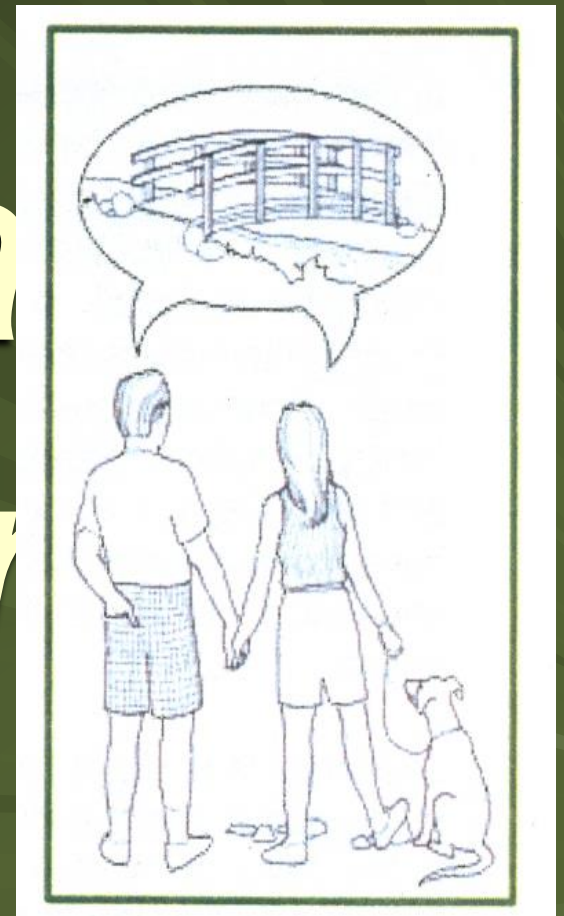
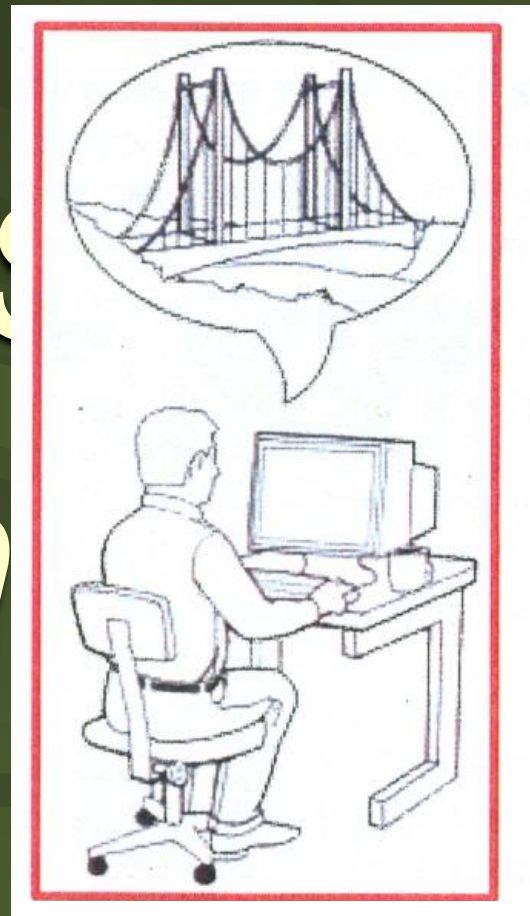
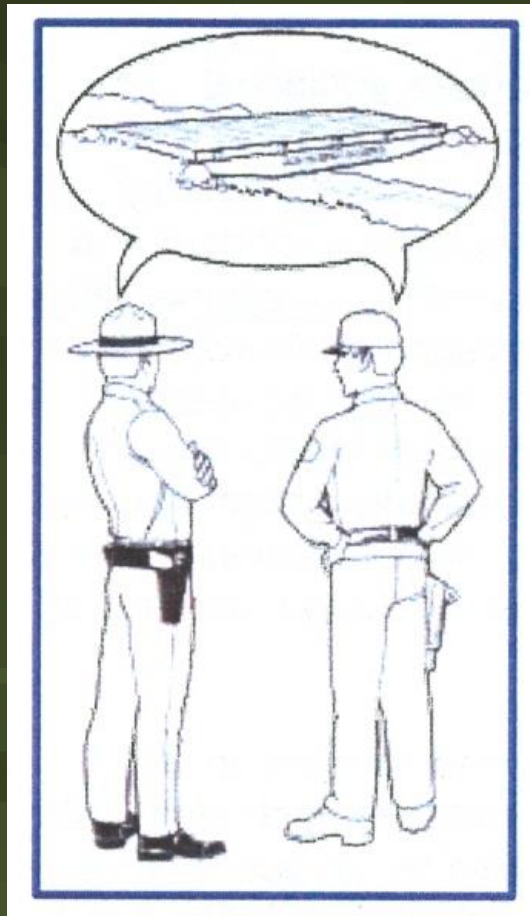


Project Management



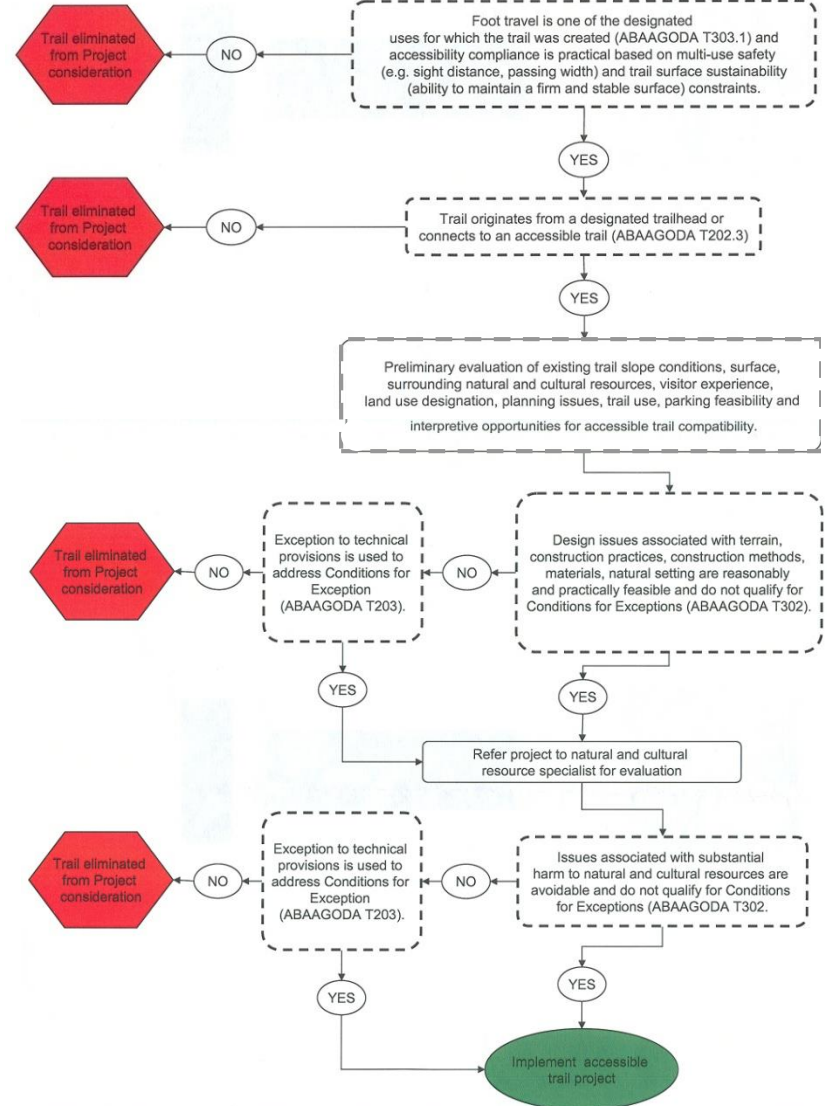
is a part of



Openair Oregon

Accessibility Section Project Selection Process

California Department of Parks and Recreation



Session Objectives

- Project Management Process
- Park Based Implemented Projects
- Development of Project Scope
- Project Development Criteria
- Project Budget Development
- Contract or In-House Project Implementation?
- Project Management Roles
- Post Project Evaluation, Monitoring and Maintenance Schedules

Good Project Planning Follows a Management Process

Good Project Planning Processes can be Broken Down into 5 Basic Elements





Cultural Resources

Threatened and Endangered Species

Proper Project
Planning Identifies
Laws Affecting
Project Design

Administrative Control Agencies

Accessibility

CEQA
CEQA

Water Quality

Project Planning Involves Proper Front End Work



Facilitates Completed Projects

- Unites Stakeholders
- Protects Resources
- Creates Efficiencies
- Provides Quality Visitor Experiences
- Meets the Needs of the Park Operation



Proper Project Planning Supports Good Design and Layout





Project Planning Allows for Appropriate Construction

- Protects Resources
- Meet Operational Need

Proper Project Planning Minimizes Maintenance

- Preserves Investment
- Mitigates Resource Impacts
- Reduces Down Line Efforts



Proper Project Planning Includes Monitoring



Is the Project Working?

Adaptive Management

What Changes Need to be Considered or Implemented?



Cultural Resources

Park Users

Success Can Only be Obtained
if it Meets the Customer's
Needs and Expectations

Administrative Control Agencies

NEEDS
-
RESOURCES

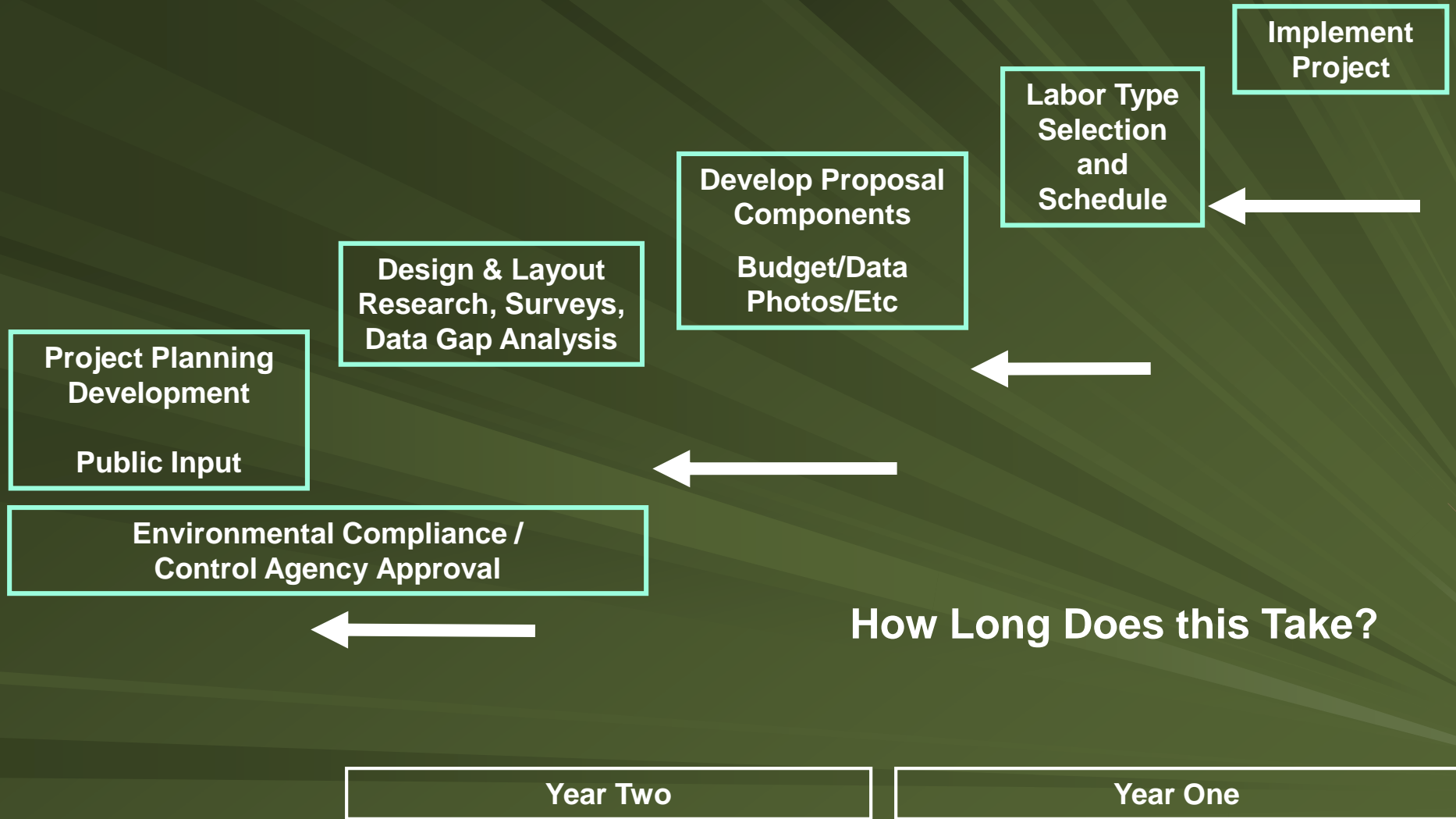


CUSTOMERS

Feedback is Critical



Project Implementation Time Line



December Spring Summer Fall Winter Spring Summer Fall Winter Spring

Developing Projects

- We Have a Duty to Make Sure We Meet the Needs of Our Operational Mission
- That Mission is Different in each Park



After a Project is Selected What is the First Step to Developing a Project?

■ Project Scope

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Project ID No. _____
PCA No. _____

PROJECT EVALUATION (PEF)

PROJECT CONCEPT		
PROJECT TITLE		PARK UNIT NAME
DISTRICT NAME Sierra (685)	FACILITY NO.	
PROJECT MANAGER	PHONE NO.	EMAIL
DISTRICT PROJECT MANAGER Route all correspondence to Diane Cassano	PHONE NO. 530-525-3342	EMAIL dcassano@parks.ca.gov
PROJECT BID DATE	CONSTRUCTION START DATE	FUNDING SOURCE

PROJECT DESCRIPTION

Identify the scope of the project in detail, including its purpose, location, and potential impacts. If the ground is to be disturbed, describe the depth and extent of excavation. Describe the existing site conditions, including previous development. Note if work will impact or extend beyond park property. Indicate if work will be done in conjunction with, or as part of, other projects. (Use additional pages if necessary.)

contacted and work will be suspended until identification and proper treatment are determined and implemented.

DOCUMENTS ATTACHED

- 7.5 minute (quad) map of project area (Required)
- Site Map (Required - Scale should show relationship to existing buildings, roads, landscape features, etc.)
- Graphics (Specify - photos, diagrams, drawings, cross-sections, etc.): _____
- Other (Specify): _____

REGULATORY REQUIREMENTS

IS AN APPLICATION, PERMIT, OR CONSULTATION REQUIRED?	YES	MAY BE	NO	CONTACT
Coastal Development Permit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DFG Stream Alteration Permit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
State & Federal Endangered Species Consultation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Corps of Engineers 404 Permit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RWQCB or NPDES Permit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DPR Right to Enter or Temporary Use Permit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PRC 5024 Review	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Why Have a Project Scope?

- Puts the Project Team in Sync
- Used to Describe Project
 - PEF/CEQA
 - Park Infrastructure Data Base
- Used for Funding Requests
 - Minor/Major Capital Outlay Submission
 - Grants and Special Funding

Why Have a Project Scope?

- There Should be a Direct Relationship Between Your Project Scope and:
 - Project Components or Tasks
 - Budget
 - PEF/CEQA Document
 - PID
 - Funding Request

Project Scope Development

- Many Projects Run into Problems Because they are Not Well Developed



Lack of Planning Execution

Project Scope Development

- Projects without Scope:

- Start with Poor Direction

.....Hoping that Things
will get Clearer as
Work Progresses

- Resulting in Abandoned and/or Costly Rework
- Staff/ Communication problems



Project Scope Development

- Scope Definition Addresses a Problem Statement
- Begin with Articulating What You are Fixing
 - Specific
 - Measurable
 - Achievable
 - Realistic

To improve water clarity of Lake Tahoe, this project involves removing the 1.3 mile “crossover” road in Burton Creek State Park. The work will be completed using heavy equipment such as dozers, excavators and dump trucks. CCC crews will perform handwork. The removed road will improve drainage and sediment into streams, be revegetated with native plants harvested on site and/or propagated in District green houses. Exposed soils will be fully mulched with onsite forest litter. A monitoring plan will be initiated at completion of work. Initial site natural and cultural surveys have indicated no sensitive resources. Natural/Cultural resources staff will monitor work performed. If evidence of potentially significant natural historical/archaeological resources are found the District or Service Center resource staff will be contacted and work will be suspended until identification and proper treatment are determined and implemented.

Project Scope Development

- Scope Definition Addresses
"What", "Why"
Goals – What/Why

The project goal is to protect the legendary water quality and clarity of Lake Tahoe through 1) the enhancement of stream environment zones which function to provide natural treatment and conveyance of surface runoff; and 2) the stabilization of available sediment before it enters the channel through restoration and revegetation of abandoned roads.

The primary focus of the this project will be to reduce sediment availability from upland erosional processes. The CRMP process organized for this project will provide the institutional framework to implement similar work

Project Scope Development

■ Scope Definition Addresses

Objectives – “How”

- Heavy equipment and CCC hand crews will perform handwork.
- Be revegetated with native plants harvested on site and/or propagated in District green houses.
- Exposed soils will be fully mulched with onsite forest litter.
- Monitoring plan will be initiated at completion of work.
- Site surveys for Natural and Cultural Resources
- Natural and Cultural resources staff will monitor work performed.
- Work will Stop if Sensitive Resources are Identified



■ You must understand the Project Scope Development

If you *Do Not Understand* the Project Scope:

- Ask, and Ask Until the Intent is Clear Beyond Doubt

Project Scope Development

- Every project must have an Owner, or Proponent and a Project Team
- If there is no Proponent –
 - Disown the Project as Soon as Possible
- Remember-
 - Full “Buy In” is required
- In Any Case, Become the Owner, Create a Project Team
 - or Find That Project a Home

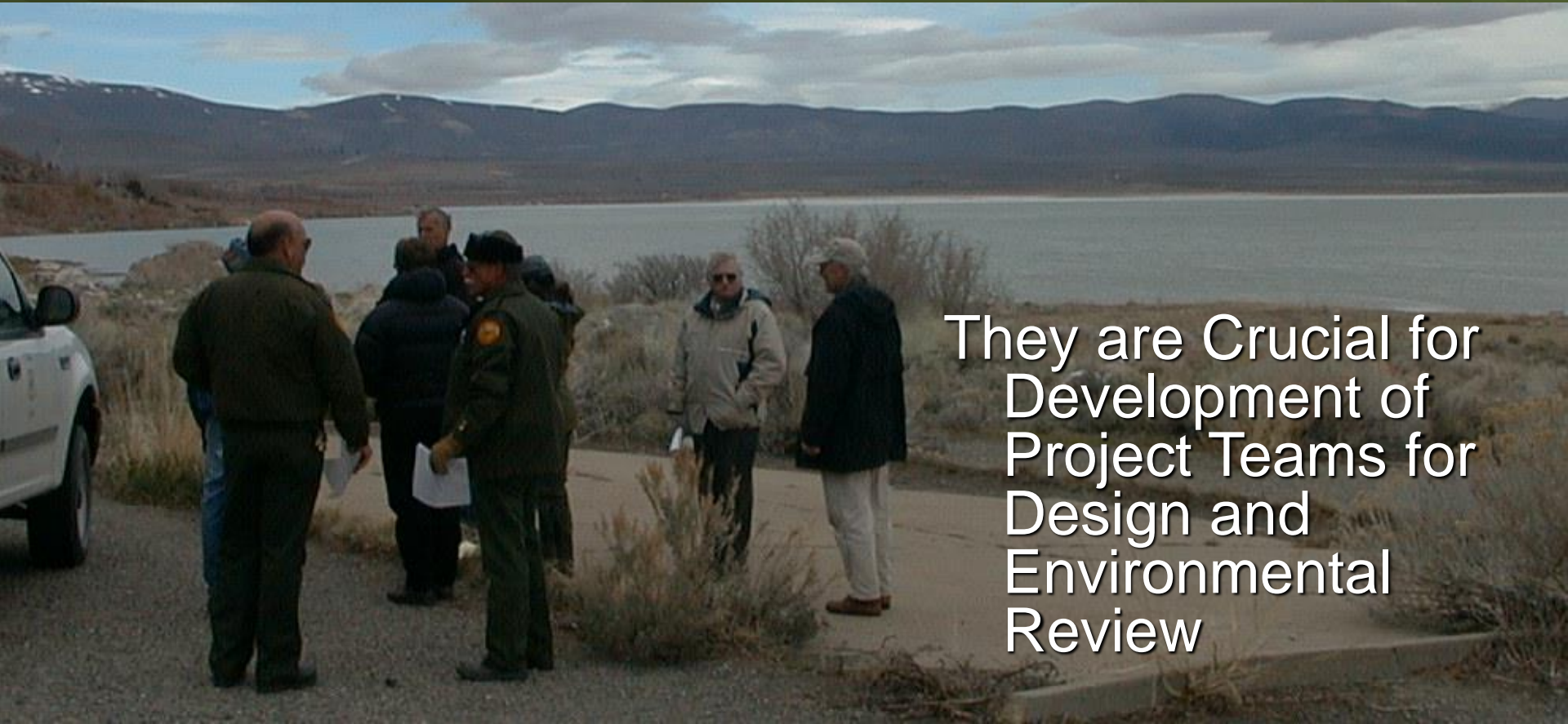
Project Scope Development

- A Good Project Scope will Answer these Questions:
 - Does this a project Meet Your Operational Mission?
 - Is the Main or Overall goal Compatible with My Scope of Responsibility?



Project Scope Development

- For Larger District Projects:
 - Who are the Active Stakeholders?



They are Crucial for
Development of
Project Teams for
Design and
Environmental
Review

Project Scope Development

- With Natural, Cultural or Administrative Control Agency Review:
 - What are the Go/No-Go criteria for implementation?
 - Good Scope Descriptions Identify Upfront Conditions, Avoidances
 - Consult with Specialists Early in Scope Development
 - If there are Mitigations or “Take” or New Concepts
 - Compliance will Take Longer

Project Scope Development

■ Good Scope Description:

- Describes What are the specific Objectives?
- What are the Measurable Outcomes or Specific Deliverables?
- Be Realistic

■ Deliverables

- If you can't Remember anything else about what makes a Good Scope, List your Deliverables. Defining your Deliverables goes a long way toward Defining the Overall Scope of the Project.

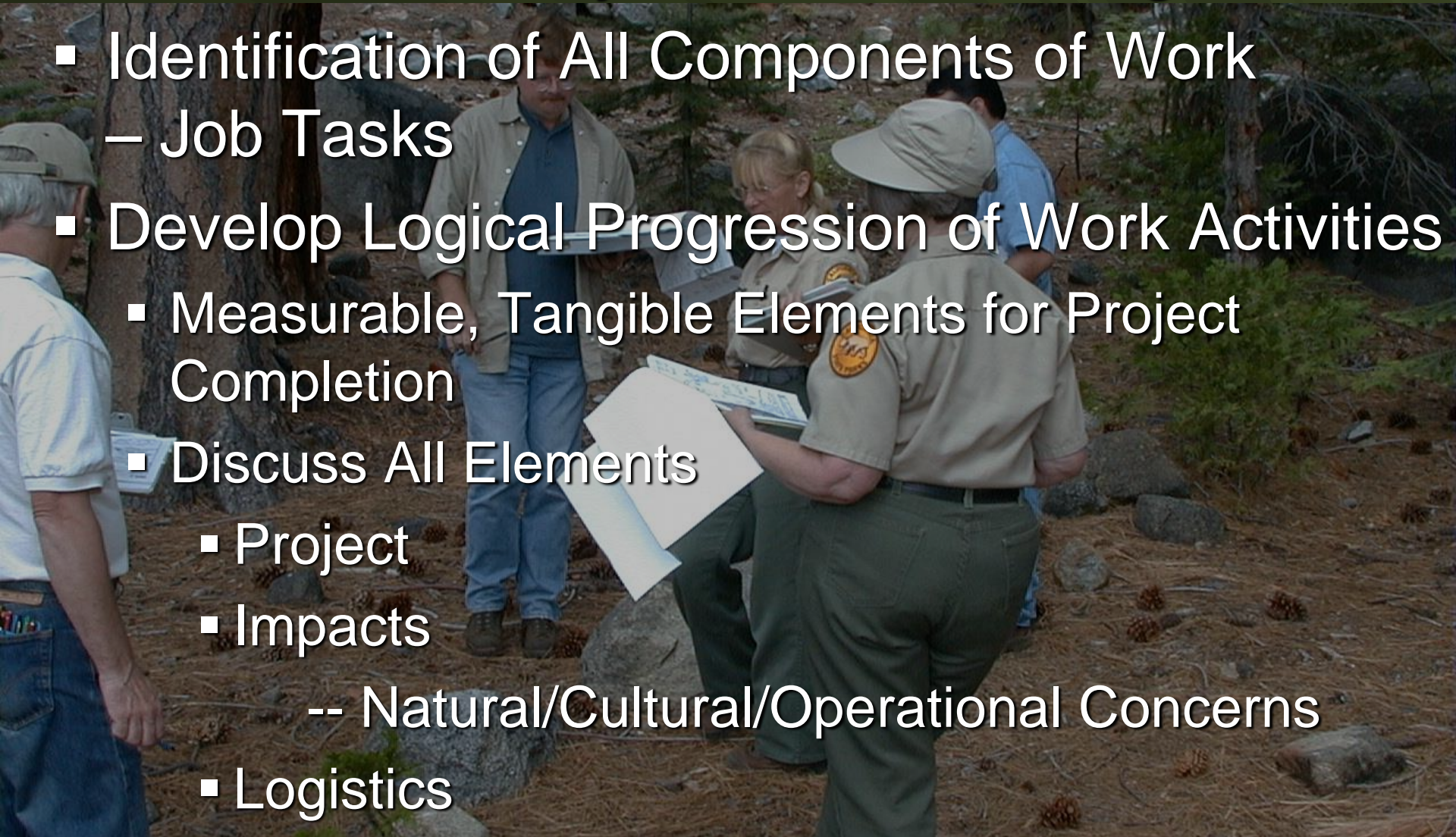
Team Project Development



- Projects with Complex Environmental and/or Design Requirements:
 - Necessitate a Design Team Approach
 - Early Team Development Facilitates Smooth Review Processes
 - Teams Should Include all Disciplines/Stakeholders

Team Project Development

- Initiate Team Project Review Meetings
- Identification of All Components of Work
 - Job Tasks
- Develop Logical Progression of Work Activities
 - Measurable, Tangible Elements for Project Completion
 - Discuss All Elements
 - Project
 - Impacts
 - Natural/Cultural/Operational Concerns
 - Logistics




Team Project Development

- What Makes Up a Complete Project Team?
- Identify Team Members
 - Design Skill Sets
 - Implementation Skill Sets
 - Reviewing Skill Sets
 - Compliance Skill Sets
 - Stake Holders



Team Project Development

- Identify Measurable Outcomes - Get Project Quantities and Sizes Measures
 - Detail Measurements - Material Selection – Clearly Identify Final Product Components
 - Develop Site Plan
 - Decide on Design Drawings and Details Needed to Complete Task
 - Establish Staging Areas
 - Best Management Practices Needed
- 
- A photograph showing three people in a forest setting. A woman in a tan shirt and dark pants is pointing towards a tree. A man in a tan jacket and blue jeans is holding a large sheet of paper, likely a site plan or drawing. Another man in a blue shirt and jeans is also looking at a sheet of paper. The background shows a forest with trees and a body of water in the distance.

Team Project Development

Identify Challenges and Missing Data



Complete Data Gap Analysis
- Studies/Surveys Needed

Control Agency Coordination

Local Tribes

Project Planning
Teams Can Include
Control Agencies

US Fish and Wildlife Service

Department of Fish & Wildlife

DPR Accessibility Unit

Coastal Commission

Water Quality Control Board

Design Review



- Certain Types of Projects Require Design Review:
 - Accessibility Section
 - Dept. Health – Water/ Sewage Systems
 - New Construction with Engineering Approval
 - Historic Restoration
 - Administrative Reviews

How Are We Developing Project Costs?

Arm Waving and Finger Pointing or Picking a
Number Out of the Air

The WAG

Or the More Sophisticated SWAG



Project Development

- Project Cost Projections are Determined By?
 - Proposed Scope of Work
 - Research/Studies/Surveys or Design Costs
 - Environmental/Control Review/Monitoring Costs
 - Cost of Materials
 - Tasks and Labor (Time Expected x \$ of Labor)
 - Tool and Equipment Costs
 - Expendable Items
 - Logistics
 - Administrative Support/Overhead

Project Development

- A Well Defined Project Scope Will Guide:
 - Development of Tasks
 - Assignment of Labor and Materials
 - Identification Tools and Equipment
 - Identify Design Requirements
 - Foresee Environmental Review Requirement
 - Establish Appropriate Best Management Practices
 - Development of a Project Schedule or Critical Path
 - Estimate Project Length
 - Appropriate Scheduling

This is Baseline Project Development

Where Can this Project Package Go Now?

■ Park Infrastructure Data Base

- All the Base Information is Complete.
- It is in a Form to Easily be Update for Costs
- PID is the Basis for CAT II, Deferred, Minor and Major Capital Outlay, Bond Funding Etc.

■ Grants/Non DPR Special Funds

- Add Department 16% Cost Allocation and a District Overhead for Project Management

■ Higher Level Proposal – POPG/PPPC/Exec

■ Unexpected Funding

Project Schedule or Critical Path

Critical Path or Project Progression Schedule

Job Task Breakdown	#	UNIT	UNIT COST	OE COSTS	FY COSTS	TOTAL
Security Fence Installation	24	hr	\$19.40		\$465.60	\$465.60
Scaffolding	96	hr	\$19.40		\$1,862.40	\$1,862.40
Footings Excavation	0	hr	\$23.16		\$0.00	\$0.00
Footings Concrete Pour	0	hr	\$23.16		\$0.00	\$0.00
Perimeter Foundation Repairs/Installation	0	hr	\$23.16		\$0.00	\$0.00
Remove Existing Concrete and Re-Install	0	hr	\$23.16	\$5,028.80	\$0.00	\$5,028.80
Roof Sheathing Repair/Replacement	0	hr	\$23.16		\$0.00	\$0.00
Re-Roof with Wood Shingles to Match Historic	0	hr	\$23.16		\$0.00	\$0.00
Repair/Replace Damaged and Missing Wall Siding	0	hr	\$23.16		\$0.00	\$0.00
Repair/Replace Damaged and Missing Window Frames and Windows	880	hr	\$19.40		\$17,072.00	\$17,072.00
Site Clean Up	48	hr	\$19.40		\$931.20	\$931.20
Mortar	100	ea	\$8.00	\$800.00		\$800.00
Nails, Re-bar, Foundation Bolts	0	ea	\$0.00	\$0.00		\$0.00
Roof Sheathing	0	ea	\$0.00	\$0.00		\$0.00
Cedar Shingles	0	ea	\$0.00	\$0.00		\$0.00
Generator (Fuel)	100	gal	\$3.00	\$300.00		\$300.00
Siding	0	ea	\$0.00	\$0.00		\$0.00
Window Material Stains and removers	1	ea	\$400.00	\$400.00		\$400.00
Scaffolding	0	ea	\$500.00	\$0.00		\$0.00
Scaffolding	0	ea	\$0.00	\$0.00		\$0.00
Cultural Oversight/Monitoring						
Historian II	0	hr	\$35.00		\$0.00	\$0.00
Archaeologist	0	hr	\$33.00		\$0.00	\$0.00
District Supervision/Park Maintenance Chief	128	hr	\$0.00	\$0.00		\$0.00
Tools and Safety Equipment (Tips for Chisels and Repirators)	1	ea	\$2,000.00	\$2,000.00		\$2,000.00
Crew Vehicle	0			\$0.00		\$0.00

– Develop Time Lines

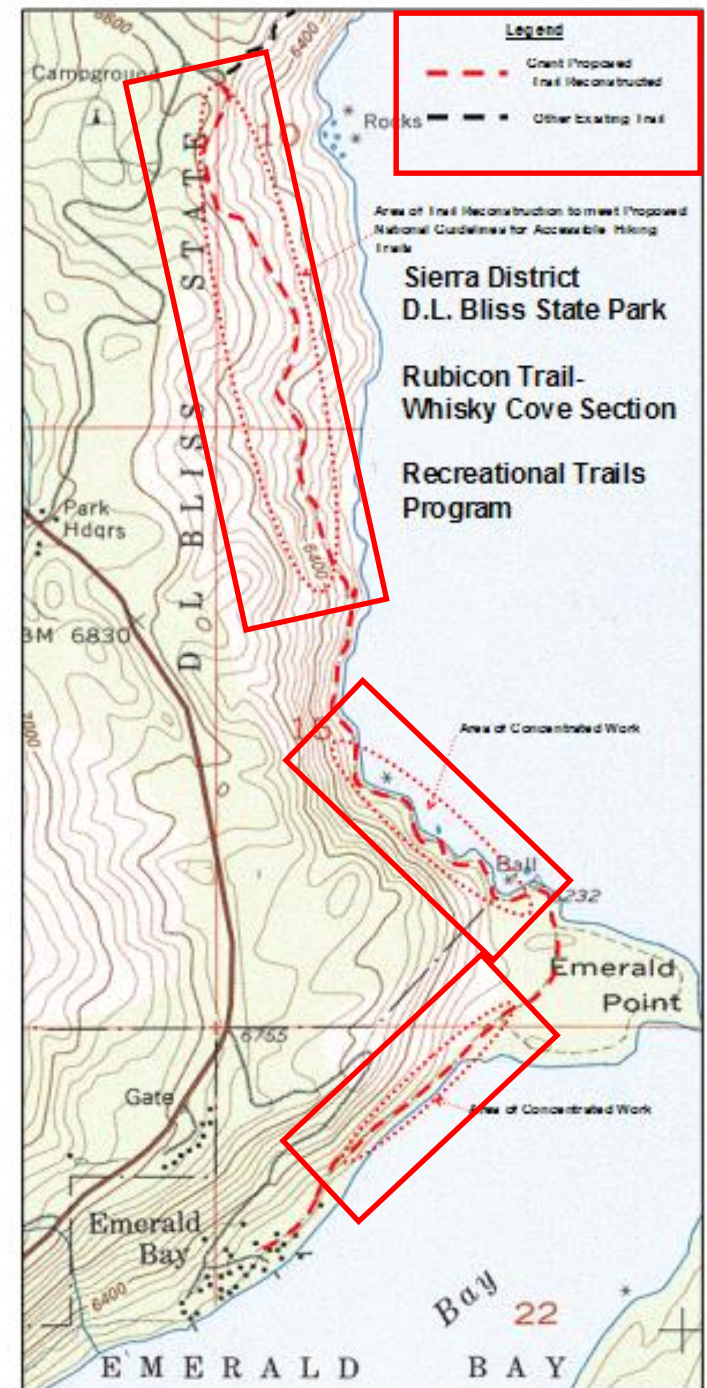
– Based on Project Need (Reality not SWAG)

– Front End Work

– Logistics

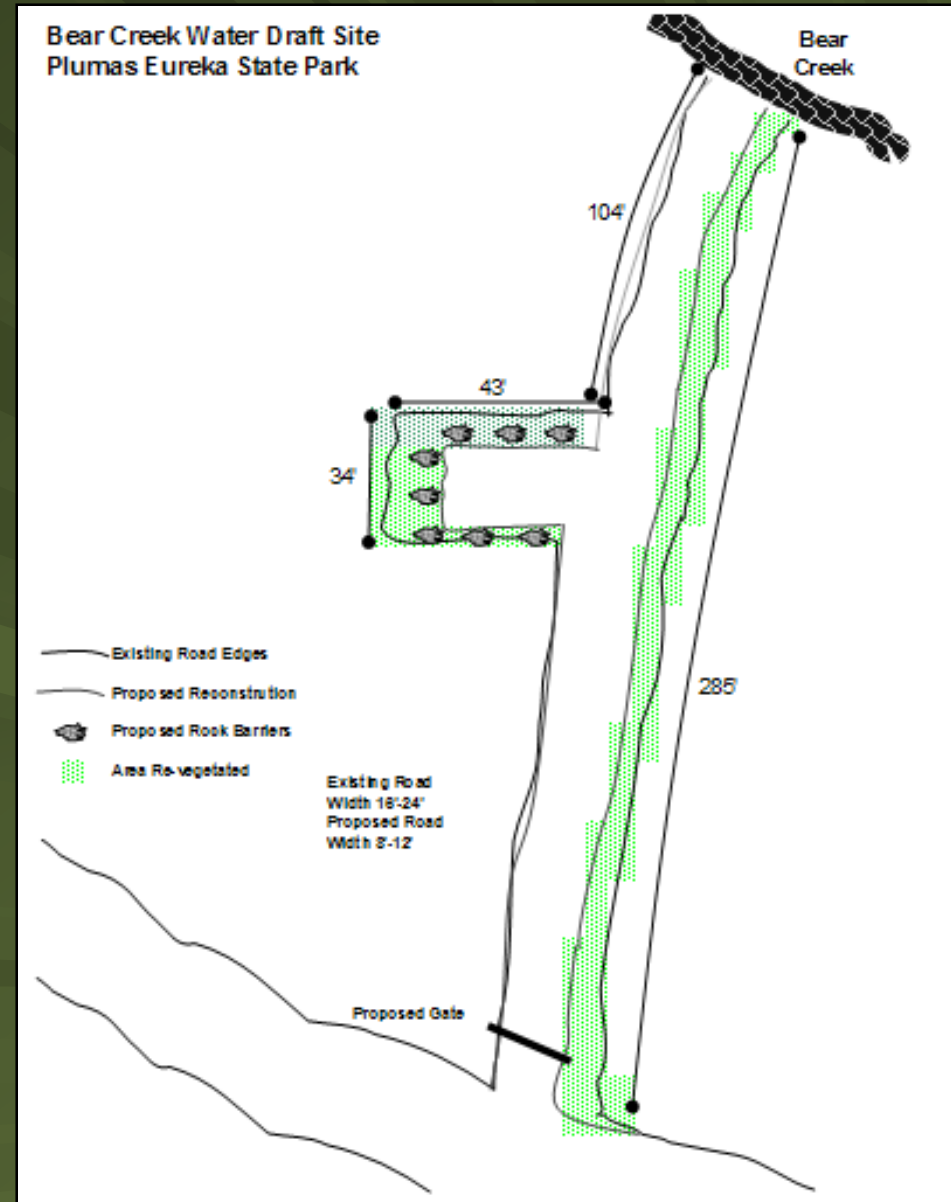
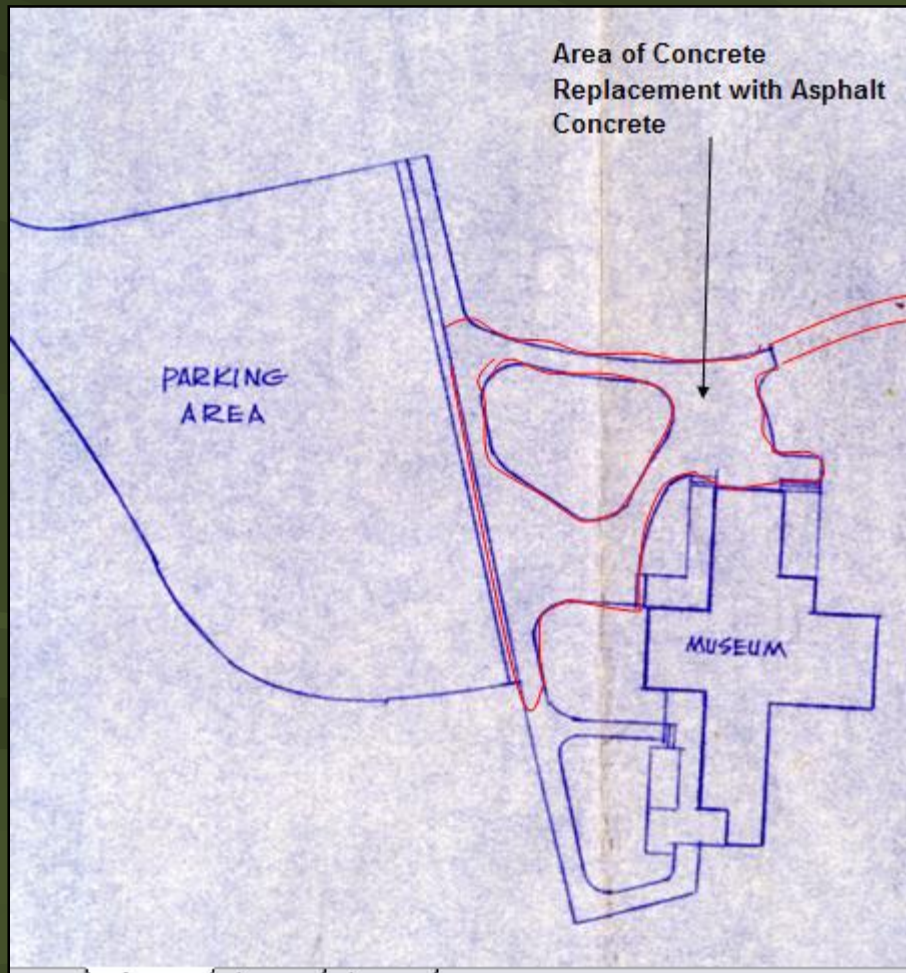
– Environmental Compliance

Location Maps



Design Requirements

Site Plans



Design Requirements

- Decide on Design Drawings and Details

DIABLO STOVES
BLISS ST. PARK
WEST RIDGE CAMPSITES
NO. 134

METAL DAMPER ON CHIMNEY TOP

END VIEW
NOT TO SCALE

2" dia. STANDARD STEEL PIPE, NON-GALVANIZED
1/4" STANDARD STEEL ANGLE
CONTINUOUS WELD PIPE TO STEEL ANGLE
1/2" GRADE 'A' NUT WITH STD. THREADS
3"

FRONT ELEVATION VIEW
NOT TO SCALE

6" 2" 1/2" 9/16" dia. typ. 2" 4" 12"

TOP VIEW
NOT TO SCALE

12" 5/8" dia. WELD 2" dia. IRON PIPE WITH 5/8" dia. PRE-DRILLED HOLE

BRACKET DETAIL

ALL ROCK CONSTRUCTION
ENCLOSED METAL FIRE BOX
FRONT DOOR WITH HANDLE
ALL MODELS SEEM TO HAVE A SET BACK TO DOOR

CHIMNEY OPENING 9 1/4" x 4"
CHIMNEY DAMPER 14" 5" 9" 1/4 STEEL

DOORS ARE 10" x 10"

STEEL GRATE SYSTEM
10 FLAT IRON GRATES PER COOK SPACE
2 SLIDING TOPS

FIRE BRICK LINED FUEL AREA WITH NO CERAMIC FLUE LINES

30" 3 1/2" 11" 10"

MATE -
SLOPING GRADE SLAB FOR FOUNDATION

DATE OCT. 1956
DRAWN BY STAFF
CHECKED

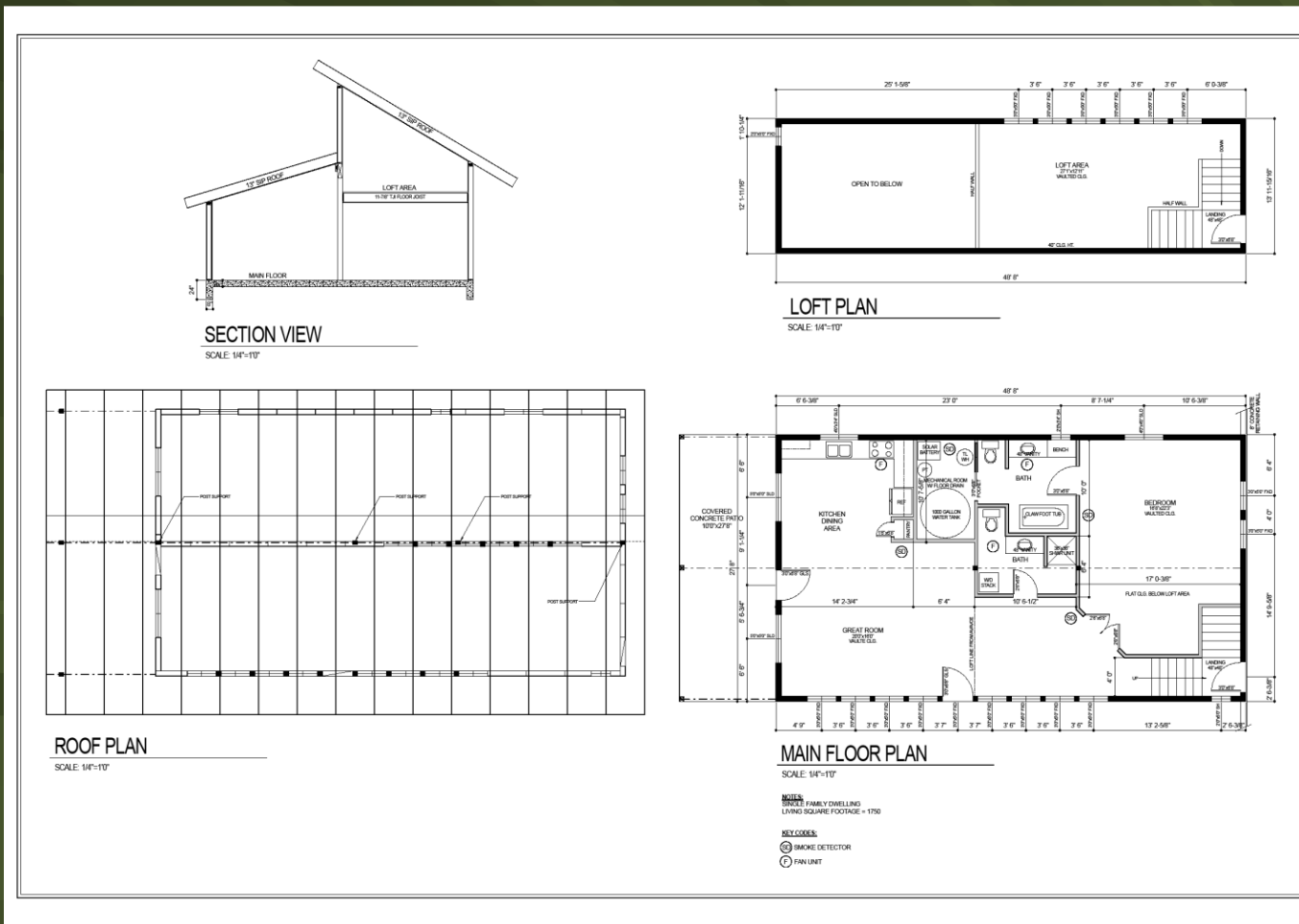
RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF PARKS AND RECREATION
APPROVED: DATE

DRAFT

DRAWING No.
SHEET 2 OF 4

Design Requirements

- Complex or Special Design Projects Lend Better to Service Center Design Teams



How do We Identify the Right Labor Force for Work Project?

Factors to Consider

Can You Perform the Work In-House? If Not – Then you must Decide Between Volunteers, Contracting to a Inter-Agency Labor or Private Contractor



Complexity of Project



Contractors Should be Required to Attend a Mandatory Bid Showing



Contract Descriptions, Working Drawings or Specifications & Maps

Trail Brushing Construction

This includes the removal of all brush within the trailway (top of cutbank to bottom of filllope). The brushing limits will vary depending on the size of the designed trail bench, percent of hilllope and the user group. Removal includes the stashing of cut brush off the trailway and out of sight. Any brush limbs projecting into the brushing limits will be severed at its axis and no stobs shall be permitted. Levels of brushing (light, medium and heavy) are based upon designed trail width and brush density. Unit of payment is by lineal foot. (Refer to trail brushing drawings in the specification diagrams.)

Trail Brushing Maintenance

Brushing maintenance is the removal of living or dead vegetation from within the trailway that is prohibiting the designed use of the trail or is out of compliance with the brushing standards for that trail. Brushing maintenance removal limits are based on the trails classification and design standards. Removal includes the stashing of cut brush off the trailway and out of sight. Any brush limbs projecting into the brushing limits will be severed at its axis and no stobs shall be permitted. Levels of brushing (light, medium and heavy) are based upon designed trail width and brush density. Unit of payment is by lineal foot. (Refer to trail brushing drawings in the specification diagrams.)

Clearing, Tree and Stobber Removal Construction

Removal of small trees, stumps of dead or felled trees and stobs of large brush within the travel way. Removal includes the root structure of the trees and brush and the stashing of all debris off the trailway out of sight. Any tree limbs projecting into the clearing limits will be severed at its axis and no stobs shall be permitted. Levels of clearing (light, medium and heavy) are based upon designed trail width, tree and stump density and tree size. Unit of payment is by lineal foot. (Refer to clearing and grubbing drawings in the specification diagrams.)

Down Tree Removal

The logging out and removal of trees lying across the intended trailway. Work includes the sawing out of down trees within the designed clearing limits and removing the sawn sections of tree out of the travel way. Saw sections shall be stashed out of sight or placed perpendicular to the trail against the remaining sawn log. Unit of payment is based on the removal of each individual tree or log. Cost varies based on use of power tools or hand powered saws and the diameter of the tree removed. (Refer to down tree logout drawings in the specification diagrams.)

Trio Maintenance

This work includes removal of all organic debris from the trail bed, removal of soil and debris on the inboard hinge and the soil berm on the outboard hinge of the trail. Mineral soil from the slough on the inboard hinge and the berm on the outboard hinge is used to fill depressions in the trail tread. This includes decompacting, reshaping and compacting the entire trail bed to achieve proper outslope and sheet drainage. It also includes brushing the trailway back to original construction standards. Unit of payment is by lineal foot. (Refer to trio maintenance drawings in the specification diagrams.)

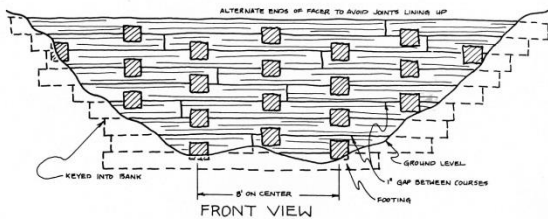
Trail Reconstruction

Reconstruction of a trail includes removing vegetation and organics within the trail bench, removing the outside berm, removing the slough on the inboard hinge, layback the cutbank to the angle of repose, fully recontouring the trail bench to establish the desired

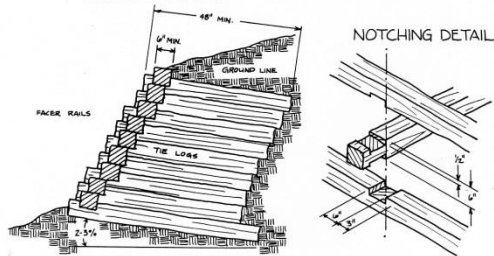
Structure Name	Project Discription
loyle House (north)	Repair porch, doors, windows, stabilize walls, PT perimeter foundation
Old barn (sleigh barn)	PT pիրimeter foundation, replace siding, provide interior support re-roof
Belhorn House	Foundation work on main house, flooring, metal roof sheathing north walls rafters and sheathing, some residing.
DOF Building	re do all windows front and rear, nail off siding, re-roof stairwell check steel roofing, scribe weather stop in front between 2 buildings
Brown House	PT foundation on rear shed back wall, rafters on rear shed use st repair front porch roof, foundation under kit, east wallm repair all v
I.B. "G"	Rebuild seller entrance, PT pիրimeter foundation, foundation with ro
Indian House	South shed- PTpիրimeter foundation, roof sheathing, rafters, tin roof and tin roof. South shed- rafters, sheathing, tin roofing PT foundati
Bulwre House	reconstruct sheds in rear walls, rafters, sheathing, rolled roofing.
I.B. "J"	Total reconstruction, building falling in on itself, archeologist drawin
Wheaton Hollis Hotel	redo windows throughout, replace porch roof boards, correct h2o lower roof nail down metal roof, monotor crack in room next to ass
I.B. "D"	Repair roof rafters, sheathing, rolled roofing PT pիրimeter foundati
Odd Ruins	Total reconstruction need archeologist drawings.
Carpenters Shop	Total reconstruction need archeologist drawings.
Bar Ruins	Total reconstruction need archeologist drawings.
Castretti Warehouse	repair brick in South east corner of building.
loyle Warehouse	Rebuild south rock wass and corner adjacent building reconstruc
East trestle at mill	Total reconstruction need archeologist drawings.
North trestle at mill	Total reconstruction need archeologist drawings.
Quinville House	Foundation and interior wall repairs re do all windows.
Assay office at Mill	build rock retaining wall behind building, remove dirt from rear and

14-2

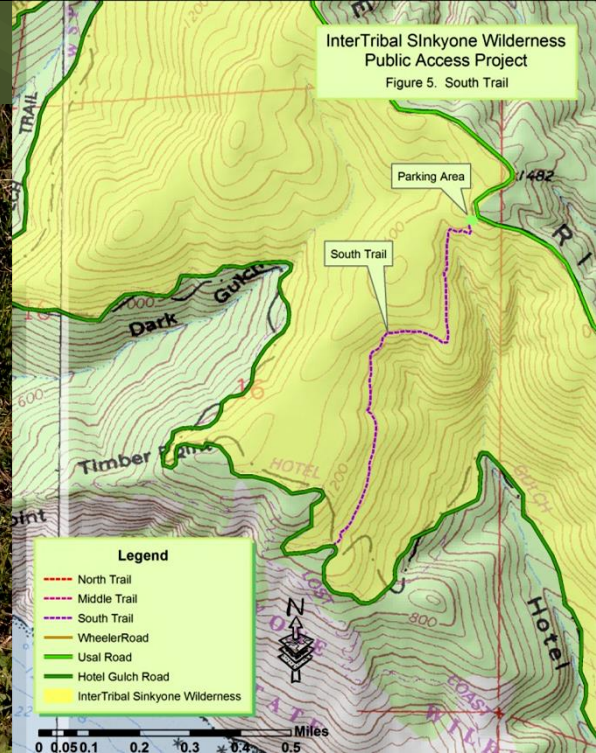
RETAINING WALL
NOT TO SCALE



CROSS SECTION



NOTE: ALL RAILS & TIES TO BE 4"x4" MIN. STOCK 1/4" GAP WOOD (CAN BE ROUND STOCK)



Logistics and Location



Safety



Public Relations/Advocacy



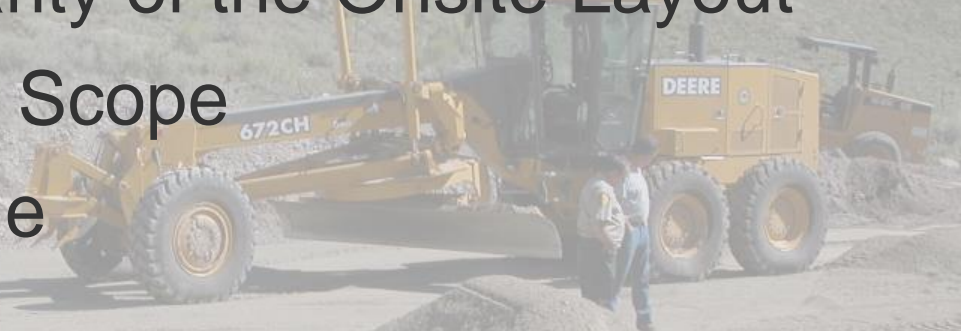
Project Management Roles

Project Manager:

- Moves the Project from Planning and Design
- The Person with the Funds to Complete the Project
 - Responsible for Budgeting, Tracking, and Reconciliation of Project Funds
- Obtains Reviews, Permits Prepares Contracts, Interagency Agreements etc.
- Works Through a Design Person for Plans and Specifications
- Provides Information to a On Site Supervisor or State's Representative

Project Management Roles

On Site Supervisor (In-house/Interagency Crews)
States Representative (Contractors):

- Has Complete Working Knowledge of Project:
 - Working Drawings, Maps, Specifications
 - Familiarity of the Onsite Layout
 - Project Scope
 - Timeline
 - Provides Quality Control
 - Ability to Convey this Information to the Labor Force
- 
- A yellow Deere 672CH wheel loader is parked on a dirt surface at a construction site. A worker in a light-colored shirt and dark pants is standing next to the loader, looking at something in their hands. The background shows a hilly, arid landscape under a clear sky.

Project Management Roles

On Site Supervisor (In-house/Interagency Crews)

- Identifies and/or Obtains Specialized Tools and Equipment Needs
 - Provides or Identifies Needed Skills and Training Required to for Project Completion
 - Identifies Logistical Needs
 - Develops Project Implementation Components/Construction Time Line
- 

Post Project Review and Critique

Set Aside Time for Post Project Evaluation

- We are Often Too Busy
- Anxious to Move on to the Next Project
- Lost Interest
- Project was Never Really Finished

District Post Project Review Evaluation Record

Project Title _____

On _____(date)

The District Environmental Scientist, District Facility Manager, and District Cultural Manager reviewed the project named above.

Conditions were met

Conditions were not met

Please explain below why conditions were not met and resolutions to mitigate any impacts. Include also process improvements recommended to minimize a reoccurrence.

CEQA Coordinator signature _____

Project Management Review

- Practice a Process – It is Repeatable
- Development of Project Scope
- Project Development
 - Budget
 - Design
 - Resource/Administrative Review Concerns
 - Contract or In-House Project Implementation?
 - Project Scheduling
- Management of Project Implementation
 - Employee Roles and Responsibilities