



CHEHALIS BASIN BOARD

Presented by Sam Imperati, **ICM** resolutions

5/4/2023



Development of Long-Term Integrated Strategy Approach



Agenda

**Key Process
Decisions and Why
Decision-Making is
Difficult**

**Next Steps
and Appendix**

Big Picture

What are the key process decisions facing the Board?

- 1) What are the key upcoming substantive issues?
- 2) L-T Strategy Delivery Date?
- 3) What are you comparing and how?
- 4) What level of detail and information certainty is needed?
- 5) What is the target date for your PROCESS decision?

Let's begin exploring the options

No Decisions Today – We'll talk Offline Before Next Meeting

Why are “Tough” Decisions Difficult?

Common psychological traps and biases examples:

- **Concession Aversion:** We distort the value of an offer so as to overvalue the loss and undervalue the gain.
- **Construal Biases:** We think that others hold more extreme views than they do.
- **Sunk Costs:** We tend to “throw good money after bad,” favoring alternatives for which we have already incurred substantial costs, even though these costs are gone and, therefore, the same for all alternatives.

There are no facts about the future!

Why are Group Decisions More Difficult?

- 1) Focus on two options: right or wrong
- 2) Focus on a few criteria
- 3) Focus on positions instead of interests
- 4) Desire to convince – not explore
- 5) Rabbit Holes
- 6) Explaining decisions to constituencies not at the table
- 7) Disagreement over facts, risk, or the future
- 8) Not knowing how/when to reach a decision
- 9) Internal power dynamics
- 10) Concerns surrounding implementation

1) What are the Key Upcoming Substantive Issues?

- **LAND:** What are the next steps?
- **FRE:** What are the next steps?
- **ASRP:** What level of implementation over what timeline should the Board include in any comparative analyses, and how should non-habitat restoration actions (All-H, predation, etc.) be dealt with in the Chehalis Basin Strategy?
- **Skookumchuck Dam:** What are the next steps?
- **North Shore Levee, CFAR, Local Projects, Erosion Management, Floodplain Acquisition:** What specific elements of these programs should be included in every package for further analysis?

Issues, contd.

- **Climate Change/Modeling:** Does the Board want to update the projections for the basin with the new climate information that will be coming out in 2023? If yes, do climate change or EDT modeling assumptions need to change for ASRP? Modeling: H&H (Riverflow2D vs HecRas), climate change modeling (ensemble vs ranges), fish modeling (EDT and NOAA life cycle)?
- **Benefit/Cost Analyses:** Does the Board want a comparative benefit-cost and socioeconomic/E.J. evaluation of the LAND and FRE? Relative costs and flood benefits, or should it include modeled impacts to aquatic species through EDT and/or NOAA life cycle modeling, etc.? When?

2) L-T Strategy Delivery Date?

EIS Track

- 1) Before SEPA EIS?
- 2) Before FEIS?
- 3) After SEPA EIS?
- 4) After FEIS?
- 5) As Long as it Takes?

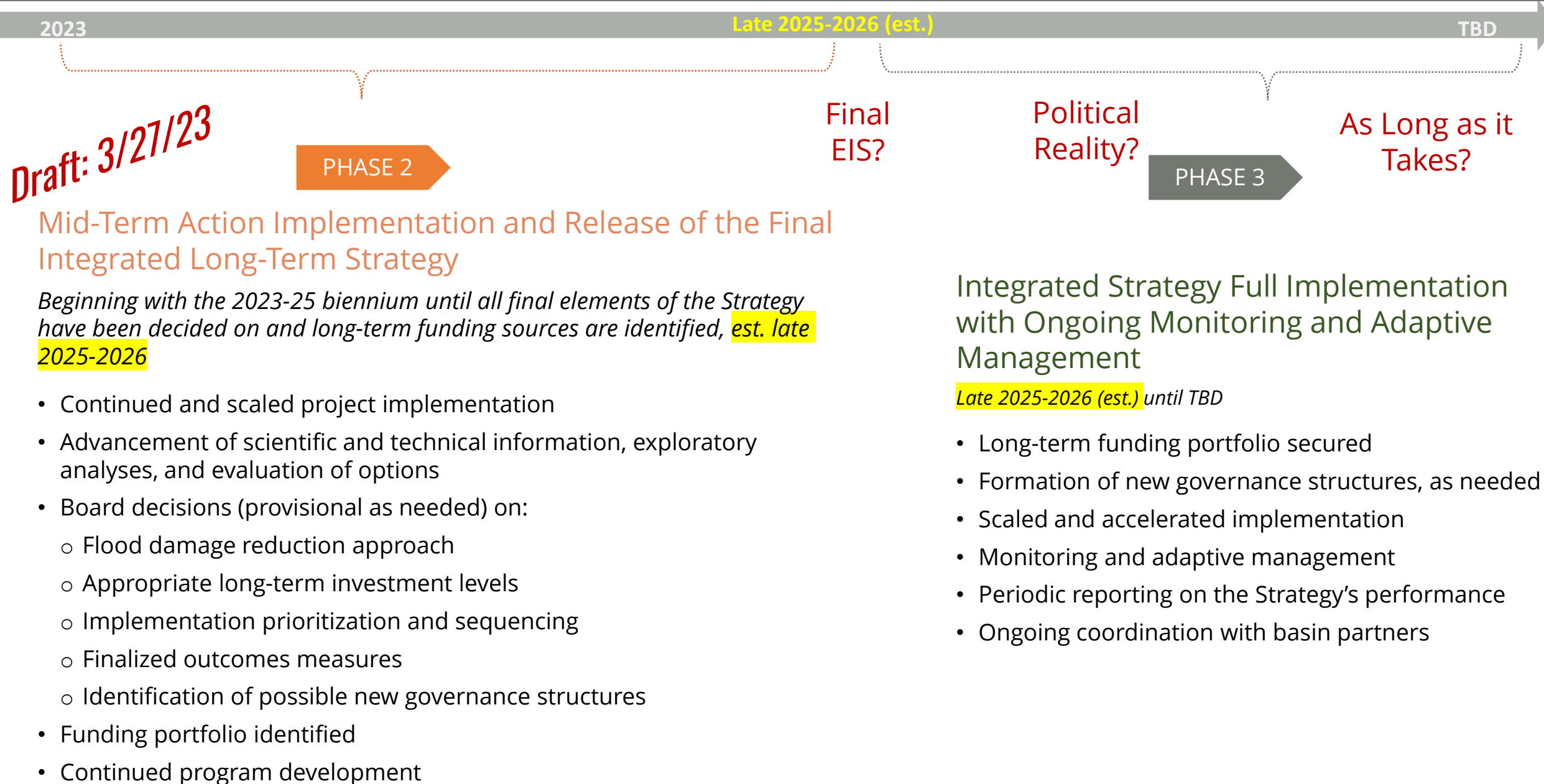
Budget Track

- 1) End of This Biennium?
- 2) During Next Biennium?
- 3) During Subsequent Biennium?
- 4) As Long as it Takes?

Other Tracks?

- 1) _____
- 2) _____
- 3) _____

Where are We Going and When: Phased CBS Strategy





EIS Scheduling Notes

A **“what-if” discussion** designed to explore the **scheduling implications** if the FCZD provides a revised project submittal for the SEPA and NEPA EISs in early (Q1) 2024, followed by a revised mitigation submittal 2-4 months later.

Dates are **fluid and interdependent**

Hypothetical schedule – Nothing more

Discussion aid to begin scheduling discussions surrounding timing options for an integrated long-term strategy.

EIS Scheduling Update

- **FCZD** stated they will provide a **revised project submittal in early (Q1) 2024**, followed by a **revised mitigation submittal 2-4 months later (Q2) 2024**.
- **Ecology generally assumes 12 months to get from Draft to Final i.e., early 2025, based on the above.**
- **Major Assumptions:**
 - If new information requires new analysis, the **timeline could be extended for new modeling or monitoring** to determine impacts.
 - Major aspects of the **LAND are not at a stage to be included quantitatively**, i.e., they don't have sponsors or funding.
 - SEPA requires a **SUPP EIS** if there are substantial changes to a proposal that **could result in significant adverse environmental impacts not addressed in the draft**.

EIS Scheduling Update

- **Corps is not currently able to make any timeline commitments.**
 - **Additional modeling** of proposed mitigation actions to incorporate **ESA Section 7** and **tribal treaty rights comments** *may be necessary* before FEIS publication. The time for modeling and its analysis are not included above.
 - Note: **Final NEPA EIS extended from 2 to 6 months.** FEIS requires the **issuance of a Section 7 Biological Opinion or Letter of Concurrence (BiOp/LOC)** by both USFWS and NMFS.
 - Note: **ROD extended from 3 months to 1 year.** Issuance depends on the completion of Section 106 and tribal treaty rights determination.
- **Overall schedule dependent upon timely discussions,** coordination, and input from FCZD, Ecology, USACE, WDFW, USFWS, and NMFS, in addition to tribal consultation and coordination.

Board Discussion

What are the advantages and disadvantages of deciding on an integrated long-term flood damage reduction strategy before one or more EISs are issued?

3) What are Comparing and How?

- a) **Stay the Course:** Silo Approach with data and policy information separately
- b) **Comparative Analyses:** Packages and Decision Table Approach
- c) **Other Approach?**

If Comparative Analyses, What Could it Look Like

1. Agree on a **process** with Benefit-cost work.
 - a. **What is it** that we are comparing, and at what level?
 - b. Are we simply doing **FRE vs LAND**, or are we doing **packages** that include a combination of flood, fish, and dual-purpose actions?
2. At most, we would **be teeing up** alternatives for comparison, **not picking one**.
3. Facilitator creates draft exercises for Board to create **potential packages**.

Over Simplistic Package Concept

	Aquatic Species		Flood Damage Reduction					Integrated Programs and Projects			
Element Package	Aquatic Species Restor. Plan	Other Aquatic Species Actions	Aber-Hoq North Shore Levee	FRE and Airport Levee	LAND	CFAR	Flood Authority Work	Skook Dam	Erosion Mgmt. Program	Floodplain Acquisition Program	Initiative for Working Riparian Lands
0	Do Nothing	Do Nothing	Do Nothing	Do Nothing	Do Nothing	Do Nothing	Do Nothing	Do Nothing	Do Nothing	Do Nothing	Do Nothing
1								Fish Passage Only			
2								Flood Storage Only			
3								Combo Fish-Flood			
4								Dam Removal			

Comparative analyses, cont.

4. Facilitator, in consultation with staff and consultants, **refine exercises** with descriptions, ranges of actions, and a list of potential common elements.
5. **Board does preliminary scoping exercises** at a regular meeting with aggravated results to Board to refine alternatives to further develop with additional data.
6. **Information presented to Board at retreat/charette in order to create 2-3 packages for comparative evaluation.**
7. Conduct **comparative analysis with benefit-cost work** in partnership with a CBB subcommittee.
5. **Preliminary Results to Board for analysis and next steps**

Using Decision Tables to Evaluate Packages

- 1) Communication is **focused and structured**
- 2) Starts with **shared interests – NOT positions** using the **Umbrella Question** to explore versus debate
- 3) **Board develops** the process and vets the data
- 4) Visual (tables **simplify complexity & boost collective thinking**)
- 5) Decision matrices allow for **quantitative and qualitative evaluation** (Likert Scales, or: )
- 6) **“What-if” Analyses**
- 7) **Transparency and future success measures**
- 8) **Teeing up future Board discussions and refinement**

Decision Table Example



1) What markets is the airport best suited to serve?

2) What are the primary development alternatives?

3) Are there environmental constraints that impact future alternatives?

4) Are there legal constraints that impact future alternatives?

What is the role of the Troutdale Airport in the future?

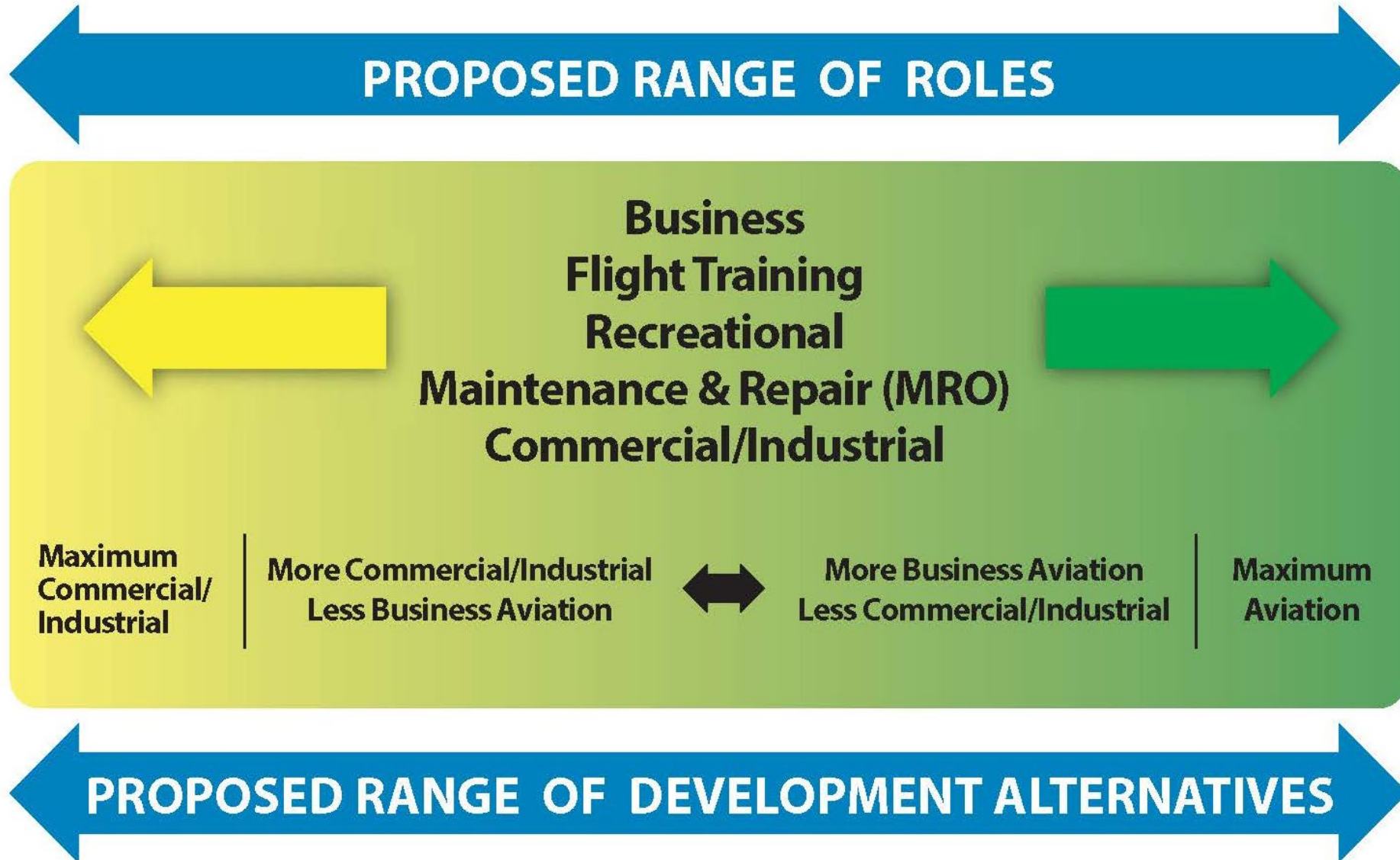
5) What are the financial impacts of these alternatives over the next 20 years?

6) What are the community economic impacts of the alternatives over the next 20 years?

7) How does the community feel about these alternatives?

8) What development alternatives will be recommended to the Port Executive Director?

TTD



Basic Table

Evaluation Criteria

Alternatives		Alignment with forecasts	Community economic benefits	Community planning compatibility	Environmental impacts	Financial impacts	Fit with local airport system	Legal feasibility
	A: Maximum commercial / industrial							
	B: More commercial / industrial; less business aviation							
	C: More business aviation; less commercial / industrial							
	D: Maximum aviation							

Select Evaluation Factors for Each Criterion

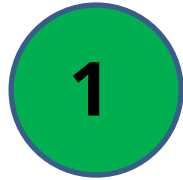
Weighted Evaluation Criteria

Evaluation Factors/Metrics

Alignment with forecasts	Community economic benefits	Community planning compatibility	Environmental impacts	Financial impacts	Fit with local airport system	Legal feasibility
Fit with aviation and land use forecasts using the 50 th Perc.	Jobs at TTD	Surface / active transportation opportunities / impacts	Air quality	20 year capital expenditures (ROI)	Assessment of airspace impacts	Compliance with local, state and federal laws
	Average wage of jobs at TTD	Relationship to TRIP	Water quality	Ability to fund capital costs	Role within Port system	Compliance FAA grants
	Business revenues at TTD	Relationship to surrounding land uses	Noise impacts	20 year operating costs	Role within the regional airport system	Contractual commitments
	State /local taxes for locals	Fit & Flexibility	Environmental improvement	Expected operating revenues	Assessment of FAA NextGen	
	Economic impact to local economy		Compatibility with enviro assets	Private investment		
	Education, training, and workforce development		Natural resources			

Scoring Alternatives

Assign a color to each alternative that describes how well the alternative aligns with each evaluation category compared to other alternatives.

-  1 Very favorable / well-aligned
-  2 Neutral / neither favorable nor unfavorable
-  3 Not favorable / not well-aligned

Data Example: Alignment with Forecasts

Alternative	Positives	Negatives	Color
A: Maximum commercial / industrial	--	Displaces all users.	
B: More commercial / industrial; less business aviation	Accommodates recreational and flight training.	- Does not accommodate business. - Limited room for facility expansion.	
C: More business aviation; less commercial / industrial	Accommodates similar to existing.	- Limited room for expansion. - Limited chance of attracting more business.	
D: Maximum aviation	Meets needs of larger aircraft.	- Larger than needed to meet demand. - New separation standards will displace existing structures/parking.	

Preliminary Results

Alternative	Alignment with forecasts	Community economic benefits	Community planning compatibility	Environmental impacts	Financial impacts	Fit with local airport system	Legal feasibility	Overall evaluation
A: Maximum Commercial/Industrial								
B: More Commercial/Industrial; Less Business Aviation								
C: More Business Aviation; Less Commercial/Industrial								
D: Maximum Aviation								

Sensitivity Analysis

Average Score and What-If

	Alignment With Forecast	Community Economic Benefit	Community Planning Compatibility	Environmental Impact	Financial Impact	Fit with Local Airport System	Legal Feasibility	Totals
Category Weight:	13%	14%	14%	13%	16%	15%	15%	100%
Alternative A Average:	1.1	4.2	4.5	1.3	2.7	2.3	2.6	2.68
Alternative B Average:	4.3	4.7	4.7	3.0	4.5	4.5	4.4	4.30
Alternative C Average:	4.9	3.5	3.5	3.3	4.6	4.9	4.9	4.25
Alternative D Average:	2.7	1.3	1.5	3.7	1.1	1.5	2.8	2.06

Why This Approach Works

- Focuses on the **integrated** part of the strategy
- Combines **both policy and technical**
- Compares alternatives **systematically**
- **Everyone's views** are considered
- **Iterative**
- Thought process and analysis **documented**
- **Pros and Cons** for each alternative are **highlighted**
- **Your team** will be involved

Board Discussion: Advantages and Disadvantages



1. Stay the Course with the Current Silo approach
2. Comparative Analyses with Packages and Decision Tables
3. Other Approaches?

4) What Level of Detail and Information Certainty is Needed?

- a) Less than EIS level
- b) Same as EIS level
- c) More than EIS level
- d) Other

5) What is the Target Date for Your **PROCESS** Decision?

a) June

b) July

c) Other: _____

Next Steps

We'll Discuss this Offline Before the Next Meeting

6/1/23 Meeting: Long-Term Strategy Preparation,
Approach, and

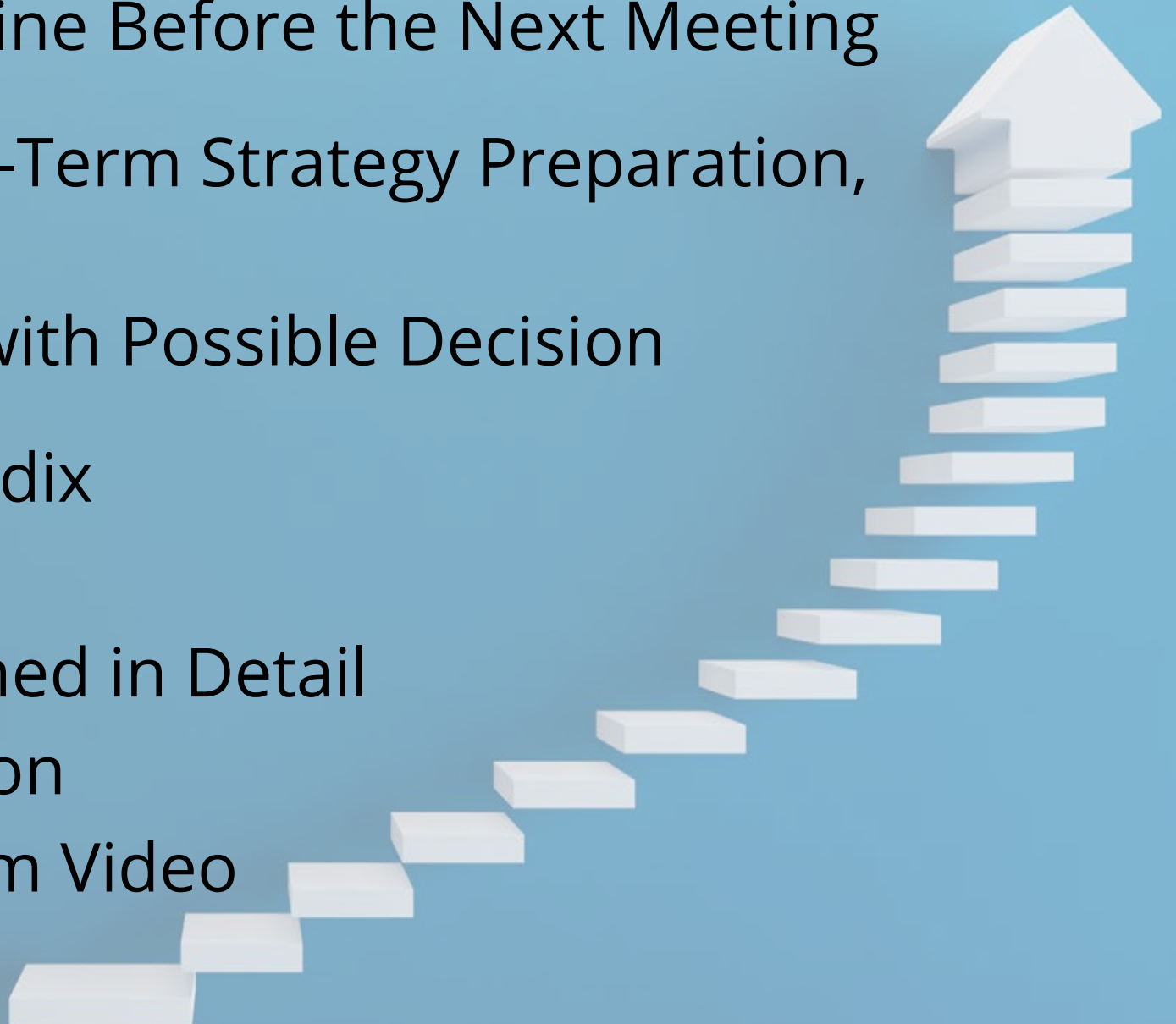
Timeline Discussion with Possible Decision

Please see the Appendix
for More Information

A) 10 Steps Explained in Detail

B) Video Explanation

C) Worksheets from Video



THANK YOU!



Appendix



Decision Table Ten Step Process

- 1) Identify the problem with an open-ended question
- 2) Preliminarily identify alternatives
- 3) Preliminarily identify evaluation criteria
- 4) Weigh evaluation criteria
- 5) Gather quantifiable data for each criterion
- 6) Evaluate each alternative against each criterion
- 7) Eliminate, refine & combine
- 8) Select the best alternative, create a conditional and adaptable implementation plan, and system for monitoring success
- 9) Monitor and reconvene
- 10) Celebrate success

Ten Step Process

1

Identify the problem with an open-ended question

- Decisions are often framed too narrowly: “Should we do this or that?” Instead, “What are we trying to achieve with this decision... the Umbrella Question?”
- Agree on elements of high-level comparative analysis.
- What is it that we are comparing, at what level?
- Confirming that we would start pre-SEPA and NEPA FEIS?
- Focus only on teeing up alternatives for this high-level comparison, not on picking one

Ten Step Process

2

Preliminarily identify alternative

- List all possible solutions you can think of (creatively and realistically) focusing on the Umbrella Question.
- LAND vs. FRE or Packages that include a combination of flood, fish, and dual-purpose actions?
- Identify what common elements are included in each.
- Staff drafts an exercise to allow people to create packages
- Staff invites consultants to refine exercise, including descriptions and ranges of actions, perhaps High, Medium, and Low variations.
- Both develop a proposed list of common elements

Ten Step Process

Cont.

2

Preliminarily identify alternative

- Board does preliminary, offline (not at Board meeting) scoping exercise (voting and ex-officio, anonymously collected, aggregate results)
- Present results to Board at the next Board meeting to refine alternatives for further staff/consultant development, including additional data, including mitigation packages
- Board explores at charette in order to create 2-3 packages for comparative evaluation – not decision.
- Not constrained/burdened by benefit-cost
- Decide on Benefit-Cost Analysis (Preliminary high-level and/or Final Analysis)

Ten Step Process

3

Preliminarily identify evaluation criteria

- What Factors Matter for Your Decision? Start with basic questions:
 - What is important here?
 - What are we looking for? What do we want?
- Make a long list with all potential criteria that come to mind when you go through those questions. Redundancy is OK at this stage
- Now, reduce your list to a small set of criteria to those that are most important, don't overlap, and cover important goal
- Add Climate Change: → Hydro (Riverflow 2D) → Fish (EDT or EDT/LCM)

Ten Step Process

Cont.

3

Preliminarily identify evaluation criteria

- Ask for purposes of moving forward, *"Based on these criteria, are we willing to commit to the outcome of this process?"* If No: what is still redundant or missing? Revise your criteria until everybody is on-board.
- Organize your work from Steps 2 and 3 in a matrix.
 - Fill in your own criteria as column headers (from most to least important)
 - Fill in your own alternatives as row headers

Ten Step Process

4

Weigh evaluation criteria

- Rank your criterion alphabetically
- Allocate 100 points between them

5

Gather quantifiable data for each criteria

- Make each of those criteria quantifiable. (Even subjective thoughts can be quantifiable, e.g. with a scale: 1 = Not Likely, 7 = Very Likely)

Ten Step Process

6

Evaluate each alternative against each criteria

- Assign a color to each alternative that describes how well the alternative aligns with each evaluation category compared to other alternatives.

 **GREEN**: Very favorable / well-aligned with the category

 **YELLOW**: Neutral / neither favorable nor unfavorable

 **RED**: Not favorable / not well-aligned with the category

7

Ten Step Process

Eliminate, refine, & combine

- Improve existing alternatives by asking:
 - What do you like about each of the high-scoring alternatives?
 - Is there a way to combine those strengths?
 - Is there a way to eliminate/improve the weaknesses?
 - List the new Alternatives and Re-Evaluate

8

Select the best alternative, create an implementation plan, and system for monitoring success

- Consider Benefit-Cost with EJ/Socio-Economic Analyses
- Add sequencing
- Select the optimal conditional package

Ten Step Process

9

Monitor and reconvene

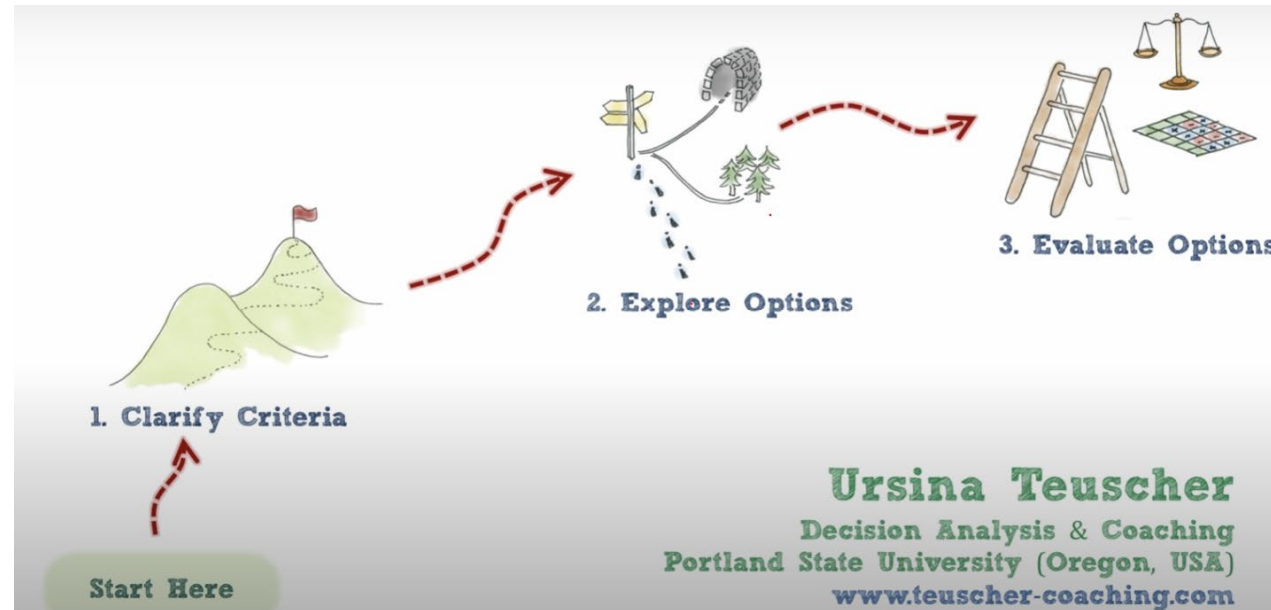
- Implement decisions, monitor them, and have a plan to re-engage if problems are encountered. Publish results and learn.
 - What are some foreseeable problems you might encounter?
 - How will you handle them?
 - When and where will you reconvene?

10

Celebrate success

- Select optimal design using consensus polling

Decision Table Explanation Video

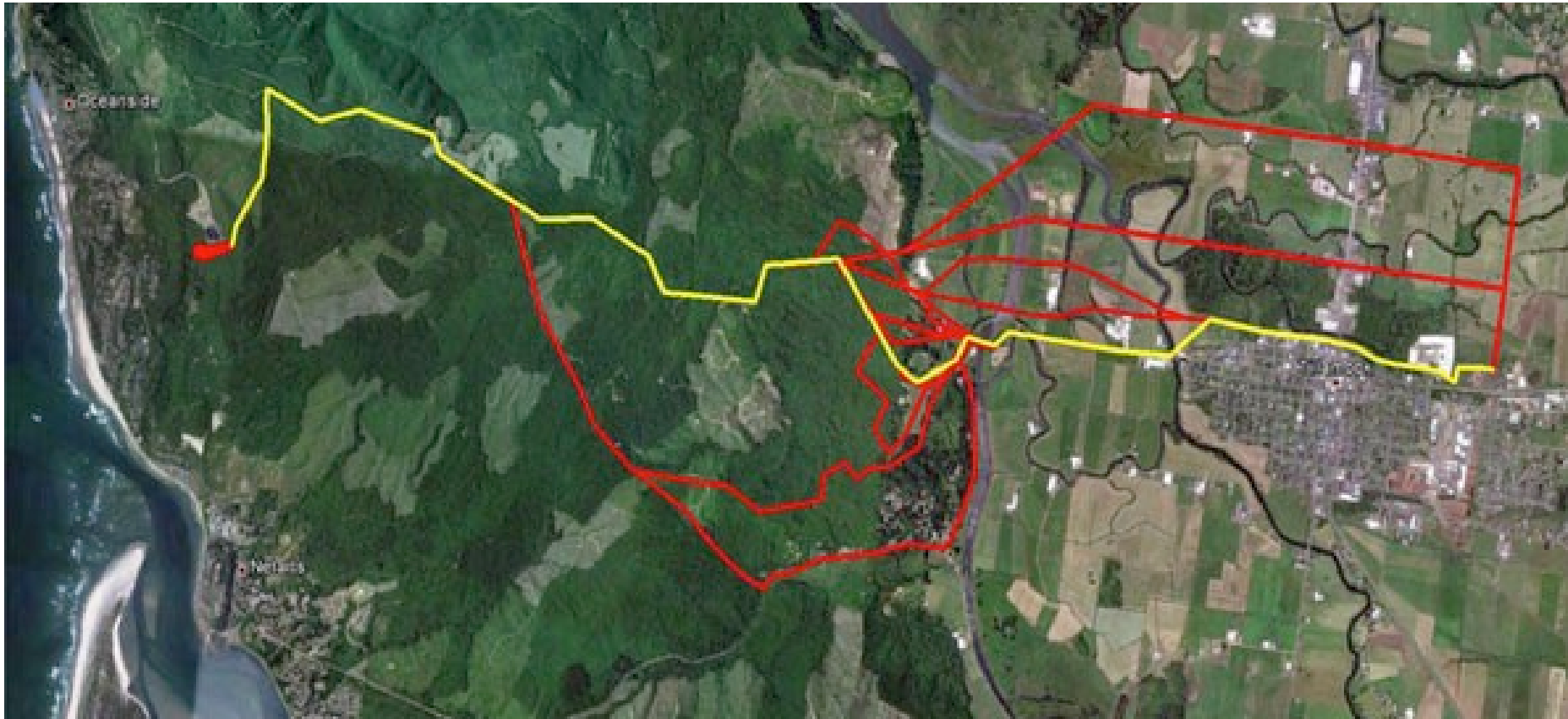


<http://www.teuscher-coaching.com/how-to-make-better-group-decisions-video/>

Start at 4:04

Video Example

Choosing a Route for New Tillamook to Oceanside Transmission Line



Tillamook to Oceanside Transmission Line Project: Decision Table

		Evaluator Information:																																																											
		Name: _____		Date: _____		Select one: ☐ Member of the public ☐ Property Owner		Property Address: _____																																																					
Step 1: Weighting Evaluation Criteria																																																													
Evaluation Categories		Social						Land Use / Environmental						Economic																																															
Evaluation Factors		A) Property Effects and Visual Impacts				B) Reliability		C) Impacts to Farm / Forest / Commercial				D) Environmental Impacts		E) Tillamook PUD Costs		F) Community Economics (Benefits / Impacts)																																													
Sample Measures		1) Number of unique land owners 2) Number of tax lots 3) Total acreage of privately-owned land within easement 4) Percentage of easement on privately-owned land 5) Number of private properties that have a transmission structure on it 6) Percentage of route NOT co-located with existing electric lines 7) Number of buildings within 200' of transmission centerline 8) Quantity of transmission structures (number of 1-pole, 2-pole, 3-pole) 9) Average pole height				Considerations: Frequency and duration of potential outages, cost to get back online, difficulty of getting back online, (e.g. accessibility, number of wetlands, water crossings, soils, need for special equipment), etc.		1) Total acres of forestland within easement 2) Total acres of farmland within easement 3) Total acres of commercial land within easement 4) Average percentage of easement on property 5) Largest percentage of easement on property 6) Average percentage of structure footprint on property 7) Largest percentage of structure footprint on property 8) Percentage of route in forestland NOT co-located with existing private access roads				1) Total acres of wetland within easement 2) Total number of streams that cross transmission line		1) Construction costs (Infrastructure, roads, etc.) 2) Operation & maintenance 3) Time to Construct		Considerations: Job creation, business revenue, property values, construction disruption, site development options, etc.																																													
Rating Instructions: Circle one number in each column to rate the importance of the evaluation factor.																																																													
Extremely Important		10				10		10				10		10		10																																													
Very Important		9				9		9				9		9		9																																													
		8				8		8				8		8		8																																													
Important		7				7		7				7		7		7																																													
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Moderately Important		5				5		5				5		5		5																																													
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Slightly Important		3				3		3				3		3		3																																													
		2				2		2				2		2		2																																													
Not at all Important		1				1		1				1		1		1																																													
Step 2: Scoring Alternatives based on Evaluation Factors																																																													
Rating Instructions: Circle one color (Green, Yellow, Red) in each rating cell to specify how well each alternative satisfies each evaluation factor. Leaving any cell blank will result in a vote of 3 = "Neutral". 5 = "Well-aligned" 3 = "Neutral" 1 = "Poorly-aligned"																																																													
Measures Guidance		Fewer unique property owners, smaller private acreage, lower Percentage private land, fewer number of private properties with structures, and lower Percentage of route NOT co-located with existing lines is better.						Lower frequency and duration of outages, cost, and difficulty to get back on line is better.		Fewer acres and lesser impact on practices is better.						Fewer acres of wetland and fewer number of stream crossings is better.		Lower costs of construction, operation & maintenance, and less time to construct is better.		Subjective valuation of the above considerations: Net between positive and negative factors.																																									
Evaluation Factors and Sample Measures		1) Unique land owners (#)				2) Number of tax lots		3) Privately-owned land within easement (acres)		4) Easement on privately-owned land (%)		5) Private properties with transmission structures (#)		6) Buildings within 200' of existing electric lines		7) Transmission structures (# 1-pole, 2-pole, 3-pole)		8) Average pole height (ft.)		VOTE: Property Effects & Visual Impacts		Overall Reliability:		VOTE: Reliability		1) Forestland within easement (acres)		2) Farmland within easement (acres)		3) Commercial land within easement (acres)		4) Average percentage of easement on property (%)		5) Largest percentage of easement on property (%)		6) Average structure footprint on property (%)		7) Largest structure footprint on property (%)		8) % forestland NOT co-located with existing pvt. RRs		VOTE: Forest / Commercial Impacts to Farm / Forest / Commercial		1) Wetland within easement (acres)		2) Streams that cross transmission line (#)		VOTE: Environmental Impacts		1) Estimated Construction costs (thousands of \$)		2) Estimated Annual O & M (thousands of \$)		3) Time to Construct (months)		VOTE: Tillamook PUD Costs		Your Notes:		VOTE: Community Economics (Benefits / Impacts)	
		Route	Unique land owners (#)	Number of tax lots	Privately-owned land within easement (acres)	Easement on privately-owned land (%)	Private properties with transmission structures (#)	Buildings within 200' of existing electric lines	Transmission structures (# 1-pole, 2-pole, 3-pole)	Average pole height (ft.)	Property Effects & Visual Impacts	Overall Reliability	Reliability	Forestland within easement (acres)	Farmland within easement (acres)	Commercial land within easement (acres)	Average percentage of easement on property (%)	Largest percentage of easement on property (%)	Average structure footprint on property (%)	Largest structure footprint on property (%)	% forestland NOT co-located with existing pvt. RRs	Forest / Commercial Impacts to Farm / Forest / Commercial	Wetland within easement (acres)	Streams that cross transmission line (#)	Environmental Impacts	Estimated Construction costs (thousands of \$)	Estimated Annual O & M (thousands of \$)	Time to Construct (months)	Tillamook PUD Costs	Your Notes	Community Economics (Benefits / Impacts)																														
East Section	Route E1	11	27	15.8	56.1%	4	72.8%	26	31 (30.0,1)	71'	5 3 1	~99%+	5 3 1	0	13	3.9	10.7%	33.2%	< 0.01%	< 0.01%	N/A	5 3 1	4.8	5	5 3 1	1,300	6.5	3.5	5 3 1		5 3 1																														
	Route E2	11	27	13	47.0%	5	57.7%	34	34 (33.0,1)	70'	5 3 1	~99%+	5 3 1	0	12.3	4.9	7.1%	52.9%	< 0.01%	< 0.01%	N/A	5 3 1	4.7	4	5 3 1	1,500	7.5	4	5 3 1		5 3 1																														
	Route E3	14	30	15.1	54.5%	8	68.7%	29	32 (31.0,1)	71'	5 3 1	~99%+	5 3 1	0	13.5	3.8	11.0%	47.4%	< 0.01%	< 0.01%	N/A	5 3 1	6.4	6	5 3 1	1,400	7.0	3	5 3 1		5 3 1																														
Central Section	Route C1	11	21	26	84.2%	8	76.7%	3	24 (12.5,7)	75'	5 3 1	~99%+	5 3 1	1.9	12.6	0	3.7%	11.5%	< 0.01%	< 0.01%	N/A	5 3 1	25.3	12	5 3 1	2,900	14.5	6	5 3 1		5 3 1																														
	Route C2	11	17	19.5	72.3%	7	80.1%	3	20 (9.5,5)	76'	5 3 1	~99%+	5 3 1	1.9	12.7	0	4.5%	10.1%	< 0.01%	< 0.01%	N/A	5 3 1	21.5	12	5 3 1	2,600	13.0	5	5 3 1		5 3 1																														
West Section	Route W1	2	7	45.6	100%	7	100%	0	36 (0.27,9)	54'	5 3 1	~99%+	5 3 1	39.9	0	0	1.5%	2.5%	< 0.01%	< 0.01%	92.1%	5 3 1	0	20	5 3 1	1,400	7.0	5	5 3 1		5 3 1																														
	Route W2	2	8	48.8	100%	7	100%	0	39 (0.21,18)	57'	5 3 1	~99%+	5 3 1	42.9	0	0	2.7%	7.6%	< 0.01%	< 0.01%	85.8%	5 3 1	0	12	5 3 1	1,900	9.5	5	5 3 1		5 3 1																														

	Evaluators Information:																																					
	Name: _____		Date: _____		Select one: ☐ Member of the public ☐ Property Owner Property Address: _____																																	
Step 1: Weighting Evaluation Criteria																																						
Evaluation Categories	Social			Land Use / Environmental		Economic																																
Evaluation Factors	A) Property Effects and Visual Impacts		B) Reliability	C) Impacts to Farm / Forest / Commercial	D) Environmental Impacts	E) Tillamook PUD Costs F) Community Economics (Benefits / Impacts)																																
Sample Measures	1) Number of unique land owners 2) Number of tax lots 3) Total acreage of privately-owned land within easement 4) Percentage of easement on privately-owned land 5) Number of private properties that have a transmission structure on it 6) Percentage of route NOT co-located with existing electric lines 7) Number of buildings within 200' of transmission centerline 8) Quantity of transmission structures (number of 1-pole, 2-pole, 3-pole) 9) Average pole height		Considerations: Frequency and duration of potential outages, cost to get back online, difficulty of getting back online, (e.g. accessibility, number of wetlands, water crossings, soils, need for special equipment), etc.	1) Total acres of forestland within easement 2) Total acres of farmland within easement 3) Total acres of commercial land within easement 4) Average percentage of easement on property 5) Largest percentage of easement on property 6) Average percentage of structure footprint on property 7) Largest percentage of structure footprint on property 8) Percentage of route in forestland NOT co-located with existing private access roads	1) Total acres of wetland within easement 2) Total number of streams that cross transmission line	1) Construction costs (Infrastructure, roads, etc.) 2) Operation & maintenance 3) Time to Construct Considerations: Job creation, business revenue, property values, construction disruption, site development options, etc.																																
Rating Instructions: Circle one number in each column to rate the importance of the evaluation factor.																																						
Extremely Important	10		10	10	10	10																																
Very Important	9		9	9	9	9																																
	8		8	8	8	8																																
Important	7		7	7	7	7																																
	6		6	6	6	6																																
Moderately Important	5		5	5	5	5																																
	4		4	4	4	4																																
Slightly Important	3		3	3	3	3																																
Not at all Important	2		2	2	2	2																																
	1		1	1	1	1																																
Step 2: Scoring Alternatives based on Evaluation Factors																																						
Rating Instructions: Circle one color (Green, Yellow, Red) in each rating cell to specify how well each alternative satisfies each evaluation factor. 5 = "Well-aligned" 3 = "Neutral" 1 = "Poorly-aligned"																																						
Leaving any cell blank will result in a vote of 3 = "Neutral".																																						
Measures Guidance	Fewer unique property owners, smaller private acreage, lower Percentage private land, fewer number of private properties with structures, and lower Percentage of route NOT co-located with existing electric lines		Lower frequency and duration of outages, cost, and difficulty to get	Fewer acres and lesser impact on practices is better.	Fewer acres of wetland and fewer number of stream crossings is better.	Lower costs of construction, operation & maintenance, and less time to construct is better.	Subjective valuation of the above considerations: Net between positive and negative factors.																															
Evaluation Factors and Sample Measures	1) Unique land owners (%) 2) Number of Tax Lots 3) Private Acreage as % of total land (%) 4) Percent on Privately owned land (%) 5) Properties with structures (%) 6) Properties with structures within 200' of electric lines (%) 7) Pole height (ft.) 8) Structures on road right-of-way (%) 9) Average pole height (ft.)		1) Impacts to Farm / Forest / Commercial Land within easement (%) 2) Reliability: Frequency and duration of potential outages, cost to get back online, difficulty of getting back online, (e.g. accessibility, number of wetlands, water crossings, soils, need for special equipment), etc. 3) Reliability: Frequency and duration of potential outages, cost to get back online, difficulty of getting back online, (e.g. accessibility, number of wetlands, water crossings, soils, need for special equipment), etc.	1) Acres of forestland within easement (%) 2) Acres of farmland within easement (%) 3) Acres of commercial land within easement (%) 4) Average percentage of easement on property (%) 5) Largest percentage of easement on property (%) 6) Average percentage of structure footprint on property (%) 7) Largest percentage of structure footprint on property (%) 8) Percentage of route in forestland NOT co-located with existing private access roads (%)	1) Wetland within easement (acres) 2) Streams that cross transmission line (#) 3) Time to Construct (Months)	1) Estimated Construction costs (thousands of \$) 2) Estimated Annual O & M costs (thousands of \$) 3) Time to Construct (Months)	VOTE: Tillamook PUD Costs Your Notes: VOTE: Community Economics (Benefits / Impacts)																															
East Section	Route E1	11	27	15.8	56.1%	4	72.8%	26	31 (30,0,1)	71'	5	3	1	~99%+	5	3	1	0	13	3.9	10.7%	33.2%	< 0.01%	0.1%	N/A	5	3	1	4.8	5	5	1,300	6.5	3.5	5	3	1	
	Route E2	11	27	13	47.0%	5	57.7%	34 (33,0,1)	70'	5	3	1	~99%+	5	3	1	0	12.3	4.9	7.1%	52.9%	< 0.01%	0.1%	N/A	5	3	1	4.7	4	5	1,500	7.5	4	5	3	1		
	Route E3	14	30	15.1	54.5%	8	68.7%	29 (31,0,1)	71'	5	3	1	~99%+	5	3	1	0	13.5	3.8	11.0%	47.4%	< 0.01%	0.1%	N/A	5	3	1	6.4	6	5	1,400	7.0	3	5	3	1		
Central Section		11	21	26	84.2%	8	76.7%	3 (12,5,7)	75'	5	3	1	~99%+	5	3	1	1.9	12.6	0	3.7%	11.5%	< 0.01%	< 0.01%	N/A	5	3	1	25.3	12	5	3	1	2,900	14.5	6	5	3	1
	Route C2	11	17	19.5	72.3%	7	80.1%	3 (9,6,5)	76'	5	3	1	~99%+	5	3	1	1.9	12.7	0	4.5%	10.1%	< 0.01%	< 0.01%	N/A	5	3	1	21.5	12	5	3	1	2,600	13.0	5	5	3	1
West Section	Route W1	2	7	45.6	100%	7	100%	0 (0,27,9)	54'	5	3	1	~99%+	5	3	1	39.9	0	0	1.5%	2.5%	< 0.01%	< 0.01%	92.1%	5	3	1	0	20	5	3	1	1,400	7.0	5	5	3	1
	Route W2	2	8	48.8	100%	7	100%	0 (0,21,18)	57'	5	3	1	~99%+	5	3	1	42.9	0	0	2.7%	7.6%	< 0.01%	0.1%	85.8%	5	3	1	0	12	5	3	1	1,900	9.5	5	5	3	1

Tillamook to Oceanside Transmission Line Project: Decision Table

		Evaluator Information:																													
		Name: _____	Date: _____																												
Select one: ☐ Member of the public ☐ Property Owner Property Address: _____																															
Step 1: Weighting Evaluation Criteria																															
Evaluation Categories	Social		Land Use / Environmental	Economic																											
Evaluation Factors	A) Property Effects and Visual Impacts	B) Reliability	C) Impacts to Farm / Forest / Commercial	D) Environmental Impacts	E) Tillamook PUD Costs	F) Community Economics (Benefits / Impacts)																									
Sample Measures	1) Number of unique land owners 2) Number of tax lots 3) Total acreage of privately-owned land within easement 4) Percentage of easement on privately-owned land 5) Number of private properties that have a transmission structure on it 6) Percentage of route NOT co-located with existing electric lines 7) Number of buildings within 200' of electric lines 8) Quantity of trees within 200' of electric lines 9) Average percentage of route in forestland NOT co-located with existing private access	Considerations: Frequency and duration of potential outages, cost to get back online, difficulty of getting back online, (e.g. accessibility, number of wetlands, water crossings, soils, need for special	1) Total acres of forestland within easement 2) Total acres of farmland within easement 3) Total acres of commercial land within easement 4) Average percentage of easement on property 5) Largest percentage of easement on property 6) Average percentage of structure footprint on property 7) Largest percentage of structure footprint on property 8) Percentage of route in forestland NOT co-located with existing private access	1) Total acres of wetland within easement 2) Total number of streams that cross transmission line	1) Construction costs (Infrastructure, roads, etc.) 2) Operation & maintenance 3) Time to Construct	Considerations: Job creation, business revenue, property values, construction disruption, site development options, etc.																									
	Number in each column to rate the importance of the evaluation factor.																														
Extremely Important	10	10	10	10	10																										
Very Important	9	9	9	9	9																										
Important	8	8	8	8	8																										
Moderately Important	7	7	7	7	7																										
Slightly Important	6	6	6	6	6																										
Not at all Important	5	5	5	5	5																										
	4	4	4	4	4																										
	3	3	3	3	3																										
	2	2	2	2	2																										
	1	1	1	1	1																										
Step 2: Scoring Alternatives based on Evaluation Factors																															
Rating Instructions: Circle one color (Green, Yellow, Red) in each rating cell to specify how well each alternative satisfies each evaluation factor. Leaving any cell blank will result in a vote of 3 = "Neutral". 5 = "Well-aligned" 3 = "Neutral" 1 = "Poorly-aligned"																															
Measures Guidance	Fewer unique property owners, smaller private acreage, lower Percentage private land, fewer number of private properties with structures, and lower Percentage of route NOT co-located with existing lines is better.		Lower frequency and duration of outages, cost, and difficulty to get back on line is better.		Fewer acres and lesser impact on practices is better.	Fewer acres of wetland and fewer number of stream crossings is better.	Lower costs of construction, operation & maintenance, and less time to construct is better.	Subjective valuation of the above considerations: Net between positive and negative factors.																							
Evaluation Factors and Sample Measures	1) Unique land owners (#)	2) Number of tax lots	3) Privately-owned land within easement (acres)	4) Easement on privately-owned land (%)	5) Private properties with transmission structures located with existing electric lines	6) Buildings within 200' of electric lines (#)	7) Transmission structures (#)	8) Average pole height (ft.)	9) Private properties with transmission structures located with existing electric lines	10) Overall Reliability: VOTE: Property Effects & Visual Impacts	11) Forestland within easement (acres)	12) Farmland within easement (acres)	13) Commercial land within easement (acres)	14) Average easement on property (%)	15) Largest percentage of easement on property (%)	16) Average structure footprint on property (%)	17) Largest structure footprint on property (%)	18) % forestland route NOT co-located with existing private access	19) VOTE: Impacts to Farm / Forest / Commercial	20) Wetland within easement (acres)	21) Streams that cross transmission line (#)	22) VOTE: Environmental Impacts	23) Estimated Construction costs (thousands of \$)	24) Estimated Annual O & M costs (thousands of \$)	25) Time to Construct (months)	26) VOTE: Tillamook PUD Costs	27) Your Votes:	28) VOTE: Community Economics (Benefits / Impacts)			
East Section	Route E1	11	27	15.8	56.1%	4	72.8%	26	31 (30.0,1)	71'	5 3 1	~99%+	5 3 1	0	13	3.9	10.7%	33.2%	< 0.01%	0.1%	N/A	5 3 1	4.8	5	5 3 1	1,300	6.5	3.5	5 3 1		5 3 1
	Route E2	11	27	13	47.0%	5	57.7%	34	34 (33.0,1)	70'	5 3 1	~99%+	5 3 1	0	12.3	4.9	7.1%	52.9%	< 0.01%	0.1%	N/A	5 3 1	4.7	4	5 3 1	1,500	7.5	4	5 3 1		5 3 1
	Route E3	14	30	15.1	54.5%	8	68.7%	29	32 (31.0,1)	71'	5 3 1	~99%+	5 3 1	0	13.5	3.8	11.0%	47.4%	< 0.01%	0.1%	N/A	5 3 1	6.4	6	5 3 1	1,400	7.0	3	5 3 1		5 3 1
Central Section	Route C1	11	21	26	84.2%	8	76.7%	3	24 (12.5,7)	75'	5 3 1	~99%+	5 3 1	1.9	12.6	0	3.7%	11.5%	< 0.01%	< 0.01%	N/A	5 3 1	25.3	12	5 3 1	2,900	14.5	6	5 3 1		5 3 1
	Route C2	11	17	19.5	72.3%	7	80.1%	3	20 (9.5,5)	76'	5 3 1	~99%+	5 3 1	1.9	12.7	0	4.5%	10.1%	< 0.01%	< 0.01%	N/A	5 3 1	21.5	12	5 3 1	2,600	13.0	5	5 3 1		5 3 1
West Section	Route W1	2	7	45.6	100%	7	100%	0	36 (0,27.9)	54'	5 3 1	~99%+	5 3 1	39.9	0	0	1.5%	2.5%	< 0.01%	< 0.01%	92.1%	5 3 1	0	20	5 3 1	1,400	7.0	5	5 3 1		5 3 1
	Route W2	2	8	48.8	100%	7	100%	0	39 (0,21.18)	57'	5 3 1	~99%+	5 3 1	42.9	0	0	2.7%	7.6%	< 0.01%	0.1%	85.8%	5 3 1	0	12	5 3 1	1,900	9.5	5	5 3 1		5 3 1

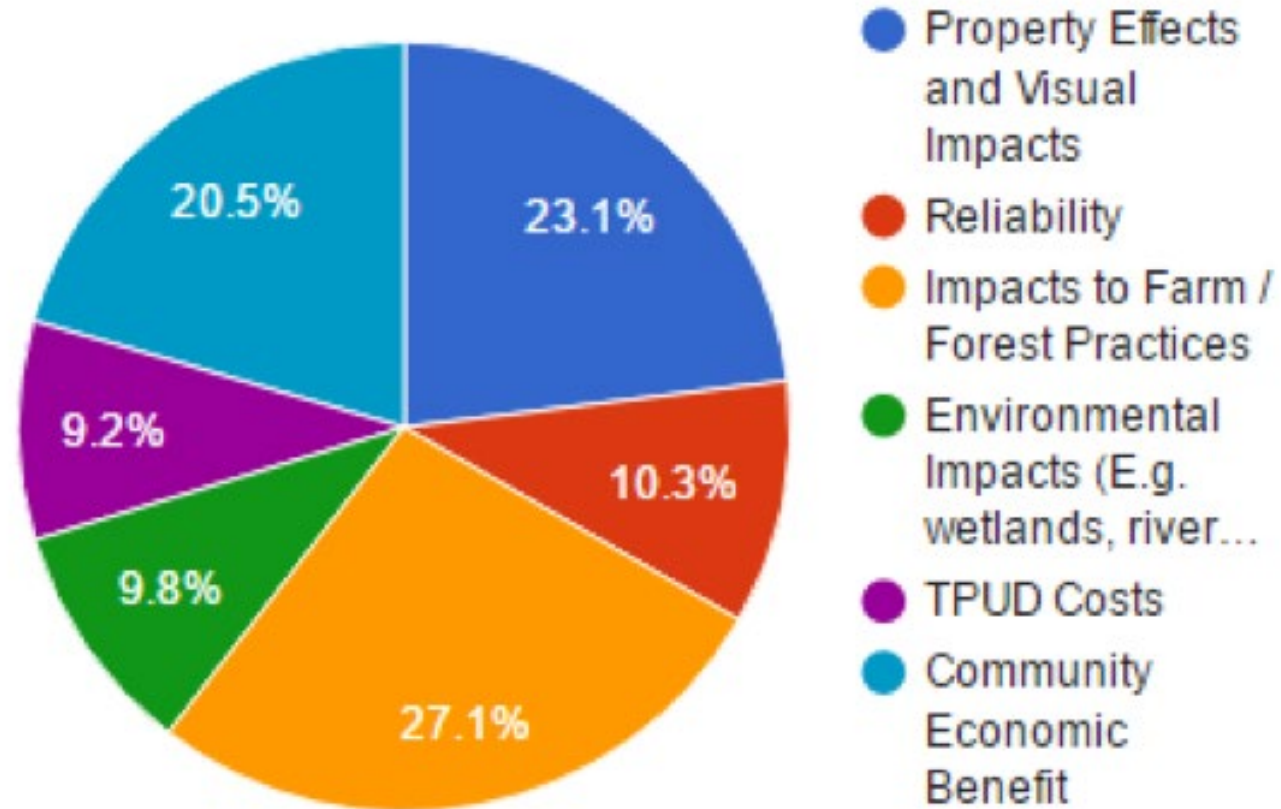
Tillamook to Oceanside Transmission Line Project: Decision Table

		Evaluator Information:																																									
		Name: _____		Date: _____		Select one: ☐ Member of the public ☐ Property Owner ☐ Property Address: _____																																					
Step 1: Weighting Evaluation Criteria																																											
Evaluation Categories	Social					Economic																																					
Evaluation Factors	A) Property Effects and Visual Impacts					B) Economic Impacts / Impacts)																																					
Sample Measures	1) Number of unique land owners 2) Number of tax lots 3) Total acreage of privately-owned land within easement 4) Percentage of easement on privately-owned land 5) Number of private properties that have a transmission structure on it 6) Percentage of route NOT co-located with existing electric lines 7) Number of buildings within 200' of transmission centerline 8) Quantity of transmission structures (number of 1-pole, 2-pole, 3-pole) 9) Average pole height					Considerations: Frequency and duration of potential outages, cost to get back online, difficulty of getting back online, (e.g., accessibility, number of wetlands, water crossings, soils, need for special equipment), etc.		2) Total acres of wetland within easement 3) Total acres of commercial land within easement 4) Average percentage of easement on property 5) Largest percentage of easement on property 6) Average percentage of structure footprint on property 7) Largest percentage of structure footprint on property 8) Percentage of route forestland NOT co-located with existing private access roads		2) Total number of streams that cross transmission line 3) Time to Construct		2) Operation & maintenance 3) Time to Construct		Job creation, business revenue, property values, construction disruption, site development options, etc.																													
Rating Instructions: Circle one number in each column to rate the importance of the evaluation factor.																																											
Extremely Important	10					10		10		10		10		10																													
Very Important	9					9		9		9		9		9																													
	8					8		8		8		8		8																													
Important	7					7		7		7		7		7																													
	6					6		6		6		6		6																													
Moderately Important	5					5		5		5		5		5																													
	4					4		4		4		4		4																													
Slightly Important	3					3		3		3		3		3																													
	2					2		2		2		2		2																													
Not at all Important	1					1		1		1		1		1																													
Step 2: Scoring Alternatives based on Evaluation Factors																																											
Rating Instructions: Circle one color (Green, Yellow, Red) in each rating cell to specify how well each alternative satisfies each evaluation factor. Leaving any cell blank will result in a vote of 3 = "Neutral". 5 = "Well-aligned" 3 = "Neutral" 1 = "Poorly-aligned"																																											
Measures Guidance	Fewer unique property owners, smaller private acreage, lower Percentage private land, fewer number of private properties with structures, and lower Percentage of route NOT co-located with existing lines is better.					Lower frequency and duration of outages, cost, and difficulty to get back on line is better.		Fewer acres and lesser impact on practices is better.				Fewer acres of wetland and fewer number of stream crossings is better.		Lower costs of construction, operation & maintenance, and less time to construct is better.		Subjective valuation of the above considerations: Net between positive and negative factors.																											
Evaluation Factors and Sample Measures	1) Unique land owners (#) 2) Number of tax lots 3) Privately-owned land within easement (acres) 4) Easement on privately-owned land (%) 5) Private properties with transmission structures (#) 6) Private properties with lines located with existing electric lines 7) Buildings within 200' of transmission centerline (#) 8) Transmission structures (#) 9) Average pole height (ft.) VOTE: Property Effects & Visual Impacts					Overall Reliability: VOTE: Reliability		1) Forestland within easement (acres) 2) Farmland within easement (acres) 3) Commercial land within easement (acres) 4) Average easement on property (%) 5) Largest easement on property (%) 6) Average structure footprint on property (%) 7) Largest structure footprint on property (%) 8) % forestland route NOT co-located with existing private access roads VOTE: Impacts to Farm / Forest / Commercial				1) Wetland within easement (acres) 2) Streams that cross transmission line (#) VOTE: Environmental Impacts		1) Estimated Construction costs (thousands of \$) 2) Estimated Annual O & M (thousands of \$) 3) Time to Construct (months) VOTE: Tillamook PUD Costs		Your Notes: VOTE: Community Economics (Benefits / Impacts)																											
East Section	Route E1	11	27	15.8	56.1%	4	72.8%	26	31 (30.0,1)	71'	5	3	1	~99%+	5	3	1	0	13	3.9	10.7%	33.2%	< 0.01%	0.1%	N/A	5	3	1	4.8	5	5	3	1	1,300	6.5	3.5	5	3	1		5	3	1
	Route E2	11	27	13	47.0%	5	57.7%	34	34 (33.0,1)	70'	5	3	1	~99%+	5	3	1	0	12.3	4.9	7.1%	52.9%	< 0.01%	0.1%	N/A	5	3	1	4.7	4	5	3	1	1,500	7.5	4	5	3	1		5	3	1
	Route E3	14	30	15.1	54.5%	8	68.7%	29	32 (31.0,1)	71'	5	3	1	~99%+	5	3	1	0	13.5	3.8	11.0%	47.4%	< 0.01%	0.1%	N/A	5	3	1	6.4	6	5	3	1	1,400	7.0	3	5	3	1		5	3	1
Central Section	Route C1	11	21	26	84.2%	8	76.7%	3	24 (12.5,7)	75'	5	3	1	~99%+	5	3	1	1.9	12.6	0	3.7%	11.5%	< 0.01%	< 0.01%	N/A	5	3	1	25.3	12	5	3	1	2,900	14.5	6	5	3	1		5	3	1
	Route C2	11	17	19.5	72.3%	7	80.1%	3	20 (9.6,5)	76'	5	3	1	~99%+	5	3	1	1.9	12.7	0	4.5%	10.1%	< 0.01%	< 0.01%	N/A	5	3	1	21.5	12	5	3	1	2,600	13.0	5	5	3	1		5	3	1
West Section	Route W1	2	7	45.6	100%	7	100%	0	36 (0.27,9)	54'	5	3	1	~99%+	5	3	1	39.9	0	0	1.5%	2.5%	< 0.01%	< 0.01%	92.1%	5	3	1	0	20	5	3	1	1,400	7.0	5	5	3	1		5	3	1
	Route W2	2	8	48.8	100%	7	100%	0	39 (0.21,18)	57'	5	3	1	~99%+	5	3	1	42.9	0	0	2.7%	7.6%	< 0.01%	0.1%	85.8%	5	3	1	0	12	5	3	1	1,900	9.5	5	5	3	1		5	3	1

Evaluation Categories	Social	
Evaluation Factors	A) Property Effects and Visual Impacts	B) Reliability
Sample Measures 1) Number of unique land owners 2) Number of tax lots 3) Total acreage of privately-owned land within easement 4) Percentage of easement on privately-owned land 5) Number of private properties that have a transmission structure on it 6) Percentage of route NOT co-located with existing electric lines 7) Number of buildings within 200' of transmission centerline 8) Quantity of transmission structures (number of 1-pole, 2-pole, 3-pole) 9) Average pole height		Considerations: Frequency and duration of potential outages, cost to get back online, difficulty of getting back online, (e.g. accessibility, number of wetlands, water crossings, soils, need for special equipment), etc.
Rating Instructions: Circle one number in each column to rate the importance of the evaluation factor.		
Extremely Important	10	10
Very Important	9	9
	8	8
Important	7	7
	6	6
Moderately Important	5	5
	4	4
Slightly Important	3	3
	2	2
Not at all Important	1	1

Weighted Criteria Results

Criterion weights



Tillamook to Oceanside Transmission Line Project: Decision Table

		Evaluator Information:																																
		Name: _____		Date: _____		Select one: ☐ Member of the public ☐ Property Owner		Property Address: _____																										
Step 1: Weighting Evaluation Criteria																																		
Evaluation Categories		Social				Land Use / Environmental				Economic																								
Evaluation Factors		A) Property Effects and Visual Impacts				B) Reliability		C) Impacts to Farm / Forest / Commercial				D) Environmental Impacts		E) Tillamook PUD Costs		F) Community Economics (Benefits / Impacts)																		
Sample Measures		1) Number of unique land owners 2) Number of tax lots 3) Total acreage of privately-owned land within easement 4) Percentage of easement on privately-owned land 5) Number of private properties that have a transmission structure on it 6) Percentage of route NOT co-located with existing electric lines 7) Number of buildings within 200' of transmission centerline 8) Quantity of transmission structures (number of 1-pole, 2-pole, 3-pole) 9) Average pole height				Considerations: Frequency and duration of potential outages, cost to get back online, difficulty of getting back online, (e.g. accessibility, number of wetlands, water crossings, soils, need for special equipment), etc.		1) Total acres of forestland within easement 2) Total acres of farmland within easement 3) Total acres of commercial land within easement 4) Average percentage of easement on property 5) Largest percentage of easement on property 6) Average percentage of structure footprint on property 7) Largest percentage of structure footprint on property 8) Percentage of route in forestland NOT co-located with existing private access roads				1) Total acres of wetland within easement 2) Total number of streams that cross transmission line		1) Construction costs (Infrastructure, roads, etc.) 2) Operation & maintenance 3) Time to Construct		Considerations: Job creation, business revenue, property values, construction disruption, site development options, etc.																		
Rating Instructions: Circle one number in each column to rate the importance of the evaluation factor.																																		
Extremely Important		10				10		10				10		10		10																		
Very Important		9				9		9				9		9		9																		
		8				8		8				8		8		8																		
Important		7				7		7				7		7		7																		
		6				6		6				6		6		6																		
Moderately Important		5				5		5				5		5		5																		
		4				4		4				4		4		4																		
Slightly Important		3				3		3				3		3		3																		
		2				2		2				2		2		2																		
Not at all Important		1										1				1																		
Collect facts about proposed alternatives																																		
Measures Guidance		Fewer unique property owners, smaller private acreage, lower Percentage private land, fewer number of private properties with structures, and lower Percentage of route NOT co-located with existing lines is better.				Lower frequency and duration of outages, cost to get back online, difficulty to get back on line is better.		Fewer acres and lesser impact on practices is better.				Fewer acres of wetland and fewer number of stream crossings is better.		Lower costs of construction, operation & maintenance, and less time to construct is better.		Subjective valuation of the above considerations: Net between positive and negative factors.																		
Evaluation Factors and Sample Measures		1) Unique land owners (#) 2) Number of tax lots within easement (acres) 3) Privately-owned land within easement (%) 4) Easement on privately-owned land (%) 5) Private properties with transmission structures within easement (#) 6) Private properties with transmission structures within 200' of existing electric lines (#) 7) Buildings within 200' of existing electric lines (#) 8) 1-pole, 2-pole, 3-pole structures within 200' of existing electric lines (#) 9) Average pole height (ft.)				Overall Reliability: VOTE: Reliability		1) Forestland within easement (acres) 2) Farmland within easement (acres) 3) Commercial land within easement (acres) 4) Average percentage of easement on property (%) 5) Largest percentage of easement on property (%) 6) Average percentage of structure footprint on property (%) 7) Largest percentage of structure footprint on property (%) 8) Percentage of route in forestland NOT co-located with existing private access roads (%)				1) Total acres of wetland within easement (acres) 2) Number of stream crossings within easement		1) Estimated Annual Construction Costs (thousands of \$) 2) Estimated Annual Operation & Maintenance Costs (thousands of \$) 3) Time to Construct (years)		Your Notes: VOTE: Community Economics (Benefits / Impacts)																		
East Section	Route E1	11	7	15.8	56.1%	4	72.8%	26	31 (30.0,1)	71'	5	3	1	0	13	3.9	10.7%	33.2%	< 0.01%	0.1%	N/A	5	3	1	4.8	5	3	1	1,300	5	3.5	5	3	1
	Route E2	11	7	13	47.0%	5	57.7%	34	34 (33.0,1)	70'	5	3	1	0	12.3	4.9	7.1%	52.9%	< 0.01%	0.1%	N/A	5	3	1	4.7	4	3	1	1,500	5	4	5	3	1
	Route E3	14	0	15.1	54.5%	8	68.7%	29	32 (31.0,1)	71'	5	3	1	0	13.5	3.8	11.0%	47.4%	< 0.01%	0.1%	N/A	5	3	1	6.4	6	3	1	1,400	0	3	5	3	1
Central Section	Route C1	11							24 (12.8,1)		5	3	1								N/A	5	3	1		12				5	3	1		
	Route C2	11	17	19.5	72.3%	7	80.1%	3	20 (9.6,5)	76'	5	3	1	1.9	12.7	0	4.5%	10.1%	< 0.01%	< 0.01%	N/A	5	3	1	21.5	12			2,600	13.0	5	5	3	1
West Section	Route W1	2	7	45.6	100%	7	100%	0	36 (0.27,9)	54'	5	3	1	39.9	0	0	1.5%	2.5%	< 0.01%	< 0.01%	92.1%	5	3	1	0	20			1,400	7.0	5	5	3	1
	Route W2	2	8	48.8	100%	7	100%	0	39 (0.21,18)	57'	5	3	1	42.9	0	0	2.7%	7.6%	< 0.01%	0.1%	85.8%	5	3	1	0	12			1,900	9.5	5	5	3	1

Tillamook to Oceanside Transmission Line Project: Decision Table

		Evaluator Information:																																			
		Name: _____		Date: _____		Select one: ☐ Member of the public ☐ Property Owner		Property Address: _____																													
Step 1: Weighting Evaluation Criteria																																					
Evaluation Categories		Social				Land Use / Environmental				Economic																											
Evaluation Factors		A) Property Effects and Visual Impacts		B) Reliability		C) Impacts to Farm / Forest / Commercial		D) Environmental Impacts		E) Tillamook PUD Costs																											
Sample Measures		1) Number of unique land owners 2) Number of tax lots 3) Total acreage of privately-owned land within easement 4) Percentage of easement on privately-owned land 5) Number of private properties that have a transmission structure on it 6) Percentage of route NOT co-located with existing electric lines 7) Number of buildings within 200' of transmission centerline 8) Quantity of transmission structures (number of 1-pole, 2-pole, 3-pole) 9) Average pole height		Considerations: Frequency and duration of potential outages, cost to get back online, difficulty of getting back online, (e.g. accessibility, number of wetlands, water crossings, soils, need for special equipment), etc.		1) Total acres of forestland within easement 2) Total acres of farmland within easement 3) Total acres of commercial land within easement 4) Average percentage of easement on property 5) Largest percentage of easement on property 6) Average percentage of structure footprint on property 7) Largest percentage of structure footprint on property 8) Percentage of route in forestland NOT co-located with existing private access roads		1) Total acres of wetland within easement 2) Total number of streams that cross transmission line		1) Construction costs (Infrastructure, roads, etc.) 2) Operation & maintenance 3) Time to Construct																											
Rating Instructions: Circle one number in each column to rate the importance of the evaluation factor.																																					
Extremely Important		10		10		10		10		10																											
Very Important		9		9		9		9		9																											
		8		8		8		8		8																											
Important		7		7		7		7		7																											
		6		6		6		6		6																											
Moderately Important		5		5		5		5		5																											
		4		4		4		4		4																											
Slightly Important		3		3		3		3		3																											
		2		2		2		2		2																											
Not at all Important		1		1		1		1		1																											
Rating Instructions: Circle one color (Green, Yellow, Red) in each column to rate the importance of the evaluation factor.																																					
Evaluate proposed alternatives																																					
Measures Guidance		Fewer unique property owners, smaller private acreage, lower Percentage private land, fewer number of private properties with structures, and lower Percentage of route NOT co-located with existing lines is better.		Lower frequency and duration of outages, cost, and difficulty to get back on line is better.		Fewer acres and lesser impact on practices is better.		Fewer acres of wetland and fewer number of stream crossings is better.		Lower costs of construction, operation & maintenance, and less time to construct is better.																											
Evaluation Factors and Sample Measures		1) Unique land owners (#) 2) Number of tax lots within easement (acres) 3) Privately-owned land owned land (%) 4) Easement on privately-owned land (%) 5) Private properties with transmission structures (#) 6) Buildings within 200' of transmission centerline (#) 7) Quantity of transmission structures (#) 8) Average pole height (ft.) 9) Transmission structures (#)		VOTE: Property Effects & Visual Impacts Over Reliability		VOTE: Reliability Over Forest / Commercial / Environmental Impacts		VOTE: Environmental Impacts Over PUD Costs		VOTE: Community Economics Your Notes:																											
East Section	Route E1	11	27	15.8	56.1%	4	72.8%	26	31 (30.0,1)	71'	5	1	~99%+	5	3	1	0	13	3.9	10.7%	33.2%	< 0.01%	0.1%	5	1	4.8	5	5	1	1,300	6	3.5	5	3	1		
	Route E2	11	27	13	47.0%	5	57.7%	34	34 (33.0,1)	70'	5	1	~99%+	5	3	1	0	12.3	4.9	7.1%	52.9%	< 0.01%	0.1%	5	1	4.7	4	5	1	1,500	7	4	5	3	1		
	Route E3	14	30	15.1	54.5%	8	68.7%	29	32 (31.0,1)	71'	5	1	~99%+	5	3	1	0	13.5	3.8	11.0%	47.4%	< 0.01%	0.1%	5	1	6.4	6	5	1	1,400	7	3	5	3	1		
Central Section	Route C1	11	21	26	84.2%	8	76.7%	3	24 (12.5,7)	75'	5	1	~99%+	5	3	1	0	12.6	0	3.7%	11.5%	< 0.01%	< 0.01%	5	1	25.3	5	5	1	2,900	14	5	5	3	1		
	Route C2	11	17	19.5	72.3%	7	80.1%	3	20 (9.6,5)	76'	5	1	~99%+	5	3	1	1.9	12.7	0	4.5%	10.1%	< 0.01%	< 0.01%	N/A	5	1	21.5	12	5	3	1	2,600	13.0	5	5	3	1
West Section	Route W1	2	7	45.6	100%	7	100%	0	36 (0.27,9)	54'	5	1	~99%+	5	3	1	39.9	0	0	1.5%	2.5%	< 0.01%	< 0.01%	92.1%	5	1	0	20	5	3	1	1,400	7.0	5	5	3	1
	Route W2	2	8	48.8	100%	7	100%	0	39 (0.21,18)	57'	5	1	~99%+	5	3	1	42.9	0	0	2.7%	7.6%	< 0.01%	0.1%	85.8%	5	1	0	12	5	3	1	1,900	9.5	5	5	3	1

Step 2: Scoring Alternatives based on Evaluation Factors

Alternative satisfies each evaluation factor.

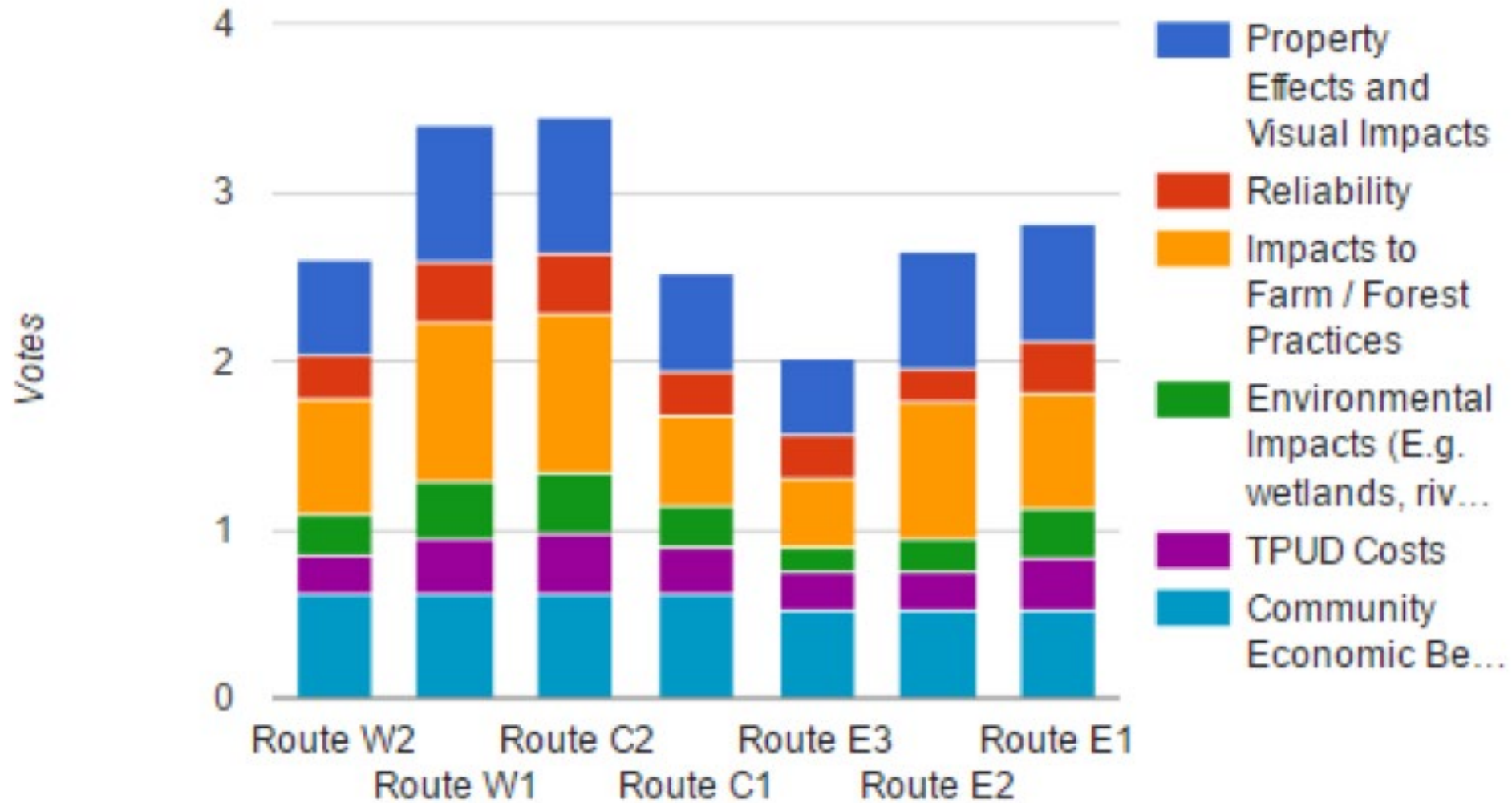
5 = "Well-aligned"

3 = "Neutral"

1 = "Poorly-aligned"

Measures Guidance	Fewer acres and lesser impact on practices is better.									Fewer acres of wetland and fewer number of stream crossings is better.		
Evaluation Factors and Sample Measures	1) Forestland within easement (acres)	2) Farmland within easement (acres)	3) Commercial land within easement (acres)	4) Average land within property (%)	5) Largest easement on property (%)	6) Average easement on property (%)	7) Largest structure footprint located with existing pvt. Rds.	8) % forestland route NOT co-	VOTE: Impacts to Farm / Forest / Commercial	1) Wetland within easement (acres)	2) Streams that cross transmission line (#)	
East Section		0	13	3.9	10.7%	33.2%	< 0.01%	0.1%	N/A	5 3 1	4.8	5
		0	12.3	4.9	7.1%	52.9%	< 0.01%	0.1%	N/A	5 3 1	4.7	4
		0	13.5	3.8	11.0%	47.4%	< 0.01%	0.1%	N/A	5 3 1	6.4	6
Central Section		1.9	12.6	0	3.7%	11.5%	< 0.01%	< 0.01%	N/A	5 3 1	25.3	12
		1.9	12.7	0	4.5%	10.1%	< 0.01%	< 0.01%	N/A	5 3 1	21.5	12
West Section		39.9	0	0	1.5%	2.5%	< 0.01%	< 0.01%	92.1%	5 3 1	0	20
		42.9	0	0	2.7%	7.6%	< 0.01%	0.1%	85.8%	5 3 1	0	12

Preliminary Polling Results



Sensitivity Analysis

	Evaluation Factor:	Property Effects and Visual Impacts	Reliability	Impacts to Farm / Forest / Commercial	Environmental Impacts	TPUD Costs	Community Economic Benefit	Score	Ordinal
A L T E R N A T I V E S	Weight:	23.068	10.250	27.132	9.826	9.186	20.536		
	Route W2	3	3	2.5	3	3.5	2.5	2.808	1
	Route W1	3	2	3	2	2.5	2.5	2.651	2
	Route C2	2	2.5	1.5	1.5	2.5	2.5	2.015	2
	Route C1	2.5	2.5	2	2.5	3	3	2.513	1
	Route E3	3.5	3.5	3.5	3.5	4	3	3.443	1
	Route E2	3.5	3.5	3.5	3.5	3.5	3	3.397	2
	Route E1	2.5	2.5	2.5	2.5	2.5	3	2.603	3