Guemes Island Ferry Technical Advisory Group (TAG)
April 13, 2025 Meeting

Anacortes Public Library

5:30-7:30 PM

Draft Summary Notes

Attendees

In-Person

TAG Members

Allen Bush, Paul Bieker, Sandy McKean, Tom Fouts, Jonah Petrick, Ryan Monahan

Skagit County Staff

Rachel Rowe, Ferry Operations Division Manager

Other Attendees

Hilary Wilkinson, Maul Foster & Alongi, Facilitator

Online:

Other Attendees

Claire Moerder, Maul Foster & Alongi

Skagit County Staff

Marie Lambert, Public Works Assistant Director/Controller

TAG Members Not Present

Becca Fong, Adam Paull, Corey Joyce

Welcome and Introductions

Recap of Meeting #5 and Tonight's Agenda

Hilary Wilkinson called the meeting to order and asked TAG members to accept the final summary notes from Meeting #5 after circulating printed copies. She also explained some tweaks

to the day's printed agenda, including presentations from Rachel Rowe on funding and Ryan Monahan on new charging options.

Sandy McKean shared that there was a mistake in one TAG member's matrix ranking sheet that has since been corrected, and this is reflected in the notes as well as in the matrix. Hilary Wilkinson further explained that this did not change the first and second place options, but it did change the third place option from the Whatcom/Lummi Island Design (Option 6) to the Diesel Electric (Option 4). The revised matrix was shared with TAG members and is included at the end of this document.

- There were no further edits or comments to the meeting summary. **TAG members approved them as final.**

TAG Operations

Presentations / Updates

Funding – Rachel Rowe

Rachel Rowe recapped the information and meeting materials sent via email on 4/6/26. She explained that state funding changes means that Skagit County will likely need to submit a new funding request. There is no guarantee they will get the $24 million that was previously allocated and there is no guarantee the state will fund a non-all-electric propulsion system.

She reiterated the TAG's work is crucial to lay a foundation for a successful state funding request in 2027, if that is what the Board decides to move forward with. Other sources of funding are intact (including about $375K annually from the County Ferry Capital Improvement Program, with $6 million earmarked for construction). This funding requires "demonstrated forward progress" to continue, and the TAG's work demonstrates forward progress.

If the County chooses to submit a future grant application, the recommendation the TAG makes is critical and important.

She also addressed the recently announced Federal Transportation Administration (FTA) Passenger Ferry Program. It is a three-component grant program, two of which Skagit County is ineligible for, but one of which the County may be able to apply for in partnership with Washington State Department of Transportation (WSDOT) or Skagit Transit. This is the **Electric or Low-Emitting Ferry Pilot Program** and the application deadline is May 11, 2026. This is a quick turn-around.

Hilary Wilkinson asked Rachel to clarify, what does this funding update mean for TAG? Rachel shared that while it doesn't give more certainty to funding, it shouldn't limit the TAG's recommendation for the best propulsion system.

A TAG member asked what qualifies as "significant reductions in emissions." Rachel listed off the qualifying types of fuels and propulsion systems and confirmed that a diesel-hybrid propulsion system qualifies.

New Charging Options – Ryan Monahan

Ryan Monahan provided an overview of how to relate kilowatt hours to horsepower; how a battery is charged in a hybrid car vs. a ferry (i.e., there is no "downhill braking"); and standard charges (how much charge is normally held in a battery). His presentation stepped through how these types of "off-the-shelf" charging systems could significantly reduce the emissions required to power a hybrid ferry in a few different scenarios without an overly burdensome load on operations crew or significantly augmented infrastructure or power sourcing. A PDF of this presentation will be circulated to the TAG. He flagged that choosing a proven supplier would be important, given how many unproven startups exist.

A TAG member asked if you could still call this a plug-in hybrid or battery-electric propulsion system. Rachel agreed that either of those would be accurate and would fit into the original scope of the project.

Finalize Recommendation

Hilary Wilkinson shared printed copies of the original and updated summary matrix results after correcting the one miscalculated sheet. She reminded TAG members of the outcomes of Meeting #5 in which TAG members reviewed the matrix results, then, after a lengthy discussion did a "gut check" exercise in which they shared evolving thoughts on their highest ranked options. There was insufficient time to do a formal vote on the TAG's recommendation at Meeting #5, so she explained that the vote would happen tonight.

Hilary asked members to consider how they would rank the propulsion systems now, given the new information on funding and charging options.

A TAG member asked what the timeline would be for bidding and building the new boat, if the TAG recommends building a new vessel and the Board decides to move forward. Rachel shared that a definitive timeline is not possible at this time, especially since it will likely require another legislative budget ask this winter. If granted, the funding allocation wouldn't be finalized until July 2027. She reiterated that the TAG is on a good track with incorporating futureproofing into their recommendations.

Hilary Wilkinson then asked TAG members to vote with their top 1-3 propulsion systems, noting that as discussed at the previous TAG meeting, the group would rely on Robert's Rules of Order, or majority rule, to decide on a recommendation to make in the Advisory Report to the Board. The responses are captured in the table below.

TAG Member	Updated Top Rankings	Notes
Sandy McKean	1. Plug-in Hybrid 2. Diesel Hybrid Series 3. Diesel Mechanical	The Plug-in Hybrid or Diesel Hybrid Series seem to be the most viable options, particularly given the likelihood they could leverage existing funding. Not using the funding that is available now and not guaranteed in future would be foolhardy, given that a replacement vessel will be a requirement in the relatively near future.
Allen Bush	1. Diesel Mechanical	We can't lose our way on and off the island. Electric and hybrid ferries rely on rapidly changing technology and are not as reliable as preserving the current vessel.
Tom Fouts	1. Plug-in Hybrid	Relying on diesel as a fuel source is concerning, and so is relying on a vessel with outdated components that will need to be replaced. Replacing or modifying obsolete systems on the current vessel will be more difficult and costly, given it will require more complete dismantling than would a newer vessel with modular systems.
Jonah Petrick	1. Plug-in Hybrid 2. Diesel Mechanical 3. Diesel Hybrid Parallel	Ryan's proposal simplifies the complexities of having a plug-in hybrid by eliminating the need for shoreside batteries. It's important to consider which company is hired to provide the modifications to infrastructure. Consider whether it is worth the investment to upgrade the existing ferry in the meantime—could this also increase its resale value for service somewhere else? Hybrid parallel systems are popular in the tugboat industry because it provides an easy option to bypass the batteries and have auxiliaries in addition to the main diesel engines.

Paul Bieker	1. Diesel Mechanical 2. Plug-in Hybrid 3. Diesel Hybrid Series	The technology for electrical systems on boats is changing rapidly, and Coast Guard doesn't yet have firm recommendations that are sensible for hybrid and electric ferry propulsion systems. Beginning the bid/build process in four to five years for a hybrid ferry would be more prudent than committing to a battery or electrical system provider now, when there are not enough proven options. It makes the most sense to preserve the current ferry now and create an eight-year plan to a plug-in hybrid ferry.
Ryan Monahan	1. Plug-in Hybrid	Agreed with maintaining the current vessel for another four to five years before committing to battery and electric system providers. He also acknowledged that his company has invested in a batter producer (Cummins) which will have a specific type of zero-emissions power train available in three years.

Hilary Wilkinson recapped there is generally strong support for the Plug-in Hybrid propulsion system, with four out of the six TAG members present ranking it as their top choice. In addition, there are a few different perspectives on how soon to move forward with this option and a strong need to preserve the current vessel. Hilary asked if the TAG could move forward in recommending a Plug-in Hybrid propulsion system, name all their concerns, highlight the need to preserve the current ferry, and propose considerations for when and how to move forward with the plug-in hybrid vessel. **All TAG members who were present agreed on this approach.**

Sandy McKean said the new ferry is unlikely to be built in fewer than five years. This means the concerns about needing to wait for the industry to develop more mature electric propulsion systems with proven battery technology will likely be met naturally, given the time it takes to secure funding, bid and contract the work, and build the new vessel and any necessary infrastructure. He also noted that it doesn't make sense for the County to build a new Diesel Mechanical ferry in five to seven years given the industry's move toward electrification and the trend for funding sources to favor electrification. Several members agreed with him.

Sandy also shared that they need to recommend the Plug-in Hybrid system using phrases like "off-the-shelf," "minimal footprint," "limited infrastructure upgrades," and "using standard power" to describe the charging systems Ryan Monahan presented earlier in the meeting. Sandy also

suggested providing three ranked options because three is often a magic number. Just providing two options implies that not enough consideration was given to all the options, and more than three is too many to keep track of. He proposed drafting the Advisory Report to reflect that the TAG recommends, in order: 1) Plug-in Hybrid, 2) Diesel Hybrid Series, and 3) Diesel Mechanical, along with all the caveats and nuances already discussed.

TAG members also discussed that a Plug-in Hybrid system can be defined as relying primarily on electricity as a power source. Ultimately, the engineers will determine what ratios are appropriate to use, but in any case, it would lead to a greater-than-10% reduction in emissions. The key thing to highlight in the Advisory Report is that the TAG is recommending a Plug-in Hybrid system that will not require significant shoreside infrastructure upgrades.

Sandy's Outline

TAG members suggested making the Advisory Report outline an online draft using Google Docs, so each member can go in and make comments on the same draft. Sandy McKean strongly invited input from others on the draft over the course of next couple of months. He also confirmed that he would take the first crack at the first draft, building on past meeting summaries, prior to the next TAG meeting. He also asked members to send him their thoughts on priority items, or things to include or note, in emails form, which he would incorporate into the draft.

Next Steps

Rachel Rowe will circulate the outline Sandy McKean shared at tonight's meeting. All TAG members are strongly invited to provide input on key items or notes to include via email to Sandy McKean in the coming weeks. Sandy McKean will draft the Advisory Report, incorporating past meeting summaries and additional input from TAG members via email.

A draft of the Advisory Report will be ready for discussion at the next TAG meeting.

Action Items

Skagit County will

- Share Ryan Monahan's presentation with the ferry engineering team.
- Share the draft Advisory Report outline with the TAG members.
- Share potential dates for the Advisory Report presentation to the Board.
- Distribute the meeting summary and Zoom link for the next TAG meeting.

TAG members will

- Review the draft Advisory Report outline and engage with the drafting process by making comments and contributing ideas and language.

Sandy will

- Draft an outline for the Advisory Report.

MFA will

- Draft summary notes.
- Connect the draft Advisory Report outline with Becca who can help set up a user-friendly, shared drafting platform via Google.

Corrected Matrix

	1	2	3	4	5	6
TAG member	**Plug In Hybrid**	**Diesel Hybrid Parallel**	**Diesel Hybrid Series**	**Diesel Electric**	**Diesel Mechanical**	**Whatcom/Lummi Design**
Bush	3.15	3.7	3.85	13.9	12.7	3.3
Fong	13.7	18.9	19.25	13.6	19.4	16.3
Fouts	24.3	4.4	23	3.2	7	11.8
Joyce	4	5	9	14	26	8
McKean	10.1	14.2	23	20.65	17.25	12.7
Monahan	20.8	22.35	23.75	23.6	20.75	20.75
Paull	4	5	9	17	26	9
Petrick	4.9	18.3	19.9	17.9	20.6	18.4
FINAL - TOTAL	**84.95**	**91.85**	**130.75**	**123.85**	**149.7**	**100.25**
FINAL - AVG	**10.62**	**11.48**	**16.34**	**15.48**	**18.71**	**12.53**

Highest
Second Highest
Third Highest