

Ecosystem Services, Habitat Banks and the Endangered Species Act

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Photo credit: Rod Gilbert



WILLAMETTE PARTNERSHIP



THURSTON COUNTY
SINCE 1852





Presentation

- Project Overview
- Prairie Habitat Assessment Method (PHAM)
 - Model for determining debits and credits
 - Crediting Protocol
- Consciences Building and Approval
 - Process getting to agreement
 - Addressing uncertainty
 - Other challenges
- Lessons learned and next steps

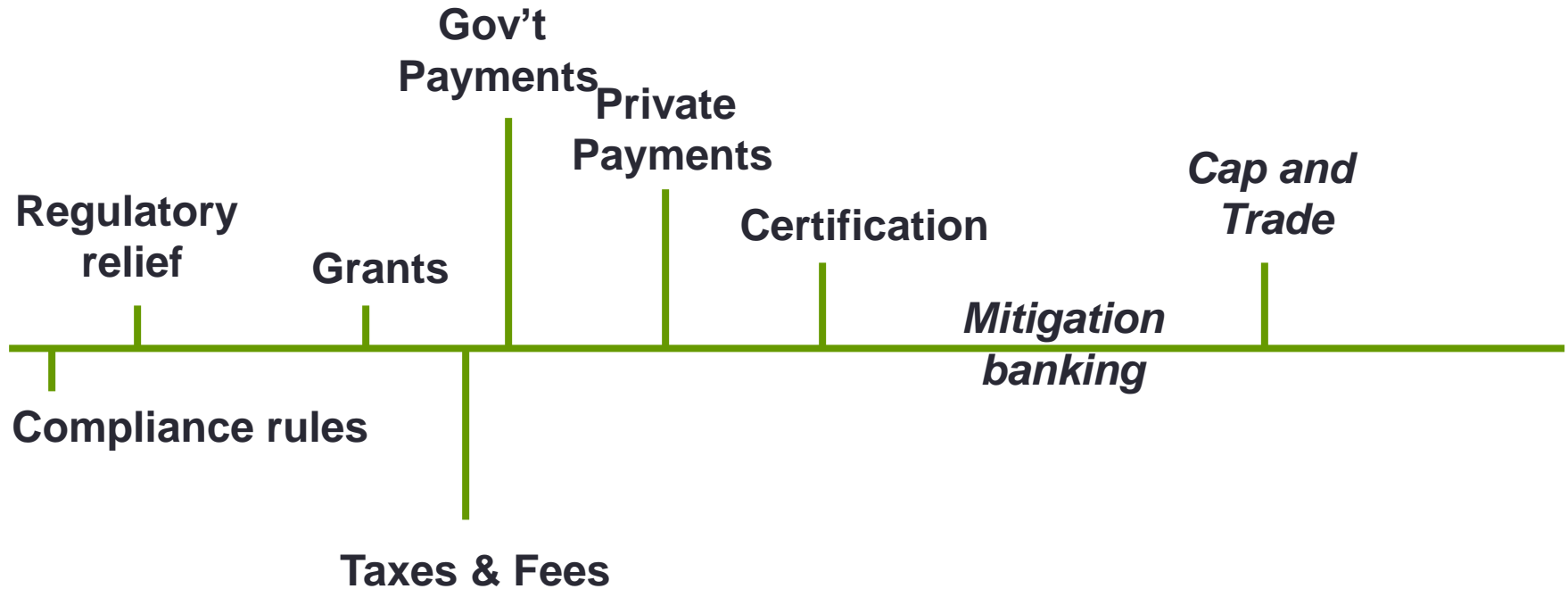




Providing Ecosystem Services

Directive

Free Market

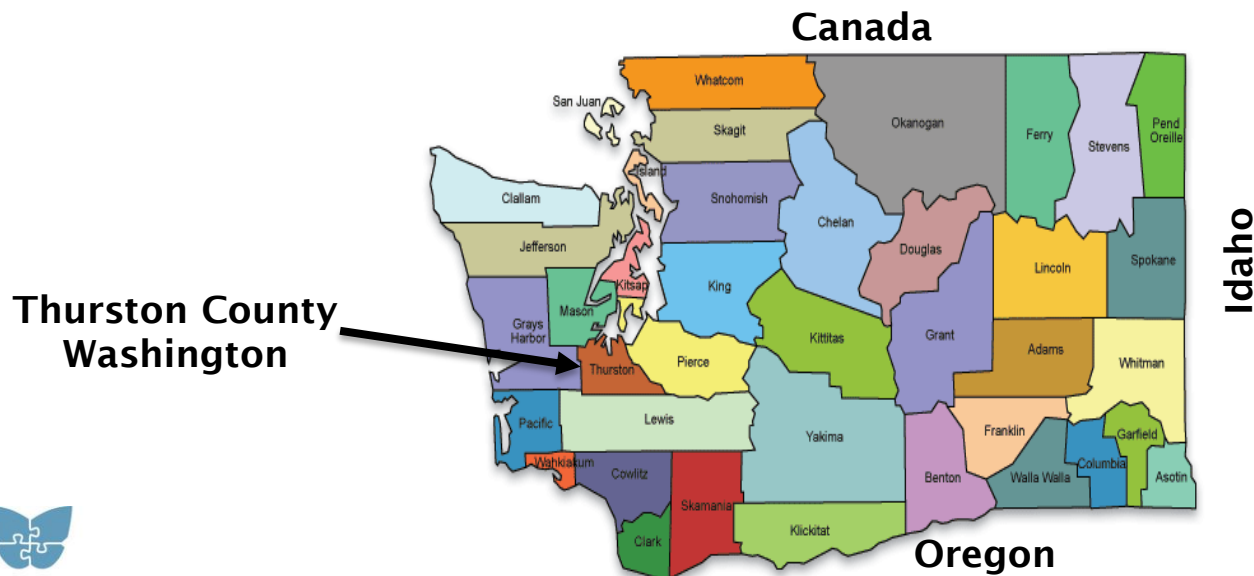




Overview

Thurston County Prairie Habitat Assessment

- For use in Interim Permitting and Section 10 of the Endangered Species Act - Habitat Conservation Plan
- Project duration of nine months
- Built on previous work in prairie conservation





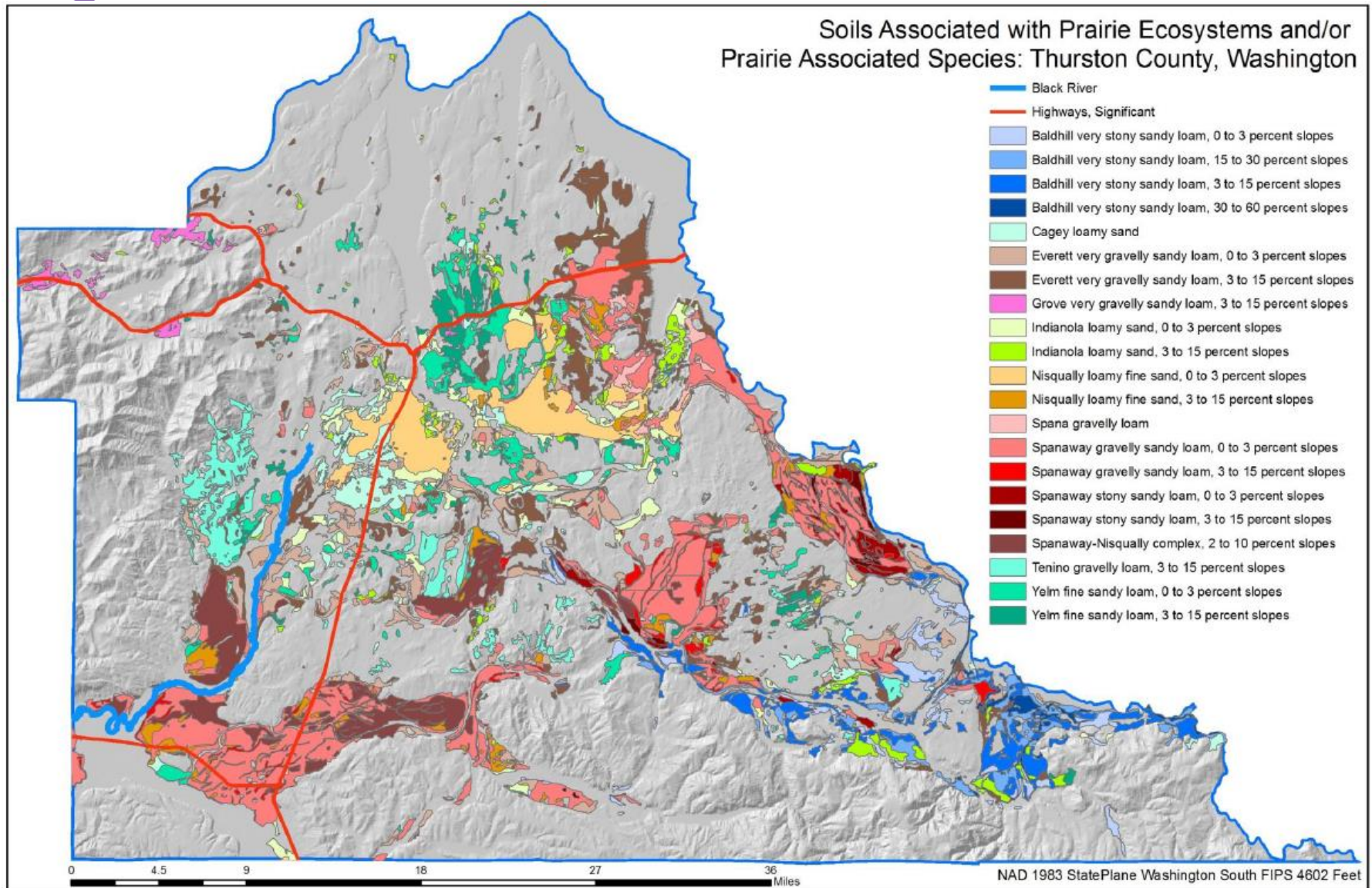
Overview - Objectives

- Protect and maintain prairie habitat and species in perpetuity
- Provide a mechanism to maintain local control over permitting decisions related to habitat
- Allow for long-term economic certainty and responsible economic development.





Overview – Prairie Soils





Overview - Species

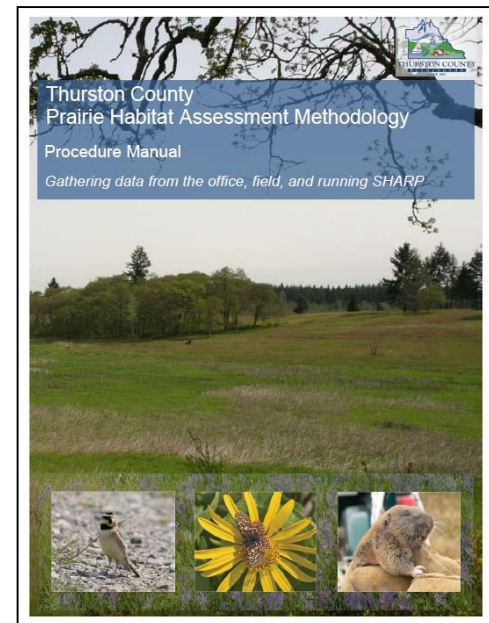
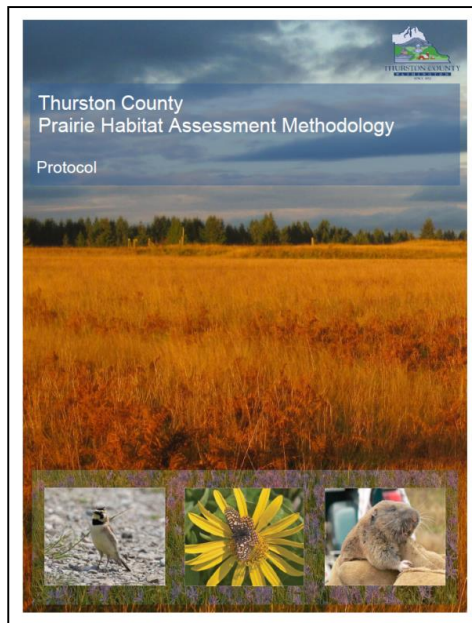
- Streaked Horned Lark
- Taylor's Checkerspot Butterfly
- Mazama Pocket Gopher
- 10 others in Habitat Conservation Plan





Methods - Deliverables

1. Protocol Document: the rules, processes, framework
2. Model Document: the science and model
3. Procedure Manual: field/model operations





Methods – SHARP Model

- Species and Habitat – Asset and Risk Prioritization (SHARP)
- Established framework and proven model
- Based on best available science
- Easily modified to meet County and USFWS needs
 - ▷ Habitat banking and conservation planning
- Transparent w/ local stakeholder review & input
- Database completed for Puget Sound Prairie Candidate Conservation Agreement and working for species of interest in Thurston County
- Provides a quantifiable baseline from which debits and credits can be calculated for species and habitat
- Provides basis for monitoring and adaptive management





SPECIES
Spatial



Temporal

Spatial Overlap

Temporal Overlap

YES

Debit/Credit Analysis

NO

Regular Permit Process





Methods – SHARP Debit Calculation

Plan for Change in Management Action

Area Suitability Index

- How suitable is habitat for species and life stage
- E.g., species requirements
- E.g., quantity & habitat use

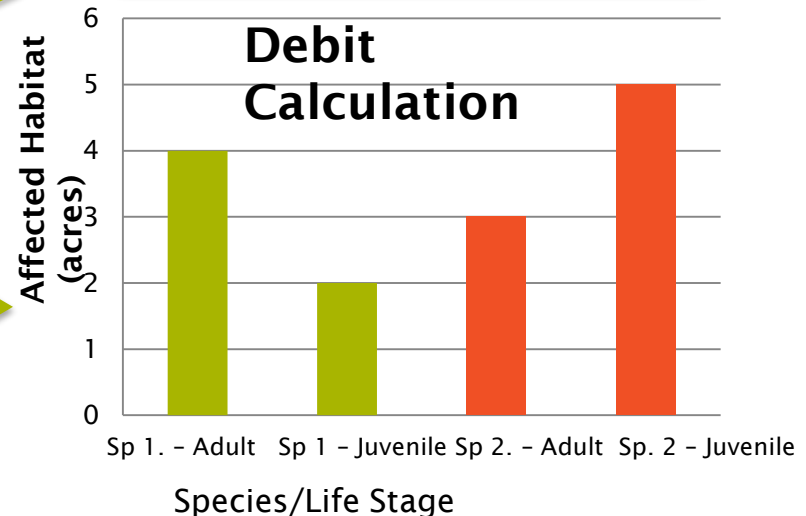
Magnitude of Effect

- Effects of actions on species and life stages
- E.g., building footprint

Incorporate

Aggregate Effects

E.g. Mowing, spraying,
and burning





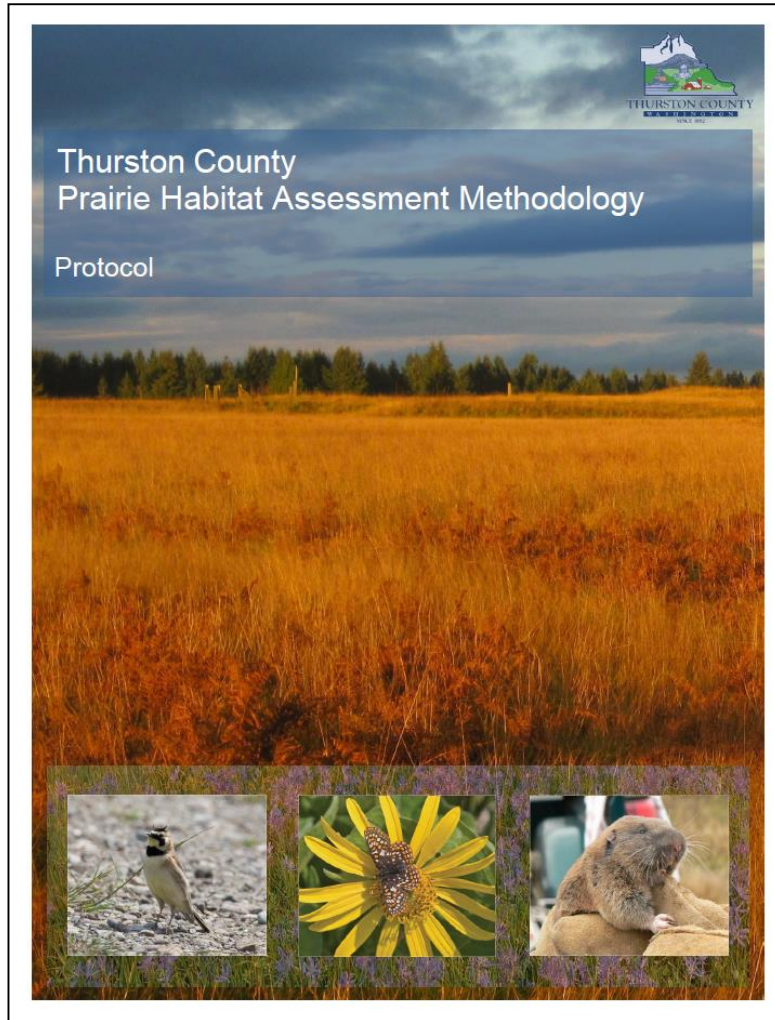
Technical (SHARP) Review Process

- Convened a Technical Working Group of 20 experts
- Held four (4) Technical Workshops
 - Confirmed existing data is up to date and determine revisions &/or adaptations for SHARP
 - Reviewed all components of SHARP to ensure adjustment for current and future use in Thurston County
- Model revisions pulled from literature and expert opinion
- Conducted three (3) field assessments and model tests
- Provided Independent scientific review
- Revisions coordinated with Technical Working Group





Methods – Crediting Protocol



Standards, Metrics, and Process

Validate



Calculate



Verify



Register



Track





Getting to yes - process

- Initial Questions
 - Who needs to be involved?
 - What is the most effective way to involve them?
 - When?
 - Who needs to sign off on the Accounting System?
 - What form will that approval take?
- Stakeholders
 - State agencies
 - Federal agencies
 - Conservation organizations
 - Regional planners





Technical and Policy Working Groups

- Established Policy and Technical Working Groups (TWG)
- Review all components of SHARP to ensure adjustment for current and future use in Thurston County
- Confirm existing data is up to date and determine revisions &/or adaptations for SHARP
- Develop crediting protocol
 1. Standardized approach to SHARP application
 2. Mitigation options and obligations
 3. Siting conservation opportunities
 4. Conservation bank requirements





Working Groups

Participants

- US Fish & Wildlife Service (5 staff)
- Washington Department of Fish & Wildlife (4 staff)
- Center for Natural Lands Management (4 staff)
- Joint Base Lewis-McChord (1 staff)
- Washington Department of Transportation (1 staff)
- Thurston County Public Works (2 staff)
- City of Tumwater (2 staff)
- Thurston Regional Planning Council (1 staff)
- Thurston County Planning Department (3 staff)
- Willamette Partnership (3 facilitating and protocol leads)
- ENVIRON (3 technical leads)



Challenges

- Uncertainty
- Building consensus around scientific methods and safety factors
- Making the financial case
- Developing implementation infrastructure
- Uncertainty in conservation targets
- Lack of regulatory guidance





Lessons Learned - Next Steps

- Early stakeholder engagement
- Test, test, and retest, then pilot
- Transparency
- Good documentation
- Regulatory uncertainty is part of the game



Thanks and Questions

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Photo credit: Rod Gilbert