

A Proposal for Rotary Club Funding of a **COBI Emergency AM Radio Service** For Bainbridge Island Residents & Travelers

To provide island-wide up-to-the-minute local emergency advisories in cases of:

Traffic Blockages and Re-routing / Alerts to Vehicles Offloading from Ferry
School Incidents / Terrorism / Extreme Weather
Storm Damage / Power Outages / Earthquake / Pandemic

And to provide routine daily information and directions for travelers and visitors

This is a proposal for funding to be donated by Rotary to the City of Bainbridge Island.

*Project coordination, analysis and drafting of this proposal has been donated to COBI by **Bainbridge Community Broadcasting (BCB)**,
a project of **Sustainable Bainbridge** (a local community 501(c)(3) nonprofit)*

The Problem: No Ideal Source for Islanders To Get LOCAL Emergency Information

- **Websites**: No active notification; fails in power outage
- **NIXLE** text messages: Few subscribers
- **KOMO** news radio: No notification; lack of local COBI info
- **Smartphone** info: Bad cell coverage; system outage risk
- **Phone chains** (e.g. BISD): System outage risk; time lags; accuracy problems
- Emergency **notice boards** for postings: impractical

The Solution: **Emergency AM Radio** for Bainbridge Island Residents and Travelers

Low-Power AM Broadcast:

- Receivable by well-designed standard AM radios - at home or in a car
- Adequate well-designed battery-powered AM home radios cost under \$75
- Withstands power outage due to generators at EOC and transmitter
- Flashing highway notice signs (with COBI, Rotary & BCB insignia)
- Best way to cover Bainbridge Island with up-to-minute information
- The project now needs capital financing
- COBI has obtained an FCC license for 600 kHz on the AM dial
- On good days, it welcomes travelers and visitors to Bainbridge

Proposal: Emergency AM Radio

- FCC licensed low-power AM
- Referred to as: “Travelers Information Service”
- Could cover 95%+ of island: home reception ideally calls for a well-designed battery-powered home AM radio; car AM radio reception is often better
- A partnering of COBI and BIFD: uses COBI EOC plus a BIFD site antenna
- Can broadcast timely local info to AM car radios and home radios
- Highway signs with flashing lights
- Used by WA DOT, military, national parks, cities, emergency districts
- Most experienced supplier is advising
- BCB nonprofit could contract to maintain the routine daily loop recordings for travelers
- Routine travel info loops on good days; emergency messages replace the routine loop when needed
- COBI can instantly record crisis info by phone; capability to “go live”
- Can automatically retransmit NOAA weather advisories for our locale
- Also streams voice over internet to smartphones and computers
- Vashon has used the same AM service and same equipment supplier for years
- City or a nonprofit might ideally offer a group discount purchase of suitable home AM radio units



On Vashon, light flashes during urgent broadcasts.
On Bainbridge, sign could show COBI & Rotary emblems.



On Vashon, one of three AM transmitters is on a
PSE utility pole and is powered from Fire Station.



On Vashon, case contains AM transmitter gear of the type that would be desirable at Station 22 on Bainbridge.



On Bainbridge, at Station 22, a favorable AM transmitter site would ideally be away from station reconstruction.



During an emergency, the Public Information Officer's voice would be picked up by a City Hall EOC mic and transmitted from that EOC via a wireless 72 mHz point-to-point radio link to the BIFD Bucklin Hill antenna pole (NE corner of site), and then broadcast via low-power AM transmitter and high-performance antenna on same pole to blanket entire Island. Both the primary and stand-by EOC sites, and the antenna site at Bucklin Hill Station, depend on reliable generator power.

Capital Budget

(Note: Amounts below are approximate & rounded)

Capital Budget Item	Amount
Previous FCC licensing assistance & on-site coverage testing	\$8,000
Future Capital Expenses (Oct 2015 ISS quotes, attached):	
On-site planning and consulting (at COBI, Fall 2015)	\$1,000
Engineering for FCC license for single-site boosted transmitter	\$2,500
Transmitter and on-pole electronics for AM Information Station	\$14,000
High-efficiency AM antenna and 40 ft grounding rod	\$20,000
Wireless link from COBI EOC to AM transmitter site(s)	\$9,000
Other capital equipment and services from ISS	\$12,500
Subtotal: Future capital expenses purchased from ISS	\$59,000
To be requested from PSE Foundation in 2016, for construction installation	\$20,000
In-kind assistance to be requested from PSE (pole for antenna, & install)	\$5,000
Grand Total (estimated)	\$92,000

Involvement and Potential Role of Sustainable Bainbridge

- Voluntary support role in implementing AM emergency radio project
- Voluntarily provide subject matter expertise - radio and streaming
- Working relationships: BI Fire Dept, Kitsap DEM and other potential partners
- Tax deductible fundraising: Sustainable Bainbridge is a 501(c)(3) nonprofit
- Grant writing skills and experience; SB/BCB is a 2014 Rotary Club grantee
- BCB willing to provide Internet Radio Streaming to supplement AM radio
- BCB has sound studios for producing AM radio messages for daily loop
- BCB has about 20 adult & BHS volunteers for producing AM radio messages

Next Steps?

- Seek financial support for a Judd Huney Fund capital project from Rotary Club of Bainbridge Island
- COBI assigns its FCC license for AM 600 kHz radio frequency to Bucklin Hill site, with emergency voice info from City Hall EOC
- COBI applies to FCC for waiver to allow high-performance single-site transmitter (alternative: 2nd transmitter at Phelps Rd Station 23)
- Finalize arrangements with BIFD for AM antenna at NE back corner of Bucklin Hill Station 22 site (alternative: Stations 22 and 23)
- Seek City Council commitment to match Rotary funds
- Submit supplemental grant request to PSE Foundation by 4/1/16