Future Multi-Agency Regional GIS – Phase III – Training, Education, and Knowledge Transfer Review and Refinement

Lane Council of Governments

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Introduction

This document is the second of the final phase (Phase III) of a multi-year effort to **examine, define, and restructure** a long-standing multi-jurisdictional Cooperative Partnership Agreement (CPA) between partner agencies (the partners), including the City of Eugene, City of Springfield, Eugene Water and Electric Board (EWEB), Lane County, and Lane Council of Governments (LCOG). A partnership that includes regionally shared data systems and services. A number of documents have been delivered thus far in an effort to systematically lay the groundwork for the creation of proposed CPA alternatives. Previous documents have included a Stakeholder Identification Report, a Voice of the Customer Survey Report, a Partner Interview Report, a SWOT Report, and a Needs Assessment Findings Report (Phase 1). All of these reports, a wealth of background material, and a year-long feedback loop with partner agencies led to a ***Future Multi-Agency Regional GIS Model Alternatives Report (Phase II)***.

This report further refines the participation, training, and education activities that will guide the CPA into the future. A developed training, education, and knowledge transfer strategy will encourage the effective utilization of GIS technology throughout the region. It is important to define some of the terms used throughout this document as they apply to GIS as follows:

* Training – a formal class or session, for a group or individual, intended for the purpose of learning a skill or software tool. Training can be informal or instructor-led and can be off-site, on-site, or Internet-based.
* Education – a variety of methods and techniques used to teach how GIS should and can be used. This can include seminars, one on one discussions, brown bag lunches, and various digital communications mediums.
* Knowledge transfer – the act of educating and/or training others about specific skills or techniques that a person or persons have that can benefit others.

Training, education, and knowledge transfer should be key components of a regional effort and work plan each year. One of the gaps expressed throughout the previous phases of this study was the lack of communication, training, and education.

The remainder of this document will a) organize in one place the training and education recommendations from the CPA alternatives document and b) refine the recommendations based on feedback garnered through follow up discussions with the Regional GIS Coordinator’s Team.

Training, Education, and Knowledge Transfer Summary

Phase I of this project identified overarching training, education, and knowledge transfer gaps/needs as follows:

* Lack of awareness - CPA partners and stakeholders are generally unaware of goals, objectives, service level agreements or available resources afforded by the CPA framework. As a result, there are unmet expectations, disappointment and long-term frustration that has developed within the CPA policymaking membership tier.
* Lack of understanding - Inter-agency roles, responsibilities and procedures are not always well understood. These circumstances have in some cases manifested as duplication of efforts along with the incubation of a number of data quality issues within the regional GIS ecosystem.
* Lack of Training, Education, and Knowledge Transfer - Historically, there has been a limited investment in this area. Service documentation needs to be developed to improve end-user understanding of system procedures capabilities. Insufficient staff contact amongst partner agencies is contributing to the current low effectiveness of training, education and knowledge transfer.

The following Key Performance Indicators for Training, Education, and Knowledge Transfer were documented in Phase I:

* Develop a formal ongoing GIS training plan to include LCOG and Partner agency staff (Regional Approach)
* Conduct multi-tiered GIS software training
* Conduct mobile software training
* Conduct departmental-specific education
* Conduct ROI workshops. Focus on how the CPA is achieving a regional return on investment. Success stories.
* Implement knowledge transfer techniques
* Attend conferences
* Take advantage of online seminars and workshops
* Conduct brown bag lunches
* Establish GIS succession planning. Ensuring CPA related resources are cross-trained to ensure lack of disruption in case of turnover.

Phase II of this project focused on a review of the existing CPA and future multi-agency regional GIS model alternatives. A key component of the CPA alternatives was training, education, and knowledge transfer. The existing CPA was created decades ago and did not specifically define a training, education, and knowledge transfer regimen. The Regional GIS Management Strategy 2001-2004 had the following key training and education elements:

* It stressed that awareness of the GIS effort and capabilities were critical for sustainability;
* Identified the importance of monthly meetings;
* Called for training for new managers on the history, evolution, and planning for the regional GIS;
* Ensure that managers regularly attend various GIS conferences including URISA, GIS/LIS, and others;
* Presentations to the Regional Executive Group (REG) pertaining to the regional GIS;
* Annual GIS open house and workshops for managers, elected officials, and other stakeholders;
* Provide information through presentations and other means to elected officials in order to highlight the benefits of the common goals established for the regional GIS such as common parcel identifiers, spatial accuracy standards or the like;
* Establishment of subcommittees to share knowledge and to communicate on key focus areas;
* Although, the Regional GIS Management Strategy document was not formally reviewed or approved by the Regional Executive Group (REG) is has been somewhat foundational for organizing the direction of geospatial technology within the region.

The 2014 Lane Regional GIS Strategic Plan stressed the need to coordinate and facilitate sharing and exchange of regional information, knowledge, and services to advance opportunities to promote regional priorities.

Phase II Training and Education Recommendations

Phase II of this project culminated with the creation of two alternative CPA models for consideration by the Partner Agencies. The CPA alternatives presented needs ranked by priority based on the year-long feedback loop from member agencies. The priority items related to training and education are summarized below:

* Priority 1 training and education needs included:
  + Bi-annual workshop(s) for regional executives to give an overview of services provided through the new CPA with a focus on return-on-investment.
  + Workshop(s) open to all partner agencies, RLID members, and the community that focuses on the value-added and value proposition of a regional geospatial effort. Without this level of visibility, the entire regional effort may lose its support. Additionally, these types of workshops force introspection, innovative thought, and if well executed – buy-in from the community.
* Priority Two training and education needs included:
  + Sub-Committees – there was a desire to reestablish subcommittees as a core function of the CPA.
  + Knowledgebase – maintain a help-desk and knowledgebase accessible by all agencies.
  + Master Plan – ratify a master plan for the regional geospatial program and update the plan annually.
  + Metadata – create and promote a consumer-friendly metadata platform so that everyone in the region can easily understand the regional geospatial assets. Continue the process of developing an annual work plan. This work plan should include a breakdown of how the CPA funds are being spent. Additionally, an update should be provided, at least quarterly, to all stakeholders which denote progress that has been made and any deviations from the original work plan. It should also include a budget update, noting what has been expended and the planned disbursement for remaining funds.
  + Annual Voice of the Customer Survey – an annual survey needs to be administered to CPA participants to gauge satisfaction and further identify priorities. An annual report should be created and made available. Additionally, a version of the survey should be sent to all RLID subscribers. As with the survey developed for this project, there will be a need for different versions for different groups.
  + KPIs – maintain and update an annual list of KPIs to guide the regional geospatial program. Driving this update should be the Annual Voice of the Customer Survey.
  + Regional Alignment Study – annual review of each organization’s stated goals and objectives and create a report as to how the regional geospatial effort is helping achieve those goals.

The GIS Coordinators have expressed the desire to prove that the Alternative I CPA Model can be implemented before considering the expansion to the Alternative II (Regional Center of Excellence) model. Alternative II had a number of other training and education items as follows:

* Regional Training Center – as part of the center of excellence, fund a full-time training, education, and knowledge transfer curriculum focused on the specific collective needs of the region.
* Regional Collaboration Incubator – implement and promote collaboration tools like Slack, CivicsPlus, and/or other tools to encourage regionalization and collaboration.

Phase III Training and Education Feedback

Bi-Weekly Meetings of GIS Coordinator’s Feedback

One key element of this phase was to solicit feedback from the member agencies on training and education for the future CPA. One key feedback mechanism is a bi-weekly GIS Coordinator’s meeting. The purpose of this bi-weekly meeting is to finalize the new CPA, review progress, and to provide feedback. Training and education feedback from the bi-weekly meeting is as follows:

* Subcommittees are critical and provide a great conduit for knowledge transfer and communications;
* Training on the effective running of the Executive and Coordinator’s team should be considered;
* Need training on industry trends and the bigger picture of geospatial technologies;
* Need to coordinate specific Esri training;
* An annual training and education plan is needed
* Classes/Seminars on the use of GIS for targeted areas is desired. For example, GIS for Economic Development and GIS for Public Safety;
* Specific RLID training classes;
* New and emerging technology training (i.e. ArcGIS Pro and Mobile) should be in the annual work plan;
* Presentations to the County Commissioner and regional commissions is recommended;
* Organizations should collectively share successes and failures with each other.

Training, Education, and Knowledge Transfer Conclusion

There has been consensus throughout this multi-phase project that communication and education at all levels is key to the sustainability of the regional GIS effort. The GIS Coordinator’s identified this as a significant gap. Various communication, training, education, and knowledge transfer action items have been identified. A key focal point must be communication to all stakeholders. Specific training, education, and knowledge transfer action items must be captured in the annual work plan. Overall, it is expected that a major difference from the current work plan to the new one will be a focus on communication and education. This includes various channels such as the Executive and Coordinator team meetings, subcommittees, and a training plan. The new CPA will establish the form and function of the regional GIS. However, the annual work plan must have a continued focus on training, education, and knowledge transfer to ensure that the regional GIS effort is understood and has maximum impact.