Mid-West/Great Lakes ARC/INFO User Group Conference

GIS Implementation

November 1999

ADGENDA

Introduction

Implementation Process

Plan

Implement

Questions

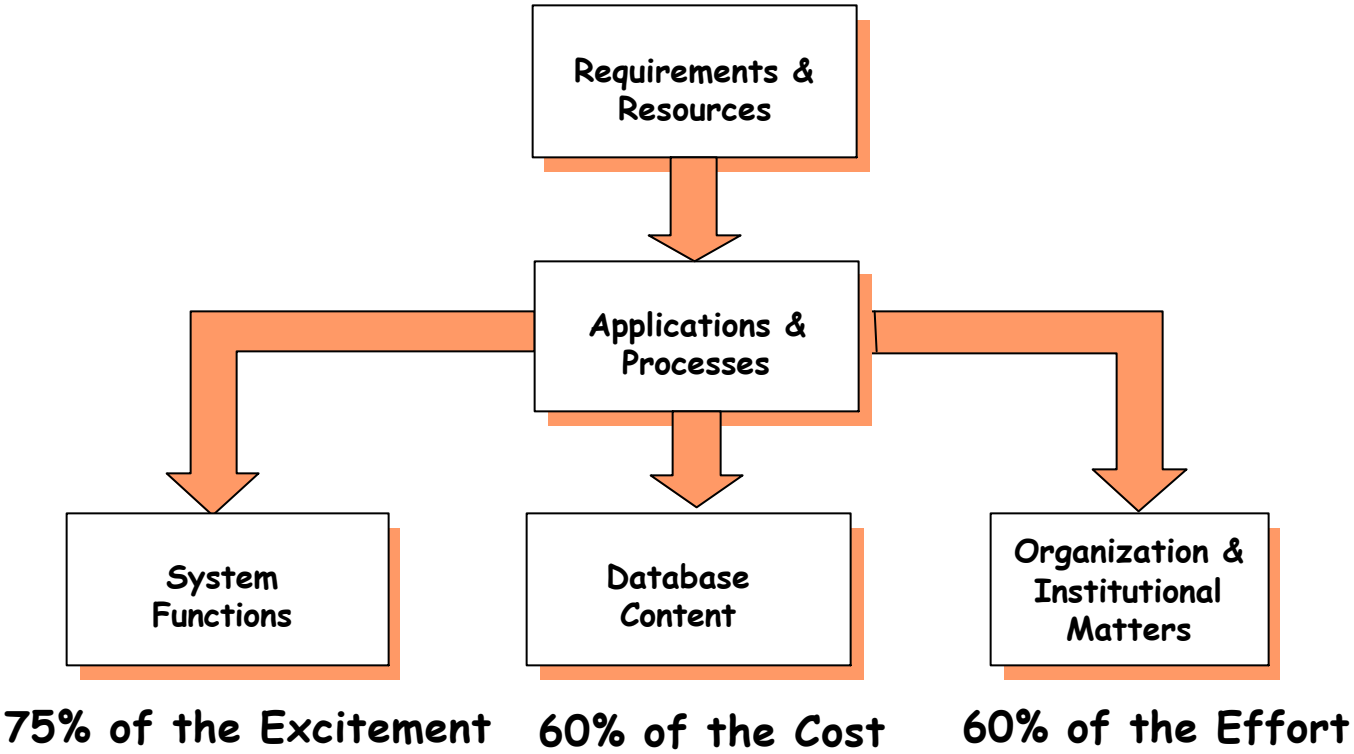
Biggest Mistake

Just Do It

It works for Nike

But not for GIS Implementation

Applications Drive the Design

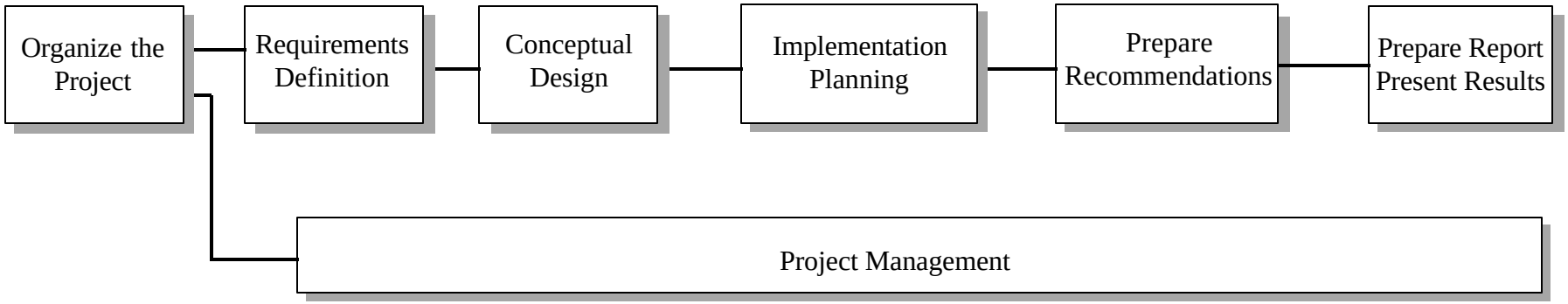


GIS Implementation Design

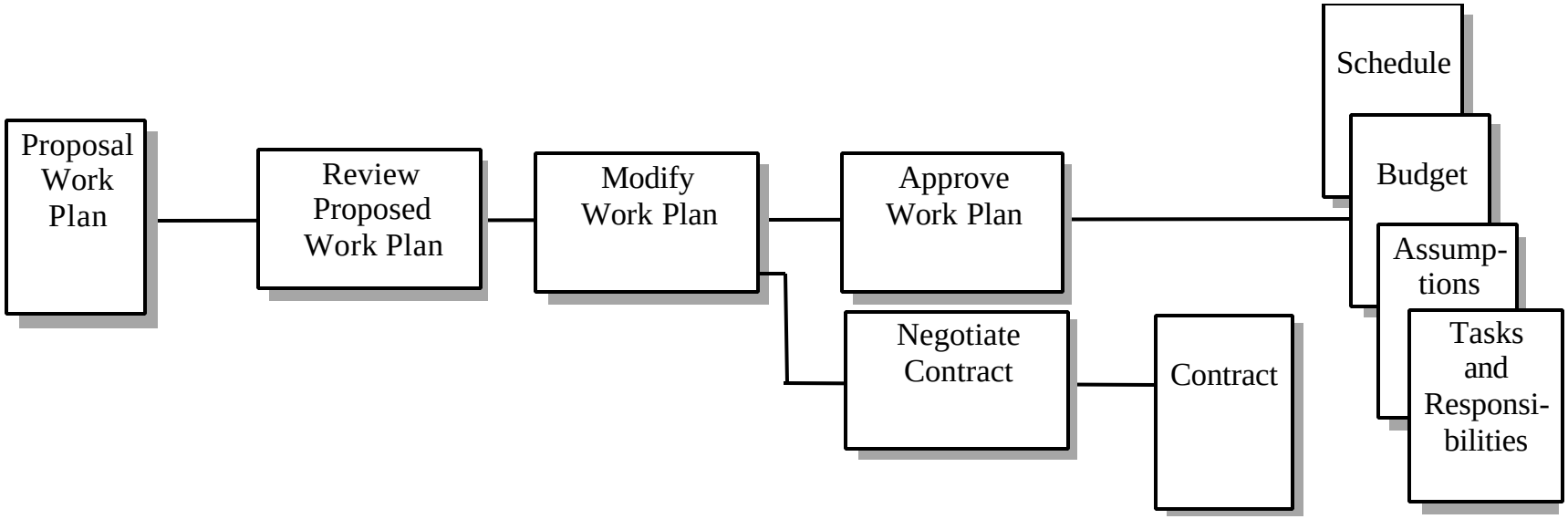
- Planning is a must
- Document what is currently available
- Catalog what is required
- Make recommendations for the future
- Insure capability between departments
- Develop Database Design
- Examine Software Solutions
- Analyze Qualified Conversion Services

Implementation Plan

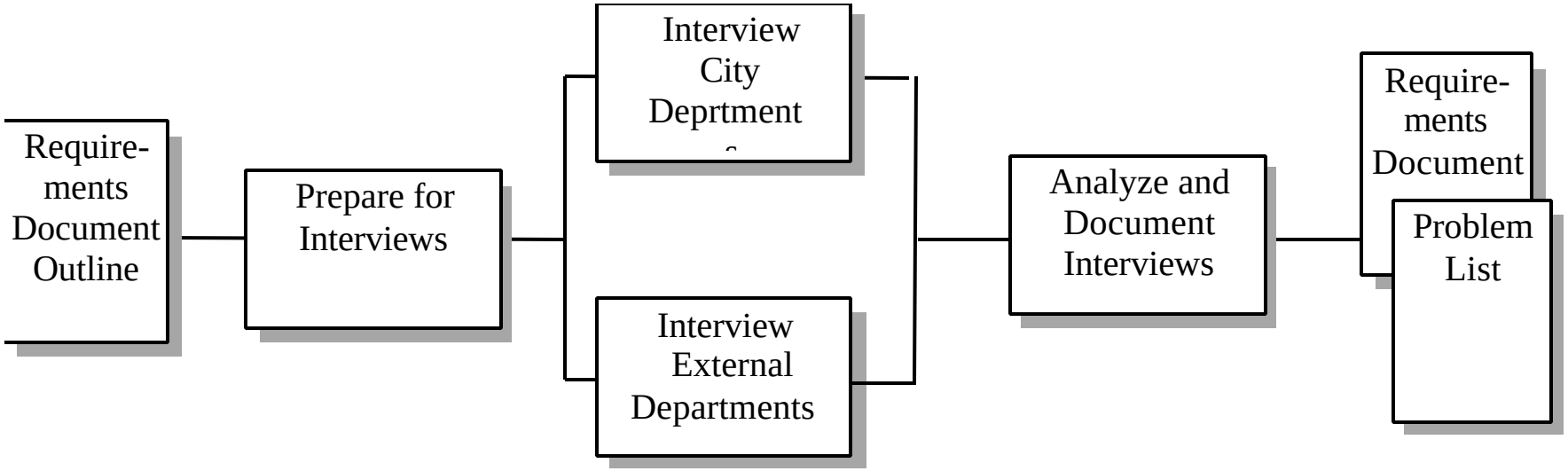
Phase I Work Plan



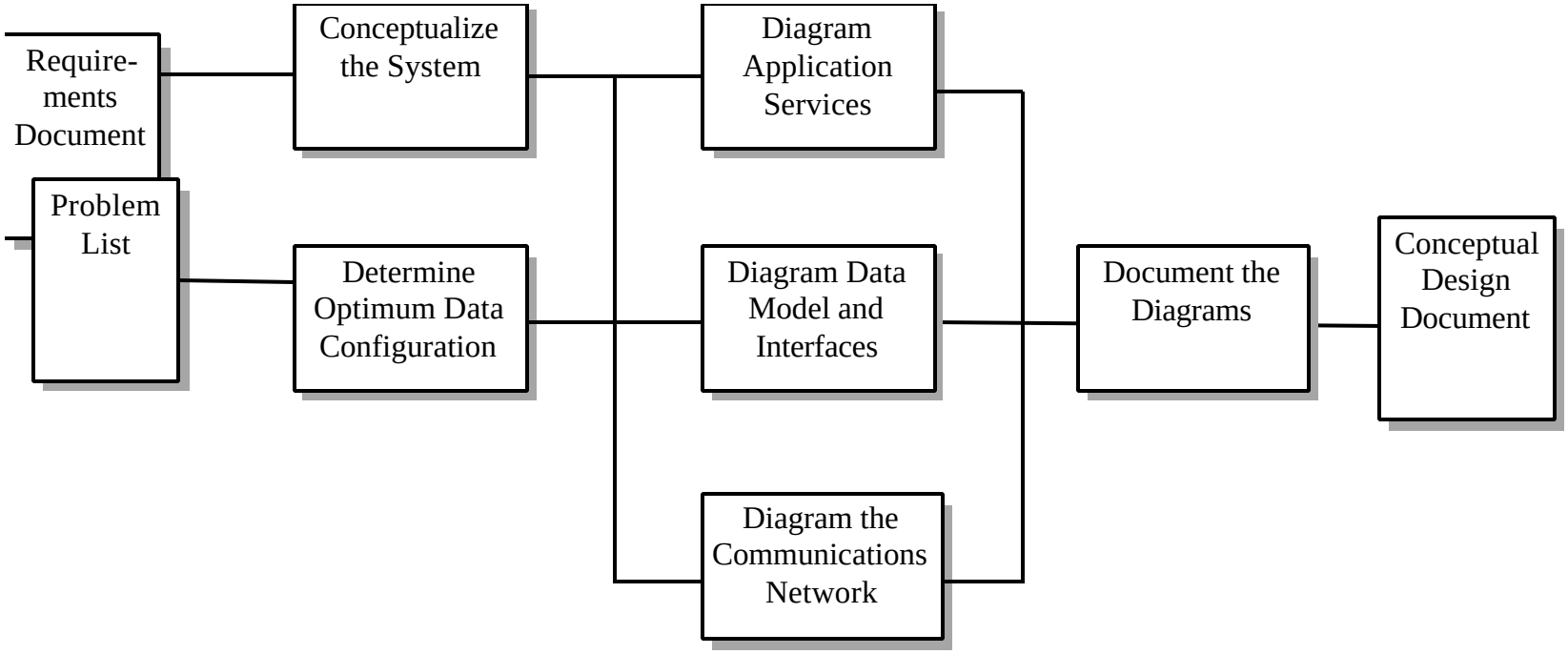
Project Setup



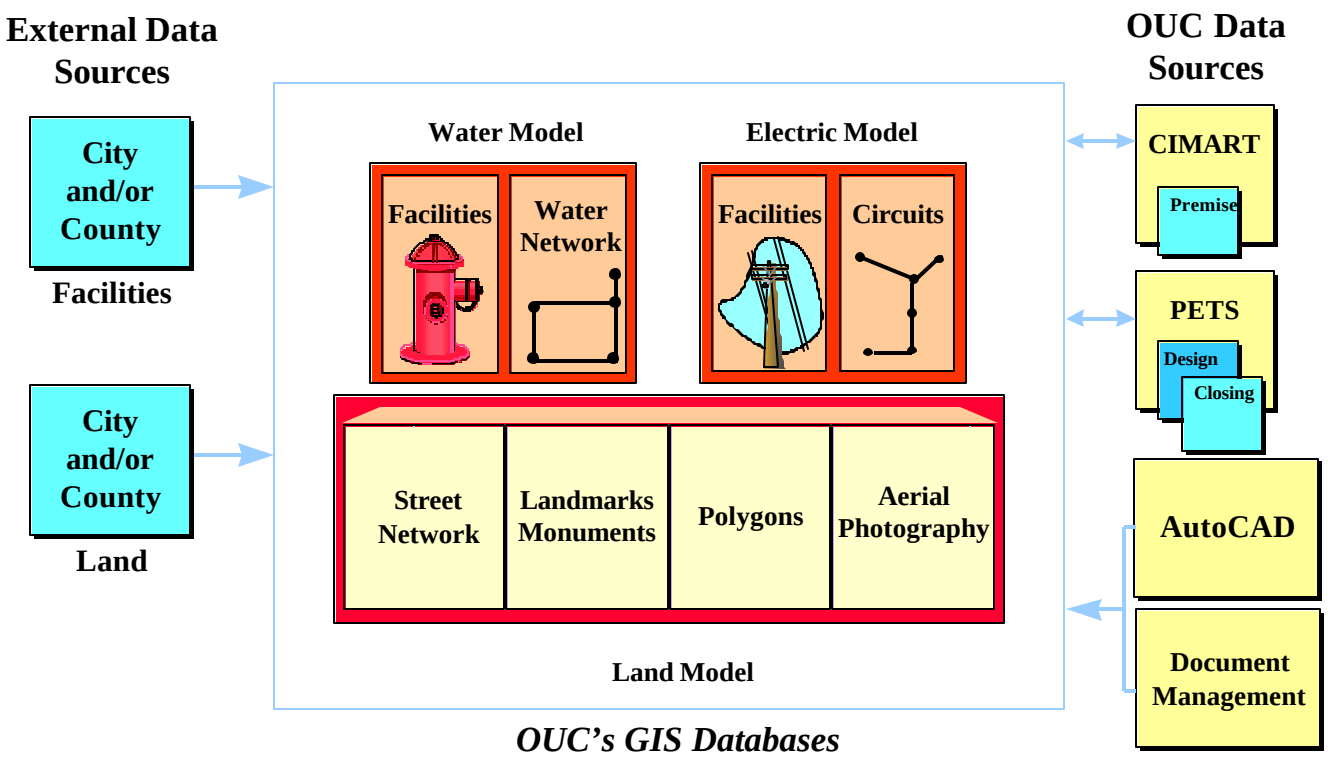
Requirements



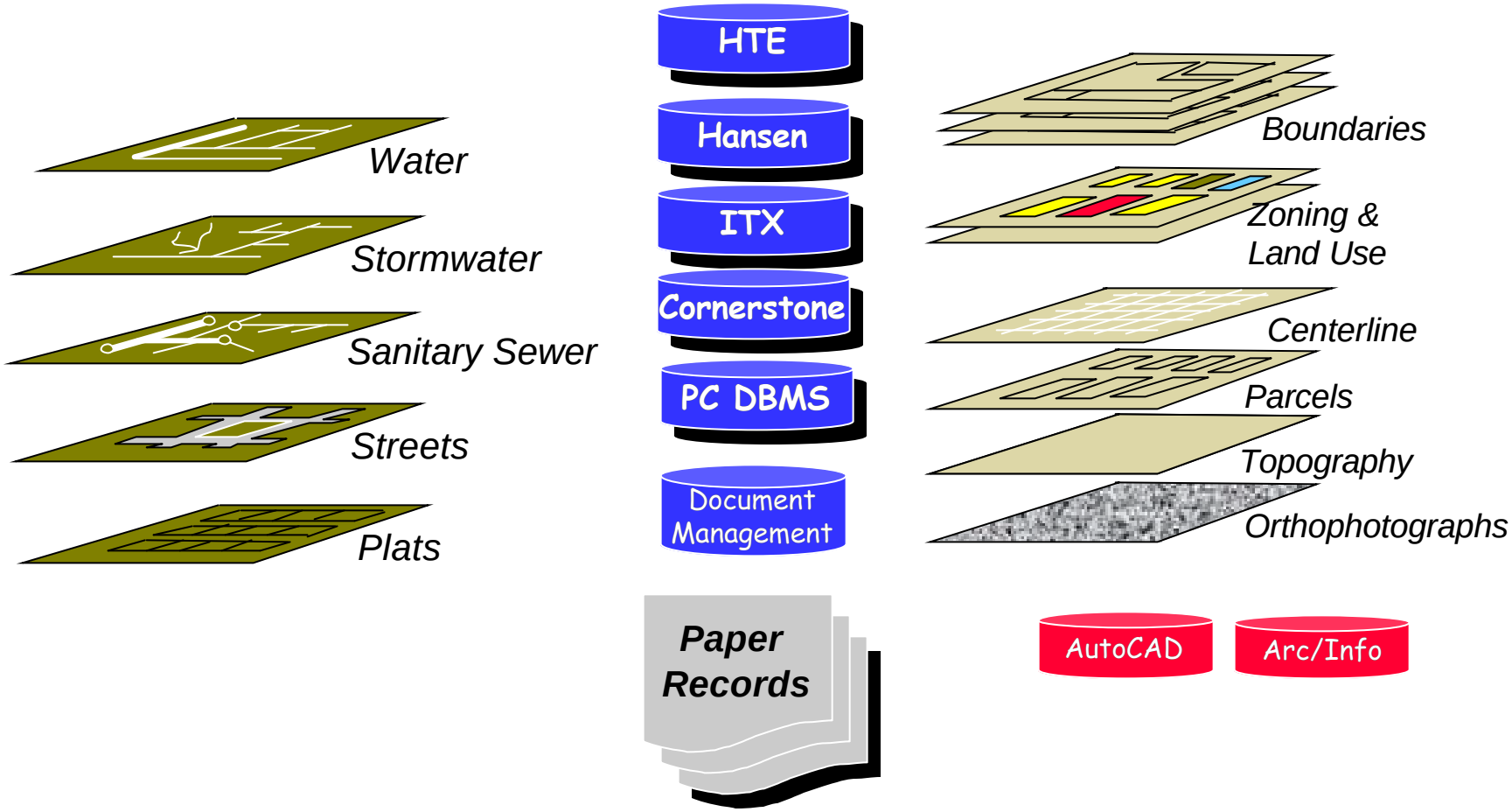
Conceptual Design



Conceptual Database Design



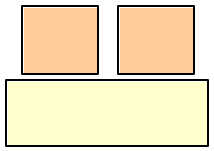
Data Diagram



Applications

DISTRIBUTION OPERATIONS
Valve Isolation Analysis
Service Leak /Outage (CIMART)
Facility Inquiry
WO Interface (PETS)
Facility Locates
Backflow/Meter Testing
Fire Hydrant Testing
GIS in Trucks & Field

WATER QUALITY
Water Quality Analysis
Facility Inquiry



GIS Databases

CIMART
Loads
Premise

PETS
Estimating
Bill of Matl.
Closing

ENGINEERING
Main Relocation
Network Analysis/Planning
Facility Inquiry
Job Sketch

TECHNICAL SUPPORT
Facility Mapping
Repair/Replace Tracking
Facility Inquiry

AutoCAD

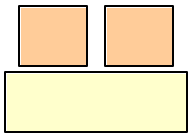
Document Mgmt

Shared Applications

DISPATCH
Outage Analysis (CIMART)
Outage Reporting (CIMART)
Facility Inquiry
Customer Notification
Customer Request Tracking

MARKETING
Customer Notification Cost of Service Studies (CIMART)
Facility Inquiry
Land Development Planning

ELECTRIC/WATER TECHNICAL SUPPORT
Land Base Mapping
Facility Inquiry
Geographic Asbuilt Indexing



GIS Databases

CIMART
Loads
Premise

PETS
Estimating
Bill of Matl.
Closing

Document Mgmt

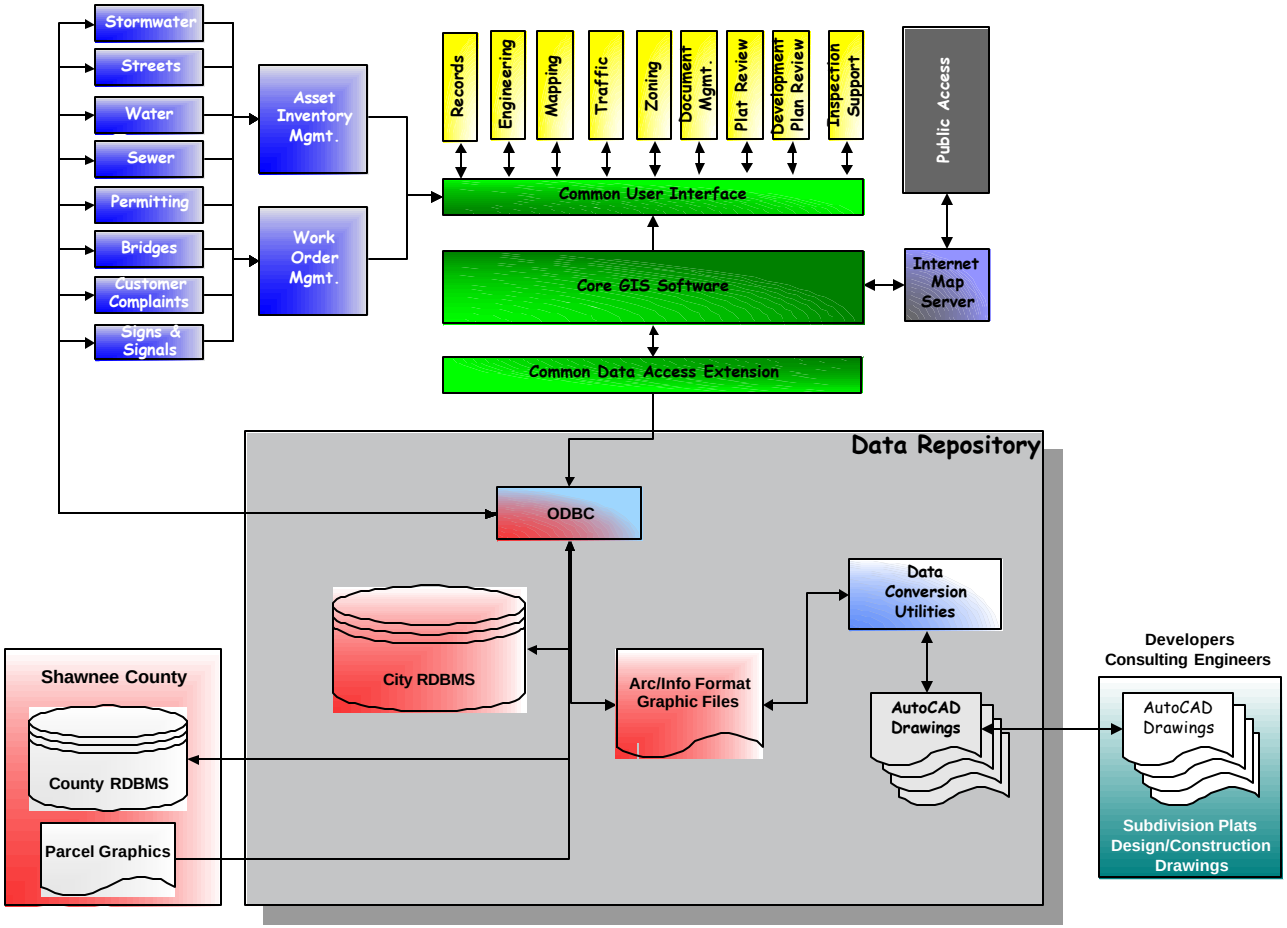
FINANCIAL
Vintage Accounting
Facility Inquiry

PROPERTY ACQUISITIONS
Easement/ROW Management
Facility Inquiry

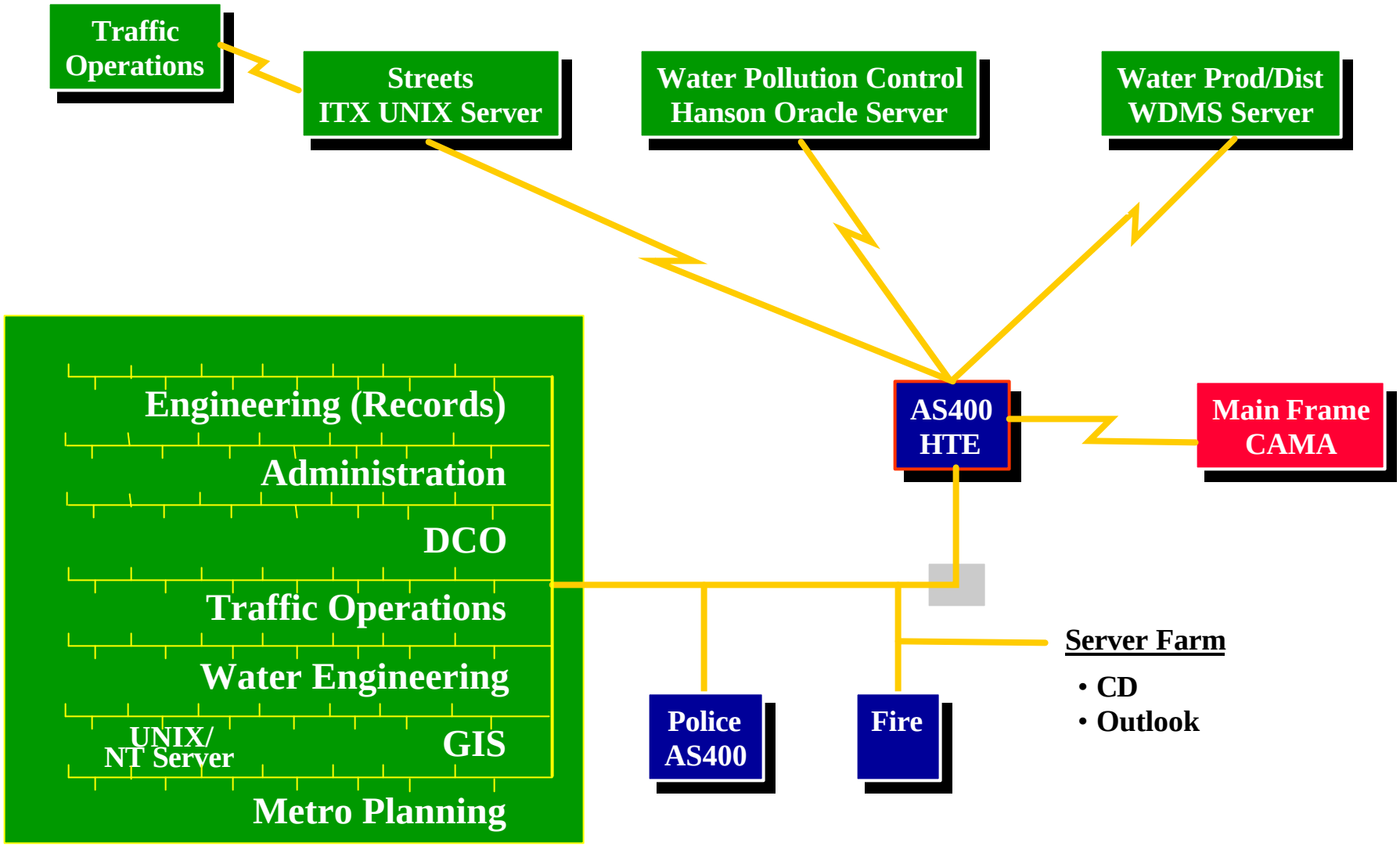
ENVIRONMENTAL
Hazardous Material Location
Sensitive Area Management
Endangered Species
Facility Inquiry

CUSTOMER SUPPORT
Meter Route Planning
Facility Inquiry

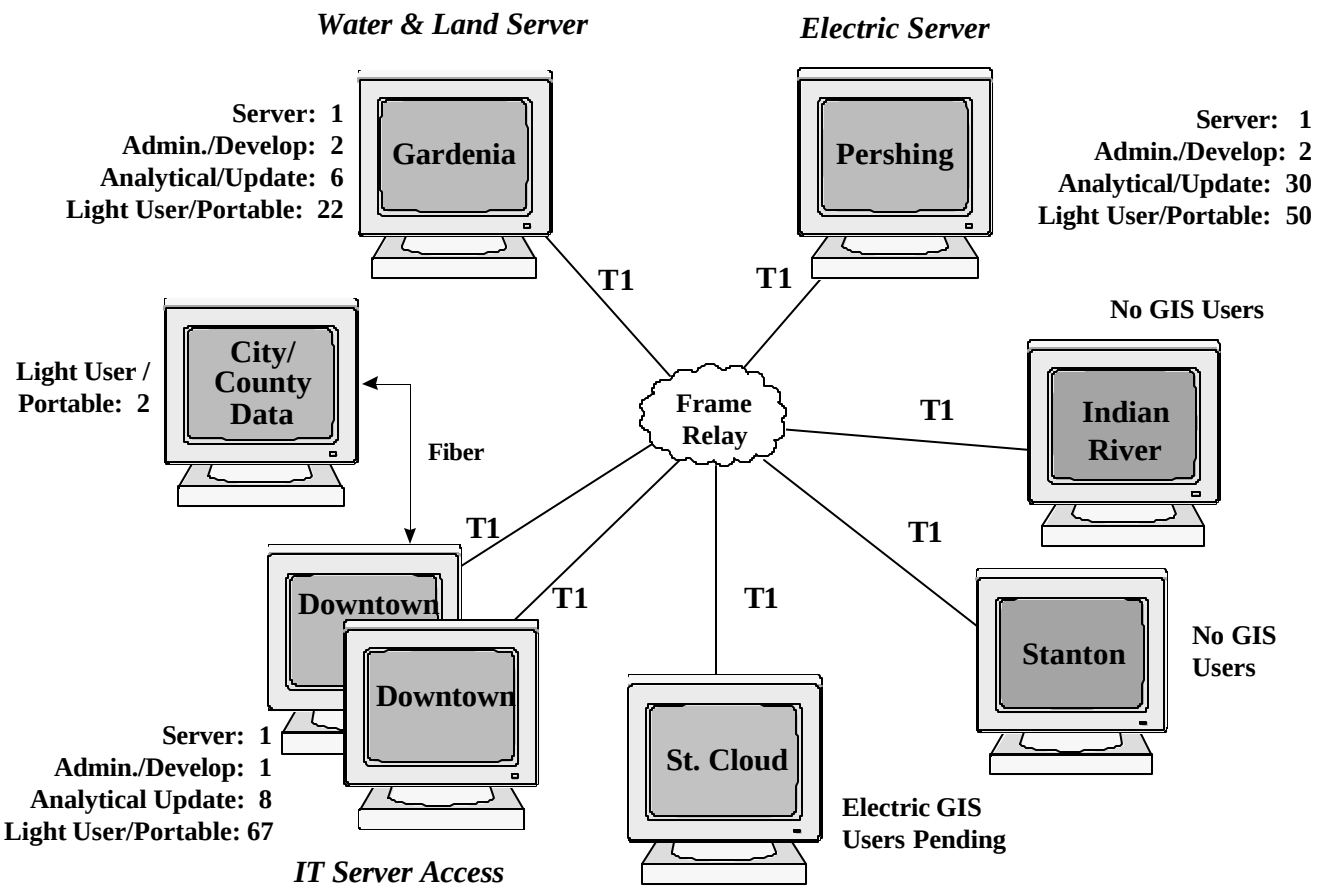
Software Configuration



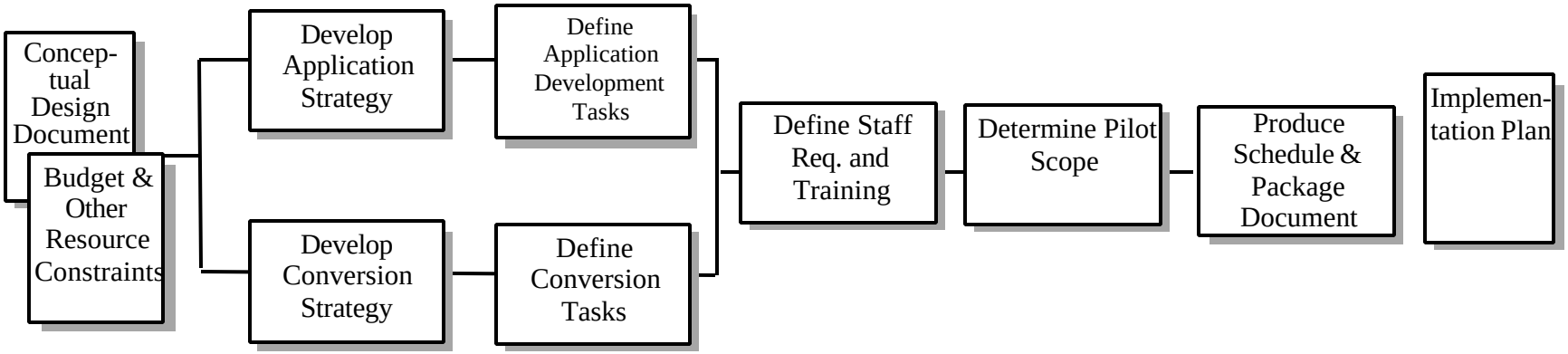
System Configuration



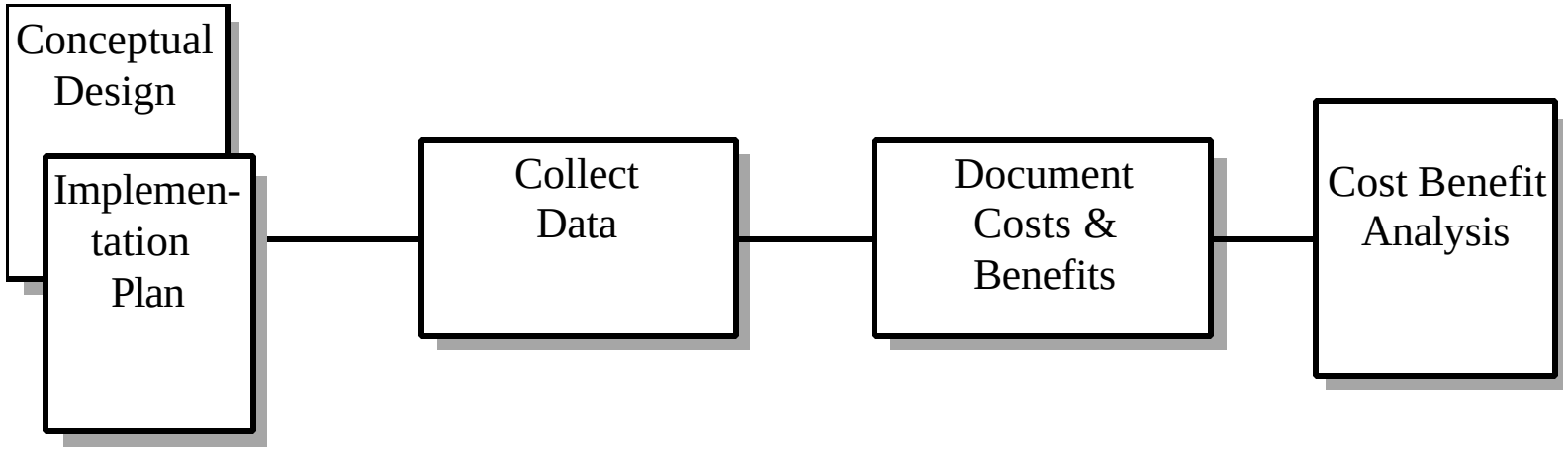
System Configuration



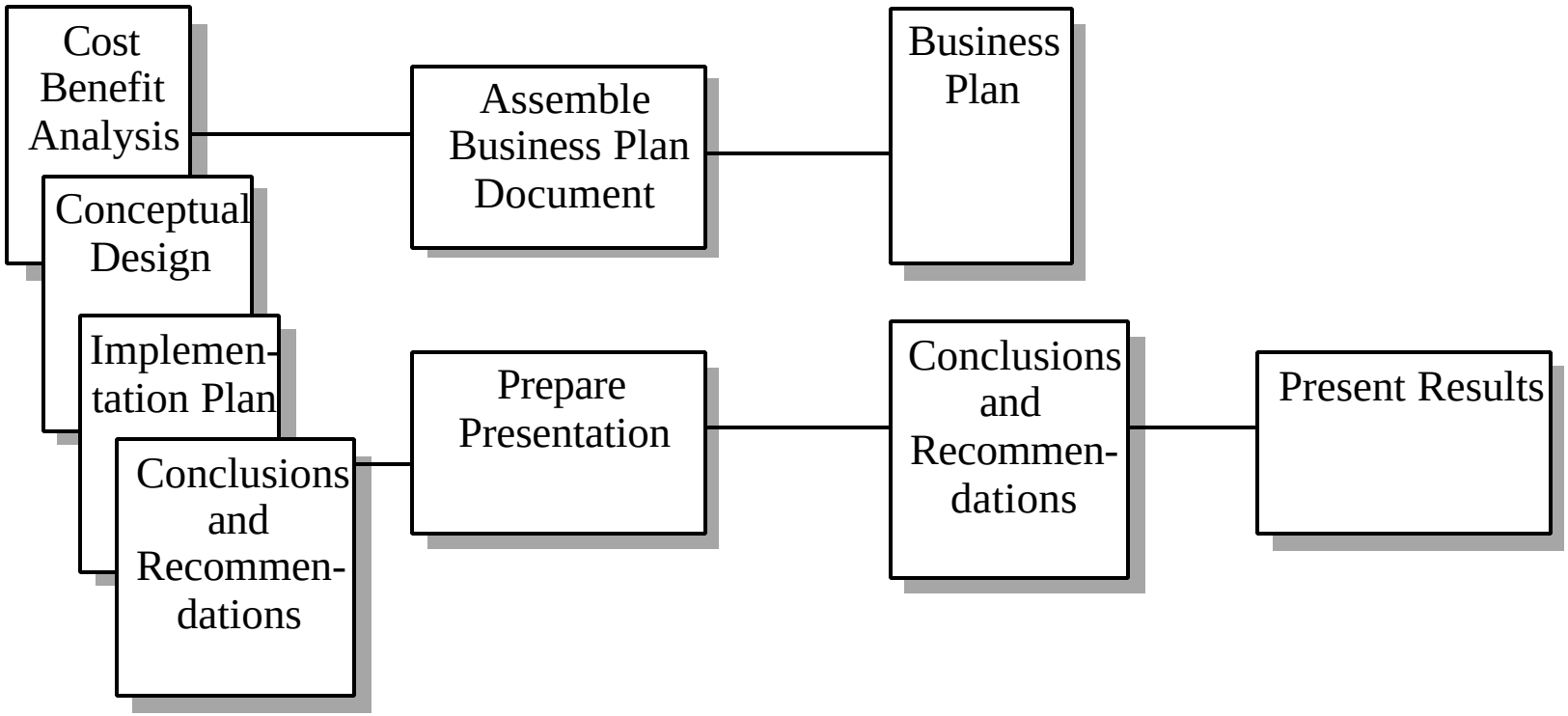
Implementation Plan



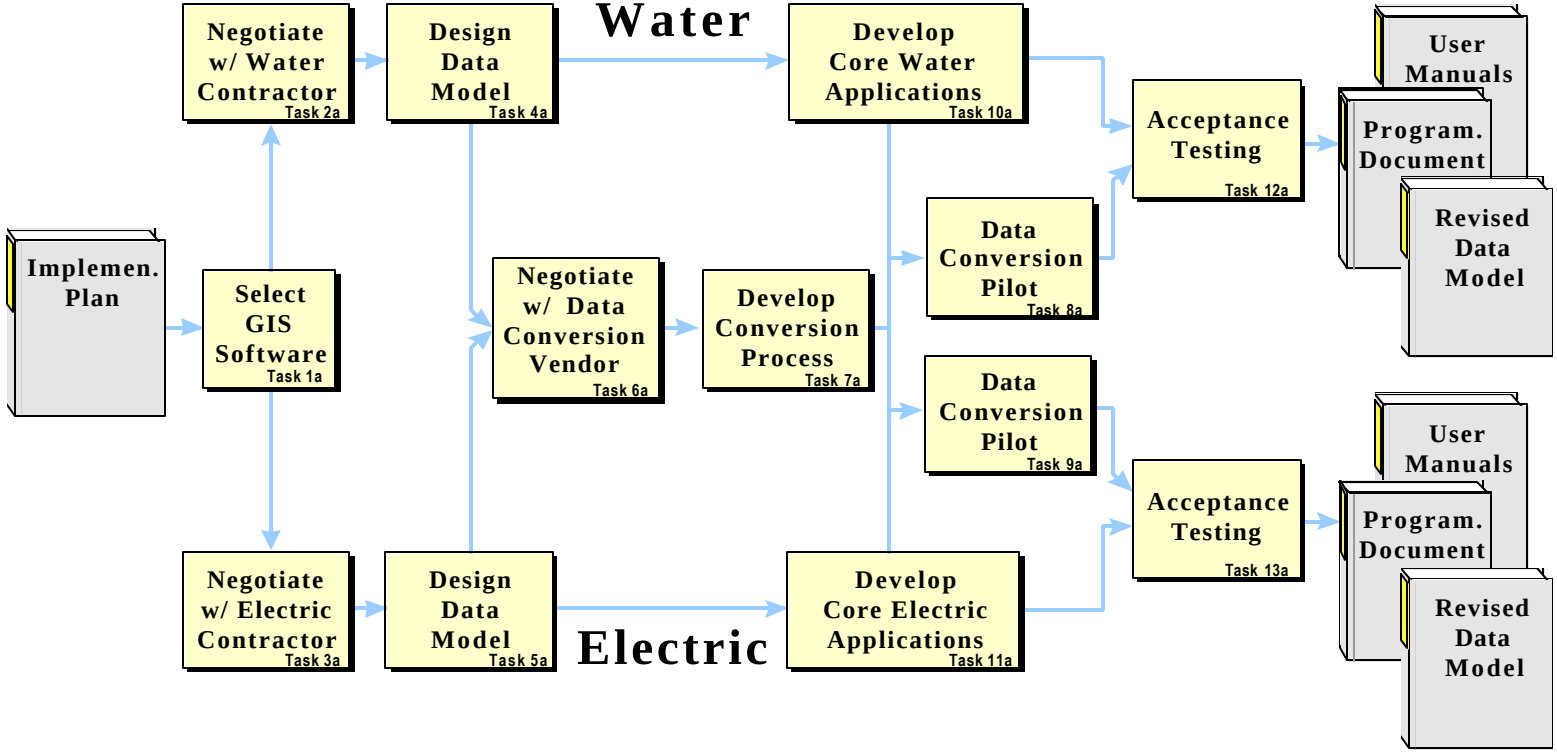
Cost Benefit Analysis



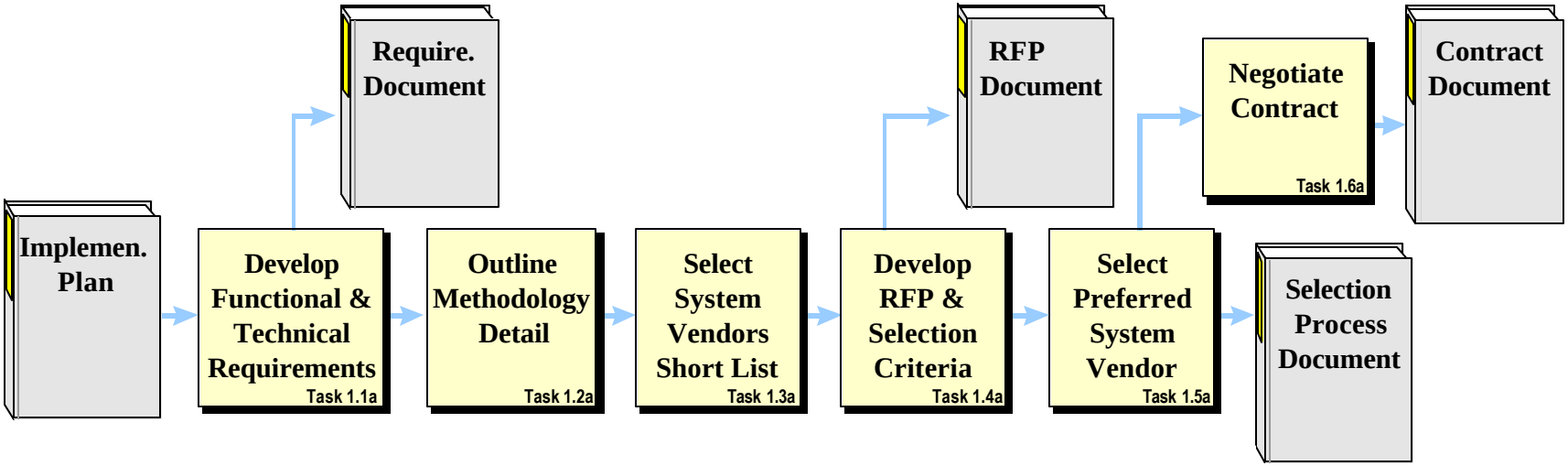
Final Plan


Cost Benefit Analysis
Conceptual Design
Implemen-tation Plan
Conclusions and Recommen-dations
Assemble Business Plan Document
Business Plan
Prepare Presentation
Conclusions and Recommen-dations
Present Results

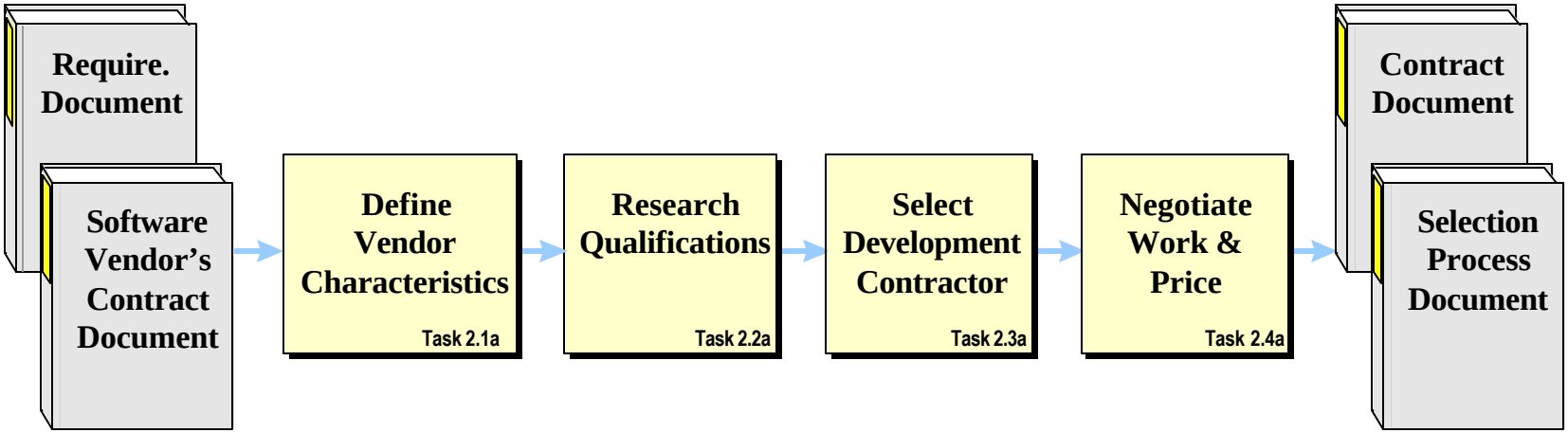
Phase II Plan



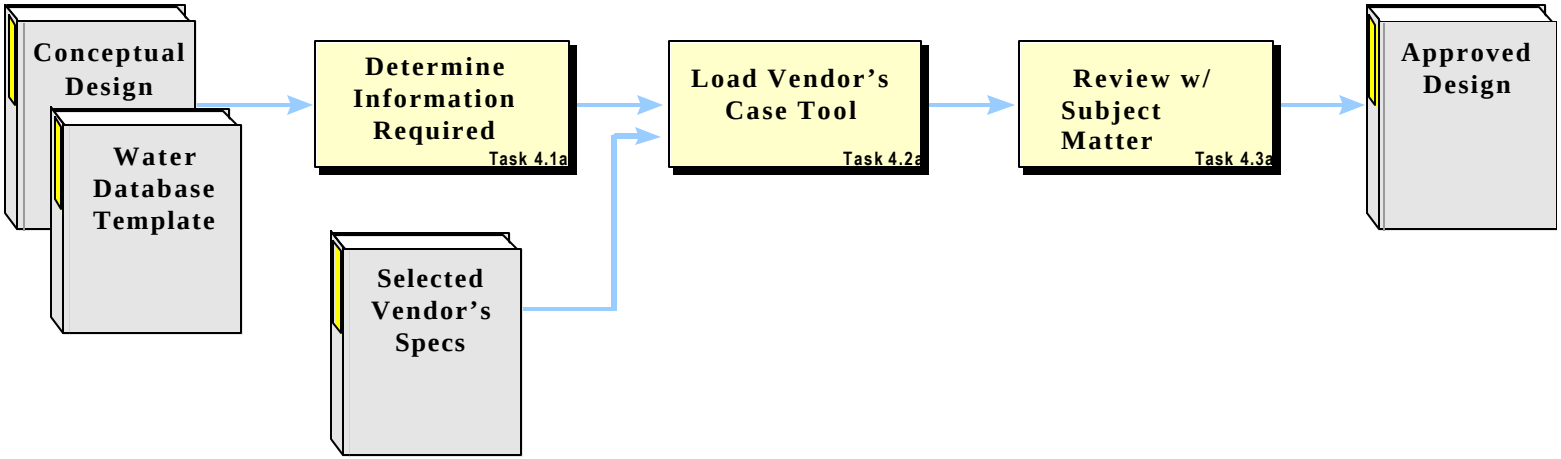
System Selection



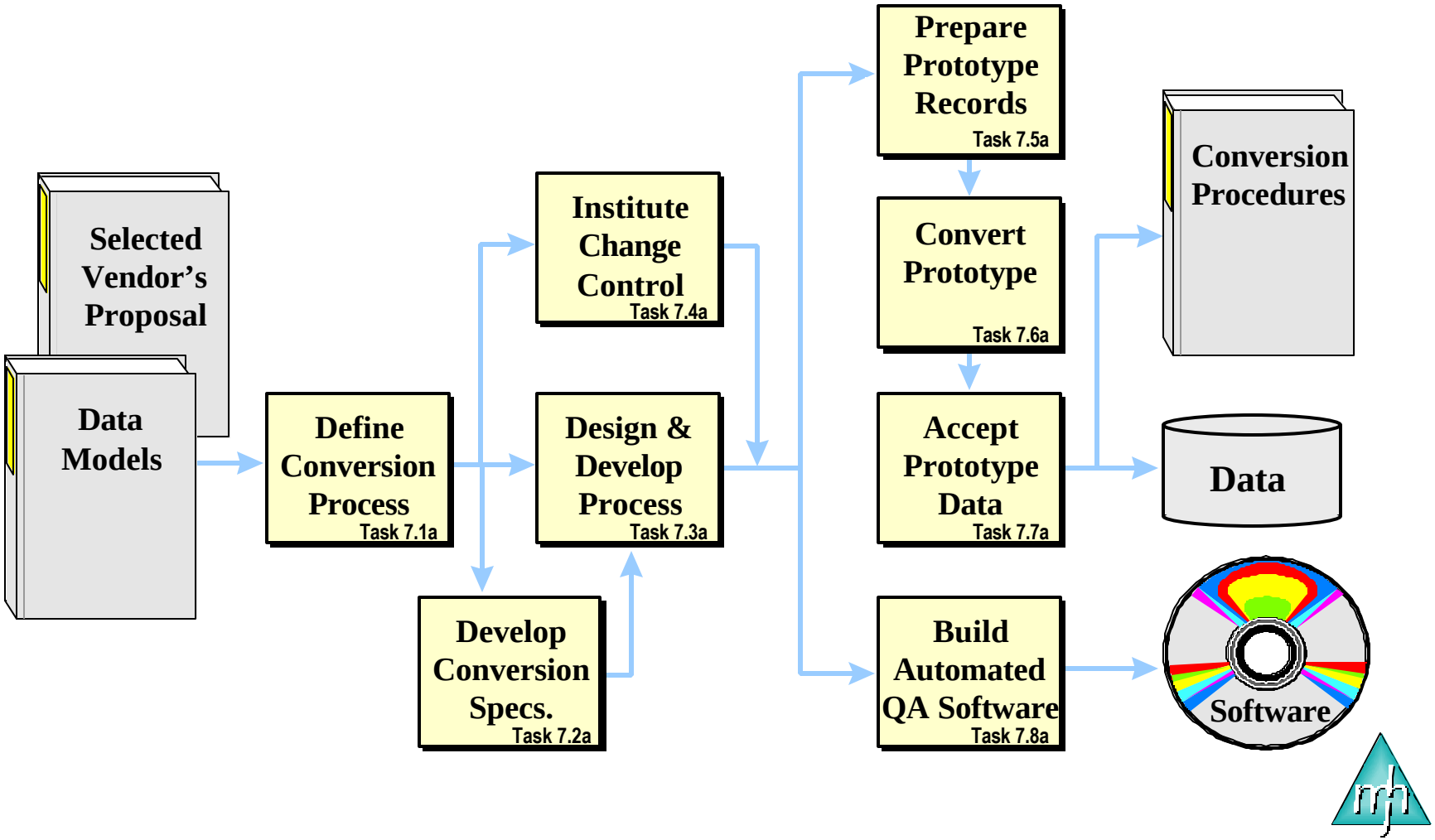
Development Contractor Selection



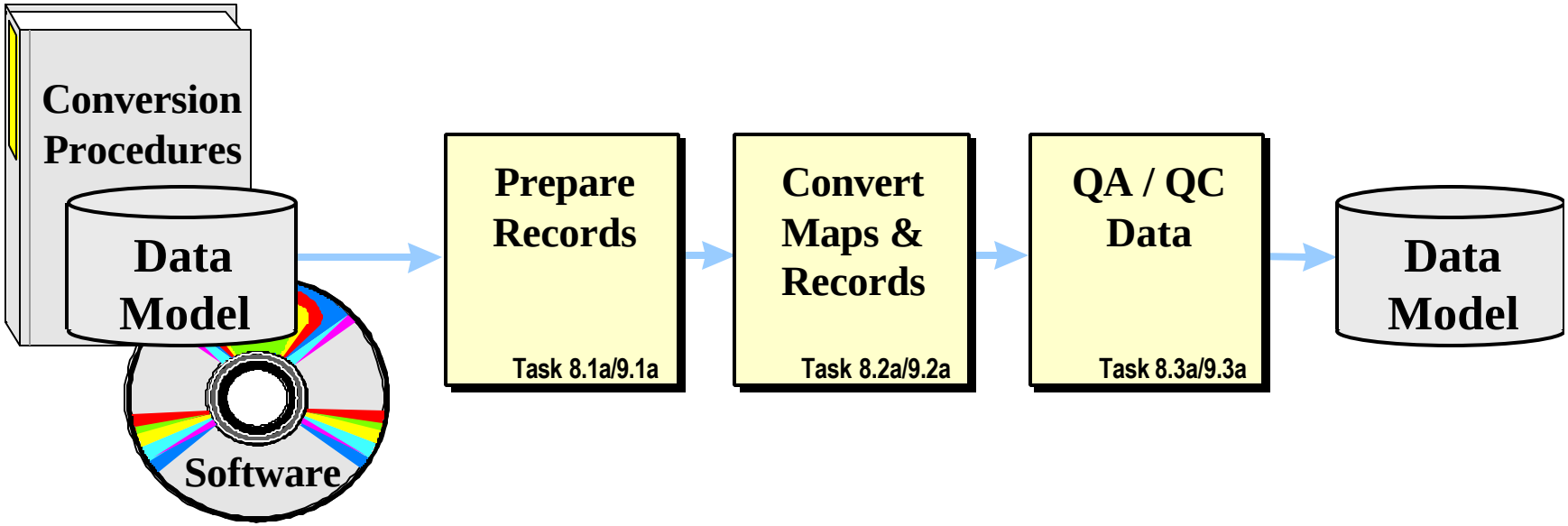
Design


Conceptual Design
Water Database Template
Determine Information Required
Task 4.1a
Selected Vendor's Specs
Load Vendor's Case Tool
Task 4.2a
Review w/ Subject Matter
Task 4.3a
Approved Design

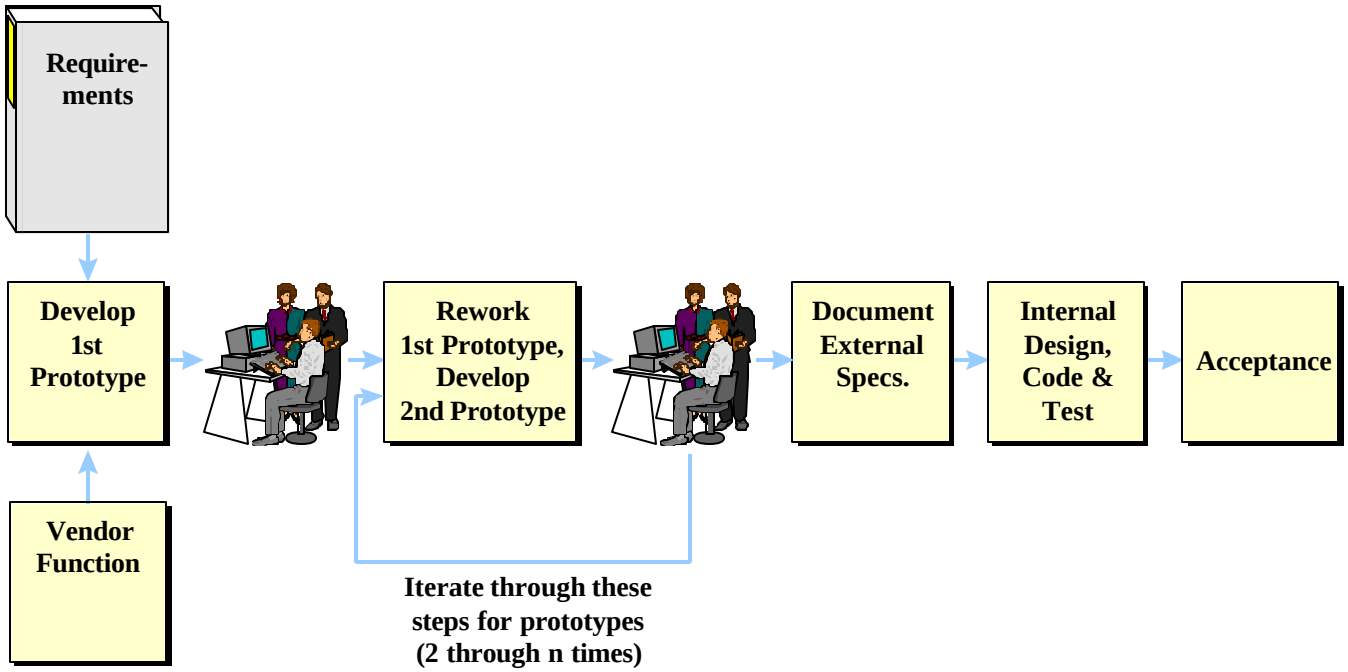
Conversion Specifications



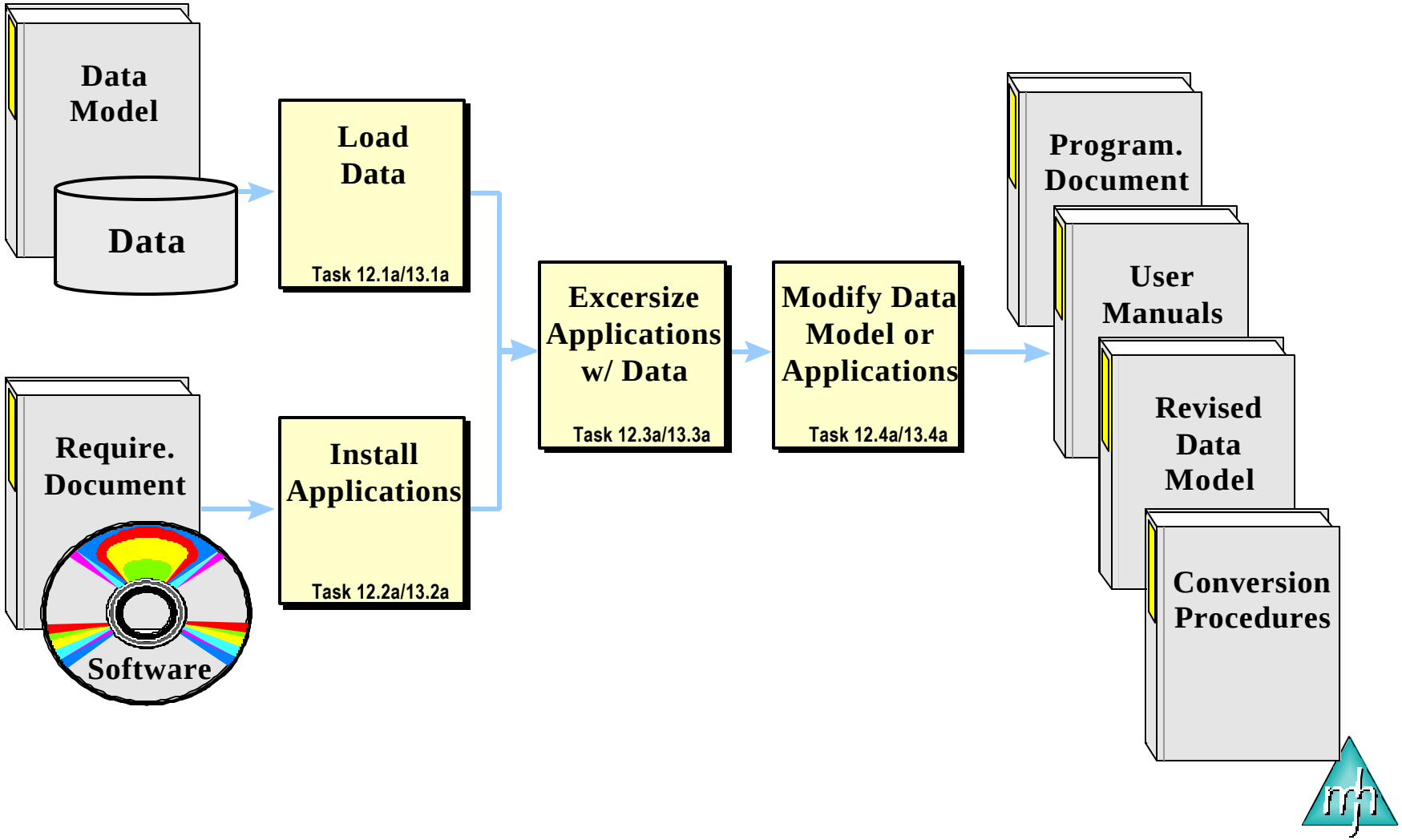
Conversion Pilot



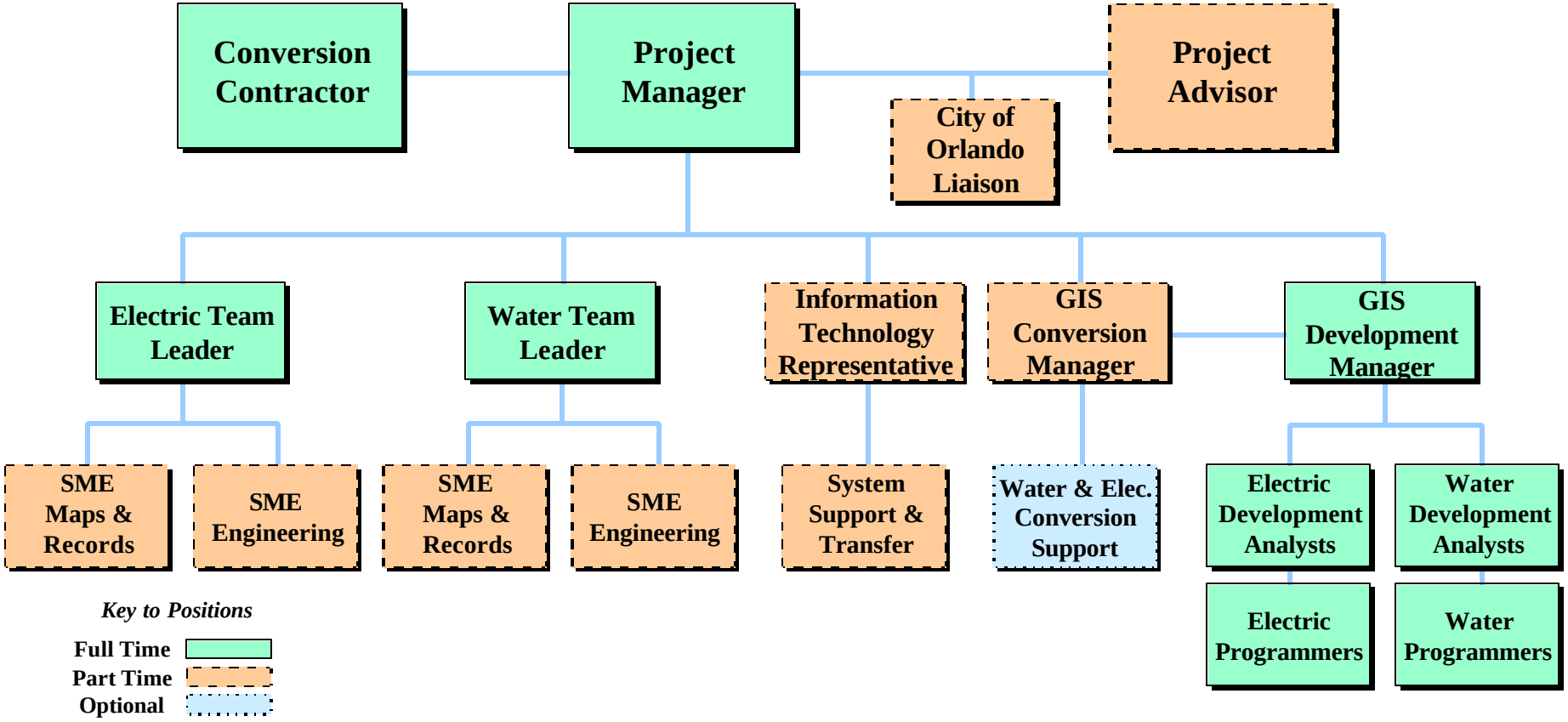
Application Development



Acceptance Testing

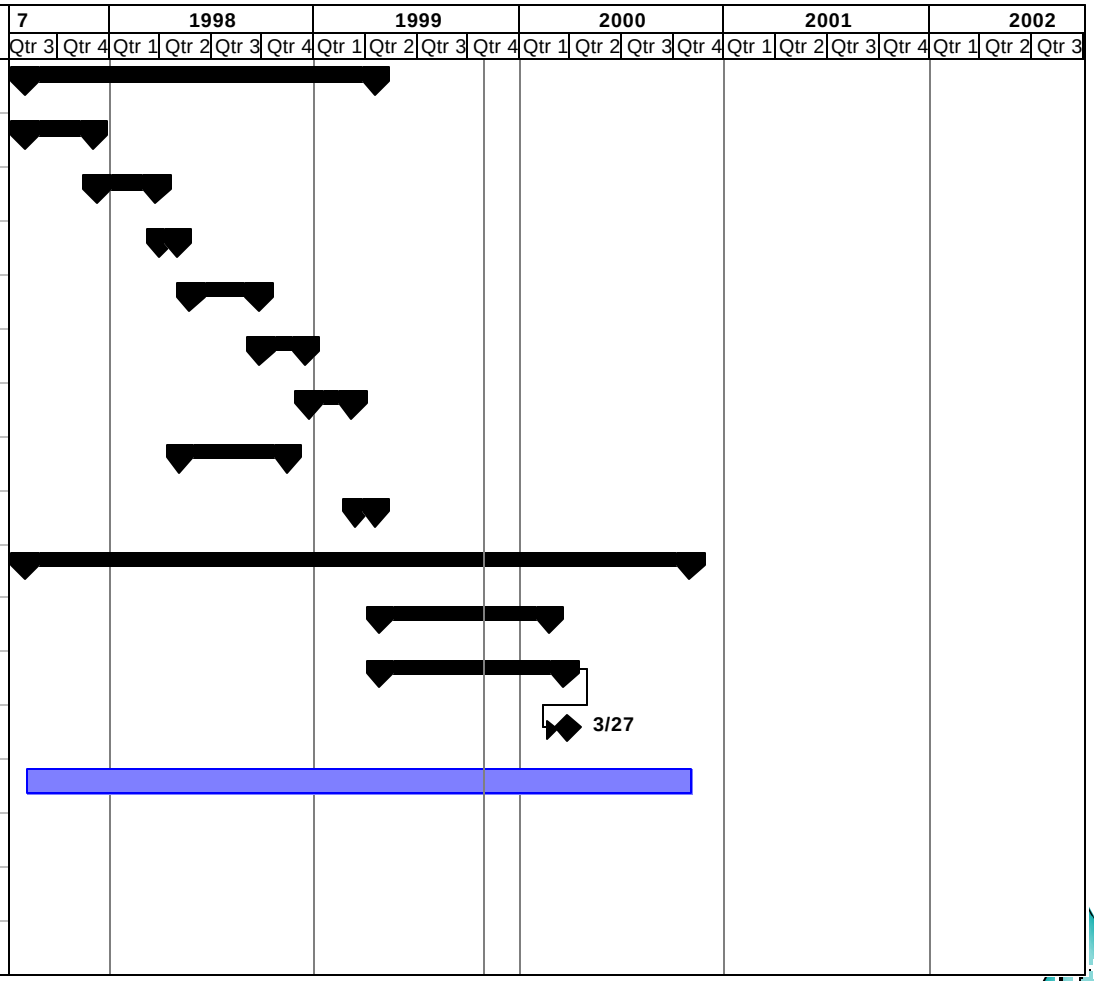


Organization



Schedule

ID		Task Name
1		Phase II Implementation
2		1.0 Select GIS Software
9		2.0 Select Application Contractor
14		4.0 Design Database Model
18		6.0 Select Data Conversion Vendor
25		7.0 Define Conversion Process
34		8.0 Data Conversion Pilot
38		10.0 Develop Core Applications
42		12.0 Acceptance Testing
47		OUC Phase III Base Plan
48		14.0 Develop Applications
53		16.0 Production Data Conversion
58		18.0 Full Implementation/Ops.
59		20.0 Project Management



Budgeting

GIS Development Cost Estimate

Year	Application Development	Data Conversion	Hardware	Software	Training	Consulting	Total
1	$70,000	$320,000.00	$12,000	$82,900.00	$25,000	$25,000	$534,900
2	$45,000	$213,000.00	$12,000	$62,300.00	$23,000	$25,000	$380,300
3	$25,000	$275,000.00	$12,000	$12,000.00	$12,000	$25,000	$361,000
Total	**$140,000**	**$808,000**	**$36,000**	**$157,200.00**	**$60,000**	**$75,000**	**$1,276,200**

Project Management

- Two reasons projects fail
  - Lack of clear specifications
  - Scope creep

Project Considerations

- Planning is a must
- Convert only features you will maintain
- Problems will occur
- Train your users
- Show early success with a pilot area
- Share resources with other departments

Conclusions

- Plan.
- The goal is to create a team.
- Keep everyone focused on the plan.
- Have a plan for managing change.

Questions

Thank You for your Time