

US Federal Wind Turbine Guidelines Advisory Committee: 18 June 2008 Meeting

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- 1) Decision Research & Value Scope Research, Eugene, Oregon and Galiano Island, B.C.
- 2) Compass Resource Management, Vancouver www.compassrm.com

Agenda

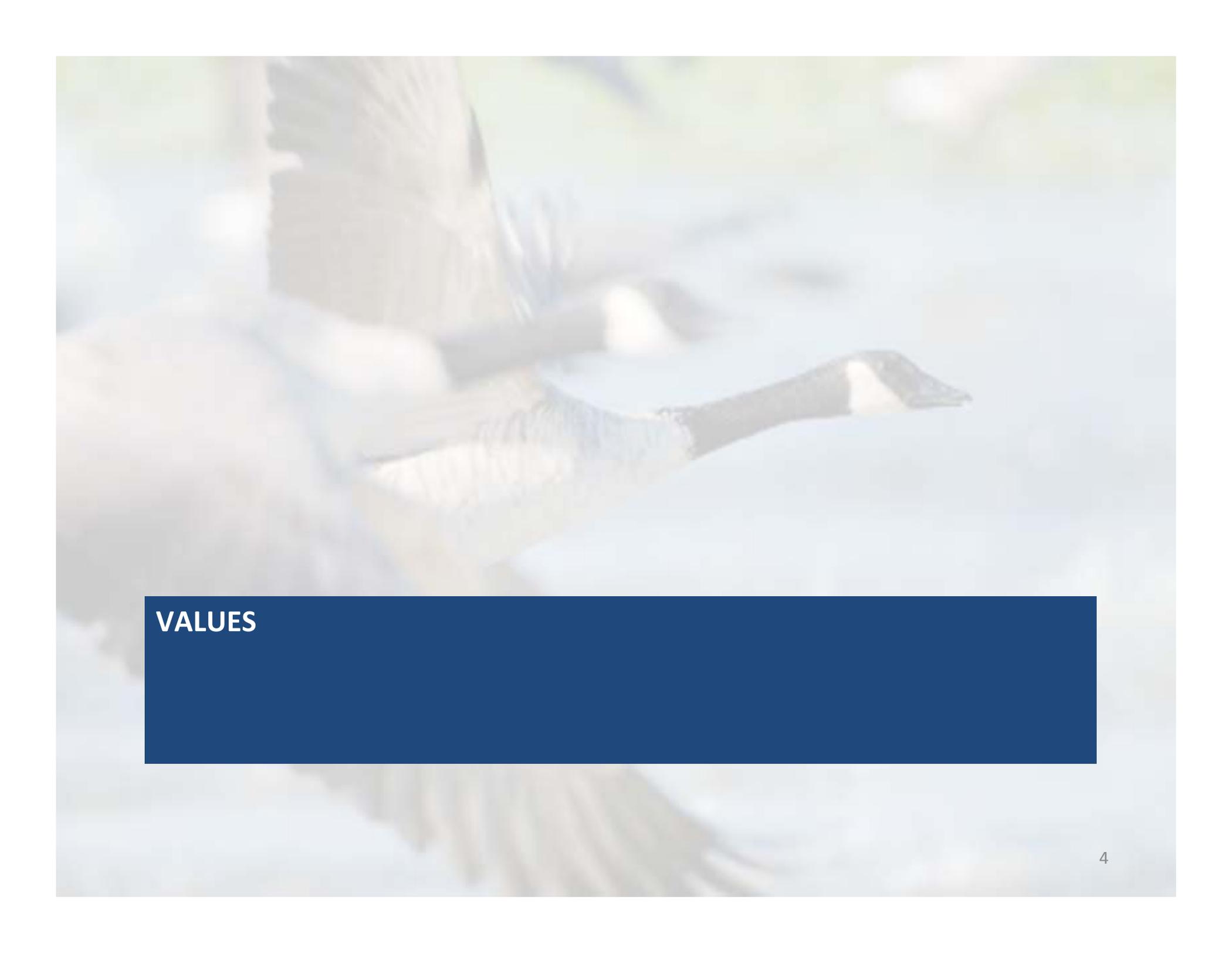
Morning

8:00	Introductions and workshop goals (D. Stout)
8:15	Review of previous discussions (FAC and other case studies) <ul style="list-style-type: none">- values- principles- objectives / scoping questions
9:15	Group review: FAC values and principles; are they comprehensive? What's missing?
10:00	Coffee/juice break
10:15	Feedback on values and principles (one hour, then reconvene)
11:45	Lunch (and break for outside air)

Agenda

Afternoon

1:00	Developing and organizing objectives and scoping issues
1:30	Group elicitation: objectives and scoping
2:15	Feedback and group discussion
2:45	Coffee/juice break
3:00	Weighting exercise
3:30	Key questions: <ul style="list-style-type: none">- addressing uncertainty- overview philosophy (role of Adaptive or Precautionary approaches)- dealing with data gaps & data quality- role of subcommittees- coordination with parallel wind/wildlife efforts
4:00	Weighting exercise results and brief discussion
4:15	Next steps, responsibilities and schedule (D. Stout / A. Arnold)
4:30	Public comments
5:00	Close

A photograph of a flock of Canada geese in flight over a body of water. The geese are captured in motion, with their wings spread wide. The background is a soft-focus view of the water and sky. A dark blue rectangular box is overlaid on the bottom left of the image, containing the word "VALUES" in white, bold, uppercase letters.

VALUES

Overall Goal of the FAC Committee (our wording)

- “Develop recommendations for voluntary national guidelines designed to minimize risks to fish and wildlife and their habitats resulting from development of land-based wind facilities to provide electricity.”
- Background questions:
 - Why is the FAC needed?
 - Why are voluntary wind/wildlife guidelines needed?
 - In what topic areas will FAC be most effective?
 - What specific activities is FAC intended to promote?
 - How will the effectiveness/success of the FAC be determined?

List of (DRAFT) FAC Values

BIOLOGICAL

- minimize negative impacts on wildlife populations and habitat
- address cumulative biological impacts
 - over space and time
- ensure protection of important bird habitats
- address indirect biological impacts
- establish comprehensive framework to address all species
- provide methodology for post-construction monitoring
- reduce uncertainty regarding biological impacts over time

List of (DRAFT) FAC Values

ECONOMIC

- provide predictability (economic security) for wind industry
- avoid guidelines that would unduly suppress wind energy development
- encourage cost-effective study designs
- promote best practices for cost-benefit analyses
- balance expected impacts with costs of acquiring information (pre-siting)

List of (DRAFT) FAC Values

SOCIAL

- establish mechanisms for determining appropriate risk-mgt response
- address equity concerns regarding the distribution of costs and benefits
- enhance/protect reputation of wind industry
- enhance/protect reputation of federal and state regulators
- improve education about pros and cons of wind (vs. other forms of) energy

List of (DRAFT) FAC Values

LEGAL

- reduce take of listed species
- improve clarity of wildlife impact definitions (eg: “unintentional”, “small in scale”)
- avoid criminal & civil liability for diminimus protected listed species take
- establish consistent framework for application of MBTA (migratory birds)
- establish consistent framework for application of BGEPA (bald & golden eagles)
- ensure compliance with State and Federal laws and international treaties

List of (DRAFT) FAC Values

INSTITUTIONAL

- ensure mechanism for addressing landscape-level impacts
- ensure mechanisms for coordinating effectively with states / local gov'ts
- standardize evaluation approaches by federal, state, tribal & local gov'ts
- minimize risk of liability to industry under federal wildlife laws
- adopt and promote use of best available tools for impact evaluation

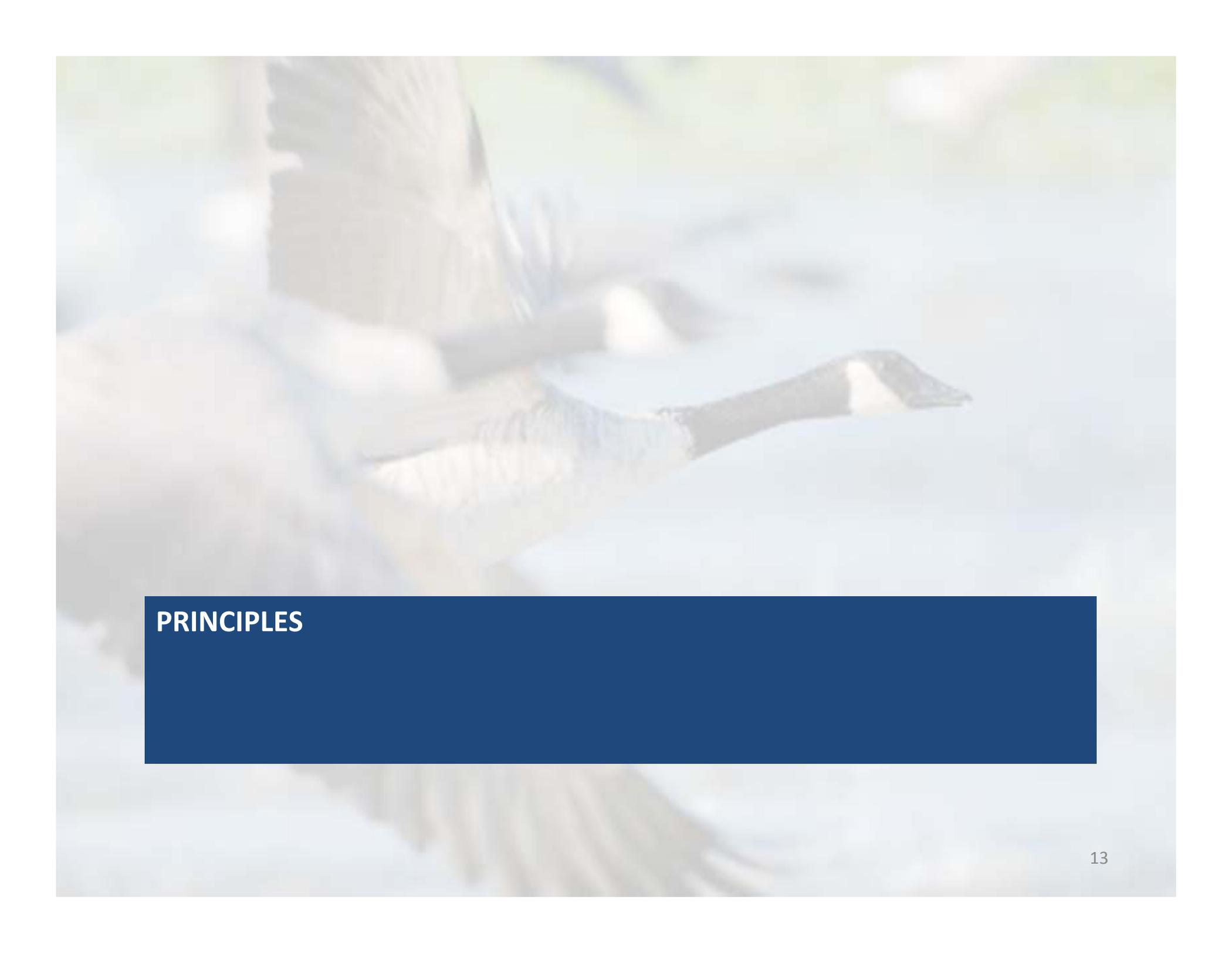
List of (DRAFT) FAC Values

PROCESS

- provide a mechanism to incorporate learning/reduce uncertainty over time
- establish consistent & collaborative process for meeting objectives
- ensure that local and geographic-specific concerns are addressed
- minimize ineffective requirements or recommendations
- ensure broad acceptance of guidelines
- establish formal mechanism for periodic revisions to Guidelines
- establish flexible process that can accommodate unusual considerations
- adopt precautionary strategy in cases of serious but uncertain threat to wildlife

List of (DRAFT) FAC Values

- Need to develop these values into:
 - **objectives**, which show both a concern (noun) and a preferred direction of change (verb) – charter?
 - **Measures of progress (in some cases)**, which concisely define the objective, to:
 - Reduce ambiguity
 - Assist implementation
 - Aid in the evaluation of success
- The discussion of objectives will reflect and build on a foundational set of Principles.
- Raises issues of scope...

A photograph of a flock of Canada geese in flight over a body of water. The geese are captured in various stages of their wing strokes, with some wings fully extended and others tucked. The water below is a light blue-grey color, and the background is a soft, out-of-focus green, suggesting a natural, outdoor setting. The overall tone is serene and naturalistic.

PRINCIPLES

Principles (Example Set 1)

- **Principle 1** Agreement on consultation guidelines and mandate
- **Principle 2** Clear statement of objectives
- **Principle 3** Full exploration of alternatives and consequences
- **Principle 4** Recognition of knowledge diversity
- **Principle 5** Explicit treatment of uncertainty and risk tolerance
- **Principle 6** Balancing of multiple interests
- **Principle 7** Commitment to monitor and revise through collaborative learning

R. Gregory, L. Failing, and M. Harstone (Environment, 2008, v 50: 34-44)

Principles (Example Set 2)

- Value-Based.
 - The decision making process should begin by developing a clear understanding of what matters to participants in the decision – their values – and by clarifying the process and the criteria that will be used to assess the performance of different alternatives with respect to these values.
 - It is understood that different parties will attach different importance to different values.
 - The process should ensure that all values, even those that are hard to quantify, are addressed explicitly as part of the decision making process
 - Deliberations about difficult choices will be based on seeking an acceptable balance across multiple values.

Principles (Example Set 2)

- Informed (1 of 2)

- All participants should have a full understanding of the issues, the alternatives proposed to address them, and the likely consequences of the alternatives.
- They should have access to the same information (e.g., data, studies, reports/reviews) and work toward building a common understanding of technical findings.
- The presentation of technical information in a manner that is accessible to non-technical participants is essential. Information that will be used to aid decision making and its role in the decision making process clearly understood.

Principles (Example Set 2)

- Informed (2 of 2)
 - It is not necessary that every finding of a report be fully endorsed by every party; only that the report be accepted as being a relevant input to the decision, and that its role be understood.
 - The role of both science and local or traditional knowledge should be clarified and respected, with knowledge from both scientific and local or traditional sources incorporated as part of the decision framework and with all sources of knowledge subject to relevant quality checks.

Principles (Example Set 2)

- Collaborative.

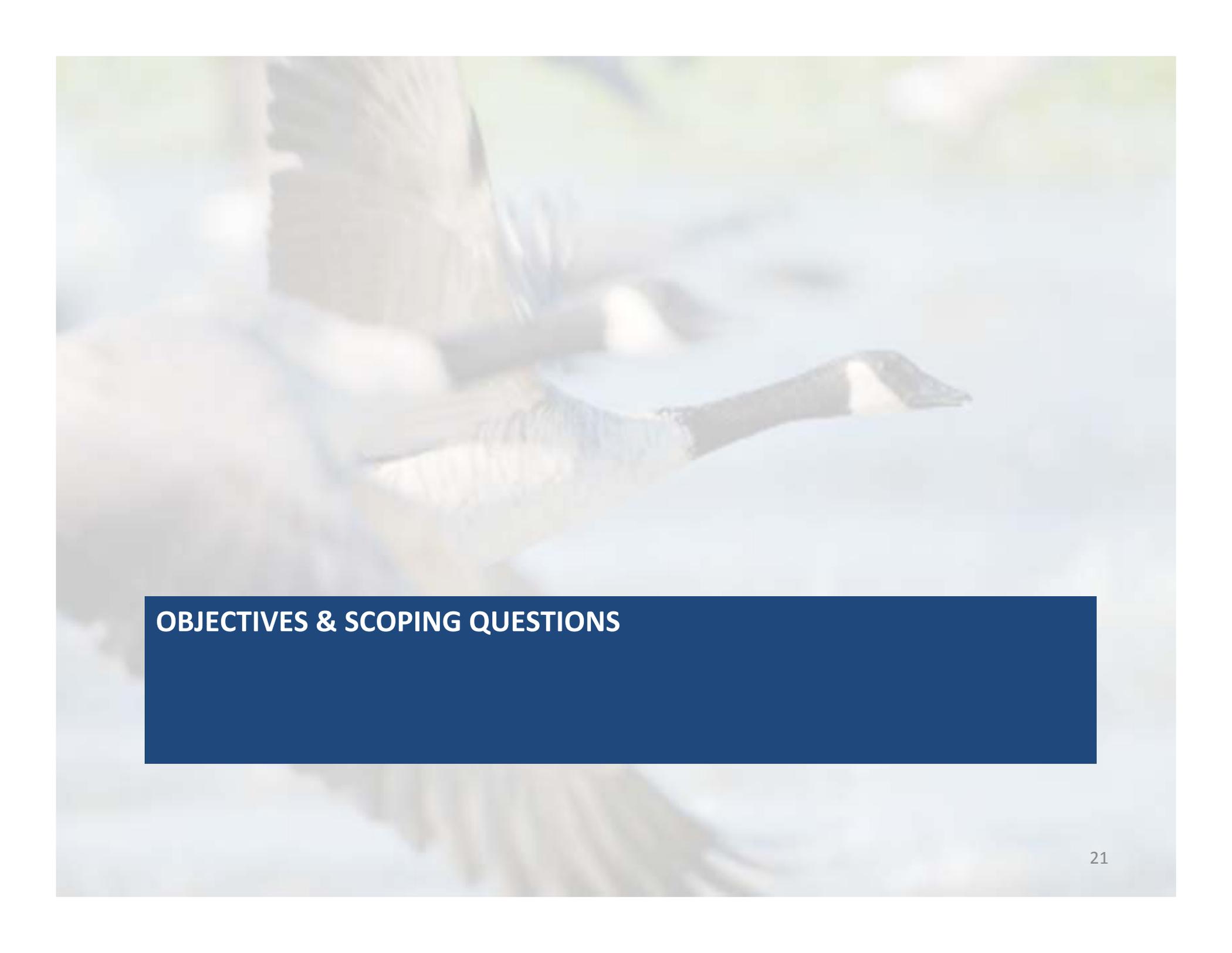
- Decisions will respect the different views of participants and will be made on the basis of shared discussions.
- Although it is recognized that different viewpoints – both technical and value-based – may well exist among participants, a collaborative process requires that these views be clearly expressed and be open to discussion as to their origins, strength, relevance and implications.
- The process will be solutions-oriented, with the goal of finding alternatives that are mutually acceptable.

Principles (Example Set 2)

- Adaptive.
 - Recognizing that uncertainty will always be present, provision should be made for ongoing review and refinement of the understanding of social/cultural, economic and ecological systems and their response to management actions.
 - The timing of, and participation, in review processes should (so far as possible) be established in advance.
 - Data needs in support of future decisions should be clarified before monitoring is initiated.

Principles (Example Set 2)

- **Transparent.**
 - The decision making process will follow a defined set of steps designed to ensure that participants and observers know what to expect at each stage of the process.
 - The use of clear objectives and evaluation criteria will both improve the quality of the decision making process and help to ensure that the rationale for the resulting decision is clear.
 - Timely communication to the larger community of interested parties, including affected management agencies and communities, will be provided.



OBJECTIVES & SCOPING QUESTIONS

Possible high-level objectives?

Effective measures are those that...

Charter

BIOLOGICAL

Minimize or avoid impacts to wildlife and their habitats

LEGAL
PROCESS
INSTITUTIONAL

Can be efficiently implemented, co-ordinated and administered

ECONOMIC
PROCESS
SOCIAL

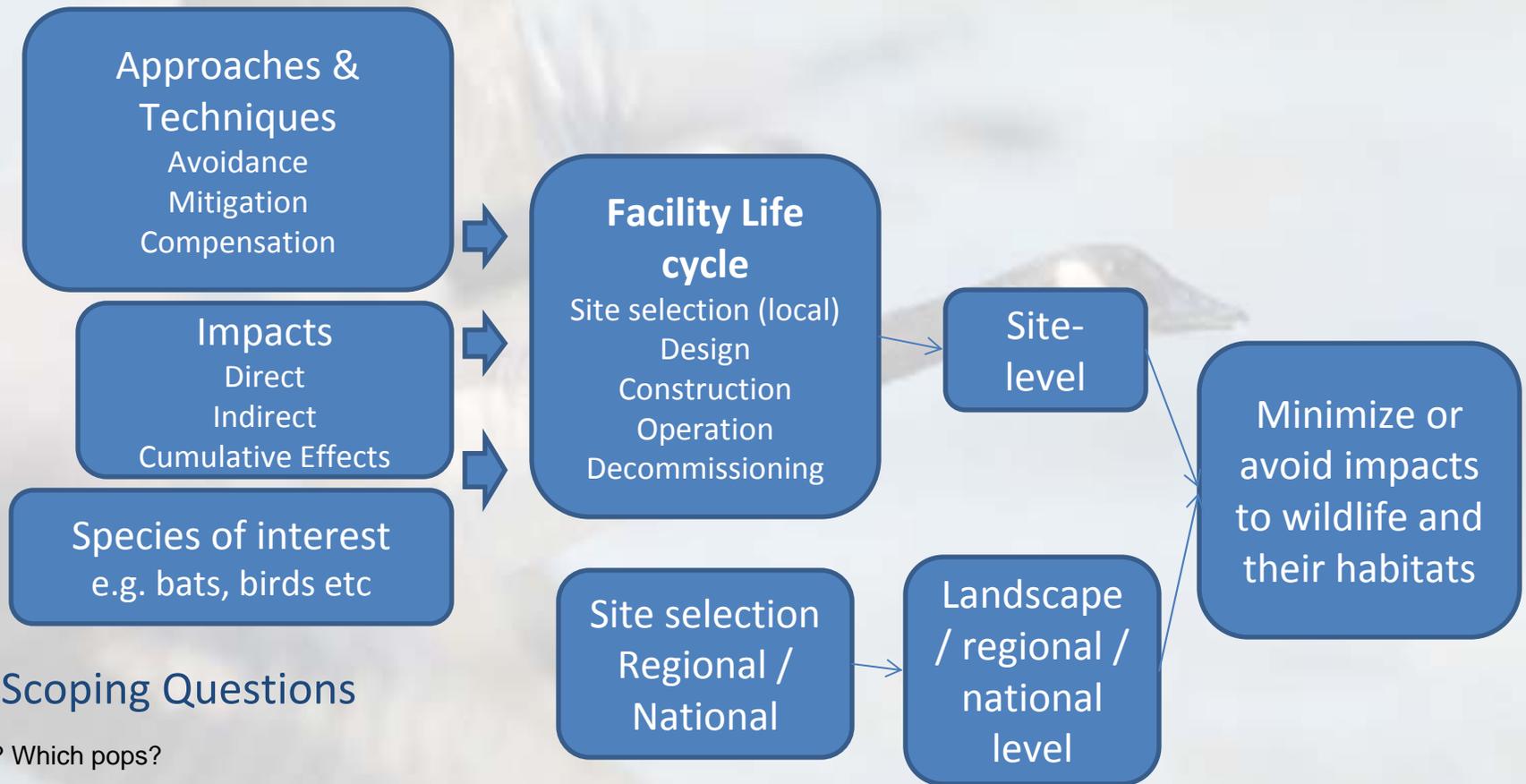
Result in a fair balancing of wildlife and socioeconomic interests

BIOLOGICAL
PROCESS

Enable learning and monitoring, recognizing constraints

Provide advice ... on developing effective measures to avoid or minimize impacts to wildlife & their habitats related to land-based energy facilities

Minimize or avoid impacts to wildlife and their habitats



Some Scoping Questions

Which spp? Which pops?

Which spp? Which pops?
Regional risk tolerances?

Include episodic events?

Include existing plants?

Are guidelines retroactive?

Which impacts count?
e.g. fatalities,
injuries, productivity impacts,
nest abandonment, behavioural
changes, habitat loss /
alteration etc...

Use indices of site sensitivity?

Define threshold levels of
impacts?

How are wildlife areas defined?
E.g. adjacent to turbine? Road
access? Distribution lines?

Under what circumstances
should a facility be closed?

How are decisions to be made
between mitigation options?

Ensure measures can be effectively implemented, co-ordinated and administered

Scoping Questions

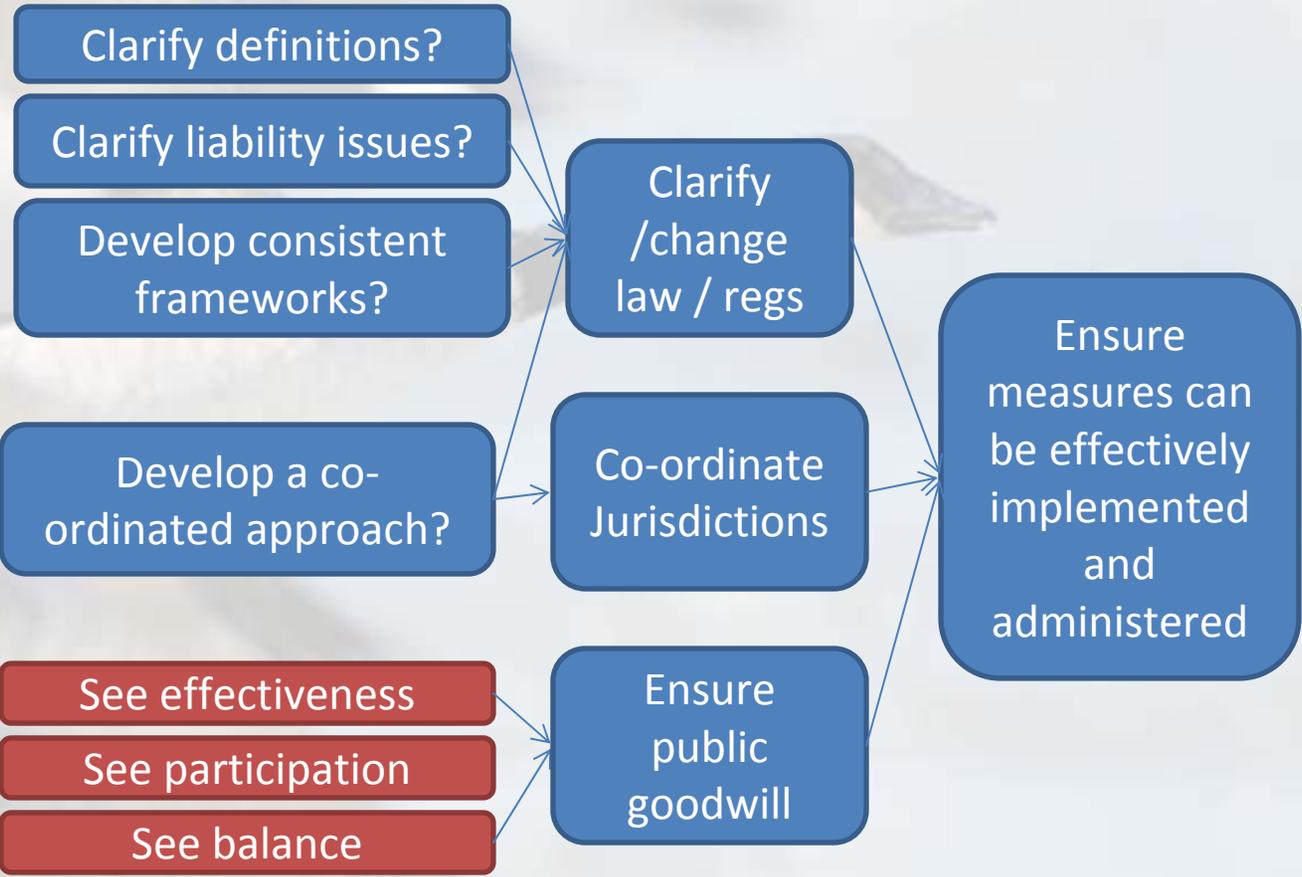
How can implementation of guidelines be promoted?

What industry liability is associated with voluntary guidelines?

When should adaptive / SDM / other approaches be used?

How will differences in approaches be addressed?

How will FAC accommodate input from other wind / wildlife efforts? e.g. NWCC and NREL



Result in a fair balance of wildlife and socioeconomic interests

Scoping Questions

How are multiple sources of info to be addressed? (Scientific, tribal, interest group)

Tests for information quality?

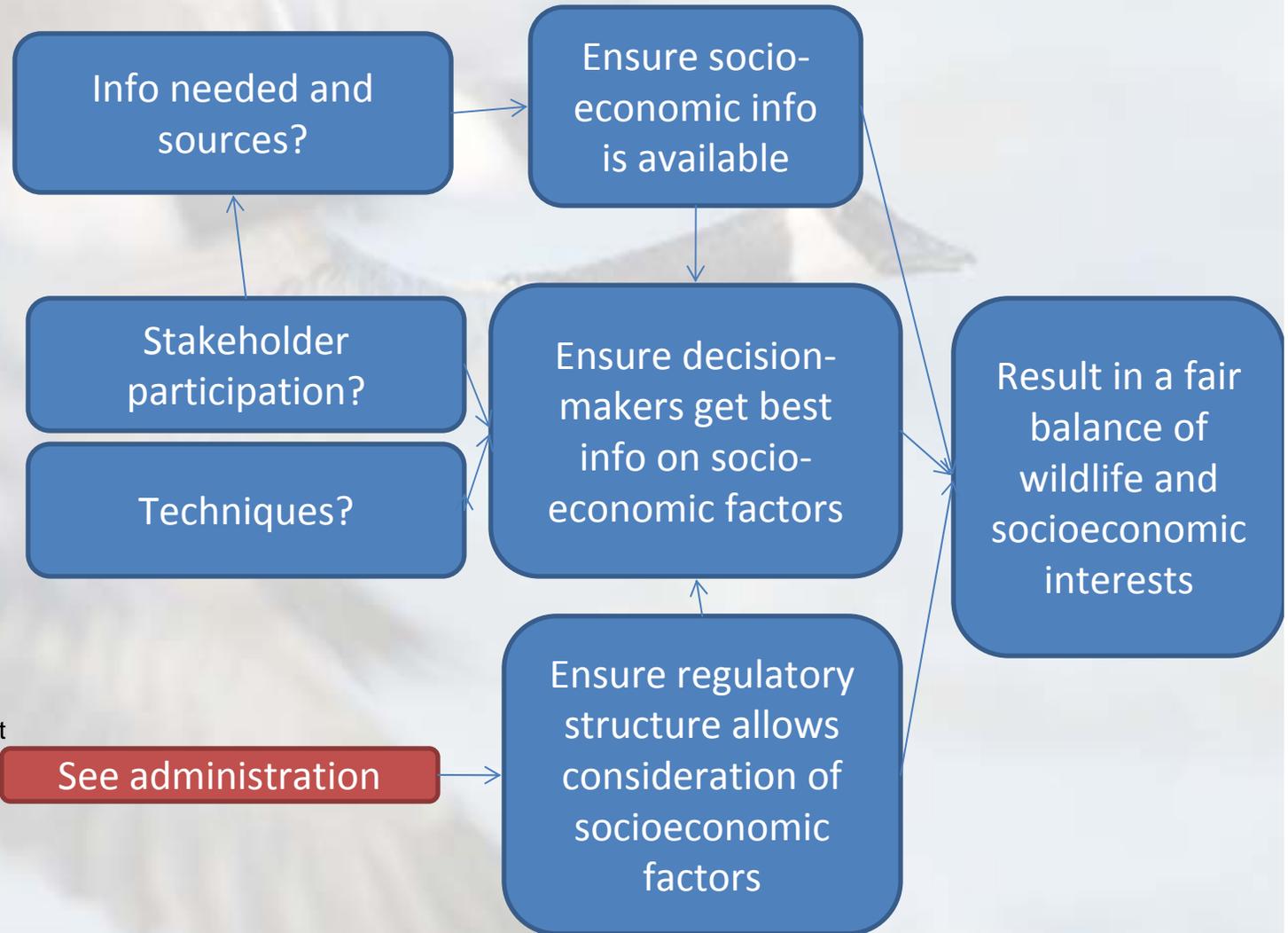
How are stakeholders to be selected?

What role should they play?

Guidance re: participation approach (e.g. duration, resources, techniques etc)

Are specific value trade-off techniques to be promoted?

Are impacts of wind energy relative to other electricity sources to be included as part of analysis?



Enable learning and monitoring, recognizing constraints

Scoping Questions

To what extent are specific methods to be promoted?

How will monitoring findings feed back into decision making?

What should be monitored and how?

Is research to be promoted / co-ordinated?

Is an analytical structure required to perform VOI?

How will FAC guidelines be subject to periodic review?

