

# ARIZONA

COMMERCE AUTHORITY

## Arizona Broadband Equity, Access, and Deployment (BEAD) Program

Collective Insights and Leading Practices for Permitting

October 2025

DRAFT FOR CLIENT DISCUSSION PURPOSE ONLY

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# Executive Summary

# Permitting Approach

Arizona is taking a proactive approach to support the timely deployment of broadband infrastructure by using a portion of its federal funding to support subgrantees and permitting agencies efficiently apply for, process, and receive permits.



## BEAD Program Overview

Arizona Commerce Authority (ACA) is implementing the BEAD program to expand high-speed internet access across Arizona. The program promotes access while creating good-paying jobs. ACA is using part of its BEAD funding to support and coordinate permitting efforts to help ensure projects can be built within the required timeline.

### State of Broadband in Arizona

**\$993.1M**

Arizona's allocation of BEAD funding

**184,296**

Total unserved and underserved locations

**67**

BEAD-eligible project area in Arizona



## Permitting Strategy

To support the completion of projects within the four-year timeline, the ACA BEAD Permitting, Environmental, and Historical Preservation (EHP) Support Initiative will provide guidance and resources to assist with local, state, and federal permitting and EHP compliance. This initiative will support efficient processing of required permit applications and EHP compliance by leveraging leading practices established and utilized by internet service providers and permitting agencies to achieve broadband deployment in an effective manner.

ACA will facilitate efficient permitting by convening stakeholders, sharing leading practices, and providing resources to help navigate the unique requirements of Arizona's rural communities and diverse landscapes.



## Leading Practices Methodology

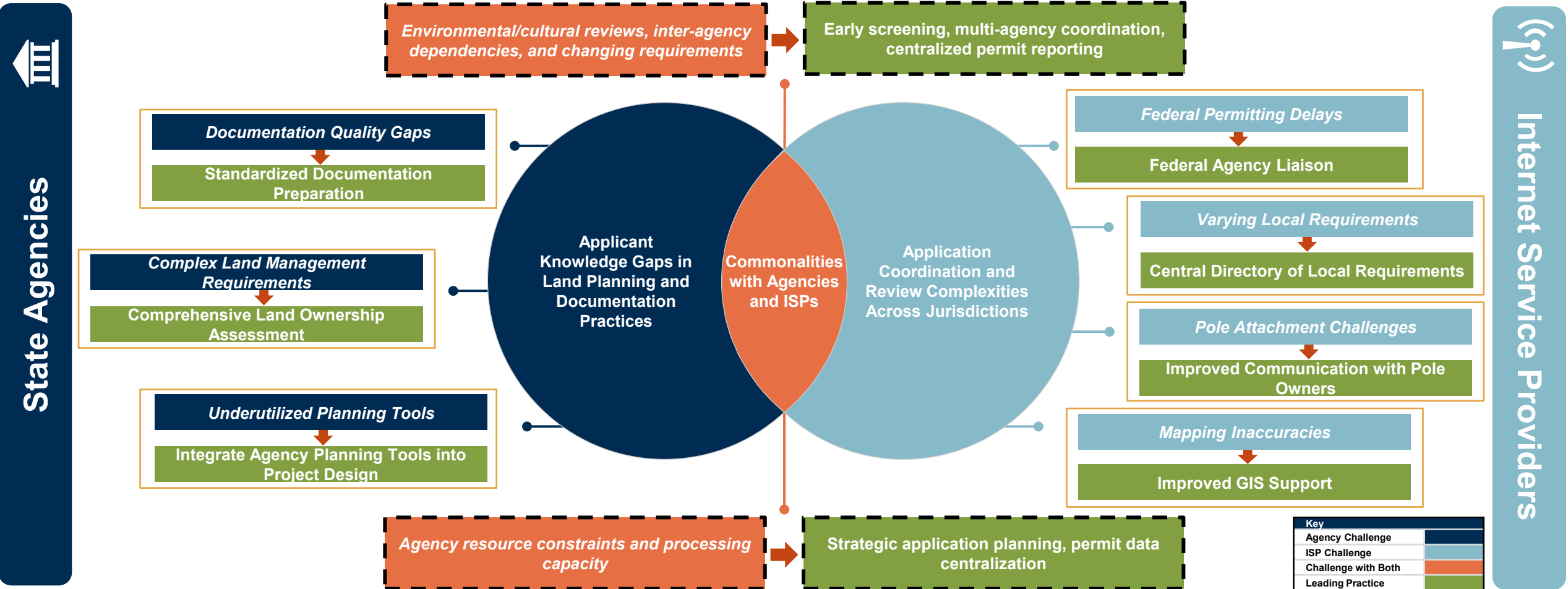
**Prepared:** Identified key state permitting agencies that issue required permits and internet service providers (ISPs) that deploy different network technologies to cover diverse deployment scenarios across Arizona.

**Collected:** Conducted interviews with state permitting agencies and ISPs to identify common challenges with permit applications and opportunities to improve application submissions and processing.

**Analyzed & Shared:** Reviewed and analyzed interview takeaways to identify consistent challenges and opportunities to apply leading practices for both permitting agencies and ISPs to utilize as part of the BEAD Program.

# Permit Challenges and Recommendations

ACA identified a variety of challenges, recommendations, and leading practices after interviewing agencies and ISPs. These interviews highlighted unique challenges and opportunities for both stakeholder types, summarized agencies on the left-hand side and ISPs on the right-hand side. Commonalities that could provide greater impact and support for both are summarized in the center of the diagram.



*Note: This slide provides a high-level overview. For detailed opportunities and challenges, please refer to slides 7–22. Mapping of the detailed opportunities and challenges according to the diagram can be found in the Appendix.*



# State Agency Reported Challenges & Leading Practices

# Agency Reported Challenges

Arizona permitting agencies identified six recurring challenges that applicants commonly face, often resulting in delays or additional information requests. Detailed summaries of each challenge follow on the next slides.

1.1

## Delayed Environmental and Cultural Reviews

Applicants begin projects without understanding or initiating required environmental and cultural reviews, leading to costly rerouting and delays.

**Corresponding Agencies:** ADOT, AGFD, SHPO

1.2

## Complex Land Management Requirements

Multiple land management and ownership scenarios create confusion about required permits and approvals from different agencies.

**Corresponding Agencies:** ADOT, AGFD, ASLD

1.3

## Documentation Quality Gaps

Applications lack sufficient detail in engineering plans, environmental assessments, and cultural surveys, requiring extensive follow-up.

**Corresponding Agencies:** ADOT, ASLD, SHPO

1.4

## Agency Resource Limitations

Limited agency staffing and high application volumes result in extended review and processing timelines.

**Corresponding Agencies:** ADOT, AGFD, SHPO

1.5

## Underutilized Planning Tools

Agencies provide GIS resources and planning tools to identify sensitive areas and land ownership, but applicants often submit routes without using these available resources.

**Corresponding Agencies:** ADOT, AGFD, ASLD

1.6

## Inter-agency Dependencies Challenges

Processes not designed for alignment between agency review cycles and requirements leads to inefficient sequencing and missed deadlines.

**Corresponding Agencies:** ADOT, AGFD, SHPO

# Leading Practice: Early Environmental and Cultural Screening

1.1

Conduct EHP reviews during initial project planning to screen for areas with high potential for impact, assess mitigation measures, and understand expected timeline effects.

## Current State of Challenge: Delayed Environmental and Cultural Reviews

- Projects initiate without fully understanding environmental review requirements, leading to unforeseen delays when sensitive areas and potential impacts are identified.
- Environmental studies can add anywhere from 10 weeks to 6 months to project timelines and, depending on when the studies are identified, can significantly affect the schedule.
- Cultural resource impacts and tribal consultation requirements are commonly discovered during network deployment, resulting in reroutes and costly adjustments if appropriate monitoring and treatment plans are not set.

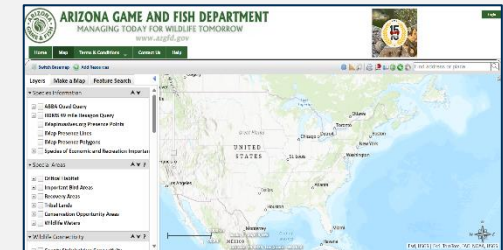


Figure 1: Environmental Review Tool Interface, AGFD

## Key Insights & Agency-Specific Requirements

### Key Insights

- Early screening and identification of sensitive environmental and cultural areas enables proactive route adjustments, as well as development of monitoring and treatment plans, which can reduce the potential for long-term project delays.
- Up-front agency and tribal consultations, and use of technical experts, can significantly decrease the likelihood of major project conflicts and modifications.

### Agency-Specific Requirements (R) / Preferences (P)

- **SHPO:** Initiate tribal consultation before finalizing routes, including in already disturbed areas, to ensure compliance with Section 106. (P)
- **AGFD:** Utilize [Environmental Review Tool \(ERT\)](https://ert.azgfd.gov/) (Figure 1) and engage the AGFD Project Evaluation Team to anticipate wildlife impacts along proposed routes. (P)
- **ADOT:** Perform surveys for work >1,000 feet in right-of-way even when working in previously disturbed areas, but not surveyed in the last 10 years, to prevent delays in the permitting process. (R)

# Leading Practice: Comprehensive Land Ownership Assessment

1.2

Map and verify land ownership and management early in the planning process to identify agencies and points of contacts to obtain required permits and approvals.

## Current State of Challenge: Complex Land Management Requirements

- Confusion arises from the variety of potential federal, state, and local landowners and managers, leading to uncertainty about required approvals and permits (Figure 2).
- Multiple permits can be necessary even when an agency has existing right of use, due to differing processes for granting land use among agencies.
- Misunderstandings about how to access State Trust lands, AGFD Commission-managed lands, and ADOT right-of-way can cause significant delays if applicants are not aware of unique processes and requirements.



## Key Insights & Agency-Specific Requirements

### Key Insights

- Understanding land ownership and management relationships prevents unforeseen permit applications and redundant work later in the project lifecycle, which can stall permits from being processed that do not have all prerequisite approvals obtained.
- Even when infrastructure exists in a public right-of-way, multiple permits are likely required depending on the land ownership and type of infrastructure.

### Agency-Specific Requirements (R) / Preferences (P)

- **ASLD:** Utilize the public ASLD Parcel Viewer tool to identify State Trust lands requiring permits. (P)
- **AGFD:** Ensure a clear understanding of Commission-managed lands authorization processes to gain proper access permissions, which involve multiple public hearing and administrative procedures. (R)
- **ADOT:** Verify land ownership and obtain permits from underlying landowners before seeking permits from ADOT, as permits from landowners are a prerequisite to obtain access to ADOT-managed rights-of-way when a different entity is the landowner. (R)

# Leading Practice: Standardized Documentation Preparation

1.3

Develop complete permit applications using agency checklists and documentation requirements to ensure complete submissions.

## Current State of Challenge: Documentation Quality Gaps

- Project engineering plans and timelines are not meeting industry standards, contributing to agencies issuing requests for clarification.
- EHP assessments and documentation lack sufficient information, such as survey outcomes and compliance plans, requiring follow-up and potentially additional work by the ISP before agency review.
- Applications submitted without using available agency checklists and templates, resulting in multiple rounds of follow-ups to clarify application and project elements.

## Key Insights & Agency-Specific Requirements

### Key Insights

- Submitting complete applications reduces the number of review cycles and requests for clarification from agencies.
- Knowing how agency-specific documentation requirements vary is crucial, and applicants should conduct diligence to understand these documentation variations to avoid delays.

### Agency-Specific Requirements (R) / Preferences (P)

- **SHPO:** Submissions must include complete cultural resource assessments and detailed survey documentation. (R)
- **ADOT:** Engineering plans must have utility locations and installation methods clearly identified and aligned with industry-standard designs and specifications. (R)
- **ASLD:** Applications must include a clear project scope, timeline, and land use documentation to facilitate straightforward processing and avoid requests for clarification from the agency. (R)

# Leading Practice: Strategic Application Management

1.4

Align permit submissions with agency processing and review cycles to harmonize application processing times and project schedules.

## Current State of Challenge: Agency Resource Limitations

- Agencies have limited staffing set to managed today’s permit application volumes, making it challenging to handle high volumes of applications quickly.
- Extended review timelines are common among certain agencies due to resource limitations coupled with high volume of applications.
- Requests for clarification with permit applicants further burden agency resources and prolong the overall timeline to process permit applications.

## Key Insights & Agency-Specific Requirements

### Key Insights

- Understanding peak application periods and agency review cycles through pre-application meetings enables strategic submission timing that aligns with agency capacity and project timelines.
- Pre-application meetings reduce overall processing time by preventing common submission errors that consume limited agency resources and understanding agency review cycles.

### Agency-Specific Requirements (R) / Preferences (P)

- **AGFD:** Plan for AGFD Commission meeting schedules when seeking land use authorization as a pre-set timeline for granting permissions. (P)
- **SHPO:** Be prepared for extended review times when tribal consultation is required and provide complete consultation packages to help SHPO perform fewer, quicker review cycles. (P)
- **ADOT:** Plan for environmental review timelines averaging 39 days as part of the standard process, depending on application quality and completeness. (P)

# Leading Practice: Integrate Agency Planning Tools into Project Design

**1.5** Proactively incorporate agency GIS tools and planning resources during initial route design to identify potential conflicts and jurisdictional requirements.

## Current State of Challenge: Underutilized Planning Tools

- Agencies report routes being designed without consulting available GIS tools, leading to avoidable conflicts with sensitive/challenging areas.
- Agency data and GIS resources are underutilized during planning:

AGFD	ASLD	ADOT	ASM
ERT findings not followed up with required consultations, causing wildlife impact review delays	Parcel Viewer not used to verify state trust land boundaries, resulting in incorrect permit applications	ROW mapping tools not requested, leading to infrastructure conflicts (Figure 3)	Cultural resource data causing unexpected historic preservation issues



Figure 3: ROW GIS Map, ROW

## Key Insights & Agency-Specific Requirements

### Key Insights

- The early and frequent use of agency planning tools aids in identifying potential conflicts before finalizing route designs and enhances compliance with application requirements.
- Utilizing multiple agencies' tools results in a more comprehensive view of project areas, reducing the risk of setbacks and issues across jurisdictions.

### Agency-Specific Requirements (R) / Preferences (P)

- **AGFD:** Leverage the Environmental Review Tool to screen for wildlife impacts and sensitive habitats along proposed routes. (P)
- **ASLD:** Utilize the Parcel Viewer to confirm State Trust land boundaries and ownership, facilitating accurate land use planning. (P)
- **ADOT:** Request ROW maps and GIS files during planning phases to align project designs with existing infrastructure and jurisdictional constraints. (P)
- **SHPO:** Access Arizona State Museum data for cultural resource mapping to ensure new developments respect and preserve cultural heritage areas. (R)

# Leading Practice: Multi-Agency Coordination Strategy

**1.6** Develop permit submission strategies that account for required sequencing and dependencies between different permits and agency approvals.

## Current State of Challenge: Inter-agency Dependencies Challenges

- Permits are often submitted without obtaining required prior agency approvals, which leads to application rejections and delays.
- Missing prerequisites from other agencies' approvals creates bottlenecks and inefficiencies in the permitting process, as agencies struggle to align review cycles with each other.
- Lack of awareness among permit applicants about inter-agency and permit dependencies, resulting in inefficient sequencing, missed deadlines, and extended timelines.

## Key Insights & Agency-Specific Requirements

### Key Insights

- Securing permits in the “correct” order is essential to streamline the application process and avoid unnecessary delays.
- A comprehensive understanding of agency relationships and dependencies reduces application rejections and optimizes permit sequencing (Figure 4).

### Agency-Specific Requirements (R) / Preferences (P)

- **ADOT:** Acquire SHPO and AGFD clearance, and landowner permissions, before ROW permit application. (R)
- **SHPO:** Complete tribal consultation early to ensure cultural considerations are addressed. (P)
- **AGFD:** Secure wildlife clearance including assessment of Threatened & Endangered (T&E) species impact via ERT before ADOT permit; coordinate with SHPO for joint impact projects. (R)
- **ASLD:** Obtain permits for State Trust lands despite other agency or entity managing infrastructure and ROW. (R)
- An ISP can either schedule one pre-application meeting with all agencies for one project or each agency individually for all projects to streamline pre-application activities. (P)

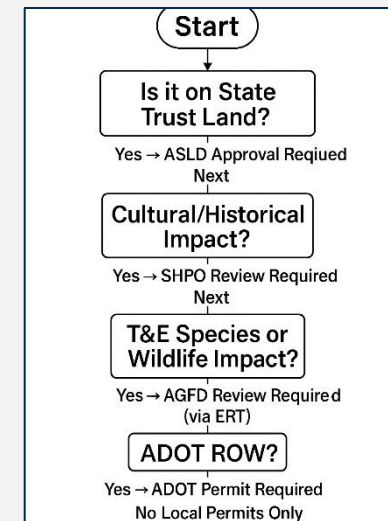


Figure 4: Example Agency Permit Dependencies

Note: Source for Figure 4 – Based on interviews with agencies and research of permit processes.



# ISP Reported Challenges & Recommendations

# ISP Reported Challenges

ISPs interviewed identified six common challenges that they typically experience when obtaining permits, which creates challenges for ISP buildout timelines, budgets, and operations. Detailed summaries of each challenge follow on the next slides, as well as recommendations for permitting and regulatory authorities to consider to support ISP permitting efforts.

## 2.1

### Federal Permitting Delays

Delays receiving permits due to staffing and other restrictions at Federal Agencies result in extended project timelines.

**Number of ISPs to Report:** 4 of 6

## 2.2

### Varying Local Requirements

Local regulations specific to smaller jurisdictions or municipalities often impact deployment timelines.

**Number of ISPs to Report:** 5

## 2.3

### Pole Attachment Challenges

Poor communication and aging infrastructure pose complexities when coordinating make-ready and pole attachments.

**Number of ISPs to Report:** 4

## 2.4

### Changing Requirements for State Agencies and Counties

Updates to various State Agency and County policies require additional time and coordination making the approval process lengthy and maintaining compliance challenging.

**Number of ISPs to Report:** 4

## 2.5

### Lack of Clarity on Permit Timeline and Status

With fragmented communication across State Agencies, it is difficult for ISPs to know their status in the permitting process and timeline for approval.

**Number of ISPs to Report:** 4

## 2.6

### Mapping Inaccuracies

GIS mapping is not consistent or available across different localities.

**Number of ISPs to Report:** 3

## Recommendation: Federal Agency Liaison

- 2.1** Consider establishing a liaison from the State with Federal Agencies to help coordinate permitting efforts.

### Current State of Challenge: Federal Permitting Delays

- Federal agencies tend to be under-resourced, which can cause lengthy delays to permit approvals. Additionally, ISPs have reported they receive communications with inconsistent requirements and must cycle through multiple points of contacts to get answers due to high staff turnover.
- ISPs noted variability in review timelines across Federal Agencies, making it difficult to account for in project timelines.
- One ISP noted in an extreme example that they were delayed of up to 5 years for permitting approval, which required legal intervention to resolve.
- **Number of ISPs to Report:** 4 of 6

### Key Insights & Opportunities for Consideration

#### Key Insights:

- ISPs need to thoroughly understand Federal review timelines, which can range from six months to several years, as they plan for deployment.
- ISPs noted working with BLM and BIA has not always been challenging, but it is expected that once permit applications related to broadband deployment increase, these agencies will not have the resources necessary to keep up with demand.
- Some ISPs mentioned it has been a leading practice to avoid Federal lands and jurisdictions as much as possible in the project mapping / planning phase, so that minimal intervention is required by Federal Agencies.
- An ISP also mentioned maintaining close relationships with important constituents and government officials (e.g., federal elected officials) helps move applications at the Federal level when their communication channels are not sufficient.

#### Opportunities for Consideration:

- Identify and appoint a State official with the appropriate know-how and relationships to act as a “liaison” with Federal Agencies and provide ISPs with the necessary support in communicating and working with Federal Agencies.

## Recommendation: Central Directory of Local Requirements

2.2

Collaborate with local entities to create a central repository / directory of local regulations and requirements in key buildout areas.

### Current State of Challenge: Varying Local Requirements

- ISPs must navigate inconsistent regulations and application requirements across various municipalities, which must be thoroughly researched and accounted for to properly plan projects.
- Delays are common due to multiple stakeholders in each jurisdiction, such as a municipality and a utility, and evolving permit requirements.
- ISPs with experience outside of the Arizona market observed that Arizona's local governments have longer permitting timelines relative to other states.
- **Number of ISPs to Report: 5**

### Key Insights & Opportunities for Consideration

#### Key Insights:

- ISPs report success working with tower asset managers who help navigate local zoning requirements and manage permit processes.
- Building relationships with local contractors who have existing relationships with permitting offices has helped ISPs better understand and navigate jurisdiction-specific requirements.
- Some ISPs have found that in-person follow-ups with municipal offices help resolve permit issues more quickly, though this isn't a systematic solution.

#### Opportunities for Consideration:

- Collaborate with key local entities and develop a centralized repository containing a comprehensive resource hub of local requirements and best practices for ISPs to reference throughout their project lifecycle.
- Create a living repository of local permitting proven strategies from ISPs and contractors who have successfully navigated specific jurisdictions.
- Establish a resource network of local contractors and asset managers with proven local permitting and deployment experience, helping connect ISPs with partners who have successfully navigated specific jurisdictional requirements.

## Recommendation: Improved Communication with Pole Owners

**2.3**

Develop a forum for communication and standardized templates to facilitate coordination between pole owners and ISPs.

### Current State of Challenge: Pole Attachment Challenges

- Communication with pole owners (e.g., utility companies) remains a challenge due to lack of communication channels, inconsistent correspondence, delayed processes, or resistance to collaborate.
- Aging infrastructure requires extensive pole replacements, but limited vendor options and unclear coordination requirements can delay make-ready work (Figure 5). In one example, a single-vendor policy for pole attachment reviews created a 120-day processing backlogs and increase make-ready costs.
- **Number of ISPs to Report: 4**

### Key Insights & Opportunities for Consideration

#### Key Insights:

- ISPs noted that putting in effort to develop productive and proactive relationships with pole owners can significantly expedite make-ready processes and pole attachment approvals.
- ISPs noted that productive relationships with pole owners enabled use of ISP-selected contractors for make-ready work, significantly reducing deployment timelines.

#### Opportunities for Consideration:

- Create standardized reporting templates for communicating progress between existing pole owners and ISPs to streamline coordination and enhance collaboration.
- Facilitate standing pole attachment application check-in meetings with all or individual pole owners and ISPs to address bottlenecks and priority deployment activities.



Figure 5: Utility Pole with Communication Lines

Note: Source for Figure 5 – stock image

## Recommendation: Consistent Communication on Requirements

2.4

Establish a recurring check-in with State Agencies and County jurisdictions to capture changes in requirements that ISPs need to account for in project timelines.

### Current State of Challenge: Changing Requirements for State Agencies and Counties

- ISPs have encountered updates to State Agency and County permitting regulations in the middle of deployment projects that require additional work and coordination, making the full permit approval take additional time and more challenging to comply.
- Changes in environmental regulations have resulted in additional requirements for permitting, for example by a newly required scour analysis for construction activities in one local jurisdiction, increasing project timelines and costs for the ISP.
- **Number of ISPs to Report: 4**

### Key Insights & Opportunities for Consideration

#### Key Insights:

- ISPs highlighted the importance of identifying and communicating regulatory changes upfront, as anticipating new requirements can significantly aid the planning process and prevent unforeseen delays.
- ISPs that maintain direct relationships with agency staff and experienced local contractors report earlier awareness of pending changes and better ability to adapt project plans.
- Some agencies (like ADOT) have implemented standardized environmental checklists across regions, demonstrating the value of consistent, well-communicated requirements.

#### Opportunities for Consideration:

- Develop a platform to facilitate regular communication and check-ins with State and Local agencies, allowing ISPs to stay informed on regulatory updates and share feedback or align strategies for compliance.
  - A reoccurring “pulse survey” with relevant agencies can help preview upcoming requirement changes, share successful compliance strategies, address implementation challenges, and develop transition plans for upcoming requirements.

## Recommendation: Centralized Reporting on Permit Applications

2.5

Develop a shared spreadsheet or dashboard accessible to State Agencies and ISPs tracking key performance indicators for permit applications.

### Current State of Challenge: Lack of Clarity on Permit Timeline and Status

- ISPs reported fragmented communication across State Agencies, making it difficult to determine their application status and expected timeline for processing and approval.
- The lack of information regarding permit progress and review timelines, as well as insufficient information on average permit review durations, complicates project planning and coordination efforts during preliminary project planning stages.
- ISPs frequently reach out multiple times to agencies to seek clarification on permit status and timeline, highlighting the need for clearer and more consistent communication, while also freeing up State Agency staff time.
- **Number of ISPs to Report: 4**






### Key Insights & Opportunities for Consideration

#### Key Insights:

- Engaging with agencies in pre-application meetings early in the process and proactively asking questions specific to their projects and permit applications can improve clarity of timeline and identify potential delays.

#### Opportunities for Consideration:

- Implement a centralized permit tracking dashboard that provides real-time permit application progress and **key performance indicators**:

 <p><i>Average review time by agency</i></p>	 <p><i>Number of open applications per agency</i></p>	 <p><i>Average review time by permit by agency</i></p>	 <p><i>Rejection rates and reasons</i></p>	 <p><i>Helping ISPs plan more effectively when seeking to obtain permits and identifying delays</i></p>
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## Recommendation: Improved GIS Support

2.6

Consider augmenting GIS capabilities across relevant jurisdictions with data-sharing agreement to support ISPs during the permit screening and identification process.

### Current State of Challenge: Mapping Inaccuracies

- Mapping of underground infrastructure and private assets varies across jurisdictions and municipalities, resulting in inconsistencies that complicate planning and deployment efforts (Figure 6).
- ISPs reported issues with the 811 underground infrastructure locate service, which has mapping inaccuracies and difficulties in uploading GPS-tagged data, leading to miscommunication and site-marking delays.
- **Number of ISPs to Report: 3**

### Key Insights & Opportunities for Consideration

#### Key Insights:

- One municipality was noted as a leader in providing GIS and mapping support to all applicants, demonstrating the benefits of shared and accurate mapping information.
- ISPs have found that reliance on external image tools has been necessary when local GIS data is incomplete or unreliable, suggesting a need for enhanced data-sharing facilitation in priority project areas.
- Improved GIS capabilities can significantly reduce site-marking delays and streamline the permitting process by ensuring more precise mapping of relevant infrastructure.

#### Opportunities for Consideration:

- Establish data-sharing agreements with local jurisdictions to facilitate GIS data sharing with BEAD subgrantees to ensure access to accurate and comprehensive data.
  - Explore opportunities to partner with the 811 underground infrastructure locate service to improve GIS data availability and precision.



Figure 6: Example of Underground Utility Locating

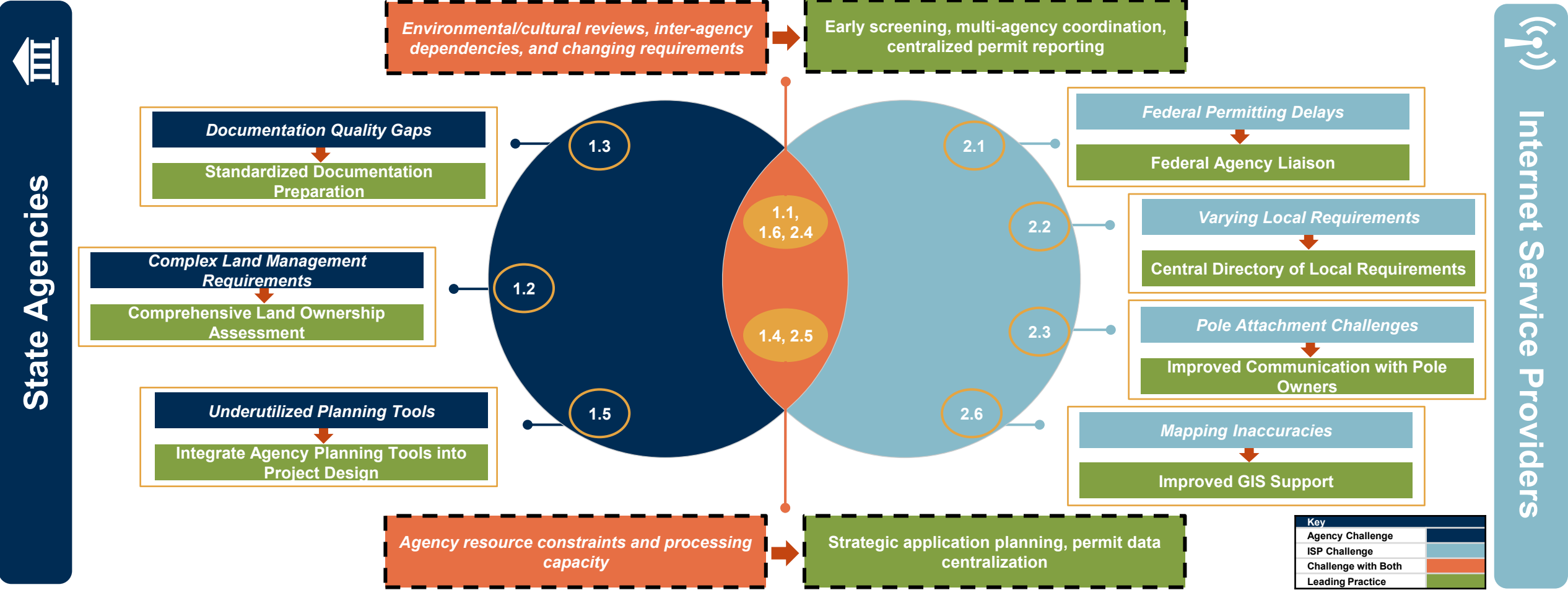
Note: Source for Figure 6 – stock image



# Appendix [For External Use]

# Permit Challenges and Recommendations (Mapped)

ACA identified a variety of challenges, recommendations, and leading practices after interviewing agencies and ISPs. These interviews highlighted unique challenges and opportunities for both stakeholder types, summarized agencies on the left-hand side and ISPs on the right-hand side. Commonalities that could provide greater impact and support for both are summarized in the center of the diagram.



Note: This slide provides a high-level overview. For detailed opportunities and challenges, please refer to slides 7-22.

The background of the slide features a complex network of glowing lines and nodes. The lines are primarily blue and cyan, with a gradient of red and orange on the left side. The nodes are small circles in various colors, including blue, cyan, white, and pink. The overall effect is a sense of digital connectivity and data flow.

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