/implement plan for e-commerce shipments to the field for commercial items</li> <li>◆ Evaluate the equipment maintenance program / cyclic maintenance schedule</li> </ul>

# Inventory and Stocking Policies (continued)

## Inventory and Stocking Policy Recommendations (continued)

Recommendation	Details
<p><b>9. Conduct a pilot program to assess the merits of expanding the current bar coding technologies or pursuing RFID technology for tracking and accounting for critical materials within both Ross and the Field</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Assures better management and accountability of Ross and field inventories; Data integrity; Improved SCM and Field Personnel productivity</li> <li>◆ <u>Costs:</u> Maximum out of pocket costs are expected to be less than \$250,000 to \$750,000</li> </ul>	<ul style="list-style-type: none"> <li>◆ Will require investigating the possibility of procuring “proof of concept” seed monies from INTEL. They have a program for funding these types of projects.</li> <li>◆ Evaluate current bar coding system and/or RFID technologies to add access points, update hardware where appropriate, and evaluate use of wireless laptops. Applications considered should also include other asset management opportunities including IT hardware management.</li> <li>◆ Identify process and training requirements to integrate use of the technology into movement of material from Ross to the field, trans-shipments within the BPA system, and field receipt inventory management</li> <li>◆ Incorporate the bar coding or RFID tracking system to monitor incoming materials and equipment from field locations to Ross to ensure that material for returns and scrap are being tracked by the tracking system so that they can be processed according to BPA policy</li> <li>◆ If the technology proves to be cost effective a detailed deployment plan and business case would be the next step</li> </ul>
<p><b>10. Refine the returns to inventory processes for excess materials (material left over or over ordered for projects) and ensure the optimal return on investment for on-hand inventories (overstock, zero use inventories)</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Supports Circular A-123; Assures better accountability of returned materials; Provides a mechanism to measure planning performance</li> <li>◆ <u>Costs:</u> Primary cost is in training appropriate personnel in the policy and procedure</li> </ul>	<ul style="list-style-type: none"> <li>◆ Review and finalize inventory operating procedures regarding returns to stock, completed BPA capital project material, BPA project cancellations, BPA project holds, and BPA reimbursable projects</li> <li>◆ Analyze, develop, and implement additional inventory operating procedures/business rules regarding returns/excess inventory</li> <li>◆ Implement solid communication links between Investment Recovery (IRC), Inventory Management, Ross Warehouse, Field Personnel, and Design Engineering (including TN Equipment Specialists)</li> <li>◆ Increase skill level in IRC – Investigate additional training versus assignment of additional resources to Supply Chain and IRC.</li> <li>◆ Update/implement current processes/policies regarding material donations, scrap, and sales of all inventory types returned to IRC</li> </ul>

# Inventory and Stocking Policies (continued)

## Inventory and Stocking Policy Recommendations (continued)

Recommendation	Details
<p><b>11. Develop training requirements and establish and implement training curriculum to standardize inventory policy compliance</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Assures consistent application of inventory management policies; Provides a measurement of process performance</li> <li>◆ <u>Costs:</u> Minimal – Part of overall BES training requirements recommended later in the report</li> </ul>	<ul style="list-style-type: none"> <li>◆ Develop and implement training requirements for BES inventory processes to increase knowledge of both field and Ross/HQ personnel</li> <li>◆ Develop a high-level training program of knowledgeable “Super Users” in each workgroup</li> <li>◆ Develop processes to quickly identify when work-arounds and alternative procedures are created and minimize the use of these processes</li> <li>◆ Develop an audit/compliance review plan to determine process compliance</li> </ul>
<p><b>12. Change existing policies so Supply Chain will manage all inventory across BPA, no matter the location or item type</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Assures consistent application of inventory management policies; Creates a single point of responsibility for inventory across the Agency; Creates the environment required to optimize the inventory across the Agency</li> <li>◆ <u>Costs:</u> Minimal hard costs; Culture and organizational issues could be significant</li> </ul>	<ul style="list-style-type: none"> <li>◆ Currently, Supply Chain is responsible for only the General Construction (Type A) material in the Ross warehouse, approximately \$29 million of \$86 million in existing inventory (34%)</li> <li>◆ Supply Chain does not own or manage Field inventory, EMS inventory, or Spare Parts inventory (66% of total tracked inventory), though Supply Chain is often held accountable for the entire \$86 million in existing inventory</li> <li>◆ Ownership and management of the inventory does not have to affect current inventory storage or access, nor will it diminish the requirement to have significant input from Technical Services and the Field in setting inventory/line item minimums and maximums</li> <li>◆ Ownership and management (including responsibility for performance) of all inventory will give Supply Chain the responsibility and accountability to maintain an optimal, system-wide inventory, as well as the authority to question inventory that appears excessive relative to procurement lead times, usage, and existing system infrastructure</li> <li>◆ A single point of management will add a level of discipline to Agency inventory policies, processes, and management. Additionally, this single point of responsibility will provide Agency management a single point of contact regarding all inventory issues</li> </ul>

# Inventory and Stocking Policies (continued)

## Inventory and Stocking Policy Recommendations (continued)

Recommendation	Details
<p><b>13. Develop understanding of all available materials, regardless of classification as “inventory,” and how they affect inventory levels</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Provides Supply Chain with an overall picture of available materials in order to accurately set inventory stocking policies</li> <li>◆ <u>Costs:</u> Minimal</li> </ul>	<ul style="list-style-type: none"> <li>◆ The intent of this recommendation is for Supply Chain to develop an understanding of all the materials available for the BPA system, including system spares, direct orders for projects not yet started, capitalized spare parts, etc. (Have begun creating definitions of inventory)</li> <li>◆ As an initial step, it is recommended that Supply Chain generate a list of these materials and their owners</li> <li>◆ Long-term, Supply Chain will need to determine the tracking method, if any, that is best for BPA, whether it be a single system with all materials available or an inventory system for inventory and various other tracking methods for “non-inventory” materials, including no tracking at all for such materials as truck stock</li> </ul>

# Outsourcing Potential

## Future State Definition Focus Areas

### Outsourcing Potential

- ◆ Preliminary analysis of the potential to outsource the warehousing and/or warehouse handling functions
- ◆ Preliminary analysis of the potential to outsource the Investment Recovery (IRC) and Hazardous Material (Hazmat) functions (or combine the two)

SCM EPIP Outsourcing Potential Sub-Team	
Scott Hampton <sup>1</sup>	KFS – Financial Analysis and Requirements
Marty Affett	TLP – Supply Chain Business Management
Erik Benner	TLOT – Warehouse & Transportation Services
Judy Chipman	TLP – Supply Chain Business Management
Betty Finney	TFH – Transmission Field Services – Construction & Maintenance Services
Jim Mattix	TLO – Supply Chain Operations
Johnny McGhee	TFH – Transmission Field Services – Construction & Maintenance Services
Trudy Pohl	TLOT – Warehouse & Transportation Services
John Quinata	TOE – TBL Scheduling and Estimating

<sup>1</sup>Sub-Team Leader

# Outsourcing Potential (continued)

## Outsourcing Recommendations

Recommendation	Details
<p><b>1. Initiate a more comprehensive business case study for combining HazMat and Investment Recovery Center (IRC)</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Potential benefits of the combination would include annual labor savings of over \$500,000 per year, better utilization of resources in unloading of trucks, cross training HazMat and IRC staff, and better use of existing facilities</li> <li>◆ <u>Costs:</u> External consultant for assessment at \$100,000. Primary costs include an estimated one-time \$1.0 MM modification to the HazMat building/area for other uses.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Hire a consultant conduct a comprehensive assessment of the feasibility of combining the two functions</li> <li>◆ Any changes to the existing HazMat building/operation must assure that BPA retains its Class B Hazardous Materials Permit</li> <li>◆ There are other uses for the presumed vacant IRC location</li> </ul>
<p><b>2. Conduct study of outsourcing of the material handling function after inventory-affecting recommendations from the PDB EPIP, O&amp;M EPIP, Supply Chain EPIP, and Standards Group are in place</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Outsourcing the material handling function could save approximately \$400,000 a year in labor costs based on current staffing and benchmark labor costs</li> <li>◆ <u>Costs:</u> Minimal – Could be included in EPIP implementation</li> </ul>	<ul style="list-style-type: none"> <li>◆ It is difficult to assess the true benefits of outsourcing the material handling function until a stable inventory and staffing level is reached, which will not occur until standardization, eMalls, vendor-managed inventories, and other inventory and warehouse recommendations have been implemented</li> <li>◆ Possibility of some minor cost reductions by renegotiating or re-competing the contract for the current supplemental labor material handlers. Originally thought to fill short-term needs, these contractors charge BPA an hourly rate of \$53.91 straight time. (Quick Hit)</li> </ul>

# Strategic Sourcing

## Future State Definition Focus Areas

### Strategic Sourcing

- ◆ Implement strategic sourcing pilot program and, if successful, institutionalize the process
- ◆ Transfer the management of IT requirements to Supply Chain (TL)
- ◆ Assess risk management strategies including hedging strategies

SCM EPIP Strategic Sourcing Sub-Team	
Judy Chipman <sup>1</sup>	TLP – Supply Chain Business Management
Trudy Linson <sup>1</sup>	TLOS – Supply Chain Sourcing Services
Joyce McGee	TLOS – Supply Chain Sourcing Services
Kristy Norton	TLOS – Supply Chain Sourcing Services
Jose Rojas	TLOS – Supply Chain Sourcing Services

<sup>1</sup>Sub-Team Co-Leaders

# Strategic Sourcing (continued)

## Strategic Sourcing Recommendations

Recommendation	Details
<p><b>1. Begin implementation of the strategic sourcing pilot programs (Note: The SCM EPIP team endorsed the Strategic Sourcing initiative that began prior to the EPIP)</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Has the potential to save upwards of 7% to 14% on materials and services expenditures over a five year period based on experiences of other utilities; Reduce the number of vendors; Better stocking policies; Creates strategic alliances that lead to cost reductions and better service</li> <li>◆ <u>Costs:</u> The pilot proof of concept cost is &lt; \$200,000. Some costs to implement the remaining strategic sourcing opportunities may be necessary.</li> </ul> <p>(Note: The Strategic Sourcing initiative is being guided by the work performed by Denali Consulting)</p>	<ul style="list-style-type: none"> <li>◆ This effort was approved by the BOB as part of the Supply Chain Efficiency Study, April 2002</li> <li>◆ Two pilot efforts are underway addressing: Line Construction Services and MRO (Maintenance, Repair, and Operations) materials. Savings estimates are projected at 12% and 6% respectively</li> <li>◆ Both pilots are expected to be completed by June 2006</li> <li>◆ Current efforts will also focus on assuring the sourcing model process is well defined, tested and requirements to institutionalize it are documented</li> <li>◆ Strategic alliances with vendors could also lead to a reduction in the amount of testing inspections that need to be done when purchasing materials from hundreds of vendors</li> <li>◆ Strategic sourcing should allow the shifting of some part of purchasing risk from BPA to the vendors, including the use of buy-back provisions</li> </ul>

# E-Commerce Strategy

## Future State Definition Focus Areas

### E-Commerce Strategy

- ◆ Develop an long term e-commerce strategy for BPA with particular emphasis on web-based procurement applications
- ◆ Assess applicability of Perfect Commerce to support BPA's long term e-commerce strategy
- ◆ Continue to assess e-commerce applications

SCM EPIP E-Commerce Strategy Sub-Team	
Judy Chipman <sup>1</sup>	TLP – Supply Chain Business Management
Greg Dondlinger	KEWB – F&W Business Operations Support
Kim Millard	TLOS – Supply Chain Sourcing Services
Tina Polizos	JM – IT Program Management
Vasia Polizos	TLOS – Supply Chain Sourcing Services
Dave Pugh	JSDD – IT – Asset Mgmt Applications Support
Marian Waggener	JSDD – IT – Asset Mgmt Applications Support
Mark Willner	JB – IT – Cyber Security

<sup>1</sup>Sub-Team Leader

# E-Commerce Strategy (continued)

## E-Commerce Recommendations

Recommendation	Details
<p><b>1. Continue association with Perfect Commerce at this time. The Indus Buy Demand module in BES is connected with the Perfect Commerce marketsite. If a change is made in suppliers, many connectivity issues need to be considered. Because the e-Commerce platform must be connected to BPA's ERP system, those needs must be considered.</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> The current relationship has proven to be beneficial to the Agency</li> <li>◆ <u>Costs:</u> N/A</li> </ul>	<ul style="list-style-type: none"> <li>◆ Perfect Commerce provides market place access for BPA. It is a reputable provider of procurement services to the utility industry. There is a cost involved in moving our application to a different supplier. Those costs are based on the mapping of the application to Perfect Commerce. By focusing on one service provider, BPA has minimized mapping time and financial impact of use of multiple suppliers.</li> <li>◆ A negotiated one year contract was awarded in October 2005 based on the Business Case findings and direction. The present contract is much lower cost but also reduced level of support and service from our initial contract with Pantellos. Reverse auctions are no longer included in our monthly fees and are paid on an individual basis.</li> <li>◆ The contract will be re-competed later this year. The CO will complete market research to determine other suppliers. The team recommends that we consider both the financial impact of remapping our connectivity and the possible advantage of using a different marketplace provider.</li> <li>◆ Currently the Agency has 35 major contracts on the market site. Approximately 35% of all procurement transactions are performed electronically. The Supply Chain goal for electronic transactions is 50% by the end of FY06.</li> </ul>
<p><b>2. Continue testing the application of the e-commerce business tools via pilot programs in the regions or the business lines</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Improved and more cost effective procurement mechanism; Reduced on hand inventory; Better internal requisitioning for select items</li> <li>◆ <u>Costs:</u> The primary costs incurred are for those BPA personnel involved in the pilot efforts</li> </ul>	<ul style="list-style-type: none"> <li>◆ One pilot project (reverse auctions) has been completed. A lessons learned assessment has also been completed to address issues in the first pilot.</li> <li>◆ A second pilot effort (reverse auction) is scheduled for the second week of March to purchase a minimum of 3 and a maximum of 10 500 KV transformers for upcoming wind projects</li> <li>◆ The inventory optimization program will remove commercial items out of the warehouse. Some of these items will be available on e-commerce marketsite and can be shipped directly to the requestor.</li> <li>◆ The office supplies contract will be placed on the e-commerce marketsite to allow for clients to order supplies and receive them at their desks. An audit process will be in place to monitor supply orders.</li> </ul>

# E-Commerce Strategy (continued)

## E-Commerce Recommendations (continued)

Recommendation	Details
<p><b>3. Proceed with the development of the Agency's E-Commerce strategy assuring current objectives are consistent with planned EPIP changes</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Assures compliance with E-Government</li> <li>◆ <u>Costs:</u> Minimal – This is an ongoing effort</li> </ul>	<ul style="list-style-type: none"> <li>◆ The E-Commerce strategy that is in place should be amended to take into account recommendations for increased use of eMall or vendor-managed inventories</li> </ul>
<p><b>4. Create a vendor portal for BPA</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Supports e-commerce strategy; improves internal efficiencies through manual transactions processing reductions; Better data integrity; Improved vendor relations</li> <li>◆ <u>Costs:</u> Initial capital investment is estimated to be in the \$200 to \$250 K range</li> </ul>	<ul style="list-style-type: none"> <li>◆ A vendor portal allows for interaction with outside entities, whether suppliers, other agencies, business partners, etc. The portal will allow Interactive on-line solicitation posting, on-line proposal preparation and submittal, on-line evaluation, and award of offers.</li> <li>◆ Many companies are accustomed to using vendor portals to post invoices, track payments, communicate with suppliers, etc.</li> <li>◆ Security may be an issue</li> </ul>

# Technology Applications

## Future State Definition Focus Areas

### Technology Applications

- ◆ Assess BES capability to support SCM future state, particularly with respect to e-commerce, data management, data gathering tools (e.g. Bar code, RFID, etc).
- ◆ Assess the applicability of PassPort's contract functionality to support contracting future state model.

SCM EPIP Technology Applications Sub-Team	
Tina Polizos <sup>1</sup>	JM – IT Program Management
Kathy Baker	JSD – IT – Asset Management Applications
Jay Coleman	JM – IT Program Management
Mike Connors	TLOU – Supply Chain Asset Utilization
Greg Dondlinger	KEWB – F&W Business Operations Support
Ed Doyle	JSD – IT – Asset Management Applications
Carol Edwards	TLOS – Supply Chain Sourcing Services
Trudy Linson	TLOS – Supply Chain Sourcing Services
Jackie Long	TLP – Supply Chain Business Management
Kim Millard	TLOS – Supply Chain Sourcing Services
Vasia Polizos	TLOS – Supply Chain Sourcing Services
Ron Roth	TLP – Supply Chain Business Management

<sup>1</sup>Sub-Team Leader

# Technology Applications (continued)

## Technology Applications Recommendations

Recommendation	Details
<p><b>1. Develop an Agency wide training program on BES to support SCM</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Assures consistency in procurement and inventory management across the Agency; Improved labor productivity; Better decisions by having better data; Data integrity</li> <li>◆ <u>Costs:</u> \$500,000 to \$750,000 for an external resources to identify and develop the training requirements and conduct the initial training; Approximately 3 FTE (\$300,000) for on-going support and training</li> </ul>	<ul style="list-style-type: none"> <li>◆ There is no formal training program in place. Users of the system are left to their own devices.</li> <li>◆ Numerous “work arounds” are used in lieu of the system resulting in under utilization of BES and suspected significant loss of productivity</li> <li>◆ Step-by-step instructions exist, but they are not kept up-to-date</li> <li>◆ This effort is focused only on those supply chain related business activities and excludes the needs of other users of the system not specifically performing supply transactions and data entry</li> </ul>
<p><b>2. Create “digital signature” functionality in BES</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Provides for a more efficient business process</li> <li>◆ <u>Costs:</u> Approximately \$25,000 to \$50,000 to upgrade BES for the functionality</li> </ul>	<ul style="list-style-type: none"> <li>◆ A manual process is required by CO’s to print and sign contracts resulting in loss productivity</li> <li>◆ Supports the proposed “paperless procure to pay” proposed SCM improvement initiative</li> <li>◆ Minimal costs to implement; Policy revision will be required</li> </ul>

# Technology Applications (continued)

## Technology Applications Recommendations

Recommendation	Details
<p><b>3. Electronically “date stamp” invoices</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Improved A/P productivity; Supports compliance with the Prompt Payment Act</li> <li>◆ <u>Costs:</u> Minimal – Some vendors may not have capabilities to submit electronic invoices</li> </ul>	<ul style="list-style-type: none"> <li>◆ Would require vendors to submit electronic invoices</li> <li>◆ A manual “work around” exists now to down load invoices, add a date and then scan back into the BES. Productivity savings are expected to result.</li> <li>◆ May require change in BPI to permit</li> <li>◆ This recommendation should be considered by the proposed Finance EPIP</li> </ul>
<p><b>4. Upgrade “data warehousing” capability to support SCM business activities by creating a Supply Chain data mart</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Data integrity and as a result better decision making</li> <li>◆ <u>Costs:</u> Estimated cost is \$1 to \$3 MM</li> </ul>	<ul style="list-style-type: none"> <li>◆ Multiple data bases contain SCM activity and performance information resulting in data inconsistency and communication issues</li> </ul>

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# **SCM EPIP Future State Definition**

Supply Chain Organization, Governance  
Models, and Performance Metrics  
Recommendations

# Supply Chain Organization, Governance Models, and Performance Metrics

## Future State Definition Focus Areas

### Supply Chain Organization, Governance Models, and Performance Metrics

- ◆ Develop an Agency wide business model for supply chain management
- ◆ Identify the appropriate scalar organization structure for the lead SCM organization(s)
- ◆ Assess the appropriateness of the current internal structure of Supply Chain Services
- ◆ Conduct a skills gap analysis for key SCM functionalities and work activities
- ◆ Identify Tier 1 Agency wide SCM performance measures

SCM EPIP Supply Chain Organization, Governance Models, and Performance Metrics Sub-Team	
John Quinata	TOE – Scheduling and Estimating
Judy Chipman	TLP – Supply Chain Business Management
Nadine Coseo	KFW – Capital and Risk Management
Greg Dondlinger	KEWB – Business Operations Support
David Gens	AFGE Rep – American Federation of Government Employees
Scott Hampton	KFS – Financial Analysis and Requirements
Mike Johns	TNP – Project Management
Damian Kelly	CK – Supply Chain Policy and Governance
Trudy Linson	TLOS – Supply Chain Sourcing Services
Jaci Margeson	LC – Corporate/Fish and Wildlife (Attorney)
Ingrid Mosey	DKC – Communications
Tina Polizos	JM – IT Program Management
Ann Marie Sherman	DN – Internal Audit
David Smith	CIBER Contractor – Administrative Support

# Supply Chain Organization, Governance Models, and Performance Metrics (continued)

## Future State Definition Focus Areas

### Supply Chain Organization, Governance Models, and Performance Metrics (Internal TL Organization and Skills)

- ◆ Assess the internal structure of Supply Chain Services
- ◆ Determine the functions that the future-state Supply Chain organization must perform
- ◆ Determine the split of functions between the Supply Chain Services (TL) and Supply Chain Policy and Governance (CK) organizations
- ◆ Perform a skills gap analysis

Internal TL Organization and Skills Assessment Focus Group	
John Quinata <sup>1</sup>	TOE – Scheduling and Estimating
Annette Barnes	TLOS – Supply Chain Sourcing Services
Judy Chipman	TLP – Supply Chain Business Management
Greg Eisenach	TLP – Supply Chain Business Management
Nancy Faber	CK – Supply Chain Policy and Governance
Kathy Gish	TLOT – Warehouse & Transportation Services
Hamid Habibi	TLOS – Supply Chain Sourcing Services
Theresa Harty	TLOS – Supply Chain Sourcing Services
Trudy Linson	TLOS – Supply Chain Sourcing Services
Melissa McMullen	TLP – Supply Chain Business Management
Robb Pierson	CK – Supply Chain Policy and Governance
David Smith	CIBER Contractor – Administrative Support
Harold Spraggins	TLP – Supply Chain Business Management
Kristi Van Leuven	TLP – Supply Chain Business Management

<sup>1</sup>Sub-Team Leader

# Supply Chain Organization, Governance Models, and Performance Metrics

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Important notes on the rationale for recommendations that follow in this section:

1. The recommendations that follow advocate a radical change in “BPA” culture with respect to the responsibility and authority of Supply Chain Services. More authority and responsibilities are assigned. As such there may be some concern in other Lines of Business of the Supply Services ability to provide value added services. Up until now Supply Services role was primarily to execute procurement decisions of other organizations.
2. What else will be different?
  - a. SCM will coordinate development of long term Agency procurement plans and sourcing strategies will be driven by these plans
  - b. Stocking policies development will be a collaborative effort between SCM and client organizations. SCM will define the methods for calculating requirements
  - c. COs will be embedded in client organizations, as appropriate, but will remain aligned with Supply Chain (Direct reporting relationship to Supply Chain; Indirect reporting relationship to client organization)
  - d. SCM will have some new functionalities
3. There were two teams involved in preparing the recommendations:
  - a. SCM EPIP Supply Chain Organization, Governance Models, and Performance Metrics Sub-Team – This team consists of Core Team members and sanctioned all recommendations.
  - b. Internal TL Organization and Skills Assessment Focus Group – This focus group reviewed the internal structure and skill sets of Supply Chain Services and recommended improvements to the Core Team.

# Supply Chain Organization, Governance Models, and Performance Metrics (continued)

Recommendation	Initial Details
<p><b>1. Implement Tier 1 Agency wide SCM performance measures of supply chain management</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Recognizes supply chain management as an enterprise wide business process; Compliments the current Supply Chain Services scorecard measures; Increases the visibility and transparency of performance</li> <li>◆ <u>Costs:</u> Minimal; Some new measures will require developmental time; Some upgrades to PassPort may be required</li> </ul>	<ul style="list-style-type: none"> <li>◆ The intent of this recommendation is to assure a structured methodology for measuring the Agency's supply chain management business process as an enterprise wide entity. In addition to these measures other measures will be developed (or continued) to address more detailed aspects of supply chain activity and performance.</li> <li>◆ The importance of the supply chain business process is evident by the approximate \$375 MM to \$400 MM in expenditures committed annually via the process</li> <li>◆ 16 measures have been identified (See Appendix D)</li> <li>◆ They address the six dimensions of SCM: Costs; Asset Management Efficiency; Responsiveness; Reliability/Accuracy; Effectiveness; Shareholder Interests</li> <li>◆ The measurement model is based on the SCOR methodology (Supply-Chain Operations Reference model developed by the Supply-Chain Council) adopted by 800+ companies world wide including the Department of Defense</li> <li>◆ It is anticipated that performance measures will be provided to Agency management (or BOB) in a summary dashboard at least quarterly</li> <li>◆ Tier 2 and Tier 3 performance measures will be delineated once Tier 1 performance measures are in place – Many of these measures may already exist today <ul style="list-style-type: none"> <li>— Performance measures for contracting will measure both the performance of contracts and the performance associated with the contracting process (preparation, administration, management, amendments, etc.)</li> </ul> </li> </ul>

# Supply Chain Organization, Governance Models, and Performance Metrics (continued)

Recommendation	Initial Details
<p><b>2. Expand the responsibilities of Supply Chain Services to: a) Manage the Agency's materials and services spend process and assure its effectiveness in the market place; and b) Own the Agency's stocking policy</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Provides a single point of accountability for the Agency's Spend and Inventory Resources; Facilitates development and application of appropriate performance measures and processes' controls</li> <li>◆ <u>Costs:</u> Minimal</li> </ul>	<p><b>Concerning Spend:</b></p> <ul style="list-style-type: none"> <li>◆ The intent is not for Supply Chain to dictate to the individual departments on what is spent but to assure the appropriate procurement instruments and mechanisms are employed</li> <li>◆ The Agency expenditures for materials and services is \$400 MM per year. Supply Chain is to assure appropriate controls and review processes around the spend so that the Agency's leverage in the market place is maximized.</li> <li>◆ It requires a cooperative environment between Supply Chain and all Agency departments. Involvement of supply chain professionals early in all departments planning processes is critical for success.</li> </ul> <p><b>Concerning Stocking Policy:</b></p> <ul style="list-style-type: none"> <li>◆ It is the intent of this recommendation that Supply Chain Services own responsibility for assuring appropriate stocking policies are employed for stock, spares and emergency materials inventories</li> <li>◆ Scientific management processes are to be used to calculate stocking requirements for normally used as well as spare parts requirements</li> <li>◆ Individual departments can recommend adjustment to stocking levels</li> </ul>

# Supply Chain Organization, Governance Models, and Performance Metrics (continued)

Recommendation	Initial Details
<p><b>3. Remove Supply Chain Services from the Transmission Business Line and elevate / reassign to the planned “Agency Services” organization</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Promotes the value of supply chain services to the enterprise by elevating its stature; Better assure an appropriate balance of operation versus financial objectives with respect to procurement and inventory policy; Creates single point of responsible for monitoring \$375 MM to \$400 MM in annual spend</li> <li>◆ <u>Costs:</u> Minimal; Potential for internal political strife if there are senior management objections to the change</li> </ul>	<ul style="list-style-type: none"> <li>◆ Leading practice utilities have high level, centralized supply chain management organizations that focus on spend management, strategic sourcing and internal supply chain management policy. The Agency has many elements of this model in place. (See Appendix E for benchmarking and leading practice information.)</li> <li>◆ The Core Team considered three centralized organizational options. Models included “pros/cons” of reporting relations advocating scalar structures within 1) a Chief Operating Officer configuration, 2) a Chief Financial Officer configuration and 3) a “Shared Services” configuration. These are the most prevalent centralized models in the industry.</li> <li>◆ Moving Supply Chain Services to “Agency Services” is consistent with leading practices</li> <li>◆ Elevation of Supply Chain in the reporting hierarchy is critical to implement system-wide inventory and contracting policies and is consistent with leading practices</li> </ul>

# Supply Chain Organization, Governance Models, and Performance Metrics (continued)

Recommendation	Initial Details
<p><b>4. Clarify the roles and responsibilities between the offices of the HCA and CSO with respect to supply chain policy development and compliance assurance</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Clearer delineation between supply chain policy development and compliance monitoring</li> <li>◆ <u>Costs:</u> Minimal</li> </ul>	<ul style="list-style-type: none"> <li>◆ <b>Assumptions:</b> The Head of Contract Activity (HCA) will be integrated into a new governance organization at completion of the COG assessment. Changes in its governance relationship with SCM will be required as HCA's role becomes more compliance monitoring. The Chief Supply Officer (CSO) will assume some functions previously held by the HCA, specifically P-card issuance</li> </ul> <p><b>Office of the HCA:</b></p> <ul style="list-style-type: none"> <li>◆ Provide an oversight of BPA's supply chain management business practices by developing and administering a <u>compliance monitoring</u> program with respect to: BPI policy enforcement; Circular A-123 enforcement; Contracting Officer Certification Program and Contracting Officer Warrant Program</li> <li>◆ Review and validate changes to BPA internal supply chain management policy initiated by the CSO</li> <li>◆ Monitor DOE procurement decisions, statues and regulations and advise the CSO of potential policy issues originating from these external sources</li> <li>◆ Structure the business process for the proposed supply chain management Contracts Strategy Panel including but not limited to: Process maps, inclusion criteria, frequency and scope, and performance measures</li> <li>◆ P-card program compliance</li> </ul>

# Supply Chain Organization, Governance Models, and Performance Metrics (continued)

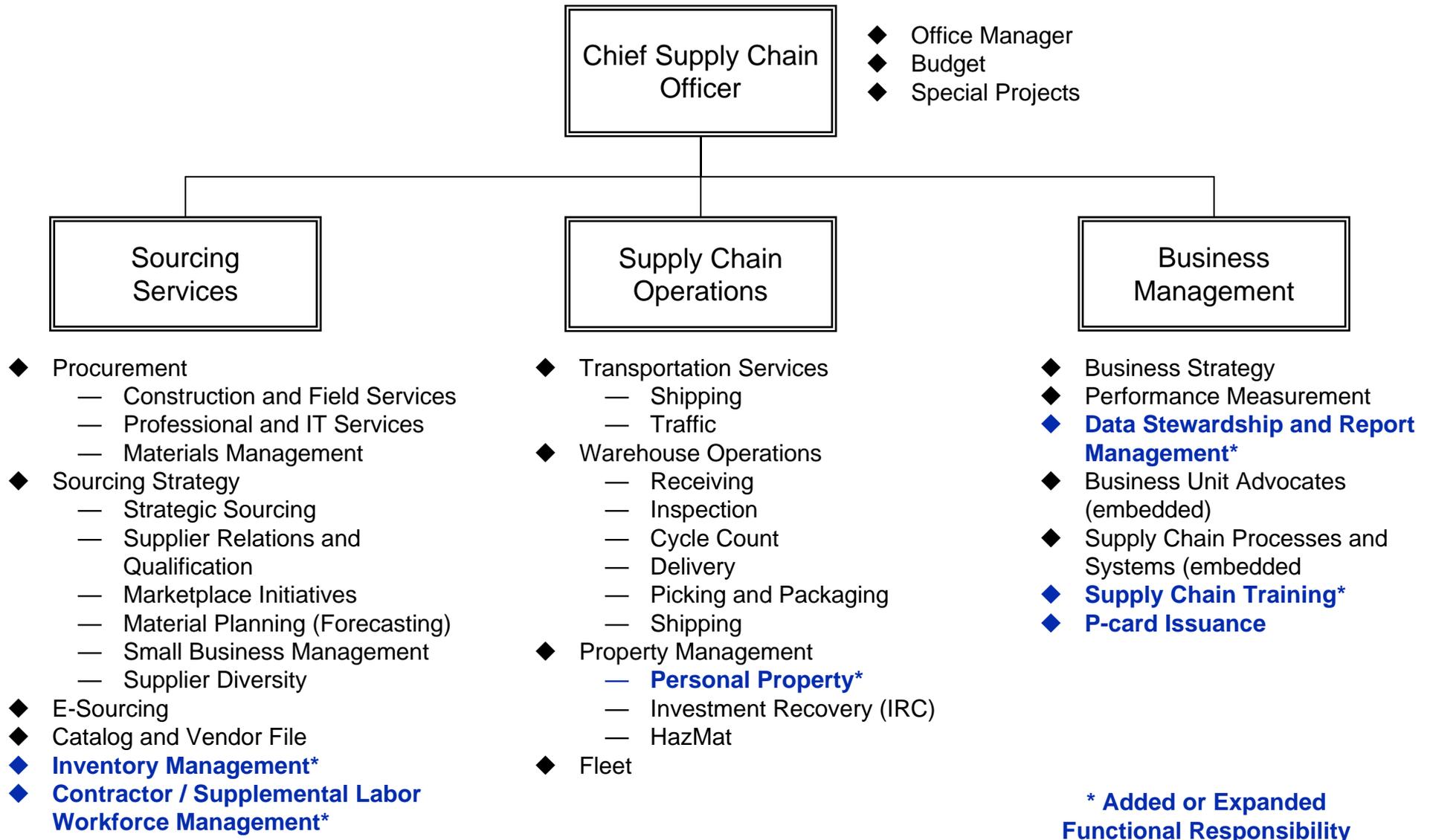
Recommendation	Initial Details
<p><b>4. Clarify the roles and responsibilities between the offices of the HCA and CSO with respect to supply chain policy development and compliance assurance</b> (continued)</p>	<p><b>Chief Supply Officer</b></p> <ul style="list-style-type: none"> <li>◆ Develop BPA <u>internal</u> supply chain management policy</li> <li>◆ Coordinate with the HCA on all SCM related policy changes necessitated by DOE or other external Agency mandates and develop appropriate business process to comply with these external supply chain policies</li> <li>◆ Administer the Contracting Officer / Contracting Officer Technical Representative Certification Programs by assuring properly qualified candidates, measuring CO and COTR performance, and developing, conducting, and maintaining appropriate CO and COTR training</li> <li>◆ Administer the P-card program</li> </ul>

# Supply Chain Organization, Governance Models, and Performance Metrics (continued)

Recommendation	Initial Details
<p><b>5. Realign the internal structure of Supply Chain Services (See the organization chart on the following page for proposed structure)</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Better alignment of business activities; Fewer layers of management</li> <li>◆ <u>Costs:</u> Minimal</li> </ul>	<ul style="list-style-type: none"> <li>◆ The proposed structure resulted from a focus group effort. The focus group consisted of 14 current supply chain management personnel and was led by John Quinata. The team conducted a detailed strengths/weaknesses assessment of the current structure.</li> <li>◆ New or expanded functional responsibilities include: Contractor / Supplemental Labor Workforce Management (policy, strategy, sourcing, and performance), Personal Property (from CK organization), Data Stewardship, Inventory Management (for all inventory), and Supply Chain Training</li> </ul>

# Supply Chain Organization, Governance Models, and Performance Metrics (continued)

## Proposed SCM Internal Organization Structure and Required Functionality



# Supply Chain Organization, Governance Models, and Performance Metrics (continued)

Recommendation	Initial Details
<p><b>6. Reassess Supply Chain Services staffing and skills requirements pending BOB decision on the EPIP recommendations</b></p> <ul style="list-style-type: none"> <li>◆ <u>Benefits:</u> Staffing needs are a function of work load and skill set needs; Right-sized staffing levels; Skill set needs reflect new Agency Supply Chain business model</li> <li>◆ <u>Costs:</u> Minimal; Possibly some training or certification costs to upgrade current staffing skill sets</li> </ul>	<ul style="list-style-type: none"> <li>◆ The intent of the recommendation is to structure staffing requirements and identify skill sets requirements based on the proposed new supply chain business model</li> <li>◆ Staff competency assessments have been created in Supply Chain Services and a general skills requirements plan has been prepared</li> <li>◆ Part of the skill development that will be needed will come from encouraged/required participation in and certification from supply chain oriented organizations, such as APICS, ISM, WERC, NCMA, etc.</li> </ul>

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# **SCM EPIP Future State Definition**

## **Benefits and Costs Summary**

# Benefits Expected

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- ◆ Benchmarking surveys reveal that the utility companies that have adopted a highly structured approach to supply chain management have enjoyed significant cost savings, avoided expenditures, improved value in procurements, and established more efficient operations.
  - In aggregate, these companies have reduced spend, inventory, and infrastructure costs typically between 7% and 15% over three- to five-year implementation programs.
  - The Core Team estimates the Agency's savings potential to be equally as impressive.
- ◆ Benefits primarily result from driving costs and inefficiencies out of the Agency's supply chain business processes. There are three categories of benefits addressed by the SCM EPIP effort
  - Direct labor cost reduction – These benefits have an impact on the Agency's capital and expense budgets and may result in rate reductions to the Agency's customers depending on the allocation of these reductions between capital and expense and between transmission and power
  - Efficiency benefits due to improved supply chain processes – These benefits result from efficiency improvements that would not have occurred if business process changes had not been implemented. These benefits, however, often do not have the immediate effect of reducing labor costs; therefore they do not result in reduced rates to customers. Conversely, these benefits do result in improved operations and more efficient use of capital and operations and maintenance (O&M) resources.
  - Inventory reduction – This benefit does not have the immediate effect of reducing labor costs; therefore it does not result in reduced rates to customers.

***In addition to the tangible cost reductions and efficiency improvements, the SCM EPIP also identified intangible benefits expected to accrue as implementation proceeds.***

# Direct Labor Cost Reduction

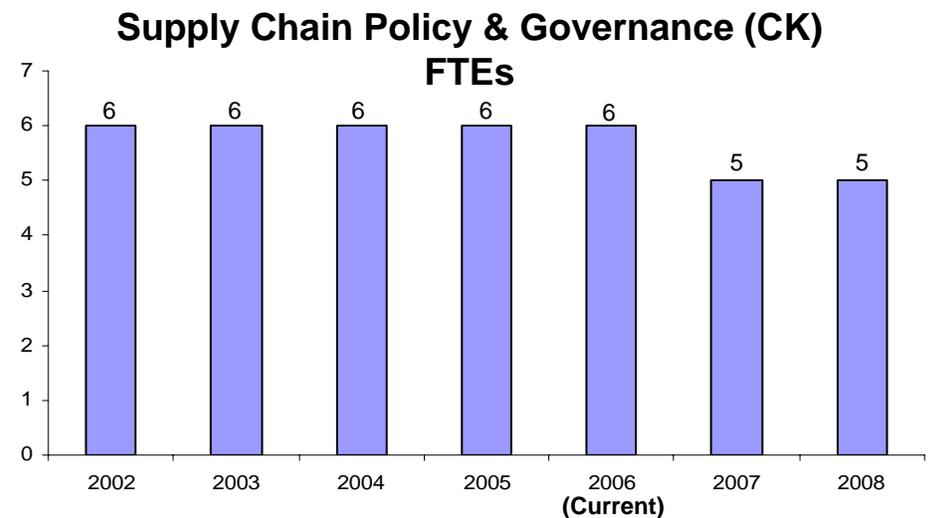
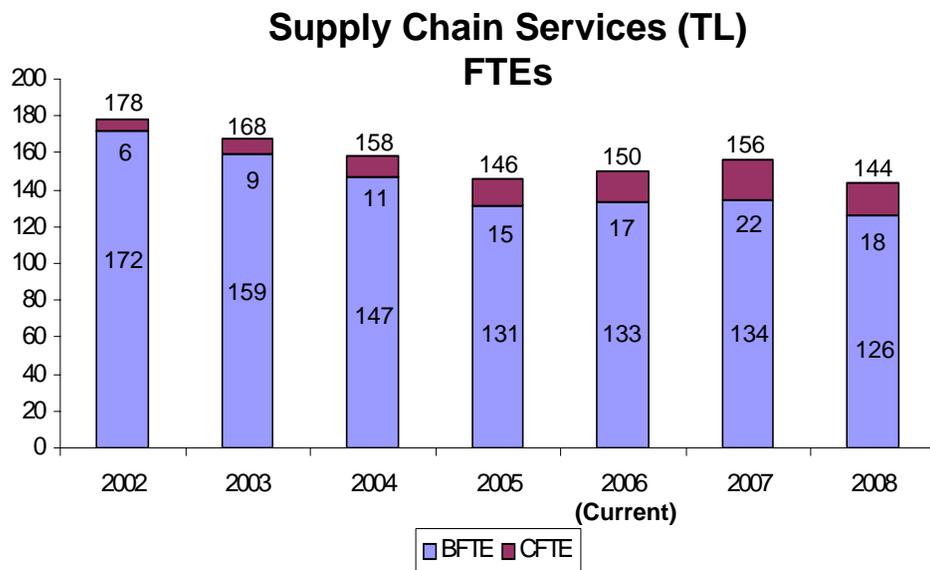
Cost Reduction Opportunities <sup>A, B</sup>	
1. Outsource Transportation – Move to contract drivers using BPA equipment and augment with outside 3 <sup>rd</sup> party logistics (3PL) providers as needed	\$1.0 MM (total) over 3 years
2. Reduce 16 FTE positions from Supply Chain Services (Identified in PDB EPIP) <sup>C, D</sup>	\$1.6 MM annually

Notes:

- A. These savings will result in a lower labor budget for Supply Chain Services as the pertinent recommendations are implemented. As a result, these savings will have an impact on the Agency's overall costs and ultimately will result in lower rates to the Agency's customers over time.
- B. Progress on these reductions will be monitored by the SCM implementation team
- C. Reduction of Supply Chain Services staff relative to the end of FY 2004 baseline
- D. The FTE reduction, though identified as a result of part standardization and inventory reduction, is also dependent on the efficiency improvements resulting from the SCM EPIP recommendations

***The Supply Chain FTE forecast is detailed on the following page.***

# FTE Forecast



- Note:**
1. Annual data above is as of the end of the listed fiscal year; 2006 data is current data including vacancy projections
  2. Reductions incorporates Supply Chain FTE savings delineated in PDB EPIP (baseline of end of year FY2004)
  3. Analysis does not take into account possible external drivers to FTE counts, including Homeland Security Continuity of Operations Plan (COOP)
  4. There will be expected BFTE shifts within Supply Chain due to the changes in workload skill set requirements.
- ◆ FTE count in Supply Chain Services has decreased in recent years due to the efforts of the Supply Chain Efficiencies Project (2003), TBL PIR commitment to customers to reduce staffing by 10%, and the PDB EPIP-prescribed reductions of 16 capital FTEs in TL (equates to 22 total FTEs)
  - ◆ FTE changes between 2006 and the end of 2008 result from the outsourcing of transportation (5 shift from BFTE to CFTE in 2007, 1 shifts from BFTE to CFTE in 2008), the reduction in material handling contractors in 2008 (5 CFTEs), the requirement for new skill sets in 2007 (6 BFTEs), and the reduction of 8 BFTEs in 2008 due to process improvements
  - ◆ Current staffing levels are ahead of PDB EPIP reduction plan due to age demographics and employees retiring – This negatively impacts the ability to implement recommendations and has resulted in an increase in CFTEs in order to avoid hiring of permanent employees
  - ◆ As the business model changes are implemented (processes improve, inventory decreases, more automated procurement methods are adopted) and a shift occurs in skill set requirements, a realignment of Supply Chain personnel will occur; resulting in a shift of employees between decreasing workload areas (possibly warehousing and materials procurement) and increasing workload areas (inventory management and vendor management)

***These are estimated FTE forecasts and are only achievable if all Supply Chain related EPIP recommendations (Supply Chain, PDB, O&M, Asset Management, HR Workforce Strategy) are aggressively implemented.***

# Efficiency Benefits Due to Improved Supply Chain Processes

Efficiency Benefit Opportunities <sup>A</sup>	
1. More rigorously controlled contracting process – Fewer contract amendments <sup>B, C</sup>	\$5.0 to \$8.0 MM annually
2. More rigorously controlled contract management processes – Better value contracts and earlier issue detection/mitigation <sup>B</sup>	\$5.0 to \$10.0 MM annually
3. Marketplace leverage through rigorous planning and strategic sourcing <sup>D</sup>	\$19.5 MM annually
<b>Estimated Annual Efficiency Benefits</b>	<b>\$29.5 MM to \$37.5 MM annually</b>

Notes:

- A. These benefits are not distinctly manifest in budgets or on the income statements. In some instances these benefits enable other EIPs to realize expected cost cuts. The savings resulting from these efficiency gains provide management with more flexible decision making regarding resource allocations
- B. In 2004, there was approximately \$89.0 MM in non-F&W related contract amendments. It is believed that upwards of 10% of these increases may not have been necessary if a more rigorous contract development process was in place to assure the appropriate contract instrument was applied to the procurement requirement.
- C. With the exception of claims, the Agency does not track cost associated with contracts for which BPA does not receive the expected value. The Core Team believes that improvements recommended to the contracting process will result in significant savings and value by better assuring that all future contracts meet expectations through improved contract writing and contract management. (It is estimated that the implementation of recommendations and leading practices will save the Agency between \$10.0 MM to \$18.0 MM annually through the more rigorous development and monitoring of critical contracts, the reduction in contract amendments, the improvement in statements of work, and the avoidance of formal claims (\$4.5 MM over the past two years).)
- D. The project savings of \$19.5 MM is in market leverage expected to result from the strategic sourcing program. This leverage is expected to be realized through unit price savings and service related benefits from the vendors. Expected savings are based on 2004 spend; future savings could differ based on actual applicable future spend, but should range from 5%-15% of applicable spend, based on benchmarking statistics.

# Inventory Reduction

Inventory Reduction Opportunities <sup>A, B, C, D</sup>	
1. Optimized on-hand inventory investment – This includes the approximate \$20.7 MM in inventory reduction identified in the PDB EPIP	\$21.5 MM (total) over 3 to 5 years (One-time cost avoidance)

<b>One-Time Inventory Reduction</b>	\$4.3 MM to \$7.2 MM annually over the next 3 to 5 years
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Notes:

- A. The Core Team believes that the current inventory investment is excessive by approximately \$21.5 MM (baseline year 2004 of \$84.0 million in tracked inventory). A lower level of inventory will be more reflective of operational requirements.
- B. Stocking policy revisions, combined with standardization, strategic sourcing, and greater attention to tracking inventory investment will result in an on-hand inventory reduction
- C. The excess investment will be “worked down” before new purchases are made
- D. This savings will not result in a lowering of customers’ rates. It does, however, give the Agency greater flexibility in near term procurement decisions.

# Cumulative Effect of the Benefits

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- ◆ Over the next five years, the cumulative effect of the cost reduction and efficiency gains is estimated to be approximately **\$127.6 million to \$157.6 million** in a combination of cost reductions and efficiency improvements, less the impact of inflation
  - This estimate represents a savings of approximately 7% of the projected supply chain costs for goods, services, inventory, and infrastructure for the same five-year period
  - This 7% benefit is consistent with the experience of other leading utilities that have embarked on major supply chain improvement programs

# Summary of Intangible Benefits

Primary Intangible Benefits
1. A single Agency-wide Supply Chain system, under the responsibility of a single Supply Chain Officer
2. A Supply Chain organization and operation that is structured along leading practices criteria and is positioned to provide more value to the Agency, including organizational accountability for spend and inventory resources oversight and application of a continuous improvement program
3. Agency-wide performance metrics for the supply chain process
4. Better skilled Contract Officers (CO), Contract Officer Technical Representatives (COTR) and supply chain management personnel through responsibility focused training, certification requirements, and clearer definition of responsibilities and authorities
5. A more structured and performance-management-driven contracting development and execution process, including procurement instrument criteria and guidelines, statement of work library and development guidelines, formal monitoring process for critical contracts, post contract lessons learned, and CO and COTR performance assessment mechanism
6. Standardized, quantifiable methodologies in place for calculating inventory stocking policies (optimization modeling) to right-size inventory investment
7. Increased attention to and more structured process for forecasting procurement requirements – Rolling two year forecast of major procurements to drive the sourcing and contracting processes
8. Aggressive attention to E-Commerce opportunities as a tool to improve spend leverage and reduce labor-intensive “paper” transactions
9. Improved internal capabilities around vendor and market intelligence gathering to facilitate marketplace leverage
10. Institutionalized strategic sourcing procurement tools and techniques to assure spend productivity
11. A conscious and structured process for assessing and factoring risk in the procurement/contracting decision-making process
12. Clearer definition of roles and responsibilities of all stakeholders in the supply chain management process
13. More attention to assuring BPI and other policy compliance; “Playbooks” created as user guidelines and policy summaries for key aspects of the supply chain business process, e. g inventory management policy
14. More frequent and expanded use of BES in Supply Chain business processes, leading to better data integrity, improved productivity and better vendor relations (through invoice payment efficiencies)

# Summary of Expected Out-of-Pocket Costs

Expected Out-of-Pocket Costs to Implement the Recommendations	
1. Upgrades to BES to support electronic invoice processing and vendor portal	\$1.25 MM to \$1.5 MM
2. Upgrade to BES to support an expanded data warehousing functionality	\$1.0 MM to \$3.0 MM
3. Develop BES supply chain training program and execute one time across the Agency	\$500 K to \$750 K
4. RFID/bar code technologies pilot	\$250 K to \$750 K
5. External consultant to support strategic sourcing	\$200 K
6. External consultant for general implementation assistance	\$0.75 MM to \$1.0 MM
7. Inventory optimization software	\$75 K
8. Potential increase in salaries of COs if paygrade levels increased	\$135 K to \$270 K annually
9. Maintain BES supply chain training	\$300 K to \$500 K annually
10. Skill development (training, market intel support, subscription services, certifications, etc.)	\$100 K to \$200 K annually

<b>One-Time Cost to Implement</b>	\$4.0 MM to \$7.3 MM over the next 12 to 36 months
<b>Estimated on-going costs</b>	\$535 K to \$970 K on-going

- Notes:
- A. Approximately 60% of the one time costs to implement are associated with technology enhancements, including upgrades to the BES to better facilitate transactions management and provide for better data integrity (for reporting and decision making purposes).
  - B. Training and maintenance of training (Items 3 and 4 above) will be performed in close coordination with the J organization
  - C. The primary role of the external consultant is to manage the implementation of the EPIP recommendations with specific emphasis on: Conducting skills development training in SCM on industry, market and vendor intelligence, hedging strategies, inventory optimization and calculating stocking requirements, and contracts management ; providing oversight of the pilot programs on Reverse Auctions, RFID, and inventory optimization; right-sizing internal staffing and skills mix of SCM; assisting with the outsourcing and HazMat/IRC combination assessments; and developing the process for implementing the EPIP recommendations.

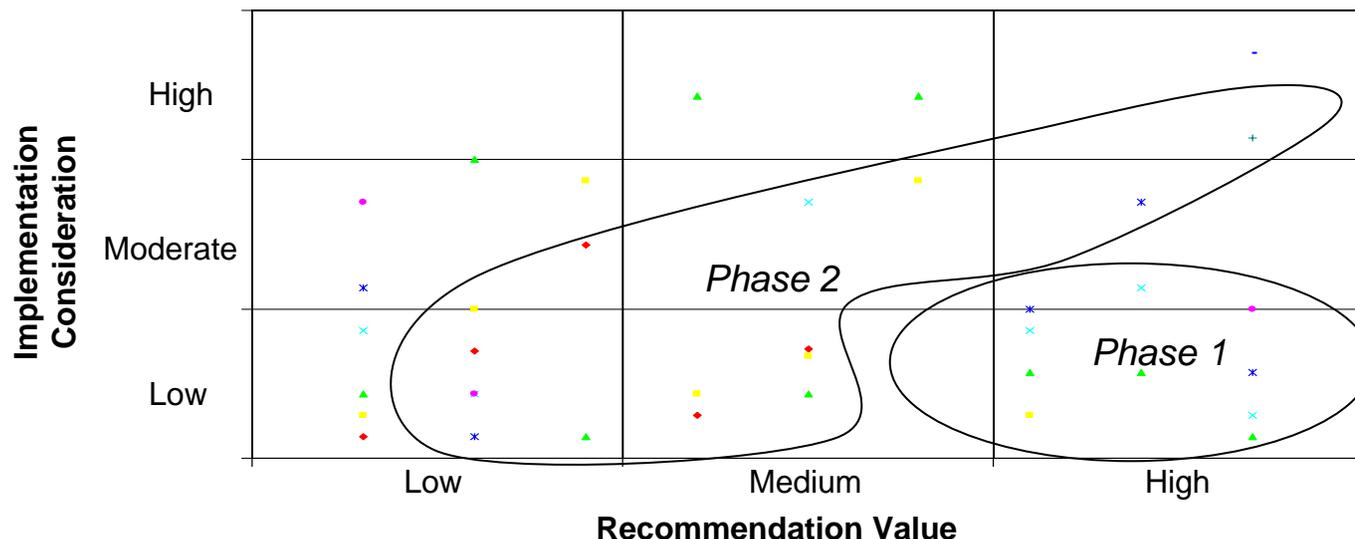
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# Implementation

# Portfolio Analysis

- ◆ Portfolio Analysis is a tool used to evaluate the relative value of recommendations and develop an initial draft of implementation priority through the use of a scatter plot
- ◆ In the SCM EPIP Portfolio Analysis, the relative value of each recommendation is estimated based on quantitative and qualitative costs and benefits of each recommendation. This value is plotted along the x-axis of the scatter plot. (See Page 101 for details)
- ◆ The relative level of ease or difficulty in implementing each recommendation is estimated based on a ranking and relative weighting of several implementation factors. This value is plotted along the y-axis of the scatter plot. (See Page 102 for details)
- ◆ Each recommendation then appears on the scatter plot in a specific location
  - In terms of value, those having the greatest value appear on the right side of the plot; those with a lesser value appear on the left
  - In terms of implementation considerations, those that are easiest to implement appear on the bottom portion of the plot; that are hardest to implement appear on the top portion of the plot
- ◆ It is then possible to determine an initial draft of implementation priority (high value / easy to implement are first, low value / hard to implement are last). Grouping the recommendations according to their locations on the plot helps to identify collections of recommendations for a phased approach to implementation.

**Example Portfolio Analysis Scatter Plot**



# Cost and Benefits

Costs and benefits for each recommendation are combined to derive a value ranking which makes up the x-axis of the portfolio plot. The higher the relative rank, the more valuable the recommendation is to BPA based on costs and benefits. The costs and benefits of each recommendation are a mixture of quantitative cost and savings information and qualitative costs and benefits. Though numerical values can be used to initially differentiate between Low, Medium, and High levels, the qualitative costs and benefits play into the final category assignment. For those recommendations for which costs and benefits have not been quantitatively determined, the Core Team has used their expertise and knowledge to assign the appropriate qualitative level of costs and benefits.

Costs	Benefits	Relative Rank
Low	Low	4
Low	Medium	7
Low	High	9
Medium	Low	2
Medium	Medium	6
Medium	High	8
High	Low	1
High	Medium	3
High	High	5

		Value		
Costs	High	1	3	5
	Medium	2	6	8
	Low	4	7	9
		Low	Medium	High
		Benefits		

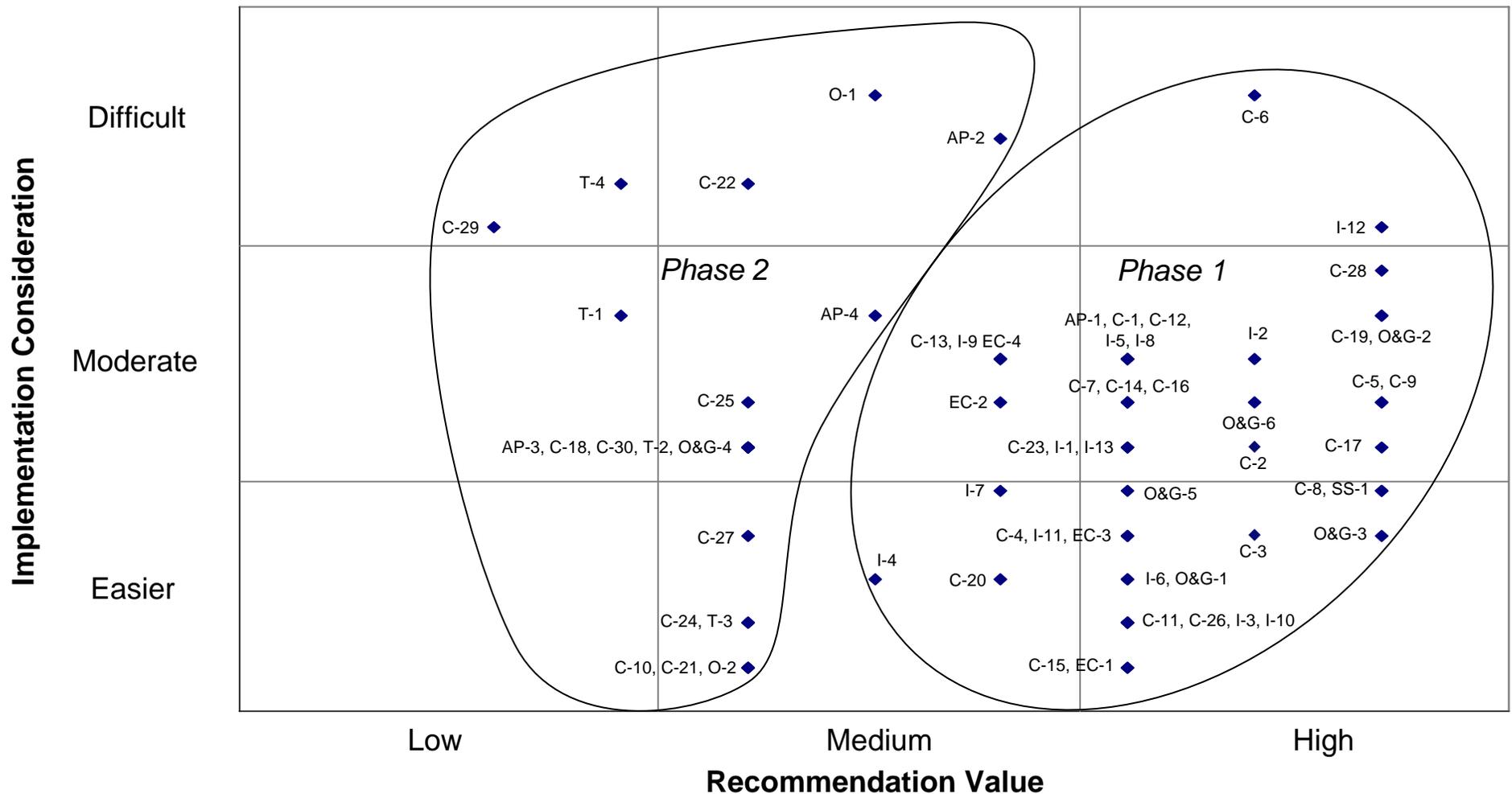
# Implementation Considerations

An "Implementation Consideration" value is calculated for each recommendation based on the Sub-Teams' and Core Team's ranking of four implementation factors. These rankings, or scale value, are then multiplied by each factor's relative importance multiplier, which has been determined by the Core Team. Finally, the four factor scores are added together to arrive at a Total Implementation Consideration Value. The Total Implementation Consideration Value is plotted on the y-axis of the portfolio plot. The lower the Total Implementation Consideration Value, the more attractive the recommendation is to BPA in terms of implementation factors.

Factor	Scale	Relative Importance (Multiplier)	Score
Ease of Implementation	1 = Easy	1	Scale x Relative Importance
	2 = Moderate		
	3 = Difficult		
Pace of Implementation	1 = Fast (< 90 days)	1	Scale x Relative Importance
	2 = Medium (91 to 365 days)		
	3 = Slow (366 days or more)		
Resistance to Change	1 = Low	3	Scale x Relative Importance
	2 = Moderate		
	3 = High		
Impact on Affected Operations	1 = Low	2	Scale x Relative Importance
	2 = Moderate		
	3 = High		
Total Implementation Consideration Value			Sum of Scores

# Portfolio Plot

Each SCM recommendation has been plotted on the below portfolio plot according to its cost/benefit value and its implementation considerations. The most attractive recommendations appear in the lower right corner (High Value, Easier Implementation Considerations), while the least attractive recommendations will appear in the upper left corner (Low Value, Difficult Implementation Considerations). Natural groupings on the portfolio plot allow the grouping of recommendations into an **initial** phased implementation plan. The individual recommendation scores appear on the following four pages.



# Portfolio Plot Details – Initial Draft of Phase One Recommendations

Recommendation Number	Recommendation	Implementation Consideration					Cost/Benefit Value		
		Ease of Implementation	Pace of Implementation	Resistance to Change	Affect on Operations	Total Score	Cost	Benefit	Relative Value
AP-1	Improve maintenance of contract data in the system	2	2	2	2	14	Low	Medium	7
C-1	Standardize and streamline contracting processes, to the extent possible	2	2	2	2	14	Low	Medium	7
C-2	Aggressively develop and expand the skill sets of Contract Officers (COs) and Contract Officer Technical Representatives (COTRs)	2	3	1	2	12	Medium	High	8
C-3	Create Supply Chain staffing strategy that aligns staffing with new skill and workload requirements	1	1	2	1	10	Medium	High	8
C-4	Right-size / optimize the number of COTRs	1	2	1	2	10	Low	Medium	7
C-5	Integrate Supply Chain into the Agency Strategy and Corporate Planning processes	1	2	2	2	13	Low	High	9
C-6	Prepare two-year forecasts of major procurements and contracting requirements. Budget requirements for a two-year period. Assign ownership of the process policy development and execution to Program Offices.	2	3	3	3	20	Medium	High	8
C-7	Clearly define the responsibilities and authority for market and vendor research between Program Offices and SCM. Institutionalize the results in the form of formal "vendor management" policies and business practices	1	2	2	2	13	Low	Medium	7
C-8	Institute a process for writing a "statement of work" (SOW) consistent with leading practices, which can lead to more definitive contracts	2	2	1	2	11	Low	High	9
C-9	Provide a single point of control for the Agency's contract development and management process by better defining the responsibilities and authorities of the "Contracts Strategy Panel"	1	2	2	2	13	Low	High	9
C-11	Create a Supply Chain Management module for new manager training and new employee orientation	1	2	1	1	8	Low	Medium	7
C-12	Develop Agency-wide strategy and policies regarding supplemental labor and supplemental labor contracting	2	2	2	2	14	Low	Medium	7
C-13	Move toward an all electronic RFI/RFP solicitation process	1	1	2	3	14	Medium	Medium	6
C-14	Standardize contract and solicitation development forms	2	1	2	2	13	Low	Medium	7
C-15	Raise the non-competitive procurement dollar threshold from \$5,000 to \$25,000	1	1	1	1	7	Low	Medium	7

# Portfolio Plot Details – Initial Draft of Phase One Recommendations (continued)

Recommendation Number	Recommendation	Implementation Consideration					Cost/Benefit Value		
		Ease of Implementation	Pace of Implementation	Resistance to Change	Affect on Operations	Total Score	Cost	Benefit	Relative Value
C-16	Standardize vendor proposal preparation instructions and vendor evaluation criteria, by Program	1	2	2	2	13	Low	Medium	7
C-17	Mandate review, by Office of General Council (OGC), of all contracts identified as critical and sensitive, as per BPA risk management approach	1	1	2	2	12	Low	High	9
C-19	Require COs to develop pre-negotiation objectives through the use of tools or other methods	2	3	2	2	15	Low	High	9
C-20	Improve SCM contracting capabilities relative to cost and price analysis	1	1	1	2	9	Medium	Medium	6
C-23	Utilize electronic signatures on contracts and related documents	2	3	1	2	12	Low	Medium	7
C-26	Clarify and define the CO/COTR roles and responsibilities and ingrain into the culture of BPA	2	1	1	1	8	Low	Medium	7
C-28	Develop and institute a formal process, using the BES system, to conduct and document a post-award vendor performance evaluation for “critical procurements”	2	2	2	3	16	Low	High	9
I-1	Review and update all inventory policies and create an Inventory Playbook / Policy Manual	2	2	2	1	12	Low	Medium	7
I-2	Optimize inventory through development and implementation of system-wide inventory stocking and cataloging policies	2	2	2	2	14	Medium	High	8
I-3	Reinforce emergency material policies and processes	1	2	1	1	8	Low	Medium	7
I-4	Optimize spare parts inventory processes	2	2	1	1	9	High	High	5
I-5	Develop an efficient and cost effective process for tracking/managing IT equipment and parts from requisition through disposal	2	2	2	2	14	Low	Medium	7
I-6	Develop and implement ordering and purchasing policies and processes that more efficiently support the Agency's administrative, construction and maintenance efforts	2	2	1	1	9	Low	Medium	7
I-7	Improve the receiving processes, including Ross receiving, field receiving, and receiving inspection	2	2	1	2	11	Medium	Medium	6
I-8	Improve warehousing efficiencies in order to improve inventory accuracy and keep operating costs down	2	2	2	2	14	Low	Medium	7
I-9	Conduct a pilot program to assess the merits of expanding the current bar coding technologies or pursuing RFID technology for tracking and accounting for critical materials within both Ross and the Field	2	2	2	2	14	Medium	Medium	6

# Portfolio Plot Details – Initial Draft of Phase One Recommendations (continued)

Recommendation Number	Recommendation	Implementation Consideration					Cost/Benefit Value		
		Ease of Implementation	Pace of Implementation	Resistance to Change	Affect on Operations	Total Score	Cost	Benefit	Relative Value
I-10	Refine the returns to inventory processes for excess materials (material left over or over ordered for projects) and ensure the optimal return on investment for on-hand inventories (overstock, zero use inventories)	1	2	1	1	8	Low	Medium	7
I-11	Develop training requirements and establish and implement training curriculum to standardize inventory policy compliance	1	2	1	2	10	Low	Medium	7
I-12	Change existing policies so Supply Chain will manage all inventory across BPA, no matter the location or item type	2	2	3	2	17	Low	High	9
I-13	Develop understanding of all available materials, regardless of classification as "inventory," and how they affect inventory levels	2	2	2	1	12	Low	Medium	7
SS-1	Begin implementation of the strategic sourcing pilot programs (Note: The SCM EPIP team endorsed the Strategic Sourcing initiative that began prior to the EPIP)	2	2	1	2	11	Low	High	9
EC-1	Continue association with Perfect Commerce at this time. The Indus Buy Demand module in BES is connected with the Perfect Commerce marketsite. If a change is made in suppliers, many connectivity issues need to be considered. Because the e-Commerce platform must be connected to BPA's ERP system, those needs must be considered.	1	1	1	1	7	Low	Medium	7
EC-2	Continue testing the application of the e-commerce business tools via pilot programs in the regions or the business lines	1	2	2	2	13	Medium	Medium	6
EC-3	Proceed with the development of the Agency's E-Commerce strategy, assuring current objectives are consistent with planned EPIP changes	1	2	1	2	10	Low	Medium	7
EC-4	Create a vendor portal for BPA	2	2	2	2	14	Medium	Medium	6
O&G-1	Implement Tier 1 Agency wide SCM performance measures of supply chain management	2	2	1	1	9	Low	Medium	7
O&G-2	Expand the Responsibilities of Supply Chain Services to: a) Manage the Agency's materials and services spend process and assure its effectiveness in the market place; and b) Own the Agency's stocking policy	1	1	3	2	15	Low	High	9
O&G-3	Remove Supply Chain Services from the Transmission Business Line and reassign to the planned "Agency Services" organization	1	1	2	1	10	Low	High	9
O&G-5	Realign the internal structure of Supply Chain Services (See the organization chart on the following page for proposed structure)	1	2	2	1	11	Low	Medium	7
O&G-6	Reassess Supply Chain Services staffing and skills requirements pending BOB decision on the EPIP recommendations	2	3	2	1	13	Medium	High	8

# Portfolio Plot Details – Initial Draft of Phase Two Recommendations

Recommendation Number	Recommendation	Implementation Consideration					Cost/Benefit Value		
		Ease of Implementation	Pace of Implementation	Resistance to Change	Affect on Operations	Total Score	Cost	Benefit	Relative Value
AP-2	Centralize invoice processing	2	2	3	3	19	Medium	Medium	6
AP-3	Establish “receiver” policy (creation of the “receiver record in PassPort) with accompanying metrics	2	2	2	1	12	Low	Low	4
AP-4	Create systems, policies, and procedures to allow paperless processing of invoices	3	3	1	3	15	High	High	5
C-10	Institute a Policy Change Board	1	1	1	1	7	Low	Low	4
C-18	Implement service-level agreements between HCA and OGC in order to formalize the support required for the adjudication of protests through the protest review board	1	1	2	2	12	Low	Low	4
C-21	Change review levels for internal contract quality reviews from \$50,000 to \$100,000 (Quick Hit)	1	1	1	1	7	Low	Low	4
C-22	More rigorously enforce ratification policy so that programs or individuals with a pattern of abuse are held accountable for their behavior	3	2	3	2	18	Low	Low	4
C-24	Improve debriefings of unsuccessful offerors in order to further develop supplier capabilities, reduce the number of protests, and mitigate risk	1	2	1	1	8	Low	Low	4
C-25	Implement pre-performance (post-award) conferences for service contracts and enforce their use on other contracts	1	2	2	2	13	Low	Low	4
C-27	Improve contract close-out processes (BES and hard copies)	1	1	2	1	10	Low	Low	4
C-29	Standardize and enforce personal property tracking	2	2	3	2	17	Medium	Low	2
C-30	Develop and enforce a policy which requires individuals with a pattern for losing government personal property to pay for all or a portion of the costs of that lost property	2	2	2	1	12	Low	Low	4
O-1	Initiate a more comprehensive business case study for combining HazMat and Investment Recovery Center (IRC)	2	3	3	3	20	High	High	5
O-2	Conduct study of outsourcing of the material handling function after inventory-affecting recommendations from the PDB EPIP, O&M EPIP, Supply Chain EPIP, and Standards Group are in place	1	1	1	1	7	Low	Low	4
T-1	Develop an Agency wide training program on BES to support SCM	2	3	2	2	15	High	Medium	3
T-2	Create “digital signature” functionality in BES	2	3	1	2	12	Low	Low	4
T-3	Electronically “date stamp” invoices	1	2	1	1	8	Low	Low	4
T-4	Upgrade “data warehousing” capability to support SCM business activities by creating a Supply Chain data mart	3	3	2	3	18	High	Medium	3
O&G-4	Clarify the roles and responsibilities between the offices of the HCA and CSO with respect to supply chain policy development and compliance assurance	1	1	2	2	12	Low	Low	4

# Phased Implementation Next Steps

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***The portfolio analysis only provides a initial draft of determining which recommendations should be addresses first, albeit a draft based on implementation considerations and costs and benefits to BPA. A final phased implementation plan must be developed as the initial step of the Implementation Phase and will be based on several factors, including:***

- ◆ Recommendations and results of the COO and BOB Briefings
- ◆ Resource levels made available for the implementation
- ◆ Financial considerations; i.e. available funds in specific fiscal year budgets
- ◆ Designation of specific recommendations as Quick Hits
- ◆ Interdependencies between SCM EPIP recommendations (determined once an approved list of recommendations is finalized)
- ◆ Coordination of approved SCM EPIP recommendations with recommendations being addressed or implemented by other EIPs

# SCM EPIP Timeline – Implementation

Date	Activity
March 21, 2006	BOB Briefing (Initial Future State Report )
March 24, 2006	Distribution of Initial Future State Report to Employees for Comment Period (Official comment period: March 27, 2006 through April 7, 2006)
March 24, 2006 – April 19, 2006	Review, categorization, and analysis of comments
March 24, 2006 – April 19, 2006	Revise Recommendation Portfolio Analysis in order to develop draft prioritization of all recommendations
March 29, 2006 & March 31, 2006	Employee Briefings
April 19, 2006	Project Management Office (PMO) Briefing of Future State Report with Comment Summary
April 21, 2006	Distribution of Future State Report with Comment Summary to BOB
April 21, 2006 – May 30, 2006	Further develop benefits and costs in line with new directions from Finance and PMO. Develop Executive Summary and Elevator Speech.
May 30, 2006	BOB Final Decisions on SCM Future State Recommendations
May 31, 2006	Release Official Future State Information to Affected Employees
May 31, 2006	Post Future State Report for General Employee Communication
June 1, 2006	Kick-Off SCM EPIP Implementation

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# Appendices

**Appendix A: Additional Current State Details**

**Appendix B: Benchmarking and Leading Practice Data**

**Appendix C: Recommendations Summary Table**

**Appendix D: Tier 1 Performance Measures**

**Appendix E: Organization Models – General**

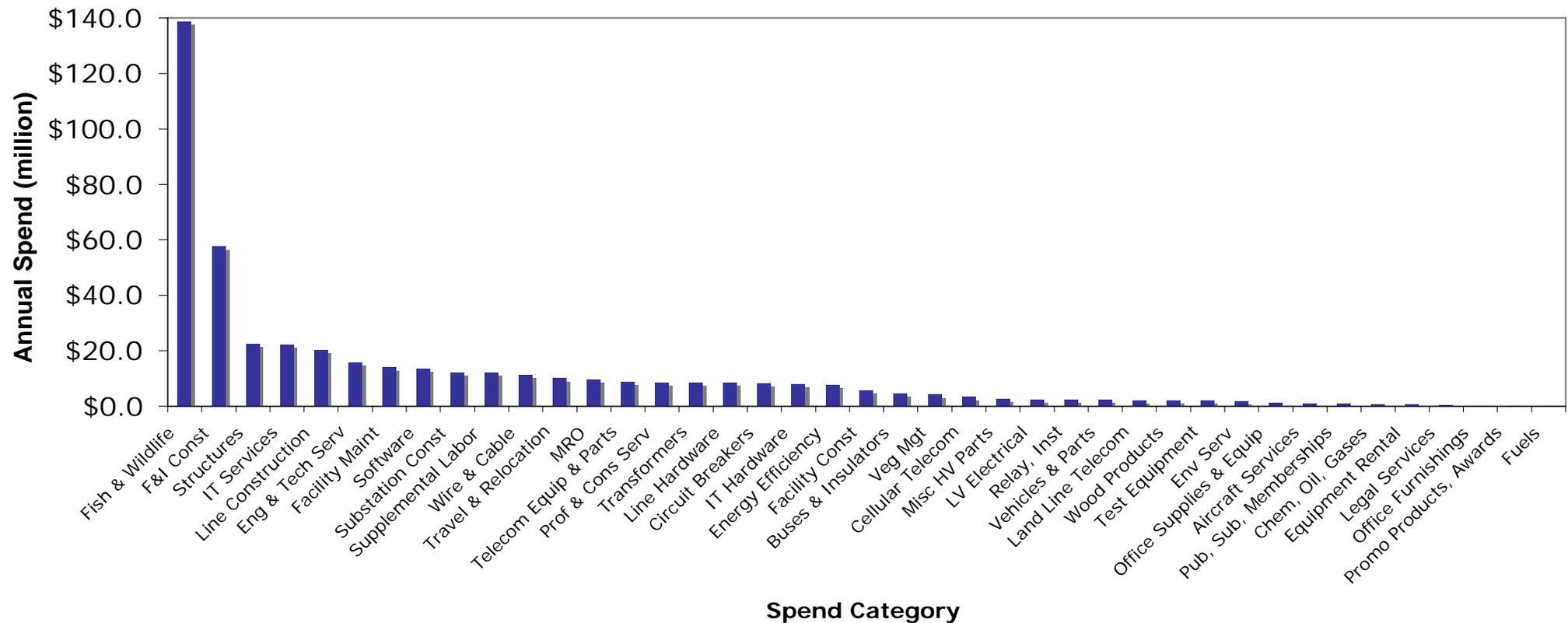
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# Appendix A

## Additional Current State Details

# (Spend) Total Spend is further divided into 41 categories, ranging from \$282,000 to \$138.7 million in annual spend

**BPA Spend by Category**



**Notes:** 1. Data (FY04) and graphic comes from Strategic Sourcing Initiative Final Report dated September 16, 2005 (Denali Consulting)  
 2. MRO is maintenance, Repair, and Operations

**Excluding F&W, the top 5 categories in terms of spend (Furnish & Install Construction (Service), Structures (Materials), IT Services (Service), Line Construction (Service), and Engineering and Technical Services (Service)) make up 30% of the total spend, 43% of non-F&W spend.**

# (Spend) Categories of BPA Spend

Portfolio	Professional Services	Construction & Maintenance Services	IT & Telecom	Engineered Products	Facilities & Support Services	Fish & Wildlife	Distributor Based Materials
Categories	<ul style="list-style-type: none"> <li>▪ Engineering &amp; Technical Services</li> <li>▪ Professional &amp; Business Consulting</li> <li>▪ Environmental Services</li> <li>▪ Legal services</li> </ul>	<ul style="list-style-type: none"> <li>▪ Line Construction</li> <li>▪ Furnish &amp; Install Services</li> <li>▪ Substation Construction</li> <li>▪ Vegetation Management</li> <li>▪ Aircraft Services</li> </ul>	<ul style="list-style-type: none"> <li>▪ IT Services</li> <li>▪ Software Licenses, Leases &amp; Related Services</li> <li>▪ IT Hardware &amp; Computers</li> <li>▪ Cellular Services</li> <li>▪ Landline &amp; Microwave Services</li> <li>▪ Telecom Equipment &amp; Parts</li> </ul>	<ul style="list-style-type: none"> <li>▪ Transformers</li> <li>▪ Wire &amp; cable</li> <li>▪ Circuit Breakers</li> <li>▪ Wood products</li> <li>▪ Structures (Steel, Fiberglass &amp; Concrete)</li> <li>▪ Line Material</li> <li>▪ Buses &amp; Insulators</li> <li>▪ Disconnect Switches, Arrestors &amp; Misc HV Parts</li> <li>▪ Relays, Instruments, &amp; Control Equipment &amp; Parts</li> </ul>	<ul style="list-style-type: none"> <li>▪ Facility Maintenance Services</li> <li>▪ Facility Construction &amp; Remodel Services</li> <li>▪ Supplemental Labor</li> <li>▪ Travel &amp; Relocation</li> <li>▪ Energy Efficiency Programs</li> </ul>	<ul style="list-style-type: none"> <li>▪ Coordination</li> <li>▪ Data Management</li> <li>▪ Habitat</li> <li>▪ Harvest</li> <li>▪ Mainstream Survival</li> <li>▪ Monitoring</li> <li>▪ Production</li> <li>▪ Research and Evaluation</li> </ul>	<ul style="list-style-type: none"> <li>▪ MRO</li> <li>▪ Vehicles &amp; Parts</li> <li>▪ Test Equipment</li> <li>▪ Equipment Rental &amp; MH Equipment</li> <li>▪ Office Equipment &amp; Supplies</li> <li>▪ Publications, Subscriptions &amp; Memberships</li> <li>▪ Chemicals, Oils &amp; Gases</li> <li>▪ Fuels</li> <li>▪ Office Furnishings</li> <li>▪ Promotional Products &amp; Awards</li> <li>▪ LV Electrical &amp; Lighting</li> </ul>

**Note:** 1. Data and graphic comes from Strategic Sourcing Initiative Final Report dated September 16, 2005 (Denali Consulting)

# (Spend) FY 2004 Total External Spend by Category

Material / Service	Portfolio	Category	Total Spend	Inventory	Total Suppliers	Suppliers w/80% of Spend
M	Dist Based Matls	MRO	\$9,602,664	\$3,383,121	269	30
M	Dist Based Matls	Low Voltage Electrical & Lighting	\$2,452,281	\$4,147,660	95	17
M	Dist Based Matls	Vehicles & Parts	\$2,267,999	\$16,339	34	5
M	Dist Based Matls	Test Equipment	\$2,081,454	\$7,835	31	6
M	Dist Based Matls	Office Equipment & Supplies	\$1,376,094	\$244,905	64	2
M	Dist Based Matls	Publications, Suscriptions & Memberships	\$828,581		88	8
M	Dist Based Matls	Chemicals, Oils & Gases	\$791,857	\$380,107	68	11
M	Dist Based Matls	Equipment Rental	\$626,949		60	3
M	Dist Based Matls	Office Furnishings	\$361,203		4	1
M	Dist Based Matls	Promotional Products & Awards	\$343,581		19	2
M	Dist Based Matls	Fuels	\$281,936		7	3
M	Engineered Products	Structures (Steel & Concrete)	\$22,445,843	\$7,081,840	21	3
M	Engineered Products	Wire & Cable	\$11,390,807	\$5,555,760	17	4
M	Engineered Products	Transformers	\$8,480,340	\$5,571,851	7	1
M	Engineered Products	Line Hardware	\$8,424,544	\$6,936,924	27	8
M	Engineered Products	Circuit Breakers	\$8,276,148	\$12,190,765	1	1
M	Engineered Products	Buses & Insulators	\$4,609,821	\$10,258,052	27	4
M	Engineered Products	Disconnect Switches, Arrestors & Misc HV Pa	\$2,708,304	\$10,277,558	8	4
M	Engineered Products	Relay, Instruments, Controls Equip & Parts	\$2,325,440	\$9,090,815	102	11
M	Engineered Products	Wood Products	\$2,220,197	\$1,859,090	2	1
S	Const & Maint Serv	Furnish/Install Construction	\$57,612,409		3	1
S	Const & Maint Serv	Line Construction	\$20,158,700		15	4
S	Const & Maint Serv	Vegetation Management	\$4,231,000		11	5
S	Const & Maint Serv	Substation Construction Services	\$12,131,475		2	1
S	Const & Maint Serv	Aircraft Services	\$1,031,560		3	2
S	Fac & Support Serv	Facility Maintenance Services & Supplies	\$14,066,980	\$331,734	99	4
S	Fac & Support Serv	Supplemental Labor	\$12,058,093		3	2
S	Fac & Support Serv	Travel & Relocation	\$10,011,925		3	2
S	Fac & Support Serv	Energy Efficiency	\$7,612,608		21	10
S	Fac & Support Serv	Facility Construction & Remod Services	\$5,707,010		6	4
S	Fish & Wildlife	Fish & Wildlife	\$138,664,337		161	19
S	IT & Telecom	IT Services	\$22,231,936		33	7
S	IT & Telecom	Software Licenses/Leases & Related Services	\$13,542,700		24	12
M	IT & Telecom	IT Hardware, Computers	\$7,819,316	\$979,620	91	10
S	IT & Telecom	Cellular Telecom Services	\$3,422,273		38	2
S	IT & Telecom	Telecom Services - Land Line & Microwave	\$2,257,399		58	2
M	IT & Telecom	Telecom Equipment & Parts	\$8,834,616	\$7,934,072	147	9
S	Prof Services	Engineering & Technical Services	\$15,718,699		21	6
S	Prof Services	Professional & Business Consulting Services	\$8,671,359		29	17
S	Prof Services	Environmental Services	\$1,906,079		9	5
S	Prof Services	Legal Services	\$508,211		5	3
		<b>Total External Spend</b>	<b>\$460,094,729</b>	<b>\$86,248,048</b>	<b>1,733</b>	<b>252</b>

Note: 1. Data and graphic comes from Strategic Sourcing Initiative Final Report dated September 16, 2005 (Denali Consulting)

# (Contracts) Contract value averages about \$110,000, while amendment values average approximately \$68,000

**Average Value of FY04 Contracts**

Organization	Avg Value Per Contract (\$)	Average Value Per CA (\$)	Average Value Per All Contracts/CAs (\$)
F&W	\$296,339	\$92,845	\$125,260
TBL - Engineering	\$199,528	\$99,972	\$145,180
TBL - Other	\$45,851	\$37,716	\$42,408
TBL - Field Services	\$87,863	\$17,368	\$60,019
Corporate - Other	\$40,979	\$77,860	\$55,842
IT	\$54,134	\$64,716	\$60,557
Energy Efficiency	\$131,330	\$30,827	\$79,068
Power - Other	\$103,063	\$55,349	\$70,841
Undefined	\$1,674,858	\$10,659	\$182,817
Miscellaneous	\$35,038	\$33,138	\$34,116
<b>Total</b>	<b>\$110,730</b>	<b>\$67,808</b>	<b>\$86,693</b>

**Supply Chain (TL)  
Processing of Contracts**

Organization	Average Number of Days to Process a Contract (FY05)	Maximum Numbers of Days to Process a Contract (FY05)
F&W	38	69
TBL - Engineering	19	45
TBL - Other	27	79
TBL - Field Services	17	59
Corporate - Other	19	53
IT	10	31
Energy Efficiency	34	68
Power - Other	31	74
Undefined/Misc	12	28

**Notes:** 1. Data (FY04) from SCM EPIP Team analysis  
2. Materials PO Dollars removed from TBL-Other and IT due to absence of corresponding number of Pos data

**Notes:** 1. Data (FY05) from SC Performance Metrics (September 2005)

- ◆ Excluding the 6 undefined contracts and 17 miscellaneous contracts, contract values range from \$41,000 for Corporate to \$296,000 for F&W; contract amendment values range from \$17,000 for Field Services to \$100,000 for TBL Engineering
- ◆ Contract processing is a measure of the Supply Chain organization's processing time
  - Average number of days to process a contract ranges from 10 days for IT to 38 days for F&W
  - Questions exist on whether some contracts are processed too quickly to perform adequate due diligence

# (Contracts) Contract and Contract Amendment Details

## FY04 Contracts and Contract Amendments by Organization

Organization	Contracts	CAs	Total	Number of Contracts	Number of CAs	Total
F&W	\$42,672,881.39	\$70,562,172.39	\$113,235,053.78	144	760	904
TBL - Engineering	\$55,269,221.48	\$33,290,829.06	\$88,560,050.54	277	333	610
TBL - Other	\$74,422,098.79	\$8,523,848.35	\$82,945,947.14	308	226	534
TBL - Field Services	\$40,241,059.43	\$5,193,169.97	\$45,434,229.40	458	299	757
Corporate - Other	\$14,629,394.76	\$18,764,205.14	\$33,393,599.90	357	241	598
IT	\$13,286,827.92	\$10,095,729.43	\$23,382,557.35	101	156	257
Energy Efficiency	\$14,183,613.32	\$3,606,755.63	\$17,790,368.95	108	117	225
Power - Other	\$7,729,746	\$8,634,479.42	\$16,364,225.61	75	156	231
Undefined	\$10,049,148.08	\$554,253.72	\$10,603,401.80	6	52	58
Miscellaneous	\$595,642.50	\$530,200.00	\$1,125,842.50	17	16	33
<b>Total</b>	<b>\$273,079,633.86</b>	<b>\$159,755,643.11</b>	<b>\$432,835,276.97</b>	<b>1851</b>	<b>2356</b>	<b>4207</b>

**Note:** 1. Data (FY04) from SCM EPIP Team analysis. Contract value data (\$) includes materials Purchase Order (PO) spend data (\$60.3 million in TBL Other and \$7.8 million in IT). Number of contracts and contract amendments does not include PO data. Transmission and power contracts are **not** included.

# (Contracts) Contract and Contract Amendment Details

## FY04 Contracts and Contract Amendments by Contract Type

Contract Types		Contracts	CAs	Total	Number of Contracts	Number of CAs	Total
FFP	Firm Fixed Price	\$187,128,034.25	\$13,331,708.15	\$200,459,742.40	984	624	1608
CNF	Cost, No Fee	\$39,196,203.90	\$72,384,825.84	\$111,581,029.74	128	698	826
T&M	Time & Materials	\$34,489,476.45	\$38,669,672.43	\$73,159,148.88	526	777	1303
CAF	Cost, plus Award Fee	\$0.00	\$28,663,232.73	\$28,663,232.73	0	22	22
EST	Estimate	\$10,317,664.26	\$6,696,959.90	\$17,014,624.16	206	229	435
NFO	No Funds Obligated	\$1,500,000.00	\$0.00	\$1,500,000.00	1	4	5
CSH	Cost Share (no fee)	\$318,227.00	\$0.00	\$318,227.00	4	0	4
CFF	Cost Plus Fixed Fee	\$129,097.00	\$0.00	\$129,097.00	1	0	1
FPA	FFP w/Award Fee	\$931.00	\$9,244.06	\$10,175.06	1	2	3
<b>Total</b>		<b>\$273,079,633.86</b>	<b>\$159,755,643.11</b>	<b>\$432,835,276.97</b>	<b>1851</b>	<b>2356</b>	<b>4207</b>

**Note:** 1. Data (FY04) from SCM EPIP Team analysis. Contract value data (\$) includes materials Purchase Order (PO) spend data (\$68.1 million in FFP). Number of contracts and contract amendments does not include PO data. Transmission and power contracts are not included.

# (Inventory) Current Definitions of Inventory Terms

- ◆ Emergency Minimum Stock (EMS) – Used exclusively for transmission line maintenance emergencies. EMS consists of items held for emergencies that would not otherwise be retained by BPA as part of normal inventory. These items typically have long-lead times to acquire and are necessary for the functioning of the transmission grid. TLM emergency minimum stock maintained in the field is necessary for immediate system repair and return to service. Use of this material is controlled by TN (Technical Services), though use in a true emergency does not require a call for approval. EMS inventory is treated as plant in service equipment and is capitalized and depreciated. It is also tracked in BES at its purchase value. Currently, only Item Type A (General Construction Materials) material will be held under the EMS facility in the inventory tracking system (FERC requirement). Because of this limitation, and due to the requirement of Technical Services to maintain some spare parts in case of emergency, a separate “facility” designation was created in BES under which emergency spare parts could be listed. These spare parts are, for all practical purposes, treated as EMS inventory without officially being called EMS inventory.
- ◆ General Construction Materials (Item Type A) – Day-to-day/routinely used working material that is used for new construction and maintenance, repair, and operating needs. District inventory (field) consists of materials that are necessary for general maintenance and transmission line repair. This type of material, identified as Item Type A - General Construction Inventory, is in the inventory tracking system (BES/PassPort). Unlike EMS material, TN does not control use of this inventory.
- ◆ Spare Parts (Items in Item Types B, C, and D) – Typically, this material consists of parts that are no longer available from vendors. This material is controlled by TN and field personnel, not Supply Chain.
  - Power System Control (PSC) Parts – Communications and radio control equipment, typically located in control houses and at radio sites. These parts/items are used to repair existing, installed equipment and are not generally used in new construction. This type of material is identified as Item Type B, Power System Control Parts, in the inventory tracking system (BES/PassPort). The majority of the parts are stored at the Ross Complex in the Ampere building.
  - System Protection Control (SPC) Parts – Meter and relay equipment, typically located inside of the control house. These parts/items are used to repair existing, installed equipment and are not generally used in new construction. This type of material is identified as Item Type C, System Protection Control Parts, in the inventory tracking system (BES/PassPort). The majority of the parts are stored at the Ross Complex in the Z669 building.
  - Substation Maintenance Parts (SMP) – Everything electrical or mechanical in a substation, typically external to the control house. These parts/items are used to repair existing, installed equipment and are not generally used in new construction. This type of material is identified as Item Type D, Substation Maintenance Parts, in the inventory tracking system (BES/PassPort). Parts are stored at the Ross Complex in the Z669 building, the labs, the Les Schwab yard, and various field locations.
- ◆ Other Parts – Non-construction/spare parts material, including Mobile Equipment Parts (Type E), Tower Steel (Type F), PSC Test Equipment (Type J), Lab Equipment (Type L), Tools (Type T), and Mobile Equipment (Type W)

**Note:** Definitions from various Inventory Management Policy documents provided by Melissa McMullen

# (Inventory) Current Definitions of Inventory Terms

## (continued)

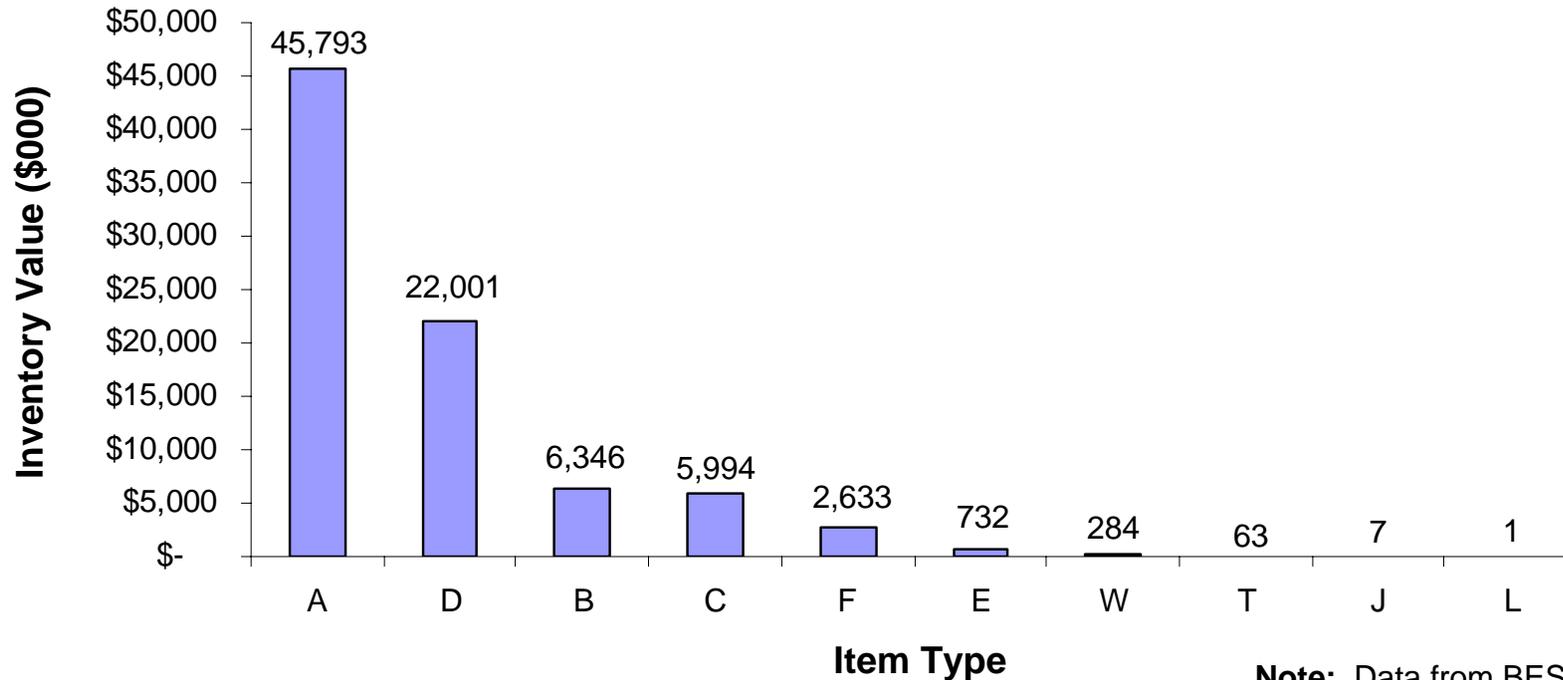
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- ◆ Untracked Inventory – This is material in the above listed inventory item types, excluding EMS) that is in the field, but is not tracked by BES. This material may be tracked on district-managed spreadsheets or may be only tracked through the knowledge of foremen in the field. This material has typically resulted from parting replaced or salvage items and leaving behind excess or unused materials from projects, though, through Team 19’s analysis, it is estimated that 85% of this material is used, salvaged (bone-yard) material.
- ◆ Capitalized System Spares – Materials that have been purchased and issued to a capital work order. These spares do not show up in inventory and, normally, are loaned out in an emergency and returned. Currently, capital system spares only include high-dollar power transformers. This material is generally tracked in BES, but does not show up as part of inventory as it resides in the “Work Management” side of BES. A list of this equipment is maintained by Abel Periera in Substation Technical Services.
- ◆ Other Capitalized Spare Parts – Other capitalized material that is not listed in system spares, but is located in the field. This is material that is left over from capital projects and is maintained in the field in order to keep the parts close to the need. There is no centralized list of this material, but it can include:
  - Fiber optic equipment/parts – Includes restoration fiber and accessories, including patch panels, bolts, splicing material, etc. A list of material is maintained on a spreadsheet by the Fiber Optic Coordinator (Dave Timperley).
  - Fuses – Tracked on a spreadsheet by Operations.
- ◆ Direct Bill Items – These are materials that are purchased for a specific project and are direct billed to that project/work order. This material may be delivered either to the project site or the Ross Warehouse. At Ross the material is typically placed in a staging area for pick-up/delivery. If the project is delayed or cancelled the materials may remain in the staging area or be put into the Ross Warehouse, but these items remain outside of the inventory tracking system.
- ◆ Working Stock – Materials that are necessary for general maintenance and transmission line repairs. Working stock differs from Truck Stock in that Working Stock is common non-spec items (low dollar expendables/consumables such as spray paint, rags, etc.) that are charged to capital work order or expense work orders.
- ◆ Truck Stock – Material such as tape, nuts, and bolts, charged to an Overhead Tools and Shop account, and carried on the field trucks. Truck stock is not inventoried or tracked.
- ◆ Other – This is a catch-all category that accounts for other materials not included in inventory or the other categories. It includes items such as material in vendor-managed facilities (office furniture - \$1.7 million; publications - \$375,000), vendor-managed inventory (auto parts - \$60,000), IT materials (Operation spare parts in the Dittmer basement - \$25,000), and inventory for wireless/PCS operations (at Ross Warehouse but not included in inventory at this time).

**Note:** Definitions from various Inventory Management Policy documents provided by Melissa McMullen

# (Inventory) Inventory can be subdivided into Item Types ...

**\$84 Million in Tracked Inventory by Item Type**

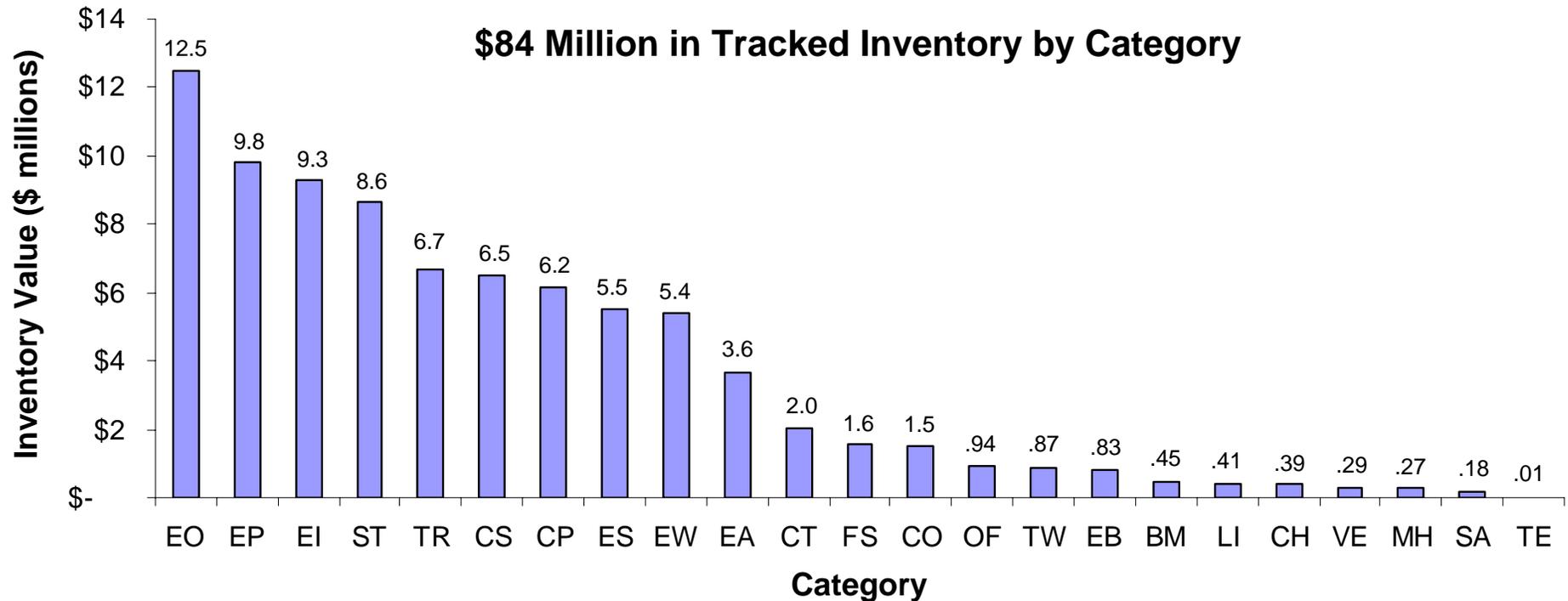


**Note:** Data from BES (7/31/05) and SCM EPIP Team Analysis

Item Type	Description
A	General Construction Materials
B	Power Systems Control (PSC) Parts
C	Systems Protection Control (SPC) Parts
D	Substation Maintenance Parts (SMP)
E	Mobile Equipment Parts

Item Type	Description
F	Tower Steel
J	PSC Test Equipment
L	Lab Equipment
T	Tools
W	Mobile Equipment

# (Inventory) ... and Categories



Cat	Category Description
BM	Building Materials
CH	Chemicals, Gas, Greases, Oil
CO	Systems Comm Equip
CP	Systems Comm Equip/Parts
CS	Relays, Instr and Control
CT	Relays, Instr, Control, Protection
EA	Low Voltage Electrical
EB	Buses and Fittings

Cat	Category Description
EI	Insulators and Bushings
EO	HV Equip 601 V and Above
EP	HV Equipment Parts Breakers
ES	HV Equipment Parts Other
EW	Wire, Cable, Conductor
FS	Fasteners
LI	Lighting Equip and Parts
MH	Matl Handling and Non Office

Cat	Category Description
OF	Office Equip, Computers, Supplies
SA	Safety, Environ, Signs, Labels
ST	Structures
TE	Test Equipment
TR	Transmission Line Hardware
TW	Tools and Work Equipment
VE	Vehicles, Trailers, Parts

**Note:** Data from BES (7/31/05) and SCM EPIP Team Analysis

See Appendix G for Item Type vs Category detail

# (Inventory) Item Type Versus Category

Category	Item Type										Total
	A	B	C	D	E	F	J	L	T	W	
BM	\$ 453,534										\$ 453,534
CH	\$ 361,651		\$ 2,433	\$ 23,247	\$ 41						\$ 387,372
CO	\$ 1,497,803	\$ 9,742									\$ 1,507,546
CP	\$ 3,286	\$ 6,165,106	\$ 5,359					\$ 500			\$ 6,174,251
CS	\$ 2,600,247	\$ 48,908	\$ 3,573,813	\$ 281,636							\$ 6,504,604
CT		\$ -	\$ 2,015,187								\$ 2,015,187
EA	\$ 1,914,618	\$ 87,768	\$ 360,476	\$ 1,276,898							\$ 3,639,760
EB	\$ 826,358										\$ 826,358
EI	\$ 4,393,957			\$ 4,918,413							\$ 9,312,371
EO	\$ 12,380,371			\$ 111,625							\$ 12,491,995
EP	\$ 0			\$ 9,802,866							\$ 9,802,866
ES	\$ 1,979	\$ 21,919	\$ 20	\$ 5,477,028							\$ 5,500,945
EW	\$ 5,427,277										\$ 5,427,277
FS	\$ 1,453,053	\$ 12	\$ 10,571	\$ 92,450							\$ 1,556,086
LI	\$ 377,071	\$ 6,456	\$ 15,527	\$ 9,598							\$ 408,651
MH	\$ 271,741										\$ 271,741
OF	\$ 207,000				\$ 730,943						\$ 937,943
SA	\$ 173,892	\$ 173	\$ 20	\$ 1,055					\$ 4,014		\$ 179,153
ST	\$ 6,005,540		\$ -			\$ 2,631,991					\$ 8,637,531
TE	\$ 344						\$ 6,391	\$ 1,100			\$ 7,835
TR	\$ 6,655,961					\$ 1,315					\$ 6,657,276
TW	\$ 786,857	\$ 6,243	\$ 10,151	\$ 5,760					\$ 58,824		\$ 867,835
VE	\$ 396				\$ 1,057					\$ 283,842	\$ 285,295
Total	\$ 45,792,937	\$ 6,346,327	\$ 5,993,557	\$ 22,000,575	\$ 732,041	\$ 2,633,306	\$ 6,891	\$ 1,100	\$ 62,838	\$ 283,842	\$ 83,853,413

**Note:** 1. Quantity and value data from BES as of 7/31/05

# (Inventory) Additional Inventory Statistics

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- ◆ BPA stocks commercially available janitorial and convenience items in Ross Warehouse
- ◆ BPA carries many slow moving items to support aging, diverse transmission system (50-year old system with obsolete parts)
- ◆ Much of the inventory is to support non-standard, specially-engineered lines and equipment
- ◆ BPA use vendor-managed inventory for auto parts, fasteners at switchboard shop and general shops, and fasteners at field locations.
- ◆ Inventory is 1.4% of plant (\$84 million inventory; \$6 billion transmission plant.)
- ◆ Inventory Carrying Costs – 18.5%
- ◆ Inventory is paid for as an overhead
  - Allocated 75% to capital, 25% to expense
  - Inventory is not budgeted
  - EMS is capitalized; other inventories are in 154 account
- ◆ BPA does not use Free Bin Issues
- ◆ Turns – .77 for applicable inventory investment (General Construction Materials – Type A – The material Supply Chain controls)
- ◆ Obsolescence/Excess Investment - \$9.3 million based on 48 month non-use criteria

# (Inventory) District-Level Field Storage Locations

Region	District	Warehouses "Official" Storage Locations	Total Quantity of all Items	Total Value of all Items
Eugene	Alvey (ALV)	1	28,732	\$ 377,495.00
	Chemawa (CHM)	7	44,114	\$ 1,397,794.92
	North Bend (NBM)	5	125,980	\$ 643,049.32
Eugene Total		13	198,826	\$ 2,418,339.24
Idaho Falls	Burley (BRM)	5	31,286	\$ 214,387.43
	Idaho Falls (IFD)	3	106,884	\$ 532,796.40
Idaho Falls Total		8	138,170	\$ 747,183.83
Olympia	Chehalis (CHH)	1	32,770	\$ 386,439.91
	Kitsap (KTS)	1	2	\$ 35.00
	Longview (LON)	5	719	\$ 31,249.76
	Olympia (OLY)	7	72,730	\$ 594,289.74
	Port Angeles (POA)	2	693	\$ 22,381.69
	Ross (RSS)	7	52,021	\$ 588,307.32
Olympia Total		23	158,935	\$ 1,622,703.42
Redmond	Big Eddy (The Dalles) (BEM)	3	102,577	\$ 1,384,755.11
	Celilo (CEL)	1	33,521	\$ 2,072,440.20
	Malin (MAL)	4	24,106	\$ 413,251.50
	Redmond (RDM)	7	110,773	\$ 1,491,265.59
Redmond Total		15	270,977	\$ 5,361,712.40
Snohomish	Covington (COV)	4	63,176	\$ 1,131,349.76
	Custer (CUS)	3	3,715	\$ 106,960.46
	Stand-Alone Emergency Stock Facility (EMS)	1	-	\$ -
	Snohomish (SNO)	3	50,505	\$ 518,994.19
Snohomish Total		11	117,396	\$ 1,757,304.41
Spokane	Bell (BEL)	3	133,042	\$ 1,821,807.52
	Garrison (GAR)	2	6,183	\$ 301,120.09
	Grand Coulee (GCM)	1	67,149	\$ 642,170.87
	Kalispell (KMH)	5	85,591	\$ 941,788.76
	Schultz (SHU)	1	73,949	\$ 988,727.70
	Sickler (SCL)	5	9,338	\$ 229,426.99
Spokane Total		17	375,252	\$ 4,925,041.92
WallaWalla	Ashe (ASH)	3	15,450	\$ 167,943.43
	Lewiston (LEW)	1	3,776	\$ 169,977.18
	McNary (MCN)	2	2,382	\$ 123,479.57
	Pasco (PAH)	8	178,096	\$ 855,175.50
WallaWalla Total		14	199,704	\$ 1,316,575.68
Grand Total		101	1,459,260	\$ 18,148,860.90

**Note:** 1. Quantity and value data from BES as of 7/31/05

# (Costs) The largest costs are labor (and loadings), other services, supplemental labor (hourly craft/admin), and fuel

Detailed Cost Element		2004 Costs	2005 Costs
AWD	AWARDS	\$ 44,425.97	\$ 62,701.93
BLR	LEASES & RENTS	\$ 15,169.80	\$ 12,961.20
BNL	BENEFITS LOADING	\$ 2,256,689.77	\$ 2,222,805.60
BPA	BPA EQUIPMENT USE	\$ 600,456.68	\$ 216,572.55
CAL	TRANSPORTATION OF PEOPLE	\$ 14,706.69	\$ 18,793.01
CEL	CELLULAR & PCS TELEPHONE SVC	\$ 42,111.03	\$ 25,820.64
CLA	CLAIMS & INDEMNITIES	\$ 325.24	\$ 47,175.50
CLC	CONSULTING SUPPLEMENTAL	\$ 2,054.76	
CLE	ENGR/DESIGN SUPPLEMENTAL	\$ 65.06	\$ 90.75
CLH	HOURLY CRAFT SUPPLEMENTAL	\$ 192,557.44	\$ 631,265.23
CLO	OTHER SUPPLEMENTAL	\$ 30,726.02	\$ 4,111.62
CLS	ADMINISTRATIVE SUPPLEMENTAL	\$ 539,270.66	\$ 582,681.82
CNP	COMPUTERS & ELECTRONIC EQUIP	\$ 165.89	
CSC	CONSULTING SVCS	\$ 36,283.03	\$ 70,287.29
CSI	IT SVCS	\$ 26,400.12	
CSM	MAINTENANCE SVCS		\$ 705.00
CSO	OTHER SVCS	\$ 656,426.67	\$ 802,720.52
CSR	R&D SVCS	\$ 11,132.40	\$ 29,875.20
EQP	EQUIPMENT		\$ 40.87
FUL	FUEL (GASOLINE, DIESEL)	\$ 651,744.52	\$ 699,305.00
GSA	GSA EQUIPMENT RENTAL	\$ 234,960.25	\$ 212,090.04
LAB	LABOR	\$ 8,027,814.62	\$ 8,052,541.75
LDT	LONG DISTANCE TELEPHONE SVC	\$ 1,493.78	\$ 1,601.73
LEA	OTHER LEASED/RENTED EQUIPMENT	\$ 159.24	
LFM	AGENCY MEMBERSHIPS	\$ 425.00	\$ 823.00
LOT	LOCAL TELEPHONE SERVICE	\$ 1,523.89	\$ 202.58
LVL	LEAVE LOADING	\$ 1,794,773.81	\$ 1,724,591.09
MAT	MATERIALS	\$ 332,651.75	\$ 358,701.95
MSC	MISC TRAFFIC (CUSTOMS CHARGES)	\$ 274,532.52	\$ 278,025.16
OCM	OTHER COMMUNICATION SVCS	\$ 1,008.34	
OEB	OTHER EMPLOYEE BENEFITS	\$ 1,488.33	\$ 5,204.68
OFC	OFFICE SUPPLIES	\$ 881.86	\$ 459.90
OFF	OFFICE FURNITURE	\$ 61.35	
OTR	OTHER RENTS	\$ 1,621.32	\$ 905.80
PDM	PER DIEM / LODGING	\$ 237,649.73	\$ 195,630.00
PUB	PUBLICATIONS	\$ 2,733.46	\$ 3,751.67
REL	RELOCATING EMPLOYEES	\$ 3,077.23	
RRC	RAIL CHARGES	\$ 30.78	
SFT	SOFTWARE	\$ 432.00	
SPT	SPARE PARTS	\$ (631.08)	\$ 653.77
SUB	SUBSCRIPTIONS	\$ 817.16	
TOL	TOOLS	\$ 23,032.33	\$ 19,578.51
TUI	TRAINING/CONFERENCES TUITION	\$ 52,369.72	\$ 82,842.12
UPS	OTHER SHIPMENTS (UPS, FEDEX)		\$ 214.82
UTL	UTILITY SVCS	\$ 3,930.95	\$ 8,906.58
<b>Total</b>		<b>\$ 16,117,550.09</b>	<b>\$ 16,374,638.88</b>

## Cost Baseline by Detailed Cost Element (DCE)

- ◆ CK and TL costs are combined by DCE
- ◆ Top 5 Cost Increases (FY04 to FY05)
  - Hourly Craft Supplemental - \$438,708 (228%)
  - Other Services - \$146,294 (22%)
  - Fuel (Gasoline, Diesel) - \$47,560 (7%)
  - Claims & Indemnities - \$46,850 (14,405%)
  - Administrative Supplemental - \$43,411 (8%)
- ◆ Top 5 Cost Decreases (FY04 to FY05)
  - BPA Equipment Use – (\$383,884) (-64%)
  - Leave Loading – (\$70,183) (-4%)
  - Per Diem/Lodging – (\$42,020) (-18%)
  - Benefits Loading – (\$33,884) (-2%)
  - Other Supplemental – (\$26,614) (-87%)

***There were cost increases in 50% of the DCEs between FY04 and FY05.***

Note: 1. Data supplied by Marsha Ard of Managerial Accounting in Financial Operations

# (Costs) Most Supply Chain costs are expenses, with the Warehouse and Sourcing organizations accounting for 70% of the costs

## Cost Baseline (Capital/Expense)

Account	Resource Type	2004		2005	
		TL Costs	CK Costs	TL Costs	CK Costs
Capital	General Contracts	\$ 39,497.63		\$ 2,804.69	
Capital	Materials and Equipment	\$ 4,531.31		\$ -	
Capital	Personnel Comp and Benefits	\$ (16,185.13)	\$ 3.25	\$ 16,685.04	\$ 296.79
Capital	Rents, Utilities, and Land	\$ 866.98		\$ 7,793.61	
Capital	Total	\$ 28,710.79	\$ 3.25	\$ 27,283.34	\$ 296.79
Expense	General Contracts	\$ 1,455,693.53	\$ 150.00	\$ 2,118,932.74	\$ 823.00
Expense	Internal	\$ (314.38)		\$ 47,175.50	
Expense	Materials and Equipment	\$ 1,884,196.96	\$ 2,404.38	\$ 1,577,304.20	
Expense	Personnel Comp and Benefits	\$ 12,056,429.47	\$ 625,292.30	\$ 11,932,401.20	\$ 627,817.19
Expense	Rents, Utilities, and Land	\$ 60,261.75	\$ 4,722.04	\$ 42,604.92	
Expense	Total	\$ 15,456,267.33	\$ 632,568.72	\$ 15,718,418.56	\$ 628,640.19
Total		\$ 15,484,978.12	\$ 632,571.97	\$ 15,745,701.90	\$ 628,936.98

Note: 1. Data supplied by Marsha Ard of Managerial Accounting in Financial Operations (KFRM)

## Cost Baseline (Detailed Organization)

Organization		2004 Costs	2005 Costs	Increase/Decrease (\$)	Increase/Decrease (%)
CK	Supply Chain Policy and Governance	\$ 632,571.97	\$ 628,936.98	\$ (3,634.99)	-0.6%
TL	Supply Chain Services	\$ 423,234.86	\$ 429,533.21	\$ 6,298.35	1.5%
TLO	Supply Chain Operations	\$ 445,901.39	\$ 500,245.87	\$ 54,344.48	12.2%
TLOS	Sourcing Services	\$ 5,219,976.32	\$ 5,341,583.60	\$ 121,607.28	2.3%
TLOT	Warehouse and Transportation Services	\$ 5,406,691.33	\$ 5,678,168.08	\$ 271,476.75	5.0%
TLOU	Asset Utilization	\$ 2,407,364.96	\$ 2,100,919.98	\$ (306,444.98)	-12.7%
TLP	Business Management	\$ 1,581,809.26	\$ 1,695,251.16	\$ 113,441.90	7.2%
Total		\$ 16,117,550.09	\$ 16,374,638.88	\$ 257,088.79	1.6%

Note: 1. Data supplied by Marsha Ard of Managerial Accounting in Financial Operations (KFRM)

**The Supply Chain baseline cost increase of \$257,000 between fiscal years 2004 and 2005 can be attributed to cost increases in Warehouse and Transportation Services, Sourcing Services, and Business Management.**

# (Facilities / Equipment) BPA stores materials at the Ross Warehouse Complex and 101 field storage locations

- ◆ Ross Warehouse Complex – \$65.7 million in inventory (76% of total inventory) – 188,000 square feet of inside storage and 25 acres of outside storage
  - \$55.5 million of non-EMS inventory in the Ross Warehouse (and other buildings)
  - \$8.7 million in EMS inventory in the Ross Warehouse (and other buildings)
  - \$0.94 million in the Corporate Business Line facility (includes fish tags)
  - \$0.32 million in the Investment Recovery facility
  - \$0.24 million in the General Shops Fabrication facility
  
- ◆ Field “warehouse” locations – There are 101 physical “warehouse” locations in the field that are tracked in BES and that hold a total of \$18.1 million in inventory (Quantity and value data from BES as of 7/31/05)
  - These “warehouses” can be dedicated district warehouses, shelves at a substation, the substation yard, etc.
  - A single physical location can be listed as a “Warehouse” and/or an “Emergency Stock Facility”
  - There may be “untracked” locations that are used for storage in the field – items at these “untracked” locations may or may not be listed in BES, depending on whether the items were simply moved from another location or the items are salvage items or left-over materials that are not in the BES inventory system

Region*	Field “Warehouses”	Quantity of Items	Value of Items
Eugene	13	198,826	\$2,418,339.24
Idaho Falls	8	138,170	\$747,183.83
Olympia	23	158,935	\$1,622,703.42
Redmond	15	270,977	\$5,361,712.40
Snohomish	11	117,396	\$1,757,304.41
Spokane	17	375,252	\$4,925,041.92
Walla Walla	14	199,704	\$1,316,575.68
Total	101	1,459,260	\$18,148,860.90

# (Facilities / Equipment) In terms of powered material handling equipment, BPA maintains nearly 60 vehicles

Equipment Description	Number of Vehicles
FORKLIFT, 20,000 - 24,500 LB.	4
FORKLIFT, 30,000 LB.	2
FORKLIFT, 4,000 LB.	2
FORKLIFT, 4000 LB, PROPANE POWER.	2
FORKLIFT, 5,000 LB., TWO-STAGE, LP-GAS.	1
FORKLIFT, 8,000 LB, TOWABLE.	1
FORKLIFT, 8,000 LB, WHEELED.	7
FORKLIFT, DIESEL, 10,000 LB CAPACITY, CHALLENGER.	1
FORKLIFT, DIESEL, 5,000 LB.	1
FORKLIFT, DIESEL, 6,000 LB.	4
FORKLIFT, DIESEL, 9000 LB., 3-STAGE.	1
FORKLIFT, DIESEL, W/REVOLVING FORK CLAMP, 7,000-LB CAPACITY.	1
FORKLIFT, ELECTRIC, 3500 LB CAPACITY, STAND BEHIND, AISLE STYLE.	1
FORKLIFT, ELECTRIC, 4000 LB.	2
FORKLIFT, ELECTRIC, 8000 LB.	1
FORKLIFT, ELECTRIC, PALLET LIFT, 4,000 LB. CAPACITY, WITH BATTERY CHARGER.	1
FORKLIFT, ELECTRIC, PALLET, 24 VOLT, 3,000 LB., RIDING TYPE. LIFT ORDER PICKER WITH	1
FORKLIFT, POLE & PIPE HANDLER.	1
FORKLIFT, RIDING TYPE, 3,000 LB.	1
HANDLER, MATERIAL, 8,000 POUND CAPACITY.	2
MANLIFT, SELF PROPELLED, 35'	1
SWEEPER, STREET.	1
TRAILER, FLATBED, SEMI, 50,000 LB CAPACITY, 45' LONG BED	2
TRAILER, FOR ALL-TERRAIN VEHICLE, 10,000 LB CAPACITY	1
TRAILER, OFFICE, 32' TANDEM AXLE, TRAVEL.	1
TRAILER, TANKER, 11,360 - 18,927L (3001-7500) GAL OIL HA.	5
TRAILER, TANKER, 5,000 GAL. OIL HANDLING.	1
TRUCK, MULTIPURPOSE, FLATBED	1
TRUCK, TRACTOR, 56,000 LB. CAPACITY.	2
TRUCK, TRACTOR, KENWORTH T8008	2
TRUCK, TRACTOR, SET BACK AXLE, 56,000 GVWR.	4
TRUCK, TRACTOR, STANDARD AXLE, 56,000 GVWR.	1
<b>Total</b>	<b>59</b>

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# Appendix B

## Benchmarking and Leading Practice Data



December 2005

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# Supply Chain Management EPIP

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Supply Chain Management  
Leading Business Practices, Techniques, Metrics  
and Trends

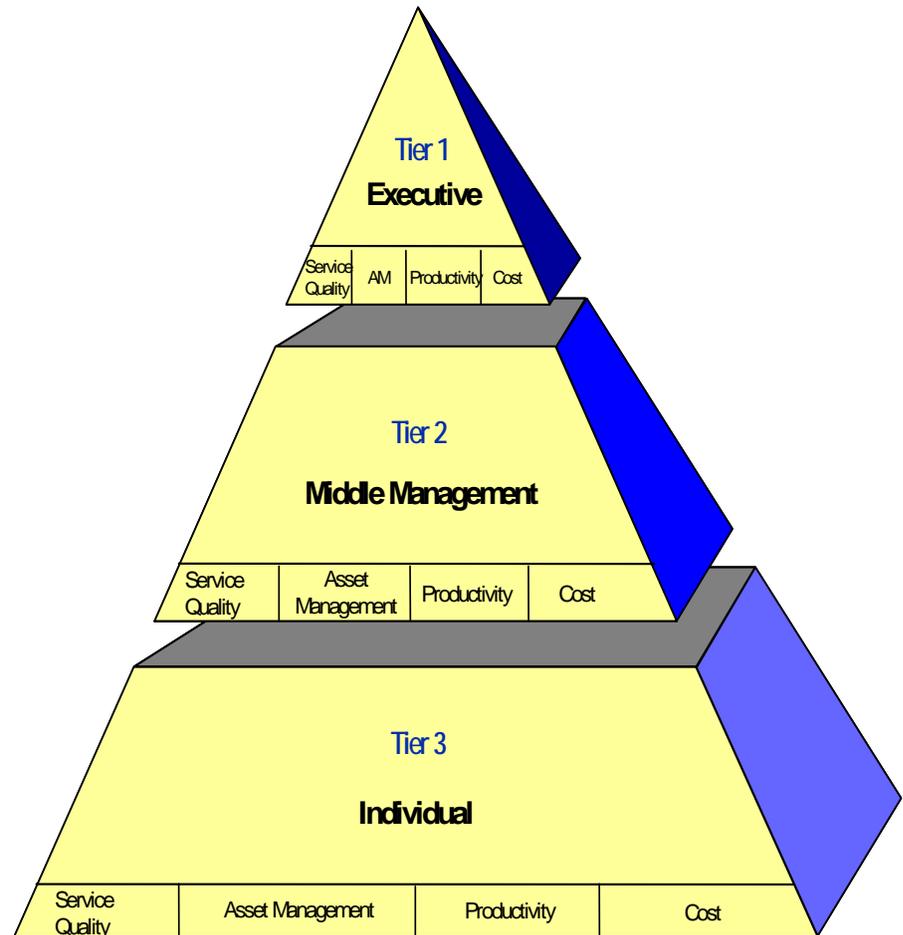
**KEMA** 

The logo consists of the word "KEMA" in a bold, white, sans-serif font, followed by a stylized white symbol that resembles a hand or a set of three curved lines.

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- ◆ Purchasing and Supply Trends



Source: KEMA

# What is Supply Chain Management ?

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## Supply Chain Management is an emerging business process in the utility industry

- ◆ The term Supply Chain Management has its origin in discrete manufacturing.
- ◆ Within the electric utility industry, Supply Chain Management is generally defined as those business processes and techniques applied to the cost effective and efficient acquisition, management, and accounting of goods, materials, and services to support construction, maintenance, and daily operations.
- ◆ From a functional perspective this definition encompasses:
  - Materials and services requirements planning and forecasting – interfacing and supporting the construction, maintenance, and operating planning processes via market and vendor intelligence; risk mitigation strategies; and hedging
  - The commercial disciplines of contracting, procurement and vendor relations with respect to the required plans and forecast
  - The planning and forecasting of routine stock materials requirements and development of appropriate stocking strategies
  - The physical handling, storage, transport, and disposal of materials to support operations
  - Accounts payable and invoice reconciliation business activities
- ◆ IT IS RELATIVELY NEW FOR THE UTILITY INDUSTRY. WE ARE MOVING AWAY FROM THE CONCEPT OF “PURCHASING AND STORES” AND EMBRACING A VALUE-ADDED PHILOSOPHY
  - No more order taking!
  - No more keeping the warehouse full!
  - Value must be added!

# Characteristics of World Class SCM ?

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## World Class Supply Chain Management

**World class companies are continuously changing, therefore a world class model of benchmarks and leading practices today is built on yesterday's data and some may be out of date even as we begin to move forward**

## Apply The **Kaizen** Model

**Emulate world class culture of continuous improvement, performance measurement, and strategic goals rather than concentrating on static data from other organizations**

**Note:** Kaizen is a Japanese word meaning gradual and orderly, continuous improvement. The Kaizen business strategy involves everyone in an organization working together to make improvements without large capital investments. (Source: Kaizen Technology website)

# Characteristics of World Class SCM

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**With respect to the supply chain function there are common characteristics that leading companies exhibit:**

- ◆ Goal-Driven
- ◆ Performance-Based
- ◆ Customer-Focused
- ◆ Process-Centric
- ◆ Planning Philosophy
- ◆ Disciplined Procedures
- ◆ Quality Obsession



**Change in our business will continue, so we've got to deal with it! Continuous Improvement is the strategy for prospering.**

# Characteristics of World Class SCM

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**World Class companies have a solid foundation in basic management principles:**

- ◆ Defined mission
- ◆ Structured goals and objectives tied to the mission
- ◆ Clearly delineated organizational responsibilities and authorities
- ◆ Written policies and procedures
- ◆ Performance standards and expectations
- ◆ Centralization to achieve economies of scale
- ◆ Defined work methods and standards of performance
- ◆ Open channels of communication
- ◆ Performance-based compensation

**Any Management 101 textbook is chock-full of excellent management principles information!**

# Characteristics of World Class SCM

World Class companies have experienced dramatic improvements in performance:

- ◆ Delivery performance 16% to 28%
- ◆ Inventory Reduction 25% to 60%
- ◆ Fulfillment Cycle 30% to 50%
- ◆ Forecast Accuracy 28% to 80%
- ◆ Overall Productivity 10% to 16%
- ◆ Supply Chain Costs 25% to 50%
- ◆ Fill Rates 20% to 30%



Structured SCM programs  
result in significant  
Improvements as well

# What are Leading Practices ?

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**Leading practices are those business principles and techniques applied by leading companies to their supply chain functions.**

- ◆ They are proven business practices and principles – Management 101!
- ◆ Some are very innovative and imaginative while others are very simple and basic management techniques
- ◆ There is a current trend in the utility industry to seek out and implement leading practices because they work for other companies
- ◆ They also provide the means for measuring improvement potential and thus the cost for effecting an improvement

## **MOST IMPORTANTLY**

**They provide a basis for determining if current practices are effective and efficient and will provide insight into improvement potential.**

# What is the Source of these Practices

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## **There are many sources of leading practice information:**

- ◆ Edison Electric Institute
- ◆ Electric Power Research Institute
- ◆ American Production and Inventory Control Society
- ◆ Institute of Industrial Engineers
- ◆ Council of Logistics Management
- ◆ Warehousing Advisory Council
- ◆ American Management Association
- ◆ Supply – Chain Council
- ◆ Institute for Supply Management
- ◆ Common sense and logic
- ◆ Experiences of KEMA
- ◆ Information provided by other consulting firms, bench mark studies, discipline periodicals, and special studies

# Leading Practices

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**The information that follows is a high level look at leading practices around key functional business processes and practices that are integral to a world class supply chain management business function:**

- ◆ Specifications and Standards
- ◆ Requirements Planning
- ◆ Procurement, Contracting and Vendor Relations
- ◆ Inventory Management
- ◆ Warehousing and Logistics
- ◆ Accounts Payable
- ◆ Processes and Organization Infrastructure

**There are literally hundreds of leading practices around the supply chain business process. The ones that follow reflect current trends in the utility industry.**

# Leading Practice – Specifications and Standards

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Leading Practice
Leading practice companies embrace an Asset Management (Total Cost of Ownership) philosophy
Comprehensive configuration management & disciplined “as built” project reviews
Bills of material for major equipment
Frequently updated materials catalogs
Active and rigorous materials standardization program – Reduce line items
Contractor performance standards
Active and structured strategic sourcing teams – Vendor intelligence and market intelligence programs
Standards development is a structured and collaborative effort between Engineering, the user community, supply chain management, and vendors. There are specific program objectives.
Application of Value Engineering principles – Constructability and maintainability reviews
Rigorous “additions to stock” procedure

# Leading Practice – Requirements Planning

## Leading Practice

Work management planning systems can time phase materials requirements by need date

There is a structured process for considering contract labor need dates and factoring them into the forecasts

There is a formal process for forecasting stock and non-stock material items

There are quarterly and annual forecasts of key items

State-of-the-art maintenance planning & scheduling – Preventive, Predictive, Reliability-based, Condition-based

Corrective Maintenance less than 50% of total maintenance labor hours

All Maintenance work, except emergency, is planned

The requirements plan performance is monitored and evaluated

Timely corrective actions to projected variance between required date and projected delivery date

Standard “BOM” for construction units

Planning embraces MRR and MRPII concepts

Inventories are classified along “ABC” criteria

Near and long term construction and maintenance planning models to support MRP and MRPII

Focus on optimizing inventory investment

Constructing market intelligence around skill requirements from contracted labor forces

# Leading Practice – Procurement, Contracting and Vendor Relations

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Leading Practice
Center led purchasing organizations with delegated activities to client organizations: Strategic commodity focus; Corporate wide consistency; Local purchasing authority
Procurement partnering with reliable vendors: Vendor Managed Inventories (VMI); Performance based contracts for contract labor; High purchasing volume to a few selected vendors; The focus is long term
Structured process for qualifying suppliers and monitoring supplier performance
Buy back agreements with suppliers
Detailed and comprehensive purchasing policies and procedures – Sarbanes/Oxley compliance
Standard purchasing terms and conditions
Insignificant levels of “maverick” spending
Heavy use of IT to manage the business function
Use of e-methods to purchase routine/commodity items (eMall, reverse auctions). Recognition that the application of e-commerce is expanding.
Active vendor and market intelligence program
Comprehensive vendor performance and account management programs

# Leading Practice – Procurement, Contracting and Vendor Relations (continued)

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Leading Practice
Purchasing takes the lead with vendors on all matters concerning contract/PO commercial terms and conditions; the User community addresses quality, quantity, timing, and technical issues
Commodity and services sourcing teams
Annual spend plans – What are we planning to buy and when
Frequent spend analyses – Why are we buying what we buy and from whom!
Application of market hedging strategies for procuring materials and services
Contracts' development, administrative, management and execution policies and guidelines – With particular emphasis of defined organizational roles and responsibilities
Contract management information systems
Periodic audits of contractor invoices
Application of the appropriate procurement instrument as a function of the buy – PO, P-card, sealed bid, reverse auction, sole source, etc.

# Leading Practice – Inventory Management

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Leading Practice
Frequent inventory usage analyses to identify slow moving, surplus, and obsolete items
Stocking policies have a basis in historical and planned usage; lead time to procure driven for minimum/maximum algorithms; replenishment processes embrace JIT concepts
Rigorous justification is required for adding an item to stock
Rigorous justification is required for designating an item as a critical spare
Policies categorize total inventory and the methodologies for managing each. Categories include: Active items; Usable; Excess; Obsolete
Inventory record accuracy exceeds 95% for the total investment
Cycle count frequency is determined for each material type
Field Inventory is tracked in order to alleviate presence of “secret stashes”
Active programs for standardization – Integrating engineering; user community; vendors; supply chain and employing techniques such as Value Engineering/Value Analysis
Discipline hard and soft materials reservation process
Application of the “Virtual Warehouse”
Electronically integrated requisitioning and fulfillment processes
Application of “scanning/data acquisition technologies” for inventory tracking

# Leading Practice – Warehousing and Logistics

Leading Practice
Requisitioning is achieved electronically via an integration of the “work management and inventory management systems”
There is a disciplined “hard and soft” materials reservation program
The location of warehouse and storerooms is based on “location analyses” techniques and algorithms
Materials handling equipment is tailored to the operating environment
Labor productivity, material handling equipment utilization, and space utilization standards are present and performance monitored
Safe practices programs with zero tolerance for non-compliance
Application of RFID; GPS and scanning technologies to track and account for inventories and deliveries
“Right sized” transport fleet; vehicle utilization standards
Traffic management functionality – In-house or outsourced
Application of the “virtual warehouse” and stocking models based on logistical considerations
Frequent audits of third party carrier freight bills/invoices for overpayments
Vehicle loadings sequenced for delivery
Warehouse management information systems
Warehouse operations policies and procedures compliant with Sarbanes/Oxley

# Leading Practice – Accounts Payable

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Leading Practice
Accounting system enables asset management
Scanning of paper invoices
Vendors are paid within agreed upon terms and conditions.
Payments are made electronically to vendors via EDI, ERS, P-cards to reduce manual transactions
There are periodic audits of purchasing records to assure compliance with accounting practice
Payments are timed to take advantage of all available discounts
Large project invoices are frequently audited for over payment
Active root cause analysis of problem vendors; vendor performance measures
A single A/P point of contact fielding phone calls and a defined problem escalation guideline
A/P workload tracked as basis for staffing requirements

# Leading Practice – Infrastructure

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Leading Practice
Corporate recognition of the value of Supply Chain Management as a critical spend and inventory resources control mechanism by designating a senior level position of “Chief Supply Officer”
Comprehensive and continued focus on assessing spend and identifying market and/or vendor leverage opportunities
Active materials and services standardization programs
Focus on right sizing inventory investment as opposed to continued cutting
Emphasis on structure requirements planning processes with inclusion of Supply Chain management support
Application of the “virtual warehouse”
Enterprise wide SCM performance measurements addressing the cost, customer satisfaction and responsiveness attributes of the process
Expanding the definition of inventory beyond “accounting definitions”
Embracing e-commerce and other data acquisition and control technologies
Skill set upgrades particularly around procurement and contracting
True vendor alliances

# Selected Metrics

Topic	Metric	Source
<b>Electronic Invoicing</b>	<ul style="list-style-type: none"> <li>◆ % PO approvals on line: Average 47%; World Class 100%</li> </ul>	<ul style="list-style-type: none"> <li>◆ Hackett Best Practices 2002</li> </ul>
<b>Paperless Procurement to Pay</b>	<ul style="list-style-type: none"> <li>◆ % Active Suppliers who are e-Procurement enabled (Range: 0.45 – 42.88) (Utilities 0.65)</li> <li>◆ % Purchase Spend via e-Procurement (Range: 1.08 – 36.97) (Utilities: 1.08)</li> </ul>	<ul style="list-style-type: none"> <li>◆ Center for Strategic Purchasing Research 8-2005</li> <li>◆ Center for Strategic Purchasing Research 8-2005</li> </ul>
<b>Electronic Procurement Tools</b>	<ul style="list-style-type: none"> <li>◆ % Purchase Spend via e-Auctions (Range: 0.50 – 9.40) (Utilities: 3.70)</li> <li>◆ % POs processed using eCommerce: Average 17%; World Class 83%</li> <li>◆ % of Order Releases using eCommerce: Average 9%; World Class 61%</li> </ul>	<ul style="list-style-type: none"> <li>◆ Center for Strategic Purchasing Research 8-2005</li> <li>◆ Hackett Best Practices 2002</li> <li>◆ Hackett Best Practices 2002</li> </ul>
<b>Construction and Maintenance Planning</b>	<ul style="list-style-type: none"> <li>◆ Returns as a % of issues: &lt;7%</li> </ul>	<ul style="list-style-type: none"> <li>◆ Survey of selected industry SCM Managers</li> </ul>

# Selected Metrics (continued)

Topic	Metric	Source
<b>Warehousing and Inventory Management</b>	<ul style="list-style-type: none"> <li>◆ Inventory T/O ratio: 6 to 20</li> <li>◆ % of Items stock outs: &lt;1%</li> <li>◆ % of “A” item stock outs: 0%</li> <li>◆ Optimum space utilization: &gt;85%</li> <li>◆ Inventory record accuracy \$ variance: &lt;1%</li> <li>◆ Inventory record accuracy count variance: &lt;1%</li> <li>◆ Inventory on-hand in excess of “maximum” stocking policy level; &lt;5%</li> </ul>	<ul style="list-style-type: none"> <li>◆ American Productivity and Quality Center (APQC)</li> <li>◆ The Warehouse Management Handbook (Tompkins and Smith, 1998)</li> <li>◆ Siemens Asset Performance Improvement Process</li> <li>◆ Scott Madden, Inc</li> </ul>
<b>Supplier Base</b>	<ul style="list-style-type: none"> <li>◆ Downward trend in number of suppliers</li> <li>◆ Long term contracting: World class companies execute 103% more long term contract</li> <li>◆ Suppliers per \$1.0B spend: 1,742</li> <li>◆ Suppliers/ 1.0B with 80% of total spend: 10</li> </ul>	<ul style="list-style-type: none"> <li>◆ Numerous</li> <li>◆ Hackett Best Practices 2002</li> </ul>
<b>Invoicing Processes</b>	<ul style="list-style-type: none"> <li>◆ # of days to process a vendor invoice: 7 average; 1.5 median</li> </ul>	<ul style="list-style-type: none"> <li>◆ IOMA 2002</li> </ul>

# Selected Metrics (continued)

Topic	Metric	Source
<p style="text-align: center;"><b>Types of Contracts</b></p>	<ul style="list-style-type: none"> <li>◆ Firm Fixed Price</li> <li>◆ Fixed Price Escalation</li> <li>◆ Fixed Price Incentive</li> <li>◆ Cost Fee Price</li> <li>◆ Fixed Price Re-determination</li> <li>◆ Cost/Cost Sharing</li> <li>◆ Cost Plus Incentive</li> <li>◆ Cost Plus Award Fee</li> <li>◆ Cost Plus Fixed Fee</li> <li>◆ Time and Materials Letter Subcontract</li> <li>◆ Indefinite Delivery</li> </ul>	<ul style="list-style-type: none"> <li>◆ 1994 NAPM 79<sup>th</sup> Annual International Purchasing Conference Proceedings</li> <li>◆ The Purchasing Handbook, A Guide for the Purchasing and Supply Professional, Sixth Addition, McGraw-Hill, 2003</li> </ul>
<p style="text-align: center;"><b>IT Equipment Standardization</b></p>	<ul style="list-style-type: none"> <li>◆ “Standardization” is generally recognized as the most effective tool to achieve product/services cost savings</li> </ul>	<ul style="list-style-type: none"> <li>◆ Numerous Sources</li> </ul>

# Selected Metrics (continued)

Topic	Metric	Source
<b>Organization Models</b>	<ul style="list-style-type: none"> <li>◆ Procurement cost as % of spend: World Class = 0.30%</li> <li>◆ Annual training hours per professional: World Class = 61 hours</li> <li>◆ Span of control: World Class 14 professionals per manager</li> <li>◆ World Class: Application of cross functional (sourcing) teams</li> </ul>	<ul style="list-style-type: none"> <li>◆ Hackett Best Practices 2002</li> </ul>
	<ul style="list-style-type: none"> <li>◆ “Hybrid” structures as emerging Organizational Scalar Model – centralized strategic focus activities (e.g. Sourcing) and localized process applications (e.g. Warehousing)</li> </ul>	<ul style="list-style-type: none"> <li>◆ Numerous</li> </ul>
<b>Use of Receiving and Inspection functions</b>	<ul style="list-style-type: none"> <li>◆ Receiving performed by warehouse personnel. All items processed within three hours of receipt</li> <li>◆ Visual and count inspections performed by warehousing</li> <li>◆ Technical inspections performed by requester</li> <li>◆ Trend to outsource technical inspections at manufacturers premise</li> </ul>	<ul style="list-style-type: none"> <li>◆ Southern Company Generation Standard</li> <li>◆ KEMA</li> </ul>

# Purchasing and Supply Trends

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**The Institute for Supply Management (formally the National Association of Purchasing Management) has identified 18 emerging supply chain management business trends:**

1. Electronic Commerce – Increasing use of web for procurement
2. Strategic Cost Management – A firm’s strategy expands to include suppliers, and their suppliers
3. Strategic Sourcing – Tailoring performance metrics to individual suppliers
4. Supply Chain Partner Selection and Contribution – Partnering to achieve performance efficiencies
5. Tactical Purchasing - Third party outsourcing and automated transactions
6. Purchasing Strategy Development – Increase attention to linking corporate and purchasing strategies
7. Demand-Pull Purchasing – Integration of supplier data base with company data base
8. Relationship Management – Structure supplier relations at senior levels of the organization
9. Performance Measurement – Measuring the performance of the total supply chain
10. Process Uncoupling – Outsourcing non-core competencies
11. Global Supplier Development – Recognition of the global marketplace
12. Third-Party Purchasing – Increasing use of master contracts, consortia and third party companies

# Purchasing and Supply Trends (continued)

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13. Virtual Supply Chain – Creation of virtual legal organizations to focus on specific customers and markets (probably not applicable to the utility arena).
14. Source Development – “Creating” suppliers to meet a firm’s specific needs
15. Competitive Bidding/Negotiation – Emergence of professional negotiators outside of the purchasing department
16. Strategic Supplier Alliances – True integration with selected critical suppliers
17. Negotiation Strategy – Continued focus on assuring “win-win” relationships with suppliers
18. Complexity Management – New demands on purchasing professionals to expand their skill sets

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# Appendix C

## Recommendations Summary Table

# Recommendations

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- ◆ The following pages list the 64 recommendations developed by the SCM EPIP Team
  - Accounts Payable (AP) – 4 recommendations
  - Contracting and Agency Policy (C) – 30 recommendations
  - Inventory and Stocking Policies (I) – 13 recommendations
  - Outsourcing Potential (O) – 2 recommendations
  - Strategic Sourcing (SS) – 1 recommendation
  - E-Commerce Strategy (EC) – 4 recommendations
  - Technology Applications (T) – 4 recommendations
  - Supply Chain Organization, Governance Models, and Performance Metrics (O&G) – 6 recommendations
- ◆ Highlighted recommendations identify the recommendations with the greatest impact on achieving savings/avoided cost estimates

# Recommendations (continued)

No.	Recommendation	Benefits	Costs
AP-1	Improve maintenance of contract data in the system	\$15,000 potential annual cost avoidance; Improves BES data integrity; Improved A/P productivity; More efficient invoice payment process; Better vendor relations	Data field addition to BES; Possibility of some discipline issues with employees who do not comply with the process
AP-2	Centralize invoice processing	BES data entry consistency; Improved invoice matching efficiency; Better vendor relations	Increased A/P work load; Possible staff addition until full electronic payment processing is achieved
AP-3	Establish "receiver" policy (creation of the "receiver record in PassPort) with accompanying metrics	Reference recommendation AP-1; (\$15,000 savings is not duplicated)	Reference recommendation AP-1
AP-4	Create systems, policies, and procedures to allow paperless processing of invoices	Improved labor productivity (reduced handling of upwards of 5000 paper invoices); Consistent with E-Commerce strategy; Leading practice; Improved BES data integrity	Exact system upgrade costs are to be determined. Preliminary estimates are \$1.0 MM+. May cause hardship on vendors to comply with BPA requirements.
C-1	Standardize and streamline contracting processes, to the extent possible	Industry leading practice; Prudent business practice; Time savings; Assists in alleviating errors	Minimal
C-2	Aggressively develop and expand the skill sets of Contract Officers (COs) and Contract Officer Technical Representatives (COTRs)	Marketplace leverage; Professional representation of BPA by COs and COTRs; Downstream cost savings in terms of contract development costs, contract prices, and reduced errors and amendments	Annual costs of \$100,000 - \$200,000 for training, publications, seminars, and certification (Many of these costs are captured in other recommendations)
C-3	Create Supply Chain staffing strategy that aligns staffing with new skill and workload requirements	Gets the right skills into the required jobs; Retain expertise among the Contract Officers (COs)	Minimal implementation costs; Possibility of increased pay grades (\$135 K - \$270K)

# Recommendations (continued)

No.	Recommendation	Benefits	Costs
C-4	Right-size / optimize the number of COTRs	More rigorous control mechanism; More standardized processes; Reduced BPA training and certification requirements; More professional and dedicated COTR workforce; Removal of secondary workload from many employees	Minimal; Transfer of workload as some COTRs become full-time COTRs and others lose all COTR responsibility
C-5	Integrate Supply Chain into the Agency Strategy and Corporate Planning processes	Industry leading practice; Increased spend leverage in marketplace; Prudent business practice	Minimal; Change in Agency culture
C-6	Prepare two-year forecasts of major procurements and contracting requirements. Budget requirements for a two-year period. Assign ownership of the process policy development and execution to Program Offices.	Marketplace leverage	Minimal; At some point an IT enabling tool may be required
C-7	Clearly define the responsibilities and authority for market and vendor research between Program Offices and SCM. Institutionalize the results in the form of formal "vendor management" policies and business practices	Processes and labor efficiencies; Market place leverage; Better vendor relations; Career path opportunity in Supply Chain	Minimal; Set up of new function in SCM; Possible staffing additions at a later time
C-8	Institute a process for writing a "statement of work" (SOW) consistent with leading practices, which can lead to more definitive contracts	Process consistency and efficiency; Fewer contract additions; Avoided costs associated with claims, lawsuits; Promotes contract performance measurement; Better vendor relations	Minimal over the long term; Short term costs for training in SOW development

# Recommendations (continued)

No.	Recommendation	Benefits	Costs
C-9	Provide a single point of control for the Agency's contract development and management process by better defining the responsibilities and authorities of the "Contracts Strategy Panel"	Effective mechanism for assessing procurement risks and mitigating; Clear understanding of contract expectations; Avoided costs for claims, lawsuits (\$1.0 MM to \$3.0MM annually); Market place leverage	Senior management time to participate in Panel; Potential for CO dissatisfaction at perceived micro-managing by a "committee"
C-10	Institute a Policy Change Board	Assures consistency of policy development and application; Provides mechanism for assessing policy performance	Primarily time of the Board membership to review and approve policy changes
C-11	Create a Supply Chain Management module for new manager training and new employee orientation	Provides a mechanism for assuring consistency of SCM policy and business practices	Time to develop and printing costs
C-12	Develop Agency-wide strategy and policies regarding supplemental labor and supplemental labor contracting (This recommendation will require implementation in the broader context of a BPA Workforce / Human Capital Strategy and/or HR EPIP)	Assessment of market conditions; selection of desired vendor base; forecast of requirements	Strategic sourcing team (three to five months)
C-13	Move toward an all electronic RFI/RFP solicitation process	Labor efficiency gains; Improved response time for solicitations; better vendor relations; consistent with industry practice to pursue electronic procurement options	Unknown at this time. Will be determined as part of the E-commerce strategy
C-14	Standardize contract and solicitation development forms	Improved contract solicitation process; Labor efficiencies due to standardization	Minimal – A CO project team could develop
C-15	Raise the non-competitive procurement dollar threshold from \$5,000 to \$25,000	Shorter procurement timelines; Less "paperwork"; Improved labor productivity	Minimal – But there is a higher potential for abuse with a higher threshold

# Recommendations (continued)

No.	Recommendation	Benefits	Costs
C-16	Standardize vendor proposal preparation instructions and vendor evaluation criteria, by Program	Promotes efficiency; Improves vendor relations	Minimal; Primary costs will be in developing the initial templates and maintaining an on-line catalog
C-17	Mandate review, by Office of General Council (OGC), of all contracts identified as critical and sensitive, as per BPA risk management approach	Minimize risk of protest, claims, disputes, etc.; Maximize likelihood of legally sustainable contracts	Minimal; Change in Agency culture
C-18	Implement service-level agreements between HCA and OGC in order to formalize the support required for the adjudication of protests through the protest review board	Minimizes the risk that BPA's protest decisions will be submitted to GAO for further adjudication; Maximizes the likelihood that BPA protest decision are judicially sustainable; Ensures timely and appropriate support	Minimal; Change in Agency culture
C-19	Require COs to develop pre-negotiation objectives through the use of tools or other methods	Promotes contract development due diligence; Results in better contracts and thus assuring objectives are met; Improved CO skill sets	Minimal; Preparation of templates and algorithms will be required as well as training of the COs; Some additional time may be required for contract preparation and award as the assessments are conducted
C-20	Improve SCM contracting capabilities relative to cost and price analysis	Ensures Contractor cost elements on T&M and Costs contracts are fully evaluated for reasonableness and allowability prior to award	CO training or hiring cost and price analysts to perform this effort for SCM
C-21	Change review levels for internal contract quality reviews from \$50,000 to \$100,000 (Quick Hit)	Quicker contract development for low risk contracts	Minimal - A pilot effort would need to be conducted for a reasonable time period in order to assess the appropriate threshold values for the new policy

# Recommendations (continued)

No.	Recommendation	Benefits	Costs
C-22	More rigorously enforce ratification policy so that programs or individuals with a pattern of abuse are held accountable for their behavior	More rigorous control mechanism	Possible personnel issues if policy is applied
C-23	Utilize electronic signatures on contracts and related documents	Improved productivity; Fewer manual transactions and thus less chance of errors; better vendor relations	A one time cost of less than \$25,000 for program change
C-24	Improve debriefings of unsuccessful offerors in order to further develop supplier capabilities, reduce the number of protests, and mitigate risk	Improved vendor relations: Better award decision making; Better suppliers; Less risk	Some additional CO time
C-25	Implement pre-performance (post-award) conferences for service contracts and enforce their use on other contracts	Assures compliance with policy; Improved vendor relations; Assures requirements of the contract are well understood by all parties; Potential for minimizing claims	Time commitments could be significant depending on the scope and complexity of the contracts
C-26	Clarify and define the CO/COTR roles and responsibilities and ingrain into the culture of BPA	Prudent management; Structures COTR process relative to the Program requirements; Assures contracting process is well defined; Promotes career paths for COs and COTRs	Minimal if using an internal focus group to develop; Periodic compliance audits and training would also be required
C-27	Improve contract close-out processes (BES and hard copies)	Prudent management; Assures compliance with BPI; Improved vendor relations; Reduces potential for contractor over billing	Minimal – Periodic audits will be required; May result in personnel discipline issues when enforced

# Recommendations (continued)

No.	Recommendation	Benefits	Costs
C-28	Develop and institute a formal process, using the BES system, to conduct and document a post-award vendor performance evaluation for "critical procurements"	Prudent management; Improves contracting process by institutionalizing "lessons learned" feedback mechanism; Supports continuous improvement of contracting	Minimal – The primary cost is time spent conducting the evaluation and the communication of the lessons learned to the appropriate parties
C-29	Standardize and enforce personal property tracking	Compliance with Circular A-123; Prudent management	Initial cost would be to assess the degree of non-compliance. Internal resources can perform this assessment. A significant cost could be incurred depending on the solution developed.
C-30	Develop and enforce a policy which requires individuals with a pattern for losing government personal property to pay for all or a portion of the costs of that lost property	More rigorous control mechanism; Will result in some costs avoidances	Possible personnel issues if policy is applied
I-1	Review and update all inventory policies and create an Inventory Playbook / Policy Manual	Assure consistency in the application of inventory management policy across the enterprise; Supports compliance with Circular A-123; Improves inventory management processes efficiency and productivity	Minimal; Playbook can be developed with current Supply Services resources
I-2	Optimize inventory through development and implementation of system-wide inventory stocking and cataloging policies	Reduction in inventory investment over time; Assures materials spend is more consistent with construction and maintenance programs; One time cost avoidance of a minimum of \$21.5 MM (25% of \$86.4 MM) over the next 3 to 5 years by working down current excess above maximum and adjusting selected maximum values	\$40,000 to \$50,000 to purchase inventory optimization tool (software); Time commitment by SCM to conduct analyses, adjust stocking policies, and execute the work down strategy

# Recommendations (continued)

No.	Recommendation	Benefits	Costs
I-3	Reinforce emergency material policies and processes	Will assure that adequate investment in emergency materials are maintained and consistent with an acceptable level of risk	Minimal – This effort would be part of normal operations
I-4	Optimize spare parts inventory processes	Will assure that minimal investment in spare materials are maintained and consistent with an acceptable level of risk; Current levels can be reduced by at least \$4.0 MM	Minimal – This effort would be part of normal operations. SCM may choose to assign dedicated personnel initially as part of a project team to identify large savings candidates.
I-5	Develop an efficient and cost effective process for tracking/managing IT equipment and parts from requisition through disposal	Improved control over IT procurement process; Better accountability of IT assets; Improved and more efficient procure to pay process	Minimal
I-6	Develop and implement ordering and purchasing policies and processes that more efficiently support the Agency's administrative, construction and maintenance efforts	Assures consistency in the application of prudent business processes; Consistent with intent of Circular A-123; Significantly reduces manual requisitioning and procurement transactions: makes all inventory more visible to all potential users	eMall costs could be significant
I-7	Improve the receiving processes, including Ross receiving, field receiving, and receiving inspection	Assures more cost effective procurement process for BPA specific items	Training costs estimated at \$50,000
I-8	Improve warehousing efficiencies in order to improve inventory accuracy and keep operating costs down	Brings the warehousing operation in line with planned policy and processes improvements; Assures staffing is based on proven work management techniques and principles; Right sized staffing based on work load	Minimal

# Recommendations (continued)

No.	Recommendation	Benefits	Costs
I-9	Conduct a pilot program to assess the merits of expanding the current bar coding technologies or pursuing RFID technology for tracking and accounting for critical materials within both Ross and the Field	Assures better management and accountability of Ross and field inventories; Data integrity; Improved SCM and Field Personnel productivity	Maximum out of pocket costs are expected to be less than \$250,000 to \$750,000
I-10	Refine the returns to inventory processes for excess materials (material left over or over ordered for projects) and ensure the optimal return on investment for on-hand inventories (overstock, zero use inventories)	Supports Circular A-123; Assures better accountability of returned materials; Provides a mechanism to measure planning performance	Primary cost is in training appropriate personnel in the policy and procedure
I-11	Develop training requirements and establish and implement training curriculum to standardize inventory policy compliance	Assures consistent application of inventory management policies; Provides a measurement of process performance	Minimal – Part of overall BES training requirements recommended later in the report
I-12	Change existing policies so Supply Chain will manage all inventory across BPA, no matter the location or item type	Assures consistent application of inventory management policies; Creates a single point of responsibility for inventory across the Agency; Creates the environment required to optimize the inventory across the Agency	Minimal hard costs, Culture and organizational issues could be significant
I-13	Develop understanding of all available materials, regardless of classification as “inventory,” and how they affect inventory levels	Provides Supply Chain with an overall picture of available materials in order to accurately set inventory stocking policies	Minimal

# Recommendations (continued)

No.	Recommendation	Benefits	Costs
O-1	Initiate a more comprehensive business case study for combining HazMat and Investment Recovery Center (IRC)	Potential benefits of the combination would include annual labor savings of over \$500,000 per year, better utilization of resources in unloading of trucks, cross training HazMat and IRC staff, and better use of existing facilities	External consultant for assessment at \$100,000. Primary costs include an estimated \$1.0 MM modification to the HazMat building/area for other uses.
O-2	Conduct study of outsourcing of the material handling function after inventory-affecting recommendations from the PDB EPIP, O&M EPIP, Supply Chain EPIP, and Standards Group are in place	Outsourcing the material handling function could save approximately \$400,000 a year in labor costs based on current staffing and benchmark labor costs	Minimal – Could be included in EPIP implementation
SS-1	Begin implementation of the strategic sourcing pilot programs (Note: The SCM EPIP team endorsed the Strategic Sourcing initiative that began prior to the EPIP)	Has the potential to save upwards of 7% to 14% on materials and services expenditures over a five year period based on experiences of other utilities; Reduce the number of vendors; Better stocking policies; Creates strategic alliances that lead to cost reductions and better service	The pilot proof of concept cost is < \$200,000. Some costs to implement the remaining strategic sourcing opportunities may be necessary.
EC-1	Continue association with Perfect Commerce at this time. The Indus Buy Demand module in BES is connected with the Perfect Commerce market site. If a change is made in suppliers, many connectivity issues need to be considered. Because the e-Commerce platform must be connected to BPA's ERP system, those needs must be considered.	The current relationship has proven to be beneficial to the Agency	N/A

# Recommendations (continued)

No.	Recommendation	Benefits	Costs
EC-2	Continue testing the application of the e-commerce business tools via pilot programs in the regions or the business lines	Improved and more cost effective procurement mechanism; Reduced on hand inventory; Better internal requisitioning for select items	The primary costs incurred are for those BPA personnel involved in the pilot efforts
EC-3	Proceed with the development of the Agency's E-Commerce strategy assuring current objectives are consistent with planned EPIP changes	Assures compliance with E-Government	Minimal – This is an ongoing effort
EC-4	Create a vendor portal for BPA	Supports e-commerce strategy; improves internal efficiencies through manual transactions processing reductions; Better data integrity; Improved vendor relations	Initial capital investment is estimated to be in the \$200 to \$250 K range
T-1	Develop an Agency wide training program on BES to support SCM	Assures consistency in procurement and inventory management across the Agency; Improved labor productivity; Better decisions by having better data; Data integrity	\$500,000 to \$750,000 for an external resources to identify and develop the training requirements and conduct the initial training; Approximately 3 FTE (\$300,000) for on-going support and training
T-2	Create “digital signature” functionality in BES	Provides for a more efficient business process	Approximately \$25,000 to \$50,000 to upgrade BES for the functionality
T-3	Electronically “date stamp” invoices	Improved A/P productivity; Supports compliance with the Prompt Payment Act	Minimal – Some vendors may not have capabilities to submit electronic invoices
T-4	Upgrade “data warehousing” capability to support SCM business activities by creating a Supply Chain data mart	Data integrity and as a result better decision making	Estimated cost is \$1 to \$3 MM

# Recommendations (continued)

No.	Recommendation	Benefits	Costs
O&G-1	Implement Tier 1 Agency wide SCM performance measures of supply chain management (See Appendix)	Recognizes supply chain management as an enterprise wide business process; Compliments the current Supply Chain Services scorecard measures; Increases the visibility and transparency of performance	Minimal; Some new measures will require developmental time; Some upgrades to PassPort may be required
O&G-2	Expand the responsibilities of Supply Chain Services to: a) Manage the Agency's materials and services spend process and assure its effectiveness in the marketplace; and b) Own the Agency's stocking policy	Provides a single point of accountability for the Agency's Spend and Inventory Resources; Facilitates development and application of appropriate performance measures and processes' controls	Minimal
O&G-3	Remove Supply Chain Services from the Transmission Business Line and elevate / reassign to the planned "Agency Services" organization	Promotes the value of supply chain services to the enterprise by elevating its stature; Better assure an appropriate balance of operation versus financial objectives with respect to procurement and inventory policy; Creates single point of responsible for monitoring \$375 MM to \$400 MM in annual spend	Minimal; Potential for internal political strife if there are senior management objections to the change
O&G-4	Clarify the roles and responsibilities between the offices of the HCA and CSO with respect to supply chain policy development and compliance assurance	More clear delineation between supply chain policy development and compliance monitoring	Minimal
O&G-5	Realign the internal structure of Supply Chain Services (See Appendix)	Better alignment of business activities; Fewer layers of management	Minimal
O&G-6	Reassess Supply Chain Services staffing and skills requirements pending BOB decision on the EPIP recommendations	Staffing needs are a function of work load and skill set needs; Right sized staffing levels; Skill set needs reflect new Agency Supply Chain business model	Minimal; Possibly some training or certification costs to upgrade current staffing skill sets

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# Appendix D

## Tier 1 Performance Measures

# Tier 1 BPA Supply Chain Performance Measures

Internal Facing		Customer Facing / Process Efficiency			Shareholder Facing
Supply Chain Cost (Cost to Operate Supply Chain)	Asset Management Efficiency	Responsiveness	Reliability / Accuracy	Effectiveness	
<ul style="list-style-type: none"> <li>▪ Supply Chain Management Costs – Measures direct and indirect costs to plan, source, and deliver products and services                             <ul style="list-style-type: none"> <li>– Versus Inventory Value</li> <li>– Versus Total Purchases</li> </ul> </li> <li>▪ Cost of Goods &amp; Services (Spend)</li> <li>▪ Number of Contract Actions</li> </ul>	<ul style="list-style-type: none"> <li>▪ Critical Items Days Supply (Replaces Inventory Turns)</li> <li>▪ Write-Offs</li> <li>▪ Market Basket Index (Trend)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Requisitions Received within Lead Time</li> <li>▪ Schedule Delays Due to Material Unavailability</li> <li>▪ Contracts Developed Within Expectation</li> </ul>	<ul style="list-style-type: none"> <li>▪ Delivery Performance (Supply Chain to Field) – Percentage of orders delivered on time and in full to customer request date</li> <li>▪ Percentage of Returns (From Field to Supply Chain)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Customer Satisfaction (Baseline/Trend)</li> <li>▪ Key Supplier Reliability Index</li> <li>▪ Discount Opportunity / Interest/Penalty Occurrences</li> </ul>	<ul style="list-style-type: none"> <li>▪ Cost Savings/Cost Ratio (Profit Proxy)</li> <li>▪ Social Responsibility Metric / Diversity Metric – Percentage of spend dollars to small or disadvantaged suppliers</li> </ul>

**Note:** 1. These do not displace other current measures

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# Appendix E

## Organization Models – General



Revision 12-31-05

**DRAFT:**  
**For Discussion Purposes Only**  
**SCM EPIP Core Team**

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# Supply Chain Management EPIP

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Supply Chain Management  
Organization and Governance Models  
December 2005

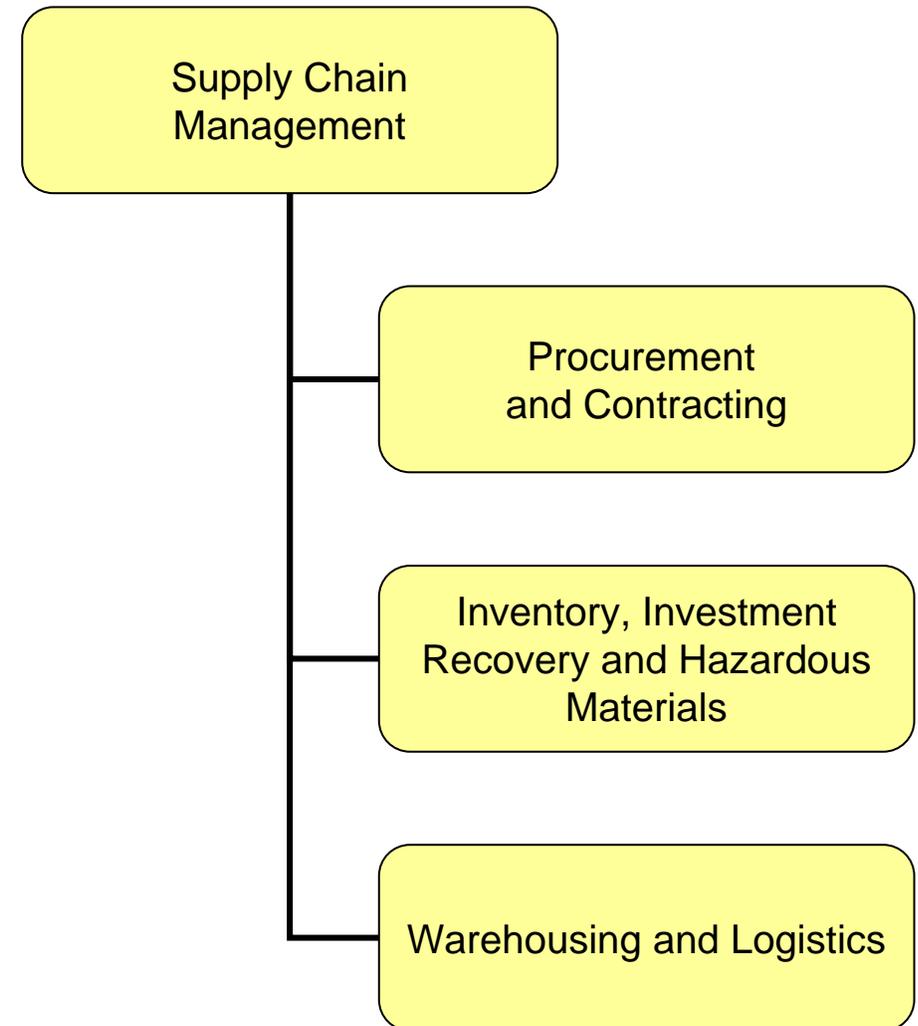
The logo for KEMA, consisting of the word "KEMA" in a bold, white, sans-serif font, followed by a stylized white icon of three curved lines that resemble a signal or a network connection. The entire logo is set against a dark blue rectangular background.

**KEMA**

# Contents

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- ◆ SCM Challenges Facing BPA
- ◆ SCM Models
  - Centralized Model
  - Decentralized Model
  - Hybrids
- ◆ Benchmarks and Case Studies



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# **SCM Challenges Facing BPA**

# SCM Challenges Facing BPA

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**BPA is facing significant supply change management challenges over the next three to five years:**

- ◆ Implementing EPIP recommendations
  - Right-sizing inventory investment
  - Rigorous commodities and services sourcing
  - Streamlined business processes
  - Upgrade SCM skills
- ◆ Developing disposal strategies resulting from materials standardization and right sizing current inventories
- ◆ Constructing and maintaining a “World Class” contracting process
- ◆ Coping with a changing and more competitive market place
  - Shrinking inventories
  - Global markets
  - Fewer vendors
- ◆ Coping with a changing vendor base
  - Commodity initiatives
  - Push back from vendors
  - Forging long term and trust based alliances
- ◆ Changing the Agency’s perception and expectations concerning the value added SCM process

# SCM Challenges Facing BPA (continued)

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**These supply change management challenges may bring into question the adequacy of the Agency's current organization and governance model. The current model can be characterized as follows:**

- ◆ It is a “centralized” model located in a major business unit but supporting the total Agency. “Centralized” means that all major functional entities are in the same scalar reporting structure. There is a Chief Supply Officer responsible for the operations. In general this model is consistent with leading practices companies.
- ◆ It is resident in Transmission Business Line (TBL) and consists of the traditional functional entities found in most electric utility companies
  - Purchasing and contracting
  - Materials management
  - Warehousing and logistics
  - Investment recovery
  - Contracting development and oversight
- ◆ Supply chain policy is the responsibility of a separate entity, Supply Chain Policy and Governance (CK), which is located in the Employee and Business Resources Business Line (E&BR)

# SCM Challenges Facing BPA (continued)

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## **KEMA's observations concerning organizational and governance issues that need to be addressed via the supply chain EPIP:**

- ◆ The current “centralized approach” to supply chain management is consistent with leading practice. Only fine tuning to the current approach appears warranted for consideration.
- ◆ Should “Supply Chain” remain in TBL - TBL is its largest customer for materials and services?
- ◆ Should “Supply Chain” be elevated to a corporate department – All of it or only parts?
- ◆ Should the organizational approach be split along strategic and tactical considerations:
  - Strategic (Corporate Level Responsibility) – Major sourcing initiatives, contracting development and oversight, EPIP implementation; SCM policy, etc.
  - Tactical (Line of Business Responsibility) – Materials management, minor contracting, warehousing/logistics, local purchasing, etc.
- ◆ What is the role and where should the Supply Chain Policy and Governance (CK) group reside?
- ◆ There are good programs underway or planned to better manage inventory resources so changing the internal operations within TL around these activities should not be a high priority at this time.
- ◆ The appropriateness of current staffing levels is uncertain at this time but focusing on staffing numbers is premature until the overall SCM structure is resolved. Assuring the right skill sets for going forward with whatever model is adopted is a critical issue.

**THE ABOVE ARE KEMA'S OBSERVATIONS AND ARE PRESENTED ONLY TO STIMULATE DISCUSSION**

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# Organization and Governance Models

# Organization and Governance Models

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## Prevalent Utility Industry Supply Chain Management Models

- ◆ Decentralized by Business Unit – Each business unit is responsible for all aspects of its own supply processes
  - Promotes business unit autonomy
  - There may be some corporate direction provided via Councils or Committees
  - Seeing less and less of this model – Too costly
  
- ◆ Centralized – Strong central governance and management organization. A corporate Supply Management organization responsible for all or most aspects of the supply process:
  - High corporate visibility
  - Often in a “Shared Services” or operationally neutral organization
  - Direct responsibility for major business processes and results
  - Mimics non-industry success leaders
  - A departure from industry practice/norms
  - There is a definitive trend toward centralized governance of the supply process

# Organization and Governance Models (continued)

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## Prevalent Utility Industry Supply Chain Management Models (continued)

- ◆ Hybrids – Combines selected features of centralized and decentralized approaches.
  - There are a number of hybrid possibilities: Central leaning; De-centralized leaning; Functional; Commodity-Based; Geographic
  - Most prevalent model:
    - Centralized strategic sourcing and policy
    - Decentralized materials management and local purchasing
  - Concerning the “Centralized Strategic Sourcing and Policy Model,” trend is toward small corporate organization but highly visible which focuses on:
    - Strategic procurement
    - Management of common vendors
    - Providing analytic resources for Business Units
    - Overseeing cost containment and revenue initiatives
    - Providing ground work for migration to centralized model if future conditions warrant
  - Decentralization is most often reflected in the execution of corporate policy and the responsibility for functional related supply activities
    - Requirements planning
    - Inventory management and investment recovery
    - Local purchasing and contract management

# Illustrative Example of a Centralized Model at BPA

Chart of Responsibilities and Authority

	Policy and Governance	Process Ownership	Inventory Ownership	Contracts Ownership	Spend and Inventory Planning
Corporate	Blue	Blue	Blue	Blue	Blue
PBL	Blue	Blue	Blue	Blue	Blue
TBL	Blue	Blue	Blue	Blue	Blue
Supply Organization	Diagonal Blue	Yellow	Diagonal Blue	Yellow	Diagonal Blue

## Characteristics

- ◆ The centralized Supply Organization is responsible for all aspects of supply. Strategic sourcing, buying, material handling, and logistics are all a part of the Supply Organization.
- ◆ All of the supply related personnel report directly to the Supply Organization, but may physically sit within the business unit
- ◆ Policy creation and enforcement, accountability for all supply related items including process improvements resides within the Supply Organization
- ◆ The Supply Organization is responsible for the budget and business planning process for all supply related materials
- ◆ Best suited for organizations with very similar business units where most of the requirements are common across business units

# Illustrative Example of a De-Centralized Model at BPA

Chart of Responsibilities and Authority

	Policy and Governance	Process Ownership	Inventory Ownership	Contracts Ownership	Spend and Inventory Planning
Corporate					
PBL					
TBL					
Supply Organization	Some Policy				Spend Reporting

## Characteristics

- ◆ In a de-centralized model there is often a “central” purchasing organization that coordinates the procurement process and provides some policy direction and activity reporting for financial reason. Purchasing also exists in the other lines of business.
- ◆ All of the supply related personnel report directly to a Supply Organization within the line of business
- ◆ Policy creation and enforcement, accountability for all supply related items including process improvements is often fragmented within the individual lines of business
- ◆ This model is often best suited for multiple function organizations such as generation, transmission and distribution and organizations that are multiple operating companies

# Illustrative Example of a Hybrid Model at BPA – One of Several Possible Variations

Chart of Responsibilities and Authorities

	Policy and Governance	Process Ownership	Inventory Ownership	Contracts Ownership	Spend and Inventory Planning
Corporate		Unique	Unique	Tactical	Tactical
PBL		Unique	Unique	Tactical	Tactical
TBL		Unique	Unique	Tactical	Tactical
Supply Organization		Common	Common	Strategic	Strategic

Characteristics:

- ◆ “Center Lead” concept with the Supply Organization as the focal point. It’s primary focus is cost containment and infrastructure development, spend oversight, and strategic sourcing. It determines all supply policy!
- ◆ Each line of business owns selected unique processes specific to that line of business. Spend and inventory planning is tactical in nature with the SCM taking the lead for market and vendor intelligence around strategic requirements.
- ◆ The use of “Councils” assure line of business input into strategic supply issues

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# **Benchmarks and Case Studies**

# Benchmark Study 1

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**Selected results from CAPS Research of late–2003 on how large Supply Organizations are structured. 284 companies responded.**

◆ Key Findings:

- 67% of the companies have a hybrid structure of which two-thirds lean toward centralized mode – Hybrid structures have been increasing in popularity since 1987
- Services companies favor centralization 31% more frequently than manufacturing companies
- 70% of the Chief Procurement Officers (CPO) report to one of the top five corporate executives; e.g., President/CEO, COO, EVP, SVP/Group VP, and CFO?VP Finance
- The trend is for supply chain organizations taking on more responsibilities for supply related business activities – A recognition of SC's contribution to a firm's value chain
- The average number of supply personnel has been increasing since 1995
- In 60% of the organizations the CPO carries the title of Vice President. This is up significantly from 1995 (39%).
- Few supply organizations remain stable over time with respect to structure, roles and responsibilities, reporting line, and other study dimensions
- Effective use of technology and e-commerce related issues are expected to be significant challenges

Source: CAPS Research 2004

# Benchmark Study 2

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**Best practices review of 10 companies in 7 industries (John Deere, IBM, Halliburton, Medtronic, QUALCOMM, Allegheny Energy, Mirant, Cogentrix, Entergy, Midway Airlines)**

◆ Key Findings:

- Companies are shifting to centralization to reduce spending and redundant efforts, better leverage supplier relationships, and facilitate bulk purchases to create economies of scale
- Central procurement organizations require smaller staffs and budgets to operate
- Coordinating procurement activities under a common strategy helps drive procurement success – Top companies establish procurement strategies, standards, and regulations centrally to maintain company-wide procurement consistency

◆ Results achieved by benchmark companies:

- 97% increase in e-procurement spending
- 96% reduction in costs related to purchase-order processing
- Six of the benchmark companies have implemented a centralized structure for procurement needs
- One company completely centralized its procurement functions and realized \$1 billion in savings in the first year

Source: BenchmarkingReport.com, January 2003

# Benchmark Study 3

The following companies have moved from a decentralized supply chain organization to either a centralized model or a Hybrid model

## Centralized

### Utilities

- ◆ AEP (except Nuclear)
- ◆ Bahamas Electricity Corp
- ◆ Colorado Springs Utilities
- ◆ National Grid
- ◆ Xcel Energy

### Non-Utilities

- ◆ BellSouth
- ◆ DuPont
- ◆ Nortel
- ◆ Procter & Gamble
- ◆ Texas Instruments

## Hybrid

### Utilities

- ◆ FP&L\*
- ◆ Kansas City Power & Light
- ◆ Niagara Mohawk
- ◆ Progress Energy\*
- ◆ PPL
- ◆ Santee Cooper
- ◆ Southern California Edison
- ◆ Southern Company

### Non-Utilities

- ◆ American Airlines
- ◆ Bayer
- ◆ Cooper Industries
- ◆ Johnson & Johnson
- ◆ Maytag
- ◆ Pepsi

\* Moving to centralized

Source: Scott, Madden & Associates (and KEMA's Mahany)

# Case Study: Major Utility A (2003)

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- ◆ Utility A began centralizing its supply chain operations during a merger
  - They are in the third year of integration
  - Supply chain integration has occurred in phases
- ◆ Most supply chain operations are centralized under the Service Company - Exceptions are T&D inventory management, nuclear inventory management, and nuclear materials planning and sourcing
  - They are continuing to move toward full integration
- ◆ Management employs a Supply Chain Oversight Committee to support policy making and standardization
  - Accountability within the supply chain organization is structured around commodity teams that have responsibility for full lifecycle product/service management (“from procurement to scrap”) for key commodity categories
- ◆ Company management is moving toward enterprise-wide reporting and measurement
  - The goal is standard performance reporting by all business units, improved forecasting accuracy and delivery cycle time reduction
  - Currently, all executives have specific supply chain targets built into their MICP goals
  - Management plans to use increased performance reporting to reign in spend that goes outside of the prescribed processes
- ◆ Centralization and consolidation have resulted in the following savings (base of \$1.3 billion annual spend)
  - \$80 million in hard dollar savings over the first three years (2000-2002), verified by internal audit
  - A 25% reduction in the number of supply chain FTEs
  - It is management’s opinion that these savings could not have been achieved in the absence of greater centralization and standardization
  - Management is targeting additional savings of \$75 million over the next three years (2003-2005)

Source: Scott, Madden & Associates (and KEMA’s Mahany)

# Case Study: Major Utility B (2003)

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- ◆ In 2000, Utility B set a goal to be in supply chain – The decision to centralize the supply chain function was largely in response to the need standardize business processes in order to achieve best-in-class
- ◆ The integrated supply chain organization manages all supply chain functions except for inventory management, contract management, HR benefits, fleet management, product engineering, and accounts payable
  - They are planning to eventually incorporate these functions
  - The Integrated Supply Chain unit is structured as follows: Procurement, Diversity Sourcing, Business Integration & Systems, Power Systems Material Operations, and Nuclear /Power Generation Material Operations
  - The Procurement Managers from each business unit are being relocated to the central HQ complex – They currently meet monthly in an informal counsel to foster standardization and help develop policies
  - Management is currently moving towards an organization based upon “centers of excellence” which will focus on key commodity categories
- ◆ Company management is moving towards enterprise-wide reporting and measurement
  - Currently, only direct supply chain managers have supply chain goals built into their compensation program
- ◆ Centralization and consolidation have resulted in the following savings (base of \$1.3 billion annual spend)
  - \$100 million in hard dollar savings over the first three years (2000-2002)
  - It is management’s opinion that these savings could not have been achieved in the absence of greater centralization and standardization
  - Management is targeting additional savings of \$100 million over the next three years (2003-2005)

Source: Scott, Madden & Associates (and KEMA’s Mahany)

# Case Study: Alcoa (2003)

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## Alcoa describes its purchasing organization as “center-led”

- ◆ The North American procurement directors report directly to their business unit leaders, but have strong, dotted-line reporting to the North American Lead Team for Procurement
  - "The alignment is very tight and there are clear metrics, meaning that people feel very accountable for meeting company objectives."
  - Alcoa also has a Global Procurement Lead Team
- ◆ Alcoa is leveraging its 40 major spend categories using a disciplined, strategic sourcing process
  - Includes detailed market profiling, strategy development, creation of supplier selection factors, a "go-to-market" plan, a contract development component, and ongoing contract management
  - Alcoa uses a Project Management Office for tracking the progress of its sourcing initiatives
- ◆ Alcoa is driving the % of local purchasing from the current level of 35% to 10-15%
  - Has formed 44 sourcing teams
  - Objective of leveraging 90% of North American spend
- ◆ In 1986, Alcoa won *Purchasing Magazine's* Medal of Professional Excellence based upon its strategy of "structured decentralization." Today, Lead Teams set direction, leverage the spend, and develop common processes and support tools in support of achieving Alcoa's procurement goals.

Source: Reed Business Information US, September 2002

# Case Study: Lucent (2003)

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## Lucent created one strategic supply management organization

- ◆ Three years ago Lucent took a close look at its supply chain and recognized that it was fragmented
  - Decentralized inventory and purchasing
  - Six organizations buying the same things
  - Only 30% of spend was leveraged
  - Existing central “strategic sourcing” organization lacked the power to drive significant savings
- ◆ Combined procurement, manufacturing and new product engineering into a new central organization
- ◆ Implemented strategic supply management programs including:
  - Supplier partnership workshops
  - Customer supply chain teams
  - Virtual manufacturing
  - Purchasing and supplier involvement in new product development
- ◆ Achieved the following results:
  - Increased % of leveraged spend to 90%
  - Reduced number of suppliers from more than 3,000 to fewer than 1,500
  - About 60 suppliers now account for over 80% of Lucent's spend vs. three years ago, when more than 1,000 suppliers accounted for less than 40% of spend
  - Inventory has been reduced from \$7 billion to \$2.4 billion
  - Component costs have been reduced 35-55%

Source: Reed Business Information US, September 2002

# Case Study: Rockwell Collins (2003)

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**Rockwell Collins has an annual spend of \$700 million**

**Its enterprise sourcing group:**

- ◆ Leads strategic supply chain activities that continuously focus on reducing total cost of ownership
- ◆ Serves as a leader in the implementation of sourcing synergies after an acquisition is completed
- ◆ Uses cross-functional sourcing teams to systematically evaluate costs and implement sourcing strategies for the enterprise
  - The teams are responsible for addressing quality, delivery, cost, technology and small business relationships as well as other criteria to support business goals
  - A centralized sourcing team:
    - Leads the supply management process
    - Oversees the company's small business program
    - Plays a key role in identifying and capturing sourcing synergies from business mergers and acquisitions.

Source: Reed Business Information US, November 2002

# Case Study: British Airways (2003)

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## **Standardized procurement processes were seen as one way to become more strategic in sourcing the airline's \$6 billion annual spend**

- ◆ Purchasing operations are centralized and headed up by a procurement director who reports directly to the CFO
- ◆ Six major goals were established in its procurement overhaul
  - Reduce total costs by more than \$250 million
  - Increase online ordering to 80% of all materials and services
  - Reduce transaction costs to \$15 each
  - Reduce the number of suppliers from 14,000 to 2,000 and build key relationships with remaining suppliers
- ◆ British Airways believed that the biggest difference between its practices and those of the best practices companies was the absence of consistent processes
- ◆ Currently, there are process leaders in place to identify and implement best practices in five areas:
  - Supplier relationships
  - Strategy and performance
  - Supplier negotiations
  - Transactional procurement
  - supply chain development
- ◆ As of mid-2002, 40% of U.K.-based orders are online and the supply base has been cut in half to 7,000

Source: Reed Business Information US, August 2002