Environmental Stewardship
Environmental Stewardship

Organizational Opportunities
or
Threats
ADOT Organizational Structure

Governor

Arizona Department of Transportation
  Director
  Deputy Director
  Chief of Staff

State Transportation Board

Transportation Services Group (Administration)
  Audit and Analysis
  Budget and Strategic Planning
  Financial Management Services
  Information Technology Group
  Procurement
  Safety and Health
  Special Projects

Communication & Community Partnerships (Administration)
  Arizona Highways Magazine
  Civil Rights Office
  Human Resources
  Physical Plant Operations
  Public Records Request Coordinator
  Community Relations
  Media Relations
  Partnering
  Public Involvement

Office of the Inspector General (Administration)

Policy and Governmental Affairs (Administration)

Aeronautics Division
  Airport Development
  Aviation Services
  Grand Canyon Airport

Intermodal Transportation Division
  Development
  Office of Environmental Services
  Operations
  Valley Transportation

Motor Vehicle Division
  Customer Service
  Competitive Government Partnerships
  Division and Operation Support Services
  Motor Carrier and Tax Services
  Director’s Office
  Executive Hearing Officers
  Executive Services Group
  Special Border Projects

Public Transportation Division
  Rail and Safety
  Rural Transit
  Special Needs Transit

Transportation Planning Division
  Admin Support Services
  Air Quality Policy
  AZ/Sonoran Liaison
  Data Bureau
  Priority Programming
  Statewide and Regional Planning
  Transportation Research Center
State Route 179

• Context
  – Sedona, Arizona
  – Only road connecting communities to each other and to the state transportation network
  – All-American Road, scenic vistas, National forest service managed lands
  – 2\textsuperscript{nd} tourist attraction after the Grand Canyon

USA Weekend May 2003 Sedona ranked \#1
State Route (SR) 179 – Connects Sedona to State Highway System; Lifeblood of Sedona Community
SR 179 Challenges

Community Concerns (CONTROVERSY) since early 1990s
- High Profile and Political
- Multiple Stakeholders (Counties, Forest Service, Sedona, environmentalists, strong citizen group)
- Lack of support on alternative selected by ADOT
Concerns

- “Industrial looking”
- “No ‘small town’ or any charm”
- “No distinction from elsewhere”
- “Likely increased actual speed”
- “Conducive to ‘strip’ development, not residential”

As quoted from a Representative, “Voice of Choice”
Concerns

• “No sidewalks, bike lanes or multi-modal integration”
• “Likely to induce increased traffic”
• “Visitor experience”

As quoted from a Representative, “Voice of Choice”
The “Voice of Choice” Approach

• Bylaws
  – 1.3 Purpose

“The corporation shall work to ensure that any and all improvements to SR 179 achieve a satisfactory level of safety and efficiency, while retaining and promoting its irreplaceable natural landscape and protecting the existing environmentally sensitive, unique, visual driving experience.”
“I recognize both the community’s concern with the scope of the **existing plan**, as well as the City Council’s findings that it is **inconsistent with Sedona’s Community Plan.**”

- Janet Napolitano, Governor

“SR 179 passes through country which is among **Arizona’s greatest scenic assets.** Its preservation is of **critical concern** to the entire state.”

- Terry Goddard, Attorney General
Sedona’s Community Plan Vision Statements

“To be a city that is constantly vigilant over the preservation of its natural beauty, scenic vistas, pristine environment and cultural heritage.”

“To be a city that lives up to the challenge of proper stewardship of one of the earth’s great treasures.”
• SR 179
  – “The design of the highway is also important relative to the small town character of the community. Within the city, the highway should have the effect of a “context sensitive” street rather than a high speed thoroughfare. A 2-3-lane highway with the amenities and considerations mentioned above, provides the best opportunity to maintain a small town character and be sensitive to the context in which it operates.”
ADOT’s Approach

- November 2002 - “Engineer to Engineer” Meeting
  - Integration of Context Sensitive Solutions
  - Needs Based Implementation Planning
- One Corridor/One Team
- Acknowledge, Respect & involve the Stakeholders
- Connecting Communities – accepting that something will happen
A transportation facility is an integral part of the community’s fabric and it can help define the character of the community or it can destroy it.

Our State departments of transportation partners and we in the FHWA should view CSD as an opportunity to connect with the communities and the constituents that we serve. We should seek to institutionalize CSD…
Needs-based Implementation Plan

Collaborative team effort that assesses community needs as the foundation for a context sensitive solution for SR 179 – “inch by inch” determining the needs for the corridor
Team Approach

• Executive Team
• Public Outreach Team
• Project Management Team
• ADOT Technical Team
• Design Advisory Panels
Executive Team Framework

- 7 stakeholders (2 / stakeholder)
- Consensus-building decision making “Is there anyone who cannot live with this?”
- 3rd party facilitator (goal: build trust, respect and create equal decision making)
- Set boundaries
Charrette Process

Charrette 1
Core Values
Vision

Charrette 2
Evaluation Program
Formulation of Planning Concepts

Charrette 3
Prioritization of Planning Concepts
Charrette #1 – Visioning the Corridor

- Public Safety
- Context Sensitive
- Economic Sustainability
- Multi-modal Corridor
- Mobility
- Walkability
- Character
- Roadway Footprint
- Regional Coordination
- Multi-purpose
- Environmental Preservation
- Scenic Beauty
Charrette #2 - Evolution of Ideas

Planning Concept from Gaming Workshop

Matrix Summarizing Planning Concepts

Fishbone Diagram

Planning Concepts (Level 1 Screening)
Preferred Planning Concept - Corridor-Wide Design Framework

**DESIGN**
- Roadway Elements
- Transit Elements
- Bicycle Elements
- Pedestrian Elements
- Supportive Facilities

**TOOLBOX**
- Evaluation Criteria and Performance Measures
- Project Constraint Criteria

**Universe of Planning Concepts**
- Level 1 Screening
- Level 2 Screening
- Level 3 Screening
- Level 4 Screening

**Approach**

12 +/- Planning Concepts (Jan)

6 +/- Planning Concepts (Mar-May)

3 +/- Planning Concepts (May)

Preferred Planning Concept - Corridor-Wide Design Framework
ADOT’s Transportation Success

• New shoulders will allow for emergency access and bicycle movement
• Turn lanes will be added, allowing decelerating traffic to exit the mainline and maintaining the flow of traffic
• Medians and curb and gutters throughout the corridor to keep traffic channeled and flowing
• Bifurcated section between urban areas, including passing lanes, will provide predictable travel times and mobility of the corridor
ADOT’s Transportation Success

- Improved intersection controls using Modern Roundabouts (11 total) eliminating existing signals
- People will be able to bike and walk up and down the corridor
- Dedicated transit stops
- Dedicated scenic pullouts will accommodate tourist traffic
CSS Approach

• Met the Transportation Need
  – Safety, Financially Feasibility, Implementation
• Become a Community Asset
• Involved the Community and Stakeholders in a Collaborative, Interdisciplinary Approach
• Compatibility with the Natural and Built Environments
• Minimized Impacts & Integrated aesthetics
“In 2002, ADOT engineers sincerely thought they were being context-sensitive... Then at a fateful meeting, Sedona residents ‘ripped into me’, recalls Debra Brisk, former ADOT Deputy Director... ‘They were right’, she says, ‘We were just looking at it as mitigation. But it’s beyond that.’”

“So ADOT started over. A panel with citizens and federal officials helped choose a consultant team... The process included simulation models, setting Core Values and gaining suggestions, not just soliciting comments.”

“The extent of the process may not be appropriate for every project, but I’d hope that in some form it becomes a standard for the way we engineers do things,’ says O’Brien.” (Corridor Mgr., lead consultant DMJM-Harris).
Success

- “ALL Objectives Reached”
  - All voices were heard, except one ‘player’
  - All choices were explored

- “IDEAL Citizen Participation”
  - Process was developed based on participation
  - RFP – created by many
  - Consultant selection involvement
  - Public outreach team
  - 4-segment design advisory panels
  - Executive (oversight) team

- “CSS Worked as Advertised!”

“Quotes from Ernie Strauch, former councilman – Sedona and Voice of Choice member”
Success

Before

Before

After

Wall aesthetics
Success

Before

After
Success

Before

After
ADOT Lessons Learned

- Create boundaries
- Avoid Information Overload
- Segment Approach
- Flexibility is Important
- Resource Intensive
- Agency in Forefront
Organizational Change

• Staff that builds trust
• Flexible public participation processes (be creative)
• Education is important
• Balance between planning/engineering
• Respect communities
• Think multi-modal
Recognition

• ITE 2005 Best Transportation Planning Project
• Local residents applied for and were awarded “All-American Road” status
• The highest designation of the National Scenic Highways Program
• Presented at various National CSS events; AASHTO, ASCE
• Published book
ADOT: Environmental Management & Compliance

- Non-compliance
  - Drinking water (rest areas) (ADEQ/EPA)
  - Storm water (maintenance camps, construction) (ADEQ)
  - Asbestos (construction contracts) (ADEQ/EPA)

- Credibility/Image
  - Violations
  - Public concern
  - Agency relations
ADOT: Environmental Management & Compliance

- Need for compliance
- Managing consent orders/directives for compliance and environmental stewardship
AASHTO Center for Environmental Excellence - Consultant

- Review/Look at Entire Agency
- Meet with All ADOT Stakeholders
- Discuss Integration, Planning & Management Options
- Present/Discuss Strengths & Weaknesses
- Investigate Issues & Challenges
- Apply “Lessons Learned” from Other DOTs in USA
- Review Programs, Orgs, Structure & Effectiveness
- Identify/Discuss Special Needs
- Inventory Available Staff & Resources
- Consider Alternatives
- Submit Recommendations to Director
AASHTO Report Conclusions

• ADOT does not have a single environmental management organization to lead activities.
• ADOT has some serious environmental non-compliance problems.
• Management of environmental responsibilities is not systematic and comprehensive and without adequate environmental goals, objectives, measures, policies, procedures and training.
• Top management is strongly emphasizing proactive environmental compliance and stewardship.
• Environmental compliance is heavily oriented to project development, not planning, construction, maintenance and operations.

Outcome from Executive Leadership: need for further review
Cultural Change Elements

1. Gain executive support
2. Confront reality
3. Involve internal stakeholders
4. Listen first – understanding need
5. Establish objectives
6. Design transparent process
7. Maintain momentum
1. Executive Support

• Chartering the Steering Committee
  – Setting the agency goals and expectations
• Designating key participants
• Adopting a guiding ethic or principle
Steering Committee

• Members
  – Director of Safety & Health, Chair
  – Deputy State Engineer for Operations
  – Director for Facilities & Equipment
  – Manager of the Environmental Group
  – Air Quality specialist
  – Manager of Natural Resources Group
  – Manager of Rail & Planning
  – Budgeting Manager
  – Deputy State Engineer for Development
  – District Maintenance Manager
  – Director for Aeronautics
  – Director of MVD
  – District Engineer for Urban District: Construction
  – District Engineer for Rural District - Maintenance
Environmental Ethic for ADOT

The Arizona Department of Transportation respects and values Arizona’s environment and quality of life and will strive to protect and enhance those assets.
2. Confront Reality

- Understand the context of change
- Why are things different?
- Recognize the limits of your change
- Understand that it will take time and acceptance for changes to occur
Environmental Laws Applicable to ADOT

- **Partial list of Federal laws**
  - *National Environmental Policy Act* – any proposed ADOT actions requiring federal funding, approvals or permits (e.g. any major federal project requires an EIS.)
  - *Clean Air Act* – air emissions from facilities and equipment including the handling of asbestos and other hazardous emissions. (e.g. major projects must conform to SIP)
  - *Clean Water Act* – water discharges from facilities, construction sites, storage areas, storm water runoff, wetland impacts, etc. (e.g. highway runoff requires permits)
  - *National Historic Preservation Act* – protects impacts on cultural resources.
  - *Resource Conservation and Recovery Act* – hazardous wastes generation, storage, transport, etc. at ADOT sites and underground storage tanks.
  - *Endangered Species Act* – impact avoidance or mitigation from projects, operations and maintenance actions.
  - *Safe Drinking Water Act* – protection of groundwater supplies, public drinking water standards at rest areas, etc. and dry well injections.
  - *Migratory Bird Treaty Act* – impact avoidance from projects and operations and maintenance actions.
  - *Fish and Wildlife Coordination Act* – impact mitigation to wildlife resources.
  - *Superfund Amendments* - TRI reporting of toxic releases.
  - *CERCLA (Superfund law)* – Cleanup of contaminated sites
Environmental Laws Applicable to ADOT

- Partial list of State laws
  - *Arizona Game & Fish Conservation & Management* – requires coordination with Arizona Game & Fish Department on potential impacts to fish & wildlife.
  - *Maricopa, Pima and Pinal Counties Air Quality Program* – requires control of dust for construction projects and operating permits for maintenance sources.
  - *Arizona Dry Wells program* – sets standards for the use of dry wells for certain purposes as defined by Federal underground injection program.
  - *Arizona Water Quality Assurance Revolving Fund* – requires liability assessment for all ADOT property acquisitions.
  - *Arizona Mining and Minerals Resources* – regulates lease of state lands and requires filing of community notice.
  - *Arizona Aquifer Protection Program* – applies to all ADOT facilities with the potential to discharge to groundwater sources.
ADOT Transportation Processes

Policy and Program Development

Transportation Systems Planning

Corridor Planning Studies

Project Planning

Operations and Maintenance

Design and Construction
3. Involve Internal Stakeholders

- Involvement of a cross-section of agency representatives
  - Bring substantive knowledge to the table
  - Verify the issues and need for change
  - Become advocates for recognizing and implementing change
  - Stay current on agency changes
Steering Committee

- Members
  - Director of Safety & Health, Chair
  - Deputy State Engineer for Operations
  - Director for Facilities & Equipment
  - Manager of the Environmental Group
  - Air Quality specialist
  - Manager of Natural Resources Group
  - Manager of Rail & Planning
  - Budgeting Manager
  - Deputy State Engineer for Development
  - District Maintenance Manager
  - Director for Aeronautics
  - Director of MVD
  - District Engineer for Urban District: Construction
  - District Engineer for Rural District - Maintenance
Internal-External Relationships

Office of Environmental Services

Director
ITD
TPD
MVD
Districts
ADEQ

Legislature
Local Government
Governor
EPA
USFS
FHWA

Communication
Cooperation
Consultation
Collaboration

Internal
External
4. Listen First

• Understand the needs
  – How has the organization dealt with reality?
  – What needs to be done?
  – Hearing the perceptions and issues
Environmental Services Requested

- **MVD needs:**
  - *Land acquisition:* Survey of sensitive environmental issues
  - *Facilities design:* Adequacy of provisions re storm water, waste water and dry wells to meet standards
  - *Maintenance & replacement:* Issues related to septic systems
  - *Landscape design & maintenance:* Compatibility determinations on plants and sensitive areas.
  - *Ports of Entry:* Hazardous materials issues- spills, containment, etc.
  - *Recycling:* Compliance with recycling standards and other ideas
  - *Environmental Training:* Basic training for all employees e.g. hazardous materials training
  - *Asbestos:* Issues related thereto

- **TPD needs:**
  - *EPA and ADEQ milestone reporting* on air quality progress e.g. TCMs

- **District Maintenance and Operations needs:**
  - *Land dep't main't material pit* – permit application support
  - *Environmental BMP's* – Maintenance activities
  - *Environmental operational support* – vegetation, permits, SWPPP
  - *Environmental technical support* – asbestos, air quality, SWPPP
  - *Hazardous spills* – outside ADOT
5. Establish Objectives

• Understand the limitations of the process for change
• Set realistic expectations
AASHTO Report Conclusions

- ADOT does not have a single environmental management organization to lead activities.
- ADOT has some serious environmental non-compliance problems.
- Management of environmental responsibilities is not systematic and comprehensive and without adequate environmental goals, objectives, measures, policies, procedures and training.
- Top management is strongly emphasizing proactive environmental compliance and stewardship.
- Environmental compliance is heavily oriented to project development, not planning, construction, maintenance and operations.
Organizational Objectives

• Decrease fragmentation of environmental functions to achieve better communications, consistency in approach & efficiencies of operations.
  – Elevate visibility of environmental functions in ADOT.
  – Provide environmental expertise in/to the Districts.
  – Provide a single-point of environmental contact, clearinghouse and quality assurance function in ADOT.
  – Locating environmental services in organization to service all units of ADOT.
Nine ADOT Districts

- Flagstaff
- Globe
- Kingman
- Phoenix
- Prescott
- Safford
- Show Low
- Tucson
- Yuma
6. Design Transparent Process

• Build trust in the process
• Minimize fear of change
Steering Committee

- Steering Committee met monthly to review progress and provide feedback
- Review decisions against objectives and determine path forward
7. Maintain Momentum

- Stay focused on the objectives
- Provide frequent opportunities for progress discussion
- Maintain constant buy-in process
Organizational Change

• It’s not easy!
• It takes time!
• Not everyone will like it!
• Requires executive support and leadership!
Accomplishments

• Consent orders negotiated
• Environmental stewardship and management at a higher level of importance within the Department
• Each division understands better its environmental responsibilities
• Field environmental reps in place
• Development of an Environmental Management and Compliance Plan
THANK YOU

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