Information on ACRP

- www.TRB.org/ACRP
- Regular news and updates on:
  - Upcoming and ongoing research projects
  - New publications
  - Success stories
  - Announcements
  - Webinars
- Find ACRP on Facebook and LinkedIn
Upcoming ACRP Webinars

July 13, 2016: Unmanned Aircraft Systems at Airports

September 8, 2016: An Understanding of the Economic Impact of Airports and Their Operations

You can register for and learn more about upcoming 2016 webinars by visiting: http://www.trb.org/ACRP/ACRPwebinars.aspx
Opportunities to Get Involved!

- ACRP’s Champion program is a new initiative!
- Designed to help early- to mid-career, young professionals grow and excel within the airport industry.
- Airport industry executives sponsor promising young professionals within their organizations to become ACRP Champions.
- Visit ACRP’s website to learn more.
Additional ACRP Publications Available on this Topic

- ACRP Report 31 – Innovative Approaches to Addressing Aviation Capacity Issues in Coastal Mega-Regions
- ACRP Report 79 – Evaluating Airfield Capacity
- ACRP Report 104 – Defining and Measuring Aircraft Delay and Airport Capacity Thresholds

You can learn more about these publications by visiting www.trb.org/publications
Today’s Speakers

Moderated by Bill Radinson,
Port Authority of New York/New Jersey

1) ACRP Report 85: Developing and Maintaining Support for Your Airport Capacity Project
   • Evan Futterman - Futterman Consulting

   • Tim Arendt - Gresham, Smith and Partners
ACRP Report 85: Developing and Maintaining Support for Your Airport Capacity Project

Evan C. Futterman
Futterman Consulting, Inc.
Evan C. Futterman
Principal Investigator

- President of Futterman Consulting
- 38 Year Career in Airport Development
- 30 Years with Large A/E/P Firm and 8 Years with Own Firm
- Project lead in many capacity projects, including new airports, major new runways, and large hub airport redevelopment
ACRP Report 85
Project Team

Evan Futterman, Futterman Consulting (Principal Investigator)
Stephanie Ward, Mead and Hunt (Co-Principal Investigator)

Mary Vigilante, Synergy Consultants, Inc
Tom J. Browne, TJB aviation, LLC
Rusty Chapman, Delta Airport Consultants, Inc
Paul B. Gaines, Paul B. Gaines, SP
Michael J. Powderly, Airspace Solutions
Peter J. Kirsch, Kaplan Kirsch & Rockwell
ACRP Report 85
Oversight Panel

Patty Clark, The Port Authority of New York & New Jersey, Chair

Andrew L. Bell, Dallas/Fort Worth International Airport
Michael Cheyne, Hartsfield-Jackson Atlanta International Airport
Carolyn Grisko, Grisko LLC
Mark A. Perryman, Landrum & Brown, Incorporated
Michael Schneiderman, Michael Schneiderman Law Firm
Joseph Navarrete, ACRP (Senior Program Officer)
Luis Loarte, FAA Liaison
Kimberly Fisher, TRB Liaison
ACRP Report 85: Developing and Maintaining Support for Your Airport Capacity Project

- Guidebook intended to help sponsors at airports of all sizes
- Sponsors should tailor the recommendations to their specific situation. No two projects are the same
- Sponsors can learn a great deal from the experiences of their peers
- Approach should evolve over time
Research Problem

• In the past half-century, sponsors have worked diligently to implement major airport capacity projects

• Capacity expansion projects are lengthy and complicated

• Nearly every capacity project faces hurdles at some point in the process

• Challenges can result in delay, increased cost, and project failure
Research Approach

- Team conducted over 100 interviews with 20 past project sponsors and stakeholders
- We learned a great deal and captured some valuable lessons learned from industry leaders
- Guidebook was formulated based on what we learned
Guidebook Organization

1. Introduction
2. Typical Project Lifecycle and Activities
3. Organizational Activities Critical to Success
4. Building and Maintaining Support with Stakeholders
   Lessons learned from other projects
5. Summary
Project Lifecycle and Activities

Key Takeaways

- Project lifecycle includes both organizational and project process activities
- Project process includes the technical elements of planning, design, review, permitting, construction and commissioning
- Spend time on solid, thorough planning work up-front
Organizational Activities Critical for Success

Key Takeaways

• Do not shortcut the initial planning effort
• Time and money spent up-front pales when compared to construction costs or delays
• Key airport users need to be engaged early
• Understand own staff strengths and limitations, then add experienced resources to complement them
• Have a leader in the organization vested with project success
• Coordination with the FAA in the planning and environmental review processes is essential
Organizational Activities Critical for Success

Key Takeaways

- Strive for beneficial outcomes for multiple constituents
- Devote adequate resources to addressing project opposition
- Highest success comes when the initial message is developed before the technical work begins
- Initial messaging should include the creation of a communications plan and a stakeholder outreach plan
- Recruiting key business leaders as vocal project proponents can be key to success
Organizational Activities Critical for Success

Key Takeaways

• Planning process should consider a broad range of alternatives
• Recommended alternative should balance project needs with community impacts
• Determine what will be included in the costs, and then be consistent
• Project process does not end with construction- devote resources for activation
Building and Maintaining Support with Stakeholders

Key Takeaways

• Maintaining project support requires an ongoing investment in time
• Key challenge is the long time span of capacity projects and stakeholder turnover
• Stakeholder roles include regulatory, framing public perception, and end users
• Some are project supporters, some are actively opposed, and others are bystanders, but all should be included
Building and Maintaining Support with Stakeholders

Key Takeaways

• Sharing information shows respect and builds trust
• Most challenging messages are project cost and schedule
• Meet early with key high-level FAA officials to gain support
• Ensure all FAA lines of business are engaged
• Elevate major issues within FAA management if needed
• Including opponents be difficult, but can result in project success
Building and Maintaining Support with Stakeholders

Key Takeaways

• Up-front investment to gain airline support pays for itself

• Moving forward without airline support should be a last resort

• Ultimately the sponsor has a responsibility to decide what is best for the community

• Media provides a vehicle for building support and messaging

• Social media provides free access to a wide variety of stakeholders
For additional information:

ACRP Report 85: Developing and Maintaining Support for Your Airport Capacity Project

www.trb.org/Main/Blurbs/169213.aspx

- Evan Futterman
  - futterconsult@gmail.com

Tim Arendt, P.E.
Gresham, Smith and Partners
Tim Arendt, P.E.
Principal Investigator

- Principal @ Gresham, Smith and Partners
- Environmental Engineer
- 22 Years of Consulting to Aviation Industry
- Regulatory Compliance, Planning, Design, Operations
ACRP Report 53
Oversight Panel / Research Team

**Oversight Panel**
- Janet Kieler, Colorado Dept of Public Health & Environment (Chair)
- Susan Aha, Port of Portland
- Susan Royer Baum, Kilfrost Incorporated
- Bruce Campbell, American Airlines
- Elaine Karnes, Southwest Airlines
- Steve Sletten, PBS&J
- Bryan Wagoner, Wayne County Airport Authority
- Edward Milesky, FAA Liaison
- Michon Washington, FAA Liaison
- Kevin Welsh, Air Transport Association of America
- Christine Gerencher, TRB Liaison
- Lawrence D. Goldstein, ACRP Senior Program Officer

**Research Team**
- Gresham, Smith and Partners
- Ricondo & Associates, Synergy Consultants

Content

• Planning guidelines for efficient/timely management of water resources issues created by development projects
• Strategies for 7 water resources issues categories

Applications

• Airport development planning, including capacity enhancement projects
• Resource for planning and environmental professionals
Research Approach

Objectives
1. Reduce effects of managing water resource issues on development planning and implementation
2. Reduce impacts to water resources

Techniques
1. Process framework to integrate water resource issue management into development planning
2. Water resource issue specific guidance and strategies
Keys to Effectively Addressing Water Resource Issues

1. Recognize Water Resources – Development Planning Link

2. Speak a Common Language

3. Establish Process Framework with Early Water Resources Assessment

4. Plan for Coordinated Permitting
1. Recognize Water Resources – Development Planning Link
1. Recognize Water Resources – Development Planning Link
Causes of Development Issues from Poor Water Resources Planning

1. Recognize Water Resources – Development Planning Link

**Financial**
- Lost Avoidance Opportunity
- Overly Conservative Mitigation
- Cascading Effects

**Schedule**
- Late ID of Impacts
- Insufficient Data
- Permit Process
- Coordination Issues

**Function**
- Space Needed for Mitigation
- Configuration Changes
## Checklist Linking Project Features with Water Resource Issues

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Defining Features</th>
<th>Water Resource Issue</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project Dimensions</strong></td>
<td>• Total Project Footprint</td>
<td>• Surface Water Quality</td>
</tr>
<tr>
<td></td>
<td>• Length/Width/Shape</td>
<td>• Physical Impacts to Wetlands and Other Surface Waters</td>
</tr>
<tr>
<td></td>
<td>• Depth</td>
<td>• Groundwater Quality</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Floodplains</td>
</tr>
<tr>
<td><strong>Project Location</strong></td>
<td>• Proximity to Wetlands</td>
<td>• Aquatic Life and Habitat</td>
</tr>
<tr>
<td></td>
<td>• Proximity to Streams</td>
<td>• Floodplains</td>
</tr>
<tr>
<td></td>
<td>• Topography</td>
<td>• Physical Impacts</td>
</tr>
<tr>
<td></td>
<td>• Proximity to Habitat</td>
<td>• Surface Water Quality</td>
</tr>
<tr>
<td></td>
<td>• Ground/Surface Water Characteristics</td>
<td>• Hazardous Wildlife Attractants</td>
</tr>
<tr>
<td><strong>Surface Characteristics</strong></td>
<td>• Open Water Features</td>
<td>• Surface Water Quality</td>
</tr>
<tr>
<td></td>
<td>• Land Use</td>
<td>• Hazardous Wildlife Attractants</td>
</tr>
<tr>
<td></td>
<td>• Soil Disturbance</td>
<td></td>
</tr>
<tr>
<td><strong>Subsurface Characteristics</strong></td>
<td>• Utility Connections Required</td>
<td>• Physical Impacts to Wetlands and Other Surface Waters</td>
</tr>
<tr>
<td></td>
<td>• Subsurface Piping</td>
<td>• Surface Water Quality</td>
</tr>
<tr>
<td></td>
<td>• Depth/Excavation Requirements</td>
<td>• Groundwater Quality</td>
</tr>
</tbody>
</table>

1. Recognize Water Resources – Development Planning Link
Guidance for Effective Communication

• Same terms have different meanings to planners, engineers, management, and water resources staff

• Discuss/document definitions of key terms early

• Be diligent about using correct terms in discussions and documents

Process Framework

1. Water Resource Issues Information Catalog
   • Water Resource Inventory
   • Mitigation Facility Inventory
   • Core Regulatory Requirements
   • Development Project Checklist

2. Water Resource Issue Management Plan
   • Roles and Responsibilities
   • Protocols for Managing NEPA Process
   • Protocols for Acquiring Individual Permits and Approvals
   • Procedures for Integrating Development Planning and Water Resource Issue Management

3. Establish Process Framework With Early Water Resources Assessment
Water Resource Information Catalog

1. Water Resource Issues Information Catalog
   • Maps of water resource locations (e.g., wetland inventory)
   • Regulatory designations (e.g., jurisdictional determinations)
   • Land use plans
   • Onsite mitigation areas / offsite mitigation options
   • Permit conditions
   • Compliance data

Eliminates one roadblock – timely access to information

May need to shift timing of typical funding allocation

3. Establish Process Framework With Early Water Resources Assessment
Documenting the Process

2. Water Resource Issue Management Plan

- Data
- Evaluations
- Decisions
- Permitting

*Planning action at the right time*

*Get after water resource issues early, early, early*

3. Establish Process Framework With Early Water Resources Assessment
Coordinating Plans for Permitting

1. NEPA
   - Guidebook appendix with overview of NEPA process

2. Individual water resource issue permits

   **Key Early Step**

   *Deciding to complete permitting for individual water resource issues inside or outside the NEPA process timeline*
Water Resource Issue Fact Sheets

1. Physical Impacts to Wetlands and Other Surface Waters
2. Surface Water and Groundwater Quality
3. Stormwater Quantity and Floodplains
4. Hazardous Wildlife Attractants
5. Aquatic Life and Habitat
6. Coastal Zones and Barriers
7. Wild Scenic Rivers

4. Plan for Coordinated Permitting
Fact Sheet Content

1. Description of Water Resource Issue and Impacts

2. Identification of Core Regulatory Requirements

3. Determination of Measures Needed for Compliance

4. Reduction of Water Resource Issues Effects on Development Projects
   • Siting
   • Operations
   • Schedule and Sequencing
   • Costs
## GUIDANCE FOR...
Reducing Potential Cost and Schedule Impacts

<table>
<thead>
<tr>
<th>Item</th>
<th>Factors that Can Reduce Cost and Shorten Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permit Acquisition and Approval</td>
<td>Limit impacts if possible to utilize NWPs rather than individual permits where applicable.</td>
</tr>
<tr>
<td>Development Revenue</td>
<td>Account for gained or lost revenue if project function must change to be compliant.</td>
</tr>
<tr>
<td>Staffing</td>
<td>Identify the expertise needed, bring them in at the right time to avoid re-doing work.</td>
</tr>
<tr>
<td>Stakeholder Coordination</td>
<td>Understand cost considerations raised by stakeholders. Coordinate early with stakeholders to avoid multiple iterations.</td>
</tr>
<tr>
<td>Mitigation</td>
<td>Consider enhancements to existing wetlands.</td>
</tr>
</tbody>
</table>
**Step-by-Step Guidance**

### Step 3: Assessing Effects on Development Project from Individual Water Resource Issues

<table>
<thead>
<tr>
<th>Planning Item</th>
<th>Planning Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issue Avoidance</td>
<td>• Assess if water resource issues can be avoided by project changes</td>
</tr>
<tr>
<td>Potential Controls Outside of Project</td>
<td>• Assess need for additional sites and property acquisition</td>
</tr>
<tr>
<td>Timing of Actions</td>
<td>• Complete prior to finalization of master plan layout</td>
</tr>
<tr>
<td>Regulatory Coordination</td>
<td>• Coordinate on viability of controls/mitigation</td>
</tr>
<tr>
<td>Stakeholder Coordination</td>
<td>• Present options for controls/mitigation</td>
</tr>
</tbody>
</table>