

# 2014 Year-End Report

for the **Northern California Chapter** of the  
**Earthquake Engineering Research Institute**

January 2015



This document summarizes the activities conducted by the Northern California Chapter of the Earthquake Engineering Research Institute ("EERI-NC" or "the Chapter") in 2014.

## **EERI NC Mission & Goals**

As defined in the EERI-NC Strategic Plan, the mission of the Northern California Chapter is to reduce earthquake risk in northern California by advancing the science and practice of earthquake engineering, by improving understanding of the impact of earthquakes on the physical, social, economic, political and cultural environment, and by advocating comprehensive and realistic measures for reducing the harmful effects of earthquakes. To meet its mission, the Chapter's goals are to build and **Maintain an Active Chapter** of the Earthquake Engineering Research Institute in northern California and to **Encourage, Promote and Facilitate Earthquake Risk Reduction in Northern California**. The Chapter works to achieve its goals by carrying out specific strategies and related activities.

## **Membership in 2014**

The EERI-NC Chapter had a total of 186 members in 2014, including 135 regular members, 4 persons who are members of only the Northern California Chapter, 5 student members, 20 retired members, and 13 young professional members.

The Board consisted of the following members:

President	Heidi Tremayne
President-Elect	Betsy Mathieson
Secretary-Treasurer	Marko Schotanus
Director	Tom Anderson
Director	Jeff Bond
Director	Sharyl Rabinovici
Director	Chuck Real
Director	Laurence Kornfield
Director	Gerry Brady
Director	Ken Mark

Board meetings were held monthly, except for October. Director Tom Anderson retired in July due to ongoing health issues.

## **Finance**

An operating budget of \$4,250 was approved for 2014, which covered expenses for chapter meetings, the email service, and a student travel fund.

The board approved use of unbudgeted funds to support local student chapters participating in the EERI Seismic Design Competition (\$500), and also approved unbudgeted funds to support students attending the Loma Prieta 25 Symposium in October (\$375).

Revenues from membership dues totaled \$4,855, and expenditures \$4,393 (including the above unbudgeted expenses), leaving a net surplus of \$462.

The Chapter has typically operated within budget over its 13-year history, and has built up a surplus of about \$18,000. The Board will continue discussion of the use of the surplus in 2015.

## **Chapter Meetings**

The goal of enlarging the Events Committee was achieved in 2014, and Catalina Fortuno, Chiara McKenney, Maryam Veisi, Michael Germeraad, Ravi Vedantham, Sahar Derakhshan, and Zahraa Saiyed are its current members. Pantea Vaziri chaired the committee through July (when she retired), then Maryam and Michael served as co-chairs for the remainder of the year. The committee is now operating more autonomously from the board, and has embraced its charge of planning further ahead.

Director Ken Mark was the Board liaison, and Betsy Mathieson assisted with additional support during the transition of leadership.

The following seven Chapter meetings and one Chapter field trip took place in 2014, organized by the Events Committee.

March Chapter Meeting

Tuesday, March 25, 2014

Venue: ABAG Auditorium, 101 8th Street, Oakland, CA

"Seismic Rating Systems and Innovative Efforts in Commercial Retrofit Programs"

Speakers:

- Ibbi Almufti, Structural Engineer, Advanced Technology and Research Group, Arup
- David Bonowitz, Structural Engineer
- Arrietta Chakos, Public Policy Advisor (moderator)

April Chapter Meeting

Thursday, April 24, 2014

Venue: EPICENTER, 245 Third Street, San Francisco, CA

"Alquist-Priolo Earthquake Fault Zoning Program at California Geological Survey" – annual 1906 San Francisco Earthquake anniversary meeting

Speaker:

- Tim McCrink, Supervising Engineering Geologist, California Geological Survey

July Chapter Meeting

Thursday, July 17, 2014

Venue: AGS Inc., 5 Freelon Street, San Francisco, CA

"San Francisco Seawall, History, Past Performance, and Future Challenges"

Speakers:

- Steven Reel, Project Manager, Port of San Francisco
- Deron van Hoff, Vice President, Geotechnical Consultants Inc.

August Chapter Field Trip

Saturday, August 23, 2014

Gathering Venue: 47212 Mission Falls Ct, Fremont, CA

"BART Warm Springs Extension Project Field Trip"

Tour guide:

- Ravi Vedantham, Senior Engineer, Parsons Brinckerhoff

October Chapter Meeting (jointly with Blume Earthquake Engineering Center at Stanford University)

Tuesday, October 7, 2014

Venue: Tresidder Memorial Union, Oak Room West, Stanford University

"Collaborative Leadership in Post-Disaster Recovery: Case Study of Christchurch, New Zealand"

Speaker:

- Elizabeth McNaughton, Director of Strategy and Government Relations, New Zealand Red Cross
- Duncan Gibb, General Manager, Stronger Christchurch Infrastructure Rebuild Team (SCIRT)

November Chapter Meeting

Thursday, November 6, 2014

Venue: ABAG Auditorium, 101 8th Street, Oakland, CA

"What's Shaking in the App World"

Speakers:

- Molly Turner, Head of Civic Partnerships, Airbnb
- Ragi Burhum, Founder, AmigoCloud
- Michael Germeraad, Earthquake & Hazards Specialist, ABAG (moderator)

December Chapter Meeting (jointly with PEER)

Thursday, December 4, 2014

Venue: Room 250, Sutardja Dai Hall (CITRIS), UC Berkeley

"EERI Distinguished Lecture: Challenges in Estimating Real-time Earthquake Shaking and Impact"

Speaker:

- David Wald, Research Geophysicist, US Geological Survey

### December Holiday and Awards Party

Wednesday December 10, 2014

Venue: Arup, 560 Mission St, San Francisco, CA

"Party and Chapter Awards Presentation"

The high number of meetings can be attributed to the Events Committee. Attendance ranged from 20 – 50 people for each meeting. Director Ken Mark surveyed attending members at three meetings and wrote Chapter Meeting summaries. Surveys consistently showed positive feedback for speakers, with ratings always exceeding an average of 4 (on a 1-5 scale). Ken also took photos for the archives at most events.

It is the goal for 2015 to continue planning successful Chapter meetings that increase member participation.

### **Quarterly Shake**

Director Jeff Bond was the editor-in-chief of the Chapter newsletter, the Quarterly Shake. It was issued three times in 2014, in May, August and December.

The goal for 2015 is to issue a newsletter in each quarter. Director Jeff Bond will continue as the editor.

### **YouTube and webinars**

The Chapter broadcast the EERI Distinguished Lecture in December through our partnership with PEER. Recordings and webinars of meetings allow more members to learn from the programs, and provides yet another mechanism to reach the membership base.

### **Outreach**

The board set out to increase the Chapter's role as an advocate for seismic risk reduction policy in northern California and the state. 2014 offered the following opportunities to support local jurisdictions and statewide policy initiatives:

#### CAPSS Fair

The Chapter, under leadership of President-Elect Betsy Mathieson, manned a booth at San Francisco's Earthquake Retrofit Fair in support of San Francisco's Earthquake Safety Implementation Program. The event took place on Tuesday January 28th at the Bill Graham Civic Auditorium. Over 2000 people attended, and members Sharyl Rabinovici, Keyvan Fotoohi, Heidi Tremayne, and Ayse Hortacsu all helped out manning the table.

#### 100 Resilient Cities Program

The Cities of Alameda, Berkeley, Oakland and San Francisco were selected as part of the first group of 100 cities by the Rockefeller Foundation. Chapter President Heidi Tremayne participated in a 2-day workshop where focus areas for the program were discussed.

#### Assembly Bill 2181

Assembly Member Richard Bloom sponsored a bill initiated and drafted by UC Davis professor Carol Bruch that would provide local jurisdictions a mandate to develop programs for retrofit of residential nonductile concrete buildings. Professor Bruch and Assembly Member Bloom's staff contacted professional organizations, including SEAOC and EERI, to get feedback on and gain support for the bill. The EERI national staff and board referred this effort to the national Public Policy and Advocacy Committee (PPAC), chaired by Chapter member Laura Samant. The PPAC provided some initial feedback before the bill became inactive.

#### City of Oakland Code Amendments to Seismic Retrofit Triggers

The Chapter was approached by a staff member of Oakland City Council Member Dan Kalb about some changes to the building code that were developed by its Building Department. The council member was looking for an objective analysis of the proposed modifications, which would reduce the requirements for retrofit of buildings triggered by a change of use. Chapter President Tremayne reached out to SEAONC and AIA East Bay to help provide a technical analysis of the code changes. It turned out that AIA had participated in developing these amendments, and it was helpful to understand the history and reason for them.

The proposed changes were modeled on San Francisco code provisions, and SEAONC pointed out that a few provisions that are tied to the ones that were being changed were not adopted nor modified at

the same time. It was also discussed that even though the changes to the local amendments are still more stringent than the model building code, these triggers could be useful to Oakland, since Oakland does not have other risk reduction policies. In general the participants agreed as a group, and a few statements were distilled from the discussion and sent to Council Member Kalb's office. AIA also sent the same email to the other city council and city staff members that they had worked with in developing the changes.

Chapter President Heidi Tremayne, together with President-Elect Betsy Mathieson, attended the council committee meeting where the proposal was discussed, and spoke on the Chapter's behalf. She got a chance to meet with some of the people involved, including Deborah Sandercock, the City's Chief Building Official, which resulted in a follow up request for assistance in educating the building department about new approaches to the retrofit of "soft story" buildings. Director Laurence Kornfield volunteered to sit down with the building official and discuss San Francisco's process and achievements in developing a comprehensive mitigation plan.

#### Loma Prieta 25 Symposium

ABAG took the lead in organizing a symposium to commemorate the 25th anniversary of the Loma Prieta earthquake. Director Jeff Bond assisted in organizing the event, on the Chapter's behalf. The symposium was a one-day event, which took place on October 16<sup>th</sup> at the Kaiser Center in Oakland. It coincided with the Great California ShakeOut, and attendees ducked, covered, and held on in the auditorium. The symposium focused on public policies, and the target audience consisted of building officials, city administrators, elected officials, insurance companies, and design professionals. The goal of the event was (1), to launch a three-year public policy program designed to spark quick recovery from future disasters, and (2), to enact place-based action for a safer future.

The Chapter will continue to look for opportunities to build relationships with local jurisdictions in 2015.

#### **Adopt-A-City Project**

As an outcome of the 2011 strategic planning meeting, the Board decided to launch the "Adopt-A-City" program. Its goal is to engage in a coordinated effort to improve understanding of the risk, vulnerability and impact of a future earthquake for cities along the Hayward fault, and to empower the stakeholders within the cities to develop comprehensive and realistic measures to mitigate the cities' earthquake risk. The first city selected was Albany.

In 2014 the committee finished processing the information collected during the sidewalk survey in 2013, developed a refined exposure model for Albany, and started on a report. Around 10 members were actively engaged in the subcommittee work in 2014, including Jeff Bond, Heidi Tremayne, Mahmoud Hachem, Keith Knudsen, Marguerite Bello, Ken Mark, Maggie Ortiz, Jonathon Tai, Pantea Vaziri, Fabia Terra, and Marko Schotanus.

The focus for 2015 will be on performing HAZUS runs for various ground motion scenarios and shake maps, and documenting the project in a report.

#### **Student Chapter Collaboration**

The Chapter Board decided in 2013 that the ties with the local student chapters should be strengthened, so that students can more naturally transition from the student chapter to national and regional chapter activities. Three Board members were identified for 2014 to be liaisons to the 5 Bay Area EERI Student Chapters (UC Berkeley, UC Davis, San Jose State, San Francisco State, and Stanford), and collaboration with the student chapters continued.

A new initiative was developed after a request from UC Berkeley to assist with fundraising for their participation in the Seismic Design Competition in Anchorage. The Chapter circulated a request for donations to all its members and affiliates, and invited the participating teams to meet members at the April Chapter meeting. The Board decided to match the proceeds from a collection at the Chapter meeting with Chapter funds (refer to the Finance section). A total donation of \$1,200 was split between the four participating teams.

A second initiative was to combine support for the Loma Prieta 25 Symposium with student attendance. The Board decided to pay for students to attend the symposium. Five student members attended with Chapter support.

The Chapter intends to repeat the Seismic Design Competition fundraiser, and will continue to look for opportunities to build relationships with and support local student chapters in 2015.

### **Napa Earthquake**

Many chapter members participated in post-earthquake reconnaissance, briefings, presentations, and report preparation in response to the August 24, 2014 earthquake that impacted the region surrounding Napa and Vallejo. Members used data collection tools to document, record and post their observations to the California Earthquake Clearinghouse's virtual repository and geospatial map. Insights and participation of chapter members was critical to fielding a successful response. Chapter Secretary-Treasurer Marko Schotanus was appointed as Reconnaissance Lead for the earthquake by EERI national and organized subsequent briefing presentations and reconnaissance report compilation.

### **2014 Election Results**

The 2014 election was held from October 20 through November 10 using the LimeSurvey software. Laura Dwelley-Samant (Chair), Danielle Hutchings Mieler, and Ivan Wong served on the nominating committee. 61 Chapter members completed their online ballots to elect three Directors at Large. The winners were:

- Sharyl Rabinovici (incumbent)
- Dana Brechwald
- Ken Mark (incumbent)

The newly elected and re-elected Board members joined the Board officially at the December 10 Board Meeting. Director Chuck Real retired.

### **2014 "Innovation and Exemplary Practice in Earthquake Risk Reduction" Award Winners**

Each year the Chapter gives two awards, to an individual and an institution, in recognition of their hard work and dedication towards the reduction of seismic risk in northern California. The nominating committee consisted of Laurence Kornfield (Chair), Craig Comartin, Tim McCrink, and Frank Rollo. The Chapter presented its 2014 "Innovation and Exemplary Practice in Earthquake Risk Reduction" awards during the December 10 Holiday Party at ARUP in San Francisco. The winners were:

- Marjorie Greene (individual), EERI Special Projects Manager, for an exemplary forty-year career in natural hazard mitigation in the U.S. and abroad. Marjorie has been an inspiration and model to fellow professionals in the earthquake hazard field, and many of EERI's active young and early career members can trace their involvement with EERI to interactions and encouragement from Marjorie.
- Private Schools Earthquake Safety Working Group, Earthquake Safety Implementation Program, City and County of San Francisco (institution), for its leadership and pioneering work in building consensus among citizens, parents, architects and engineers, and school administrators on how to address earthquake safety in existing private school buildings. The work of the Private School Working Group in San Francisco is expected to catalyze efforts statewide to address private school seismic safety concerns.

# **EERI Northern California Chapter**

## **Summary of 2014 Activities & Events**



### **SF Earthquake Retrofit Fair Booth January 28, 2014**



## Seismic rating systems MARCH CHAPTER MEETING



**Speakers:**  
*Ibbi Almufti (Arup), David Bonowitz (consultant) with Arrietta Chakos, moderator*

## Alquist-Priolo Earthquake Fault Zoning Program at CGS APRIL CHAPTER MEETING



**Speakers:** *Tim McCrink (California Geological Survey)*

## Student Design Competition Presentations APRIL CHAPTER MEETING



## Networking at the EpiCenter APRIL CHAPTER MEETING



## Networking at the EpiCenter APRIL CHAPTER MEETING



### 2014 EERI NC Board of Directors:

- Heidi Tremayne (President)
- Marko Schotanus (Secretary/Treasurer)
- Betsy Mathieson (President-Elect)
- Laurence Kornfield
- Sharyl Rabinovici
- Chuck Real
- Gerry Brady
- Ken Mark
- Jeff Bond
- Tom Anderson

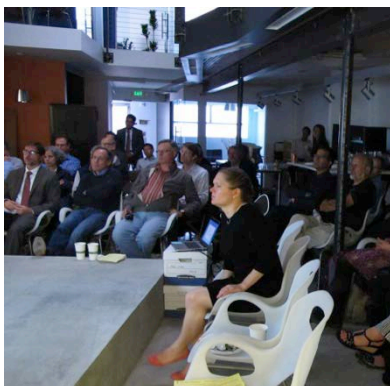
## Directors Hard at Work!



## Directors Hard at Work!



## San Francisco Seawall JULY CHAPTER MEETING



*Speakers: Steven Reel (Port of SF) &  
Deron van Hoff (Geotechnical Consultants, Inc)*

## EERI NC Program Committee:

- Michael Germeraad (Co-Chair)
- Maryam Veisi (Co-Chair)
- Sahar Derakhshan
- Ravi Vedantham
- Chiara McKenney
- Catalina Fortuno
- Zahraa Saiyed
- Pantea Vaziri  
(Former Chair)



## **BART Warm Springs Extension Project AUGUST CHAPTER FIELD TRIP**



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## BART Warm Springs Extension Project AUGUST CHAPTER FIELD TRIP



## Reconnaissance for South Napa Earthquake August 24, 2014

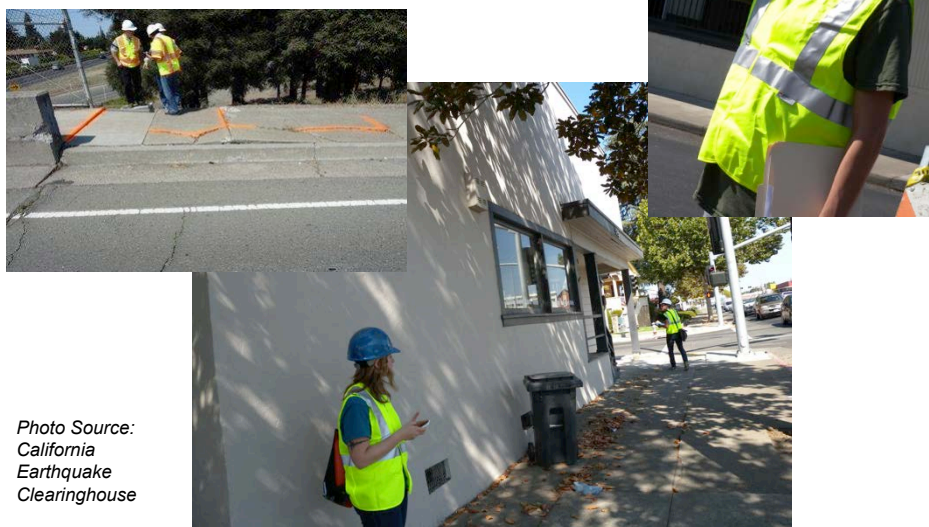


Photo Source:  
California  
Earthquake  
Clearinghouse

## South Napa Earthquake Recon



Photo Source:  
California Earthquake  
Clearinghouse



Photo Source:  
Lauren Biscombe

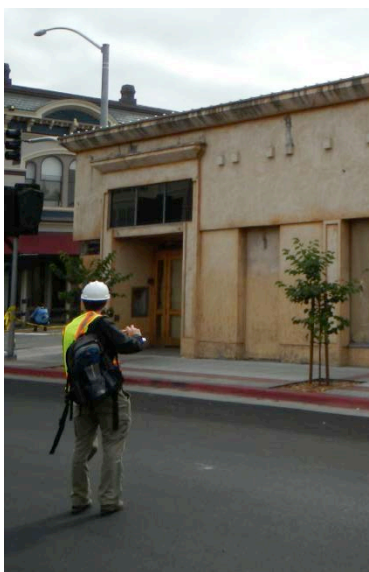
Photo Source:  
Betsy Mathieson



## South Napa Earthquake Recon



Photo Source:  
California Earthquake Clearinghouse



## Albany Adopt-A-City Project: Solano Stroll Outreach



### Volunteers:

- Keith Knudsen
- Zahraa Nazim Saiyed
- Marguerite Bello
- Marko Schotanus
- Ravi Vedantham
- Heidi Tremayne
- Bill Tremayne
- Jeff Bond
- Ken Mark
- Fabia Terra



# ALBANY ADOPT-A-CITY PROJECT

## EERI

### ABOUT EERI NC

The Earthquake Engineering Research Institute (EERI) is a national, nonprofit, technical society of engineers, geoscientists, architects, planners, public officials, and social scientists. The EERI Northern California Chapter (EERI NC) is a regional chapter of the national organization that is dedicated to reducing the earthquake risk in the Northern California. To do this we advance the science and practice of earthquake engineering, improve understanding of the impact of earthquakes on the physical, social, economic, political and cultural environment and advocate comprehensive and realistic measures for reducing the harmful effects of earthquakes.

### EERI NC ALBANY ADOPT-A-CITY PROJECT

EERI NC Albany Adopt-A-City Project is a 2014-2015 project to reduce the earthquake risk in the City of Albany. The project goal is to conduct a walking survey of the City of Albany and to develop a technical report on the earthquake risk in the City of Albany. The project will be completed by the end of 2015.

### HAZUS PROCESS

**Walking Survey**  
Inventory of 350 Albany buildings on 8 June 2014

**Building Inventory**

**Liquefaction Map**

**Shakemap Scenarios**

**Loss Estimation**

**SPONSORS**

Historic photographs from Alameda County Library

Great San Francisco Earthquake

### CONCLUSIONS

**A Technical Report:**

**DRAFT**

**SPONSORS**

Alameda County Library

URS

## Albany Adopt-A-City Project: HAZUS & Report Writing Team

- Marguerite Bello
- Jeff Bond
- Mahmoud Hachem
- Keith Knudsen
- Janiele Maffei
- Ken Mark
- Maggie Ortiz
- Marko Schotanus
- Jonathon Tai
- Fabia Terra
- Heidi Tremayne
- Pantea Vaziri

EERI Adopt-a-City Project:

Albany, CA

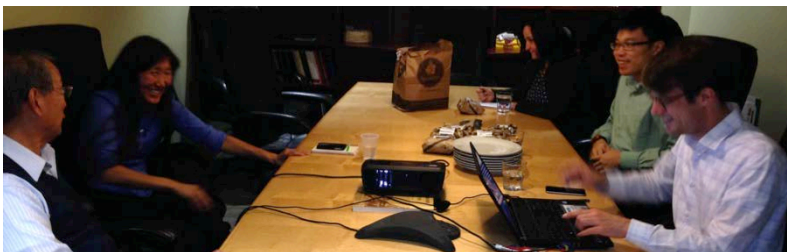
Summary Report

**DRAFT**



Month xx, 2014

## Albany Adopt-A-City Project: HAZUS & Report Writing Team



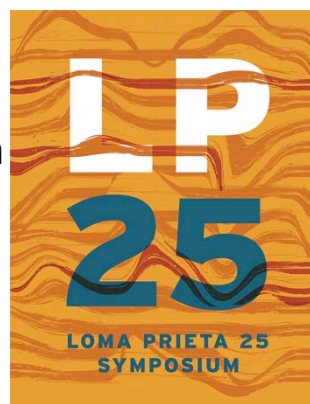
## **Collaborative Leadership in Post-Disaster Recovery: Case Study of Christchurch, New Zealand OCTOBER LECTURE AT STANFORD**



*Speakers: Elizabeth McNaughton (NZ Red Cross) & Duncan Gibb (SCIRT)*

## **Loma Prieta 25 Symposium: EERI NC sponsored students**

- Fiorella Vasquez, SFSU
- Yamileth Jimenez, SFSU
- Davide Martinelli, EERI Intern
- Samy Labbouz, EERI Intern
- Barb Simpson, UC Berkeley
- David Lallemand, Stanford



## What's shaking in the app world? NOVEMBER CHAPTER MEETING



*Speakers: Molly Turner (Airbnb) & Ragi Burhum (AmigoCloud)  
with Michael Germeraad, moderator*

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## Networking at the ABAG NOVEMBER CHAPTER MEETING



## 2015 EERI NC Board of Directors:

- Betsy Mathieson (President)
- Marko Schotanus (Secretary/Treasurer)
- Heidi Tremayne (Past-President)
- Jeff Bond
- Sharyl Rabinovici
- Laurence Kornfield
- Gerry Brady
- Ken Mark
- Dana Brechwald

*Welcome to our new 2015 board member  
Dana Brechwald from the Association of Bay  
Area Governments (ABAG)!*



## **Webcast of EERI Distinguished Lecture by Dr. David Wald**

*“Challenges in Estimating Real-time  
Earthquake Shaking & Impact”*



60 attendees in person at UC Berkeley and nearly 50 online connections!

**2014 EERI NC Award:**  
***Innovation and Exemplary Practice in  
Earthquake Risk Reduction***  
ORGANIZATION AWARD

## **San Francisco Private Schools Working Group**

***Earthquake Safety Implementation Program,  
City and County of San Francisco***

## San Francisco Private Schools WG



## 2014 EERI NC Award: *Innovation and Exemplary Practice in Earthquake Risk Reduction* INDIVIDUAL AWARD

**Marjorie  
Greene**

*EERI Special Projects  
Manager*



## Marjorie Greene



## Marjorie Greene

