

Notice of Public Meeting

April 28th, 2025
10:00 A.M.

COMMUNICATION
ADVISORY TECHNICAL
SUB-COMMITTEE

Door County Government Center
County Board Room
421 Nebraska St
Sturgeon Bay, WI 54235

Public Safety Committee is the Oversight Committee for Communication Advisory Technical Sub-Committee

AGENDA (Amended)

1. Call Meeting to Order
2. Establish a Quorum
3. Adopt Agenda / Properly Noticed
4. Approve Minutes of the 10/3/2024 meeting
5. Public Comment
6. New Business
 - 6.1 Fish Creek Tower Update
 - 6.2 New 800MHz System Project
 - 6.2.1 Status
 - 6.2.2 Frequency Reservation
 - 6.2.3 Subscriber Radios / Budget
 - 6.2.4 Subscriber Fees
7. Matters to be Placed on a Future Agenda or Referred to a Committee, Official, or Employee
8. Next CATS Committee Meeting Date: To be determined
9. Adjourn

This meeting will be conducted by teleconference or video conference. Members of the public may join the meeting remotely or in-person.

To attend the meeting via computer:

Go To:

<https://us02web.zoom.us/j/84455844810?pwd=sCu82J7iPkpT1ymr7G2Ls6xDHjwbEZ.1>

Webinar ID: 844 5584 4810

Passcode: 545405

To Connect via Phone:

Call: 1-312-626-6799

Deviation from the order shown may occur

MINUTES
February 5th, 2025

**COMMUNICATION
ADVISORY TECHNICAL
SUB-COMMITTEE**

*Door County Government Center
County Board Room
421 Nebraska St
Sturgeon Bay, WI 54235*

Public Safety Committee is the Oversight Committee for Communication Advisory Technical Sub-Committee

Call Meeting to Order

The Wednesday February 5th meeting was called to order by Vice Chairperson Dale Vogel at the Door County Government Center at 1:18 pm.

Establish a Quorum

Members Present: Howie Hathaway, Aaron LeClair, Ashley DeGrave, Greg Diltz, Joseph Saelens, Kyle Veesser, Brenda Bley, Dale Vogel, Chris Hecht, Kalin Montevideo

“These minutes have not been reviewed by the oversight committee and are subject to approval at the next regular committee meeting.”

Others Present

Jason Rouer, Jason Baudhuin Bay Electronics, Chris Monzingo OCG – Remote, Scott Pagels - Remote

Adopt Agenda / Properly Noticed

Motion made by LeClair second by Diltz to approve the agenda. Motion carried by voice vote.

Approve Minutes of the 12/16/2024 meeting

Motion made by LeClair second by Hathaway to approve the minutes from the December 16th meeting. Motion carried by voice vote.

Public Comment

New Business

Fish Creek Tower Update

DeGrave provided update on status of the new tower. Explained Bay Electronics is scheduled to be on-site next week to start the equipment moves. DeGrave to have status call with contractor/engineer/consultant tomorrow (2/6) to confirm next steps and to verify everything can be completed by the 3/31 restriction for the Red Shouldered Hawk.

New 800 MHz System Project Update

- Status Update
 - DeGrave explained that dispatch was looking to apply for a grant and that would be presented to Public Safety next week and discussed in more detail. Bley explained the grant is for a device to create a patch for the WISCOM system when they convert to the new 800Mhz system. She explained everything was reviewed through Bay Electronics and they have already submitted a quote.
 - DeGrave presented the new project status worksheet and explained that would be presented at all committee meetings going forward to have consistency and one spot to view all status's. DeGrave asked for feedback on any large tasks/to-do's that may be missing and to reach out if anything is thought of after the meeting. Site updates provided:

- Ellison Bay – Awaiting structural analysis quote. Once received/returned to ECB, 30 days for results. Hecht questioned the use of this site in the plan going forward given previous issues with the site. DeGrave explained current plan is to evaluate the site for ability to use going forward and then will evaluate the plan. Hecht expressed concerns with using this site going forward. DeGrave asked for further explanation/documentation as to the issues with this site. Hathaway explained that due to continued upgrades over the years with cellular, radio stations, and TV stations, there is a lot of interference and ground noise. Question as to what interference was on last inspection and Baudhuin explained it was 3dbs but has been higher on previous reports. Baudhuin also explained that antenna adjustments were made several years back and prior to those adjustments' interference was as high as 20dbs. DeGrave to bring forward concerns and evaluate how we want to proceed.
- Highway North Shop – Alternative sites/height options have been reviewed by OCG but because several site work together, until ECB site is determined, cannot re-evaluate/change Highway North. Hecht questioned if we would still be proceeding with a 350' site knowing the village ordinances. DeGrave explained several options have been reviewed with OCG and we would be leaning toward an option that does not go that high in the village but nothing will be determined until the ECB evaluation comes back.
- Claybanks – Two of six property owners who were reached out to responded back. Preliminary conversations are being had to discuss options.
- Big Hill Tower – All needed inventories have been submitted to the city for evaluation of the water tower. Status meeting coming up on Friday to review options and possible heights. Once final reports come back options/changes to the plan will be presented to CATS.
- Horseshoe Bay – Continuing to review parcels in search area for interested parties.
- Bayshore Dr – On-hold until Horseshoe Bay location is solidified.
- Sevastopol – County had a preliminary meeting with their Facilities Committee. They are willing to present the plan to the School Board on 2/19 where they would make a recommendation for us to do additional site selection/testing/surveying.

- 2024 Nsight Tower Inspection Review

DeGrave presented Nsight inspection quote and explained they presented it as maintenance and upgrade item. She said given the lower cost would be best to proceed with all repairs. Motion by LeClair second by Diltz to approve the Nsight repairs and recommend to Public Safety.

- 2024 Bay Electronics Review of Towers

DeGrave reviewed Bay Electronics battery replacement quote. She explained they are on a 5YR rotation and are set to be replaced in 2026. Will replace all of the batteries at these sites and then keep these two newer ones as spares. Motion by Hathaway second by Diltz to approve and move forward to Public Safety for approval.

- Sunnyslope Tower Modification/Structural Review

DeGrave reviewed the request from WEC and the structural analysis. Explained repairs would be paid for by WEC. Baudhuin questioned revision and feed line question he and Chris from OCG previously brought up. DeGrave reviewed the answers that were provided by WEC on those questions. DeGrave explained with next steps would be for WEC to evaluate what exact changes would need to be made to enhance the site but likely increasing the guy wire sizes and a new connection point on the tower. Motion by Hecht and second by Hathaway to move forward with the evaluation.

Matters to be Placed on a Future Agenda or Referred to a Committee, Official, or Employee

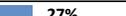
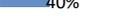
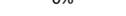
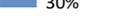
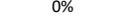
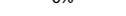
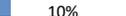
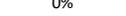
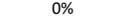
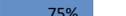
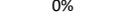
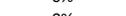
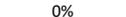
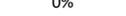
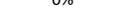
Next CATS Committee Meeting Date: TBD

Adjourn

Motion made by LeClair second by Diltz to adjourn. Motion carried by voice vote at 2:11 pm.

Respectfully submitted by: Ashley DeGrave

Project Details	
Project Name	Door County Public Safety Radio System Upgrade
Reporting Period	02/5/2025-04/28/2025
Report Date	4/28/25
Project Manager	Ashley DeGrave
Total Project Completion	2.47%

Phase 1 Project Details							
Objective	Sub-Objective	Tasks	Task Lead	Status	Completion %	Anticipated Completion	Notes
Site Finalization						27%	
	Ellison Bay - ECB		Adam - ECB	In Progress		50%	3/10 - Structural request sent over to engineers - Awaiting Updates
		Structural Analysis	Adam - ECB	In Progress		50%	3/10 - Structural request sent over to Engineers 4/15 - Emailed ECB for status update
	Highway North Shop		Edge Consulting/Nsight	On-Hold		40%	Awaiting determination on ECB site to finalize Discussion to be had with Village on Tower Restrictions, possible relocation to nearby parcel in Town of Libery Grove
		Property Selection/Purchase	Edge Consulting/Nsight	Completed		100%	County Owned Property
		Site Survey	Edge Consulting/Nsight	Completed		100%	Site Survey Completed/Received Back
		FCC/FAA Filings	Edge Consulting/Nsight	On-Hold		0%	
		Zoning/Permitting	Edge Consulting/Nsight	On-Hold		0%	
		Site Studies (Enviro/Historical/Tribal)		Not Started		0%	
	Baileys Harbor		Edge Consulting/Nsight	In Progress		30%	Site Survey scheduled for 4/7 - Will have purchase discussions after that
		Property Selection/Purchase	Edge Consulting/Nsight	In Progress		50%	Survey Completed - Will submit back to owner for purchase discussions
		Site Survey		Not Started		100%	Site Survey Completed 4/7 and returned 4/23
		FCC/FAA Filings		Not Started		0%	
		Zoning/Permitting		Not Started		0%	
		Site Studies (Enviro/Historical/Tribal)		Not Started		0%	
	Claybanks		Edge Consulting/Nsight	In Progress		2%	Will review neighboring parcels as 6 original locations many will fall within wetland and shoreline - Possible right of way parcel
		Property Selection/Purchase	Edge Consulting /Nsight	In Progress		10%	Letters sent to 6 owners, Edge made contact with two, further discussions on lease/purchase interest
		Site Survey		Not Started		0%	
		FCC/FAA Filings		Not Started		0%	
		Zoning/Permitting		Not Started		0%	
		Site Studies (Enviro/Historical/Tribal)		Not Started		0%	
	Big Hill Tower		City of Sturgeon Bay	In Progress		25%	4/1 - Discussions w/City and SBU regarding future growth concerns. Awaiting future inventory from SBU to re-run structural
		OCG Coverage Map Update	OCG	Completed		100%	OCG Re-ran coverage map. Still falls within 95% requirement.
		Water Tower Structural	City of Sturgeon Bay	In Progress		75%	4/1 - Discussions w/City and SBU regarding future growth concerns. Awaiting future inventory from SBU to re-run structural
		Property Selection/Purchase		Not Started		0%	
		Site Survey		Not Started		0%	
		FCC/FAA Filings		Not Started		0%	
		Zoning/Permitting		Not Started		0%	
		Site Studies (Enviro/Historical/Tribal)		Not Started		0%	
	Horseshoe Bay			In Progress		4%	County Mailed letters to 5 property owners on Bluff Pass 2/28, 3/25 - 2 Responded as a "No"
		Property Selection/Purchase	Edge Consulting/Nsight	In Progress		20%	County Mailed letters to 5 property owners on Bluff Pass 2/28, 3/25
		Site Survey		Not Started		0%	
		FCC/FAA Filings		Not Started		0%	
		Zoning/Permitting		Not Started		0%	

	Site Studies (Enviro/Historical/Tribal)		Not Started	0%	
Bayshore Drive		Edge Consulting/Nsight	On-Hold	0%	Will schedule additional conversation with Land Trust for parcel discussion
	Property Selection/Purchase	Edge Consulting/Nsight	On-Hold	0%	Awaiting Horseshoe Bay site selection to determine search radius
	Site Survey		Not Started	0%	
	FCC/FAA Filings		Not Started	0%	
	Zoning/Permitting		Not Started	0%	
	Site Studies (Enviro/Historical/Tribal)		Not Started	0%	
Sevastopol		Edge Consulting/Nsight	In Progress	20%	Survey Returned 4/18 - Will discuss purchase details further with them
	Property Selection/Purchase	Edge Consulting/Nsight	In Progress	50%	Will present survey and have further purchase discussions
	Site Survey		Not Started	50%	Survey Completed 4/8 & returned 4/18.
	FCC/FAA Filings		Not Started	0%	
	Zoning/Permitting		Not Started	0%	
	Site Studies (Enviro/Historical/Tribal)		Not Started	0%	
New Site Construction			Not Started	0%	
Existing Site Readiness			Not Started	0%	
Stakeholder Finalization			Not Started	0%	
Radio Vendor RFP			Not Started	0%	
Equipment Purchase			Not Started	0%	
Equipment Installations			Not Started	0%	
					Chris OCG reviewed available frequencies and the list is still pretty large
					Discussing with him about moving forward and licensing sites that currently exist to lock in frequencies and we can add sites as we solidfy them
Frequency Coordination			Not Started	0%	
User Training			Not Started	0%	
System Testing			Not Started	0%	
System Implementation/Go-Live			Not Started	0%	
Old System Decomission/Equipment Removals			Not Started	0%	

**Door County
Public Safety Radio System Upgrade
Budget**

County Expenses:			
<i>*Best Pricing Estimates as of April 2025</i>			
Phase 1 (2024-2025)			
Project Task/Scope	# of Towers	Cost Per	Total
Land Acquisition/Site Preparation			
County Owned Towers	4	\$ 9,100.00	\$ 36,400.00
Current Co-LocationS	7	\$ 11,600.00	\$ 81,200.00
New Co-Locations	2	\$ 16,000.00	\$ 32,000.00
New Tower Sites	8	\$ 39,795.25	\$ 318,362.00
Land Acquisition (Purchase/Lease) Cost Estimate			\$ 200,000.00
			\$ 667,962.00
Phase 2 (2025-2026)			
Project Task/Scope	# of Towers	Cost Per	Total
New Sites Civil & Shelter	8	\$ 400,000.00	\$ 3,200,000.00
New Sites Tower Construction Costs	8	\$ 450,000.00	\$ 3,600,000.00
*Potential cost saving with Vertical Bridge Partnership			\$ 3,600,000.00
New Co-Locate Shelters	2	\$ 400,000.00	\$ 800,000.00
*Potential cost savings if we can co-locate w/Nsight			\$ 800,000.00
			\$ 7,600,000.00
Phase 3 (2026-2028)			
Project Task/Scope	# of Towers	Cost Per	Total
Tower Equipment Purchase	21	\$ 650,000.00	\$ 13,650,000.00
Radio Equipment Purchase	-	\$ 1,269,410.00	\$ 1,269,410.00
Frequency Coordination	-	\$ 5,000.00	\$ 5,000.00
OCG Project Coordination	-	\$ 283,000.00	\$ 283,000.00
			\$ 15,207,410.00
		Contingency	\$ 2,347,537.00
		County Total	\$ 25,822,909.00

Municipal Expenses:			
Radio Equipment Purchase	-	\$ 1,366,232.50	\$ 1,366,232.50
Radio Equipment Purchase - **POLICY DECISION-County Contribution @ 50%	-	\$ 1,366,232.50	\$ 1,366,232.50
		Municipal Total	\$ 2,732,465.00

Total Expenses \$ 28,555,374.00

Revenues:	
Communications Project Reserve	\$ 1,890,000.00
Department of Justice Grant	\$ 3,900,000.00
Municipal Radio Repayment **POLICY DECISION	\$ 1,366,232.50
Partnership Tower Construction	\$ 2,700,000.00
County Bonding	\$ 18,699,141.50
	Total Revenue \$ 28,555,374.00

*** County can offer to finance radio costs for municipal partners which would be included in the bond. Total bond would then be \$18,699,141 + \$1,366,232 = \$20,065,373. Proposed municipal payback terms would be amortized over a 10 year period of principal and bond interest rate.*

**Door County
Public Safety Radio System Upgrade
Subscriber Radio Counts**

Description	QTY	Unit Cost	Extended Cost
Non-Public Safety Portable Radios	15	\$2,385.00	\$35,775.00
Non-Public Safety Mobiles (Single Head)	76	\$3,650.00	\$277,400.00
Desktop Control Station	8	\$9,550.00	\$76,400.00

Non-Public Safety Total \$389,575.00

Description	QTY	Unit Cost	Extended Cost
Public Safety Portable Radios - Mid-Tier	676	\$2,775.00	\$1,875,900.00
Public Safety Mobiles - Mid-Tier	279	\$3,850.00	\$1,074,150.00
Desktop Control Station	23	\$9,550.00	\$219,650.00
Key Loaders	2	\$4,250.00	\$8,500.00
Pagers	535	\$760.00	\$406,600.00
Bank Chargers	25	\$1,100.00	\$27,500.00
TOTAL			\$4,001,875.00

	County Radio Costs								Total
	Portables	Portable Cost	Mobile	Mobile Costs	Desktop Radios	Desktop Cost	Pagers	Pager Cost	
Door County EMS	67	\$ 185,925.00	31	\$ 119,350.00	2	\$ 19,100.00	56	\$ 42,560.00	\$ 366,935.00
Door County Sheriff/Jail	90	\$ 249,750.00	59	\$ 227,150.00	0	\$ -	0	\$ -	\$ 476,900.00
Door County Highway	15	\$ 35,775.00	76	\$ 277,400.00	8	\$ 76,400.00	0	\$ -	\$ 389,575.00
Total High-Tier	172	\$ 471,450.00	166	\$ 623,900.00	10	\$ 95,500.00	56	\$ 42,560.00	\$ 1,233,410.00

	Municipal Radio Costs								Total
	Portables	Portable Cost	Mobile	Mobile Costs	Desktop Radios	Desktop Cost	Pagers	Pager Cost	
Baileys Harbor PD (Constable)	1	\$ 2,775.00	1	\$ 3,850.00	0	\$ -	1	\$ 760.00	\$ 7,385.00
Washington Island Fire/EMR	38	\$ 105,450.00	18	\$ 69,300.00	3	\$ 28,650.00	50	\$ 38,000.00	\$ 241,400.00
Town of Sevastopol EMS	15	\$ 41,625.00	0	\$ -	0	\$ -	12	\$ 9,120.00	\$ 50,745.00
Gibraltar Fire	32	\$ 88,800.00	17	\$ 65,450.00	3	\$ 28,650.00	26	\$ 19,760.00	\$ 202,660.00
Egg Harbor Fire	39	\$ 108,225.00	12	\$ 46,200.00	1	\$ 9,550.00	34	\$ 25,840.00	\$ 189,815.00
Ephraim Fire	32	\$ 88,800.00	20	\$ 77,000.00	1	\$ 9,550.00	25	\$ 19,000.00	\$ 194,350.00
Southern Door Fire	22	\$ 61,050.00	6	\$ 23,100.00	1	\$ 9,550.00	35	\$ 26,600.00	\$ 120,300.00
Nasewaupee Fire	30	\$ 83,250.00	6	\$ 23,100.00	1	\$ 9,550.00	32	\$ 24,320.00	\$ 140,220.00
Jacksonport Fire	30	\$ 83,250.00	8	\$ 30,800.00	1	\$ 9,550.00	40	\$ 30,400.00	\$ 154,000.00
BUG Fire/EMR	71	\$ 197,025.00	16	\$ 61,600.00	2	\$ 19,100.00	71	\$ 53,960.00	\$ 331,685.00
Sister Bay/Liberty Grove Fire	76	\$ 210,900.00	27	\$ 103,950.00	2	\$ 19,100.00	52	\$ 39,520.00	\$ 373,470.00
Baileys Harbor Fire Department	54	\$ 149,850.00	16	\$ 61,600.00	1	\$ 9,550.00	60	\$ 45,600.00	\$ 266,600.00
Sturgeon Bay PD	26	\$ 72,150.00	13	\$ 50,050.00	0	\$ -	0	\$ -	\$ 122,200.00
Sturgeon Bay Fire	48	\$ 133,200.00	25	\$ 96,250.00	3	\$ 28,650.00	38	\$ 28,880.00	\$ 286,980.00
Washington Island PD	3	\$ 8,325.00	2	\$ 7,700.00	1	\$ 9,550.00	3	\$ 2,280.00	\$ 27,855.00
Gibraltar PD	2	\$ 5,550.00	2	\$ 7,700.00	1	\$ 9,550.00	0	\$ -	\$ 22,800.00
Town of Forestville		\$ -		\$ -		\$ -		\$ -	\$ -
Village of Forestville		\$ -		\$ -		\$ -		\$ -	\$ -
Town of Clay Banks		\$ -		\$ -		\$ -		\$ -	\$ -
Town of Sturgeon Bay		\$ -		\$ -		\$ -		\$ -	\$ -
Total Mid-Tier	519	\$ 1,440,225.00	189	\$ 727,650.00	21	\$ 200,550.00	479	\$ 364,040.00	\$ 2,732,465.00

- Southern Door Fire
- Southern Door Fire
- Uses Southern Door Fire
- Uses City of Sturgeon Bay

**Door County
Public Safety Radio System Upgrade
Tower Locations**

Name	Location	Description	Tower Height	Notes
County of Door	1201 S. Duluth Avenue, Sturgeon Bay	Existing County Owned	130 FT	
County of Door	7796 Center Rd, Forestville	Existing County Owned	180 FT	
County of Door/Kewaunee	6898 Pleasant Ridge Road, Union	Existing County Owned	180 FT	
County of Door	Sunnyslope Road, Carlsville	Existing County Owned	400 FT	
RSA #10, DBA Cellcom	2591 Linda Lane, Baileys Harbor	Existing Co-Locate	150 FT	
Verizon	1620 High Road, Brussels	Existing Co-Locate	250 FT	
RSA #10, DBA Cellcom	10997 Island Dr, Chambers Island	Existing Co-Locate	150 FT	
Wisconsin Public Service	7906 Heritage Lake Rd, Egg Harbor	Existing Co-Locate		
DNR	Shore Road, Behind Gibraltar School	Existing Co-Locate	180FT	
RSA #10, DBA Cellcom	6101 N. Cave Point Road, Jacksonport	Existing Co-Locate	180 FT	
RSA #10, DBA Cellcom	Mountain Rd, Wash Isl	Existing Co-Locate	100 FT	
State of WI Education Communications Board	HWY 42 & Old Stage Rd, Ellison Bay	Existing Co-Locate	485 FT	Awaiting Structural Analysis
Big Hill Water Tower	191 N 9th Ave, Sturgeon Bay	Existing Structure - New Co-Locate	125FT	Awaiting Structural Analysis
Nsight Holdings	8001 County Rd C, Little Sturgeon	Existing Tower - New Co-Locate	180FT	
Vertical Bridge	12719 N Porte Des Morts Dr, North Port	VB New Build - New Co-Locate	150FT	
Horseshoe Bay	Near Bluff Pass, Egg Harbor	Tower Project New Build	270FT	Land Acquisition
Bayshore Drive	Between 5351 - 6004 Bayshore Dr	Tower Project New Build	170FT	Land Acquisition
Baileys Harbor	9155 County Rd Q, Baileys Harbor	Tower Project New Build	100FT	Parcel Discussions - Possible Height Adjustment
Highway North Shop	10363 State HWY 57, Sister Bay	Tower Project New Build	350FT	Possible Height Adjustment or Lot Change
Sevastapol	4498 E Dunn Rd, Sevastapol	Tower Project New Build	230FT	Parcel Discussions
Claybanks	County U/S Lake Michigan Dr	Tower Project New Build	180FT	Land Acquisition



County of Door Technology Services Department

County Government Center
421 Nebraska Street
Sturgeon Bay, WI 54235

Ashley DeGrave

Technology Services Project Manager
Phone (920) 746-2395
adegrave@co.door.wi.us

To: CATS Committee

From: Ashley DeGrave

Date: April 23rd, 2025

RE: PSRS Upgrade – Subscriber Fees

Background

The County of Door does not currently charge any subscriber fees to our municipal public safety agencies for our current VHF System. The VHF System does not have any licensing fees associated with it and the county pays the maintenance agreement with Bay Electronics. This agreement includes 24/7 service on all tower/dispatch equipment, equipment replacement (excluding microwave gear at sites with fiber), and one annual inspection/tuning. The proposals for the new UHF System will include full warranty on all new equipment, 24/7 service calls, and an annual inspection. Additionally, the new system will require annual per device licensing cost for device management and annual software maintenance.

Discussion

In order to help our municipal partners plan, we need to determine if/what subscriber fees we will be charging on a yearly basis after system implementation. The county will continue to pay the main maintenance costs associated with the tower infrastructure and dispatch center, however, there are some additional costs with the new system that need to be reviewed.

Items for Discussion:

- Annual Device Fees for Device Management
- Annual Subscriber Fee for Annual Inspection
- Maintenance Agreements for Subscriber Radios

Recommendation

We would recommend charging a per device license fee to any added parties including municipal public safety agencies, schools, and public works departments to cover the device management license. Additionally, we would recommend charging a per user fee for the Annual System Inspection. That would be calculated based off the totally system users to determine the per subscriber fee. Finally, we would recommend keeping any individual radio maintenance agreements at the municipal agencies level.