

PROPOSAL

**Wildland Residents Association, Inc.
Santa Barbara Fire Safe Council**

**By
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President-Executive Director
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PROJECT San Marcos Pass Emergency Radio System SMPERS

BACKGROUND

Recent developments in the commercial broadcasting business have significantly changed how news is presented. Many stations have been bought out by major national broadcasters.¹ The results are that there are no commercial radio stations on the South Coast of Santa Barbara that have a staff on the weekends to report any emergency news or alerts. All stations are now automated.²

The recent Cachuma and Gaviota fires caused serious traffic problems on SR-154. Moreover, several recent vehicle fires caused the highway to be closed, resulting in serious traffic problems. This also created a potential hazard for local residents in the event a local fire required evacuation.

Over the last 30 or more years, many local and state emergency plans called for notification of local broadcasters to provide emergency information for fires, floods, traffic and assorted issues. The current use of automated stations makes this methodology less effective. The Emergency Broadcasting System is also automated. This allows for authorities to send an announcement to the public via commercial broadcast stations automatically through automated switching. However, this system is not frequently used. It also requires that the public be listening to the station in the first place, something that the public often does not do.

¹ Clear Channel, Fox, Infinity Broadcasting, etc.

² KRAZ at 105.9 Mhz. and MIX 96.7 Mhz. do provide news broadcasting, according to Shawn Knight, Knight Broadcasting, Inc. KVTA at 1520 KHz and KCLU-FM also provides news services from Ventura county. Both of these signals are spotty along much of the South Coast.

SYSTEM SYNOPSIS

Advisory radio systems have been around for years. The stations broadcast a low-power AM signal within the commercial AM broadcast band so it can be monitored by any conventional AM radio. These stations are frequently found in state and national parks, airports and universities. UCSB utilizes one for parking control. Hundreds of communities across America now use such systems to provide alerts. The City of El Segundo recently installed a system under a grant from the California Office of Traffic Safety and CalTrans.³

The transmitter can trigger automatic pre-recorded announcements or accept a real-time announcement such as evacuation instructions from designated emergency authorities. The proposed system also accepts all 53 National Oceanic and Atmospheric Administration (NOAA) event codes. These automated announcements can be programmed to be selective as to both content and area of concern. This would allow automatic emergency information to be sent out as part of the homeland security programs now in place in conjunction with NOAA.

Field testing will be required to determine the true coverage areas. However, based on the elevation, it is anticipated that the signal area will include SR-154 from US 101 to Lake Cachuma, East and West Camino Cielo, Paradise Road and the communities of Painted Cave, Trout Club and Rosario Park as well as Baptist Camp and Upper Oso Campground.

SYSTEM ADMINISTRATION

The proposal is for the Wildland Residents Association, Inc., to hold the station license, owning, operating and maintaining the station under the administrative control of the Santa Barbara Fire Safe Council for which all users of the system are members.⁴ The Fire Safe Council would develop the policies and procedures for the system with the cooperation of council members.

In concept, the following agencies would have direct access to the system:

- Santa Barbara County Fire Department
- Santa Barbara County Office of Emergency Services
- Santa Barbara County Sheriff's Department
- Santa Barbara City Fire Department
- Santa Barbara City Police Department
- CalTrans
- California Highway Patrol
- United States Forest Service

³ Low Power AM Radio Station, WPWA 745, 1040 KHz., Policy and Procedures, revised 10 September 2003.

⁴ The Wildland Residents Association is eligible for a license pursuant to §90.242 FCC Rules and Regulations.

During non-emergency times, endless loop pre-recorded messages would be provided. In addition to the above indicated agencies, the following agencies would provide public safety public service announcements.

- Wildland Residents Association, Inc.
- American Red Cross
- Santa Barbara Community Action and Emergency Response (CAER)

The primary public agency supervising the system would be the Santa Barbara County Fire Department through the Office of Emergency Services.

The cost of the system would be covered by grants and financial support from the Wildland Residents Association.

QUOTATION

The following vendor has been selected:

Information Station Specialists, Inc.
PO Box 51
3368 88th Avenue
Zeeland, MI 49464-0051
616-772-2300
616-772-2966 fax
iss@theradiosource.com
www.theradiosource.com

ALERT AM® Emergency Advisory Radio System⁵

The proposed system shall include the following:

The entire station, including seven minutes of recording time and up to 250 fully dynamic broadcast messages, operated via voice prompter-style telephone interface. The station has a built in emergency power supply that will support the station for 96 hours:

\$11,995.00

The complete package includes:

Transmitter, antenna, factory-assembled ground plane, digital message programmer in dual-door, rack-mount security cabinet. In addition, all wiring, mounts, metering connectors and instructions are supplied.

⁵ As provided in the Bill Baker bid of 21 June 2004

The following special features apply:

- **NOAA EAS/Weather Radio Interface**
Allows scheduling of Weather Radio/EAS cut-ins as part of the regular programming. Warnings broadcast automatically via NOAA's Specific Area Message Encoding protocols.
- **Live Broadcasting**
With local microphone in real time⁶
- **Continuous Broadcasting**
Continuous broadcasting during program update times to prevent dead air during a disaster.
- **Siren Interface**
Allows triggering of different messages based on cues provided by a siren, alarm or pushbutton.⁷
- **Remote Monitoring via Telephone**
Verify that your broadcast is on the air, above
- **Emergency Message Override**
Prioritize emergency message, other recordings and cut-ins during emergencies.
- **Antenna Mounting Style Choices**
Roof/yard Style
Equipment located in the building, antenna on the roof or pole-mounted in the yard.

No Charge

Options

For Host ALERT AM Stations

Additional seven minutes or recording time to total 14 minutes.

1,995.00

For Host and Satellite ALERT AM Stations

Four-day operation battery backup
VP.9000 Vertical Profile Antenna System

1,695.00

⁶ This feature would be accessed by a telephone

⁷ Sirens are not utilized in the San Marcos Pass area. However, this feature could be interfaced with the two-town sequential paging format utilized by County Fire to page stations.

License assistance and frequency coordination

Research to determine available AM frequencies and preparation of FCC license application for signature and submission.
Preparation of FCC Field Intensity Study and Filing of FCC Construction Notification.

470.00

TOTAL SYSTEM COST:

\$16,155.00

STATION LOCATION

The station shall be installed at the following location within the WRA radio cabinet:

2800 Painted Cave Road
Santa Barbara, CA 93105⁸
34-30-30.0 North
119-47-33.5 West
838 AMSL
TB 964 J 6

STATION REQUIREMENTS

The following requirements will be needed to operate the station:

120 VAC power⁹
Telephone line¹⁰

Assistance from CalTrans in the posting of signs on SR-154 notifying drivers to tune to their AM radio for emergency information would be helpful.¹¹

LICENSE

The station license application process has been started. Funding has been received for the license through a donation to the WRA. There is no guarantee that the license will be approved. However, potential frequencies have been located.

FUNDING

⁸ The WRA already maintains a VHF radio station at this location for the fire departments, WNQO260.

⁹ Power is already at the location.

¹⁰ A phone line is on site but not activated.

¹¹ Coordination will be required. CalTrans has posted such signs on other highways. However, SR-154 has a "Scenic Highway" designation. CalTrans does participate in the Fire Safe Council.

Absent a direct donation from a community source or expenditure of discretionary funds from one or more participating agency, grant funding will be required. Several potential sources include FEMA, Homeland Security and CalTrans.

Upon approval of the project, aggressive funding research will be conducted.

PROJECT TIME LINE

Upon funding the station can be delivered and build within 60days. The FCC license will be required. However, as indicated, this process has already been started.

CONCLUSION

To date, several Fire Safe members have expressed a positive interest in this project, including the American Red Cross, The Santa Barbara County Fire Department, the Amateur Radio Emergency Services Team (ARES), as well as the Wildland Residents Association and the San Marcos Pass Volunteer Fire Department. It is anticipated that upon the development of the policy and procedures for the station with appropriate oversight and supervision, that all of the local public safety agencies will be participating.

The San Marcos Pass Emergency Radio System is the result of the community and the public sector coming together to find a solution to the mutual problem of getting emergency information out to the public in a timely and effective manner.

APPENDIX

El Segundo Policy & Procedures Revised 10 September 2003

**LOW POWER AM RADIO STATION
WPWA 745-1040 AM (KHZ)**

**POLICY & PROCEDURES
Revised (September 10, 2003)**

Background:

The Low Power AM Radio system was funded by a grant project called "Project ESCAPE" – the El Segundo Community Alert ProjEct. This system was obtained under a grant pilot project from the California Office of Traffic Safety and CalTrans.

The radio system's primary function, as outlined within the grant proposal submitted by the Office of Emergency Services is to promote road information, traffic and public safety information. The secondary use will be to assist in providing public information and emergency warning to the public in any emergent incident with an Incident Commander on scene.

The guidelines for implementation and use of the radio system in the City of El Segundo was developed in accordance with the low power AM radio station users group, which is chaired by the City's Emergency Services Coordinator. Each department is assigned a representative for the user's group:

Emergency Services Coordinator – Project Director

City Manager's Office

- ❑ **Assistant City Manager or designee**

Administrative Services

- ❑ **Information Systems Manager**
- ❑ Information Systems Specialist

Community, Economic and Development Services

- ❑ CEDS Director or designee

Fire Department

- ❑ Administrative Battalion Chief or designee

Library Department

- ❑ Library Director
- Community Cable**
- ❑ Community Cable Manager
- ❑ Program Specialist
- ❑ Computer Graphic Designer

Police Department

- ❑ Captain – Operations Division or designee
- ❑ Captain – Administrative Services Division or designee
- ❑ Lieutenant - Dispatch Division Commander or designee
- ❑ Dispatch Supervisor or designee

- ❑ Sergeant - Administration
- ❑ Sergeant – Traffic Division

Public Works

- ❑ Director of Public Works
- ❑ General Services Manager
- ❑ Water Supervisor

Recreation & Parks

- ❑ Recreation & Parks Director or designee

Oversight:

It should be noted; this system requires little direct supervision due to the message programming and digital storage capability, and use of play lists. The City's Emergency Services Coordinator (ESC) will have oversight of the low power AM radio system. The ESC will provide day-to-day coordination and programming of the system in coordination with the following departments:

- Administration – City Manager
- Police Department – Traffic Division, Communications, and Patrol Division's.
- Fire Department – Administration, Suppression and Environmental Safety Division's.
- Public Works – Public Works Director and General Services Division.
- Administrative Services – Information Systems
- Recreation and Parks – Community Cable Manager.

Succession of Responsibility (day-to-day)

The Emergency Services Coordinator will have primary oversight of the radio station. Basic responsibilities shall include monitoring the messages at least once per week (generally Thursday or Friday) to ensure each message is up to date and appropriate for airing. If a message is not being aired properly (incorrect instructions, outdated message, etc.), the department responsible for creating and airing the message shall be alerted to correct the error. The message may be deleted or removed from the play list if necessary using the programming instruction manual.

If the Emergency Services Coordinator is not available, the following staff shall be responsible for monitoring the radio station to ensure broadcast quality:

1. Administrative Battalion Chief
2. Community Cable Manager
3. Computer Graphics Designer

When to use:

The low power AM radio station (1040 AM) is a low-wattage radio transmitter used to alert motorists of traffic hazards, road conditions, and safety messages. It can also be programmed for special events, long-term construction projects, road detours, and other information of importance to the community. In an emergency or disaster, special event or in case of abnormal traffic or

road conditions, the message can be amended to provide new information. The City's Emergency Operations Plan (AM Radio Annex) will include detailed instructions on when and how to use the system.

System Limitations:

Atmospheric conditions, weather, power output, tall buildings, overpasses, vehicle manufacturing characteristics, and electrical power lines can affect the signal and reception.

Programming (Day to Day):

Programming, messaging, and activation will be done in coordination with the following departments that have a demonstrated need to provide broadcasts for scheduled road closures, detours, and to provide safety information to the public:

1. Police Department – traffic and safety messages (pre-recorded).
2. Fire Department – prevention and safety messages (pre-recorded).
3. Public Works – road construction, potential delays, closures, detours, etc.
4. Library (Community Cable Program Manager)

Reminder: *Federal statutes prohibit recorded messages with content associated with commercial advertising, including the use of company/corporate names, music (including background music), and anything related to for-profit, political statements, endorsements, or inference of political activity, etc.*

Interruptions: An interruption is defined as any situation where normal (scheduled) broadcasting is being conducted, and that regular programming is overridden to provide emergency news and information, or live broadcasting of scheduled events (public meetings).

When normal programming is interrupted, the ESC will be alerted. The ESC will be provided with the following information via e-mail or page:

1. The nature of the interruption (road closure, shelter-in-place, etc.)
2. The Incident Commander
3. The anticipated length of the broadcast (hours, days, etc.)
4. When the event that caused the interruption is anticipated to be over.

The ESC will monitor broadcasts to ensure quality control and messaging systems are working properly, in accordance with FCC rules and regulations, and to ensure the interrupted programming is turned off when it is no longer needed. The ESC will follow up with the Incident Commander to ensure the system has been restored to normal operations after demobilization occurs.

Inspection:

The ESC will conduct a system test and inspection quarterly to ensure the system is working properly. At a minimum, the system will be inspected at least twice each year.

Programming Interruptions (Emergency Override Message - EOM)

The radio system may be interrupted when an emergency exists either by manual activation or automated activation from digitally encoded messages using the Emergency Alert System (EAS),

National Weather Service (NWS) or NOAA alert system (amber alerts, and weather advisories). To utilize a manual program interruption, an Emergency Override Message (EOM) may be recorded from the scene of the emergency. The following departments have the authority to direct interruption of system programming and record emergency news and information for priority broadcast:

1. City Manager or Assistant City Manager – Administration
2. Police Department – authorized list (TBD)
3. Fire Department – authorized list (TBD)
4. Public Works – authorized list (TBD)

Users, following the programming directions, and being issued an emergency-programming card, may record a message or interrupt the system using any phone, and the password and/or manual entry systems. When the incident is over, demobilization procedures will include returning the radio system to normal programming following the instruction on the card – the emergency message will be deleted to ensure no misinformation occurs.

The basic minimum standard for traffic related program interruptions (traffic events; collisions, investigations, closures and detours) is **4 or more** hours. These situations are deemed eligible for program interruption under this policy. An Incident Commander (IC) may waive this standard if in the IC’s judgment, the interruption is necessary to provide for public and/or motorist safety. When the policy is waived, the IC will take full responsibility for interrupting the station programming, recording a warning message, and returning the system to normal operations.

Emergency Override Messaging is based on a priority list. Each play list is assigned a priority by default. All messages below Priority 8 are considered emergency functions. Emergency Override Messages are assigned Priority 2 or Play list 2. Live Programming is defaulted as Priority 1 and uses no play list.

Play lists are currently assigned as follows:

| Priority Level | Play list Name: | Play list Number |
|-----------------------|------------------------------|-------------------------|
| Priority 1 | Live Programming | No Play list |
| Priority 2 | Emergency Override Play list | *Play list 2 |
| Priority 3 | Emergency 3 | *Play list 3 |
| Priority 4 | Emergency 4 | *Play list 4 |
| Priority 5 | Emergency 5 | *Play list 5 |
| Priority 6 | EAS Weather Alert | *Play list 6 |
| Priority 7 | Not Assigned (Emergency) | No Play list |
| Priority 8 | General (daily) Play list | *Play list 8 |
| Priority 9 | El Segundo Police | *Play list 9 |
| Priority 10 | Public Works Department | *Play list 10 |
| Priority 11 | El Segundo Fire Department | *Play list 11 |
| Priority 12 | Library/Community Cable | *Play list 12 |
| Priority 13 | Recreation & Parks | *Play list 13 |
| Priority 14 | City Administration | *Play list 14 |

***Play list content is an attachment, which can be amended**

Emergencies:

The system may be interrupted when any of the following conditions exist or at the discretion of a designated Incident Commander:

1. Large-scale structure fires (major fires)
2. Environmental Hazard – chemical release, spills, shelter in place, evacuation, or emergency instructions.
3. Police action – road closures, evacuations, major incident scene coordination or investigations.
4. Amber Alerts – as directed by the Police Department, and NWS/EAS Station defaults.
5. Earthquakes (moderate scale – felt) or with damage (South Bay Area).
6. Aviation Emergency (Plane Crash).
7. Parades
8. Special Events – walk-a-thons, fairs, races, etc.
9. Any situation that is in the best interests of public/community safety

Situations that may cause automatic interruption due to Emergency Alert System (EAS) features built into the system:

1. Tsunami Warning/Alerts issued by the Tsunami Warning Center (NOAA or EAS).
2. Weather emergencies and warnings (NWS/EAS)
3. Amber Alerts (NWS/EAS/County of Los Angeles)

The interruption will occur only for the length of the broadcast. The control point is the Los Angeles County Sheriff’s Department (EAS Coordinator) through digital messaging.

Messaging Storage:

The AM Radio Station has the capacity to store up to a maximum of 14.3 minutes of recorded messages. Each message is stored in a library storage system. Up to 250 pre-recorded messages can be stored in the library and used for a variety of programs and scenarios. Messages are stored in “play lists.” Each play list is assigned a variety of messages from the master message list, which is numbered from 1 to 250. Each message varies in length, but no more than 14.3 minutes can be pre-recorded at any time.

The ESC will work with the Library Department (Community Cable) to record professionally scripted messages. The voice of the system in most circumstances be a narrator assigned to Community Cable programming whenever possible to ensure consistency.

Message play list library example (Public Works):

| message # | Assignment | Message Narrative |
|------------------|-----------------------------------|---|
| 1 | STATION ID & CALL SIGN | You're listening to the City of El Segundo Community Alert System. Broadcasting is approved by the Federal Communications Commission on 1040 AM with call sign of WPWA 745. |
| 3 | Emergency News & Info | This system was designed to provide Traffic Safety Messaging and Emergency News & Information to the El Segundo community. |
| 4 | In the Event | In the event of an emergency, please tune your AM radio to 1040 AM |
| 5 | Grant Notice | This system was funded by a grant provided by the California Office of Traffic Safety, and the California Department of Transportation. |

| | | |
|-----|----------------------------------|---|
| 6 | Operation | This system is operated by the El Segundo Fire Department's Emergency Services Division. If you have any questions about the operation of this station, please call the Emergency Services Coordinator at (310) 524-2252. |
| 121 | PLAYLIST 9 - PUBLIC WORKS | The Main Street Improvement Project has initiated in May and will be continue through to December 2003. |
| 122 | <i>PLAYLIST 9 - PUBLIC WORKS</i> | The following Roads and Intersections will be affected: |
| 123 | <i>PLAYLIST 9 - PUBLIC WORKS</i> | Main Street from Palm to El Segundo Blvd has been reduced to 2 lanes with no parking on Main Street at any time. |
| 124 | <i>PLAYLIST 9 - PUBLIC WORKS</i> | Be alert and aware of construction workers and pedestrians - reduce your speed, anticipate for sudden stops. |
| 125 | <i>PLAYLIST 9 - PUBLIC WORKS</i> | All intersections along the downtown Main Street Improvement Project area are 4-way stops. Be alert and aware of other vehicles at intersections and please observe the right-of-way. |
| 126 | <i>PLAYLIST 9 - PUBLIC WORKS</i> | Be alert for emergency vehicles and personnel - pull to the right and allow emergency vehicles to pass. |
| 127 | <i>PLAYLIST 9 - PUBLIC WORKS</i> | Do you have questions about the Main Street Improvement Project? Please call 1-866-ELSEGUNDO or 310-524-2377. |
| 128 | <i>PLAYLIST 9 - PUBLIC WORKS</i> | From 8 am to 5 pm, please be especially alert for children and adults crossing Main Street. Please show courtesy and patience while driving in the construction area. |
| 129 | <i>PLAYLIST 9 - PUBLIC WORKS</i> | <i>(This area available for messaging)</i> |

Restricted Use (FCC POLICY STATEMENT 91-217 (EFFECTIVE 1, 1991)).

The Low Power Am Radio Station is NOT be used in any manner, at any time, for commercial broadcasts, endorsements, commercial messages, or in any manner to promote private enterprise or business for any purpose, or any form of political activity or promotion of elected officials, boards, and committee's.

Music must not be broadcast under the terms of the FCC license as well. Violations are subject to fines and other penalties.

Partial Excerpt of Standards for Assessing FCC Fines for Violations:

Violations:

| | |
|---|------------|
| Construction and/or operation without license | \$8,000.00 |
| Exceeding power limits | \$5,000.00 |
| Exceeding authorized antenna height | \$6,000.00 |
| Using unauthorized frequency | \$5,000.00 |
| Construction or operation at unauthorized location | \$4,000.00 |
| Misrepresentation | \$8,000.00 |
| Failure to prescribe to lighting and marking | \$8,000.00 |
| Unauthorized use or loss of substantial control | \$8,000.00 |
| Violations of rules relating to distress and safety frequencies | \$8,000.00 |
| Failure to permit inspection | \$7,500.00 |
| Violation of operators services requirements | \$7,500.00 |
| Malicious interference | \$7,500.00 |
| Failure to respond to Commission communications | \$7,000.00 |
| Unauthorized emissions | \$7,000.00 |
| Miscellaneous violations | \$500.00 |