

Order 890 Strawman

FERC Technical Conference

Little Rock, Arkansas

June 7, 2007

Outline

- **Principles**
- **SPP Planning Process**
- **Strawman Filing Overview**
- **Planning Issues**
- **Next Steps**



Principles

SPP Value Proposition

- **Relationship Based**
- **Member Driven**
- **Independence Through Diversity**
- **Reliability and Economics / Equity Issues are Inseparable**
- **Evolution, not Revolution**

Principles Alignment

FERC 890 - Coordinated, Open and Transparent Planning

No coincidence that significant overlap exists between FERC and SEARUC principles

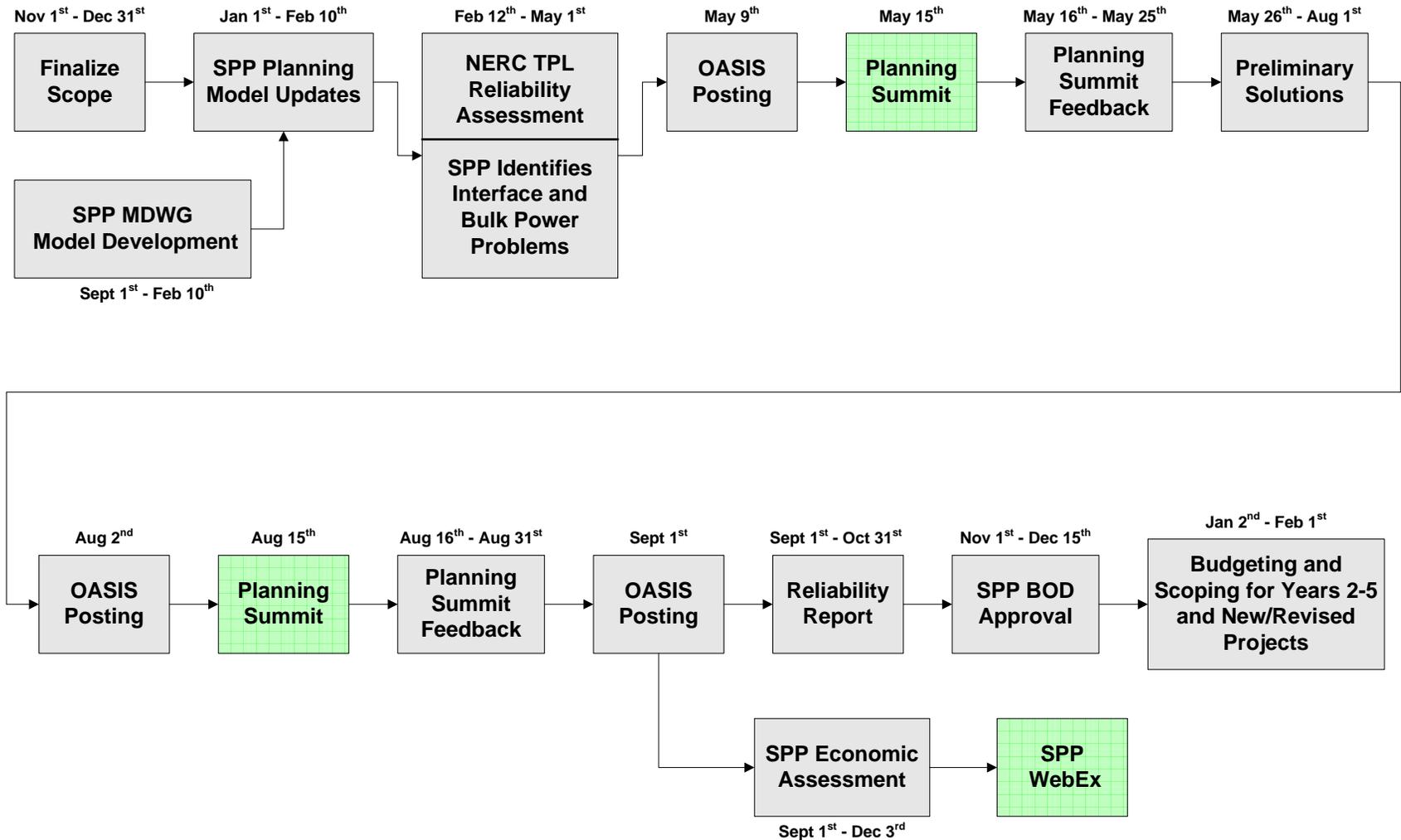
ISO/RTOs like SPP have collaborative planning processes

Leadership by SPP and Planning Authorities is necessary and critical for effective regional and interconnection-wide planning



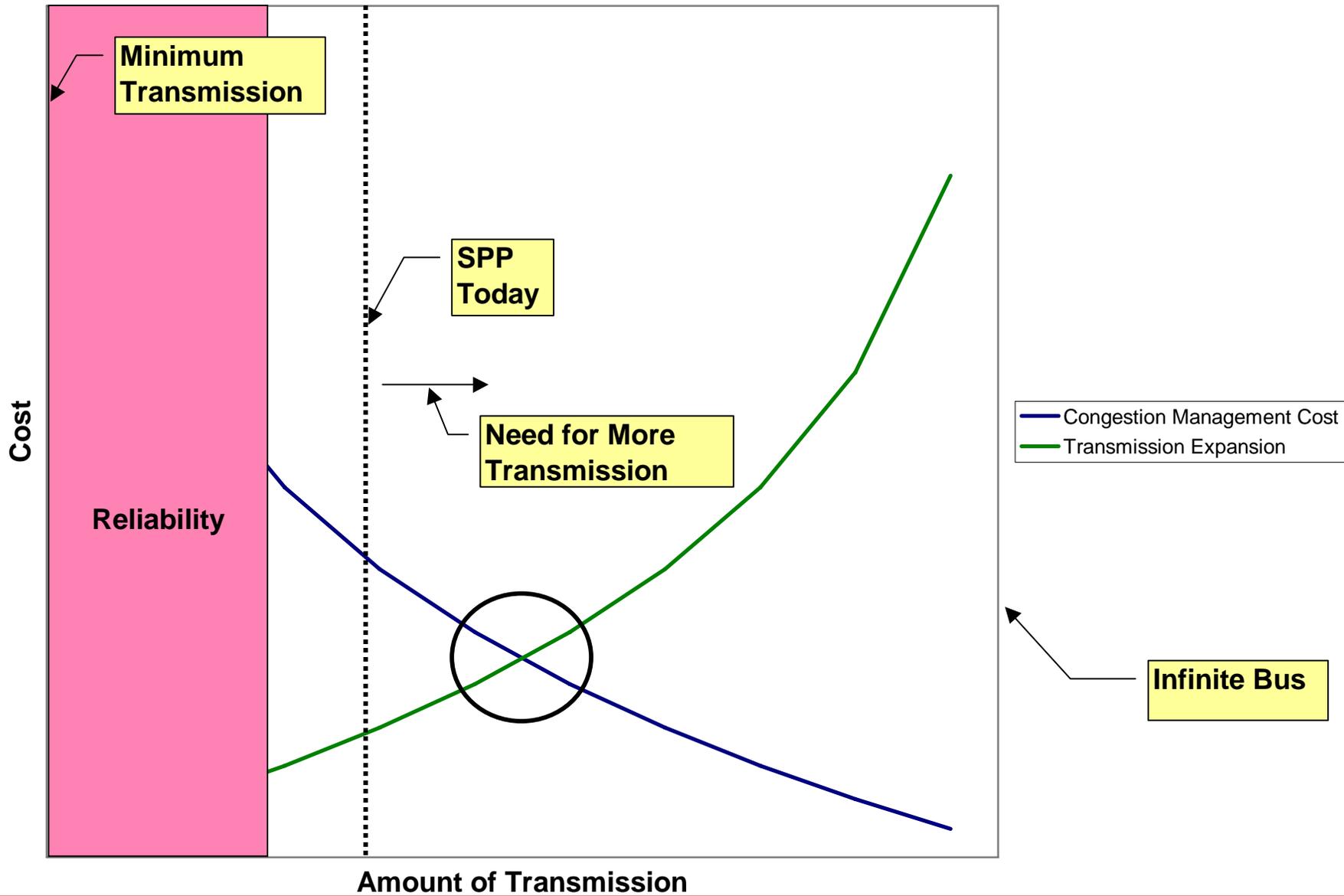
SPP Planning Process

SPP Transmission Expansion Planning Process (12-month cycle)



SPP Transmission Planning

- **2006-2016 SPP Transmission Expansion Plan (STEP)**
 - BOD approved January 2007
 - \$1.4B planned/new projects primarily to maintain reliability through 10-year planning horizon
 - **Several 345 kV projects**
 - Needed in 2013 – 2016 time frame to address voltage collapse
 - Extensions of existing 345 kV system into load pockets
 - No commitment yet due to adequate lead time
 - **Includes over \$100M of voluntary Economic Upgrades**
 - Major project to address long-standing constraints in central Kansas in 2008-2010
- **Subsequent approvals include Rose Hill – Sooner 345 kV in 2011**
- **Quarterly project tracking and reporting in process**



Transmission Being Built in SPP

- **Transmission needed for many reasons:**
 - Low hanging fruit has been harvested (e.g. Att. AA)
 - Opportunities to integrate new, geographically diverse coal plants focused on long term needs / best expansion projects
- **Uncertainty on cost recovery being addressed**
 - Cost Allocations approved under SPP OATT
 - Formula rates can remove regulatory lag and cost recovery uncertainty which are effective to commitments
- **Competitive threats are effective motivators**
 - ITC-Great Plains, Trans-Elect, Electric Transmission Texas, TOs, etc.

Tariff Studies

- **Generation Interconnection Studies**
 - **Wind is big in SPP**
 1. 1,522 MW in service
 2. 3,111 MW signed IAs
 3. 9,702 MW under study
 - **Numerous large coal fired generators too**
- **Transmission Service Request Studies**
 - **120 day Aggregate Study Process started early 2005**
 - **5,000 – 10,000 MW of new service in each study**
 - **7th AG Study in process – 2007-AG2**
 - **3,600MW of new transmission service sold and \$100M of related transmission expansion**

Staff's Top 3 Aggregate Study Improvements

- 1. All Customers shall provide a \$ 10,000 deposit for each request with the executed System Impact Study Agreement.**
- 2. Customers must demonstrate that they own or have committed to purchase generation pursuant to an executed contract. Alternatively, the Customer may establish that execution of a contract is contingent upon the availability of transmission service. If the Customer does not provide these documents within fifteen (15) days, after the posting of AFS-1 the request will no longer be a Completed Application and shall be deemed terminated and withdrawn.**
- 3. Customers withdrawing after the posting of AFS-2 will pay for all required re-studies (AFS-3...etc.)**

Strawman Evolution

- **April 24th – First DRAFT Strawman posted**
- **April 27th – First net conference**
- **May 4th – Second DRAFT Strawman posted**
- **May 10th – Second net conference**
- **May agenda item for many SPP meetings**
- **Posted in advance of May 29th deadline to file at FERC**
- **June 7 FERC Technical Conference in Little Rock**



Strawman Filing Overview

FERC Planning Principles

- **Existing regional planning processes at SPP comply, but there is room for improvement in a few areas that SPP has documented as a part of this Order 890 process.**
- **Economic planning is more than developing a set of load flow scenario models to simulate different futures. Economic planning is complicated and a challenge that must become a core competency. SPP and the SPP RSC are focused on Economic Upgrades right now in a significant way.**
- **Opportunities for economic upgrades, which will provide reliability benefits, facilitate future generation expansion and economic development, have been significantly overlooked.**

Value of Transmission?

- **What is the real value of existing grid inefficiencies in terms of marginal energy and capacity losses, or network operations which allow underlying constraints to block economic bulk power transactions? An EHV overlay would provide significant value in reducing reliability margin requirements for planning and operations.**
- **Major strategic initiative is underway with the SPP Regional State Committee (RSC) to decide how economic upgrades will be funded. Cost allocation is critical success factor for transmission expansion. Seams agreements & regulations must provide fair, certain and timely cost recovery for major grid expansion to become a reality.**
- **Limitations to sharing data, e.g., Codes of Conduct, CEI requirements, etc. should not be barriers to planning. It takes time to implement standards/processes and build relationships, mutual respect and trust for effective planning.**

SPP Transmission Expansion Planning

- **STEP is a continuous process, not a published report approved by the BOD**
- **Evolutionary growth in study scopes and capabilities**
- **Increased coordination between reliability, transmission service and the Energy Imbalance Service market planning**
- **Economic Studies are key and complicated**
 1. **Economic Modeling and Methods Task Force**
 2. **Economic screening in STEP**
 3. **Detailed studies which are both art and science**

Transmission needs to become “sexy”

Huge value in enabling markets and mitigating risk have not been included in performance metrics or design objectives

Opportunities to incorporate probabilistic planning to complement deterministic standards which have served the industry well

Transmission is a strong contender when compared to generation or demand response given the fact that it is not only the most reliable, but also the most reasonable cost component of delivered capacity/energy to customers.

Inter-Regional Planning

Not new at SPP, e.g., Acadiana solutions for LPSC, OZARKS, Entergy QPR, CREZs, MISO/SPP, NPPD...

EHV Overlay Study to be published next week

DOE Congestion Study

ISO/RTO Council Planning Committee

ERAG

Planning Issues



Local, Regional & Interconnection Planning

- **Collaboration is key for planning to be a success.**
- **Local planning can be expected to result in accelerated need for reinforcements to load pockets compared to regional plans due to diversity.**
- **SPP is proposing to facilitate open, transparent and coordinated local planning by extending quarterly TWG meetings with local planning mini-summits. Suggest that upcoming August TWG meeting in St. Louis to provide local planning sessions to share local plans/issues within and adjacent to SPP for MO and border states.**
- **Interconnection wide planning must become a priority for Planning Authorities.**
- **RTO regional transmission planning needs to be a part of initial siting decisions.**

Integrating Planning and Tariff Studies

SPP planning continues to improve in timely integration of new interconnections and service obligations into planning analyses, and vice versa.

Coordination with neighbors is a challenge despite seams agreements, if they exist.

ERAG will help quality and confidence in model building/maintenance with consistency/standards in project definitions, applications, etc.

Company-Specific Planning Criteria

- **Compliance with NERC Standards and SPP Criteria**
- **Stricter company-specific planning criteria, standards, guidelines exist within the SPP Region.**
- **Posting of company-specific planning criteria on the TO's or SPP's website.**
- **Comparable application of company-specific planning criteria to similarly-situated customers in the company's service territory.**
- **Regional solutions to local violations may be more effective.**

Strategic Planning of TOs and TDUs

- **SPP needs to be more involved in strategic planning of TOs and TDUs regarding resource supply options over the planning horizon, in order to receive up to date and timely information regarding network resources and loads.**
- **Reactive planning to integrate and deliver new base load generating resources is unacceptable given inadequate lead times to implement optimal, flexible transmission integration plans which complement long range regional or inter-regional needs. This is particularly a problem given the fact that base plan funding for transmission to deliver qualifying designated resources are premised on regional benefits.**
- **Facility Studies in the existing aggregate transmission service study process at SPP should not be used to screen supply options.**

Open Season for Joint Ownership

- **To address this issue, the Strategic Planning Committee has created the Transmission Ownership / Construction Task Force (TOCTF). The Task Force is comprised of a cross section of the SPP membership, including a state regulatory representative.**
- **The TOCTF was formed to:**
 1. **Focus on guidelines for large regional transmission projects which may traverse numerous TO certificated territories.**
 2. **Initiate discussion of SPP transmission design standards.**
- **TOCTF policy level recommendations are expected to be provided prior to SPP's October meeting cycle.**
- **The first open meeting of the TOCTF is June 20th where the scope and a detailed list of pending questions and background material will be discussed.**

Inter-Regional Planning Works

In the 1960s, 11 South Central Electric Companies (SCEC) built first 500 kV network in US with 345 kV extensions to facilitate 1,500 MW seasonal diversity interchange with TVA

The benefits of this expansion were underestimated, e.g., planners assumed only a fraction of 500 kV line thermal capacity would be needed and utilized in operations

SPP and its members have provided leadership in the past on inter-regional planning and we look forward to the future

IEEE TRANSACTIONS ON POWER APPARATUS AND SYSTEMS

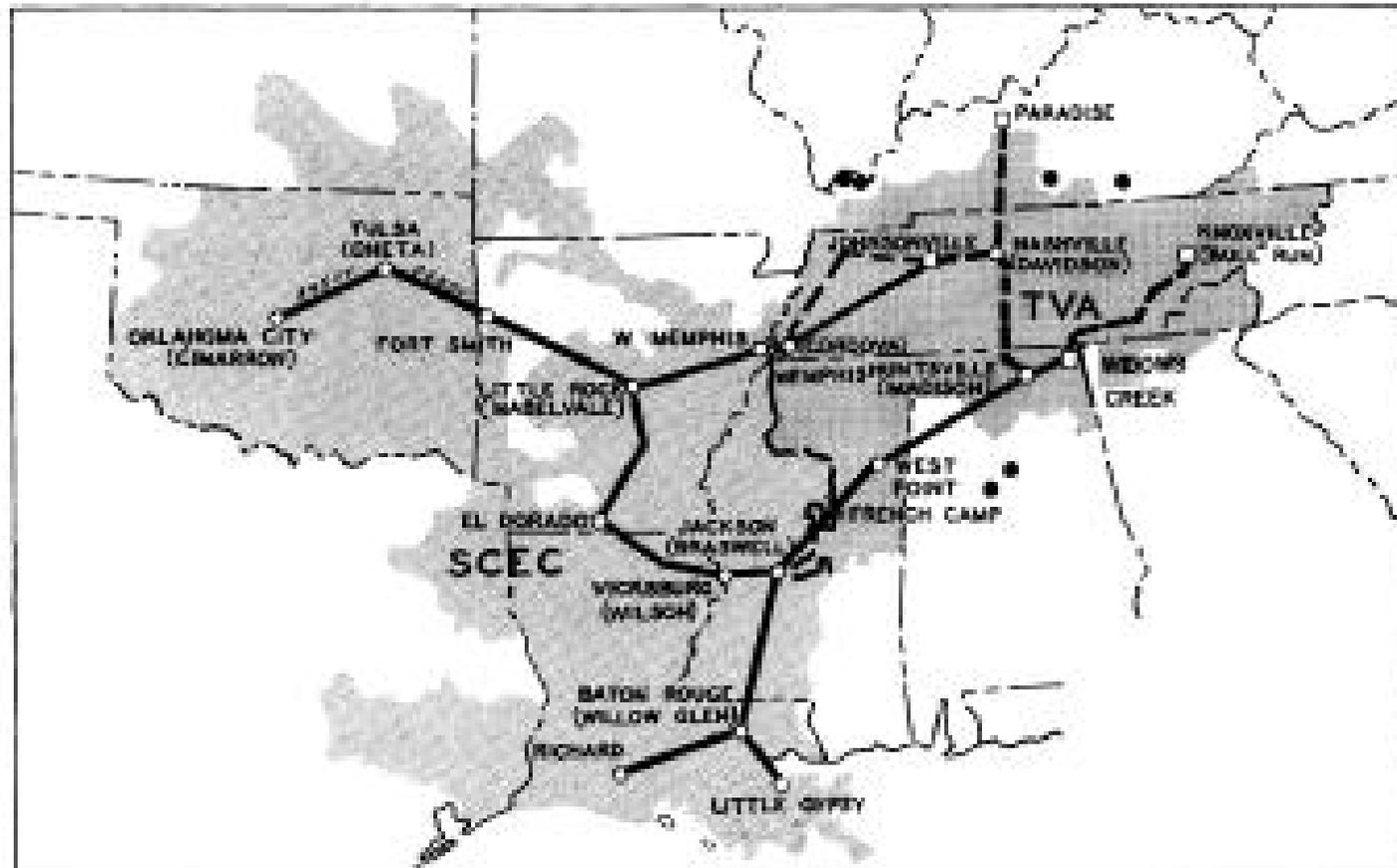


Fig. 1. TVA-SCEC transmission lines.

Next Steps

Processes must facilitate effective planning

Planning is good, but commitments are key

Cost recovery can be a barrier, if you want it to be

SPP and its RSC are anxious to provide leadership in expansion planning in the South

Questions?

Jay Caspary

Director, Engineering

Southwest Power Pool

Voice: 501.614.3220

Email: jcaspary@spp.org