

Environmental Report—Oct. 19, 2015

Submitted by Joan Licari

1. Hacienda Heights Earthquake

Moment Magnitude: $M_w=2.6$

The **moment magnitude scale** (abbreviated as **MMS**; denoted as **M_w** or **M**) is used by seismologists to measure the **size of earthquakes in terms of the energy released**. The magnitude is based on the seismic moment of the earthquake, which is equal to the rigidity of the Earth multiplied by the average amount of slip on the fault and the size of the area that slipped.^[2] The scale was developed in the 1970s to succeed the 1930s-era Richter magnitude scale (M_L). Even though the formulae are different, the new scale retains a similar continuum of magnitude values to that defined by the older one. The MMS is now the scale used to estimate magnitudes for all modern large earthquakes by the United States Geological Survey.^[3]

Popular press reports of earthquake magnitude usually fail to distinguish between magnitude scales, and are often reported as "Richter magnitudes" when the reported magnitude is a Moment magnitude). Because the scales are intended to report the same results within their applicable conditions, the confusion is minor.

The Richter Scale, (M_s) as modified, was successfully applied to characterize localities. This enabled local building codes to establish standards for buildings which were earthquake resistant. However a series of quakes were poorly handled by the modified Richter scale. This series of "great earthquakes", included faults that broke along a line of up to 1000 km. Examples include the 1952 Aleutian Fox Islands quake and the 1960 Chilean quake, both of which broke faults approaching 1000 km. The Richter scale was unable to characterize these "great earthquakes" accurately.

The difficulties with use of M_s in characterizing the quake resulted from the size of these earthquakes.

Location: Epicenter: (Point on surface directly above the area of slippage on a fault): Near southwest corner of Kwis Elementary School on Angelcrest Ave.

Latitude: 34.002°N; Longitude: 117.973°W

Depth: 2.78 km / 1.73 miles

Type of fault movement-- Oblique fault that includes a sideways and vertical slip.

Intensity IV: The **Mercalli intensity scale** is a **scale** used for measuring the intensity of an earthquake. It measures the effects of an earthquake, and is distinct from the moment magnitude usually reported for an earthquake (sometimes misreported as the Richter magnitude), which is a measure of the energy released.

Modified Mercalli Scale		Richter Magnitude Scale
I	Detected only by sensitive instruments	1.5
II	Felt by few persons at rest, especially on upper floors; delicately suspended objects may swing	2
III	Felt noticeably indoors, but not always recognized as earthquake; standing autos rock slightly, vibration like passing truck	2.5
IV	Felt indoors by many, outdoors by few, at night some may awaken; dishes, windows, doors disturbed; autos rock noticeably	3
V	Felt by most people; some breakage of dishes, windows, and plaster; disturbance of tall objects	3.5
VI	Felt by all, many frightened and run outdoors; falling plaster and chimneys, damage small	4
VII	Everybody runs outdoors; damage to buildings varies depending on quality of construction; noticed by drivers of autos	4.5
VIII	Panel walls thrown out of frames; fall of walls, monuments, chimneys; sand and mud ejected; drivers of autos disturbed	5
IX	Buildings shifted off foundations, cracked, thrown out of plumb; ground cracked; underground pipes broken	5.5
X	Most masonry and frame structures destroyed; ground cracked, rails bent, landslides	6
XI	Few structures remain standing; bridges destroyed, fissures in ground, pipes broken, landslides, rails bent	6.5
XII	Damage total; waves seen on ground surface, lines of sight and level distorted, objects thrown up in air	7

2. Puente Hills Landfill Park:

A meeting hosted by the consultants developing a master plan for the new park to be developed on the now closed Puente Hills Landfill was held on Sept. 30, 2015 at the Hacienda Heights Community Center. A presentation was made of three alternatives for community residents to consider. The three are:

1. Ecology—passive uses such as walking, equestrian activities, picnicking, nature study.
2. Recreate—more active uses including possibly slides, gondolas, trams, cafes etc.
3. Upcycle—a focus on how the property has been used for waste disposal and the methane recovery system.

The presentations from both the first (Aug. 24, 2015) and the second meetings can be viewed at: <http://www.puentehillslandfillpark.org/workshops>.

A third meeting will be held on Nov. 3, 2015 at:

Wallen L. Andrews Elementary School
1010 S Caraway Dr.
Whittier, CA 90601

If you have concerns about what type of park will be created in our community be sure to attend and submit comments. At the present time, there is no access to the park from Hacienda Heights other than the main entrance off of Crossroads. There is no consideration of opening the gates at Los Robles and Orange Grove.

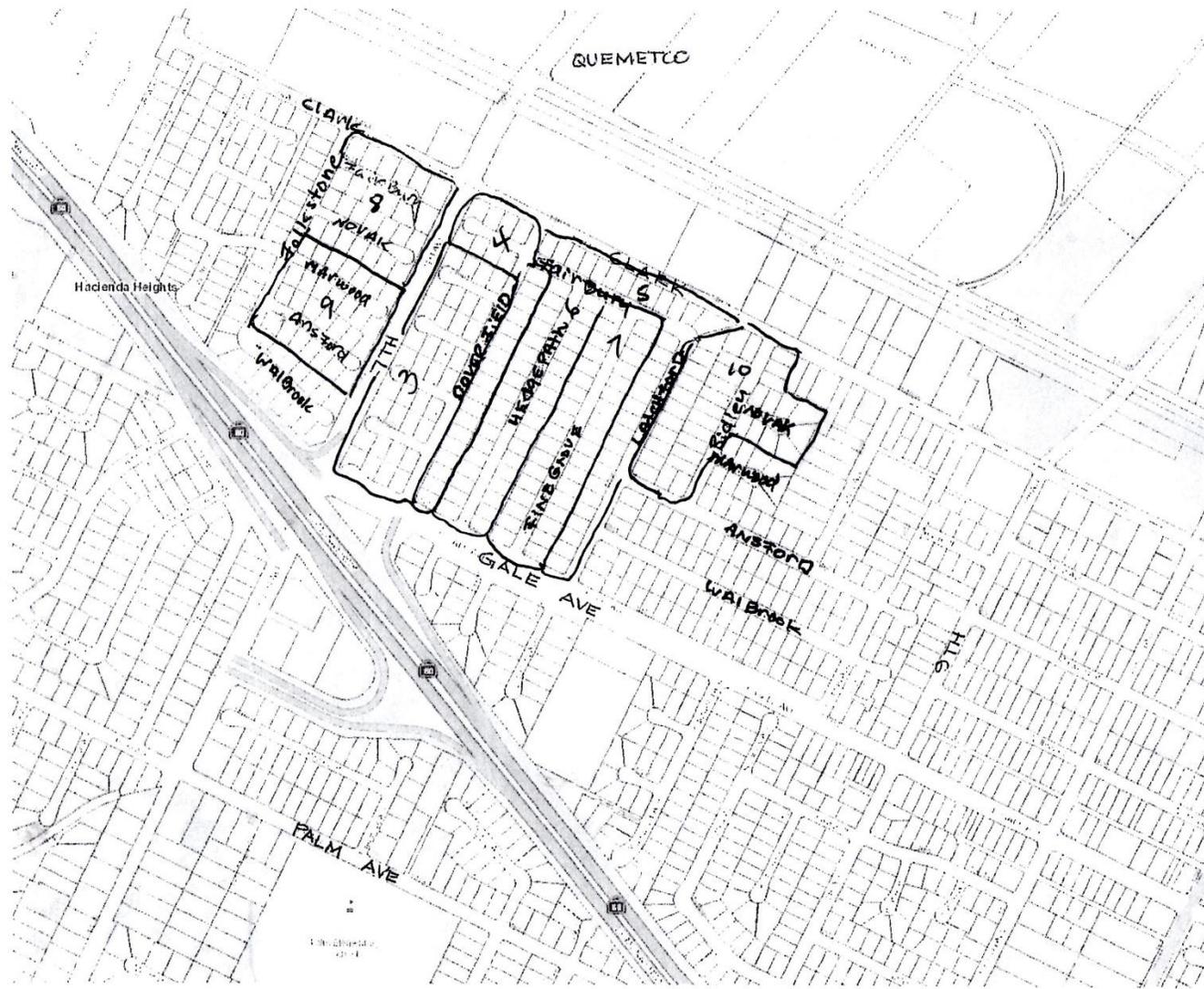
Key components of the Final Draft Park Concept will be discussed.

Agenda:

1. Presentation: The consultant team will provide a presentation of the Final Draft Park Concept.
2. Questions & Answers: Participants will have the opportunity to ask the project team questions regarding the proposed design.
3. EIR Scoping Session: This meeting will additionally serve as the kick-off for the public process for the Environmental Impact Report (EIR).

3. Quemetco Lead-Acid Battery Recycling Proposed Plant Expansion:

A community meeting will be held on Oct. 21, 2015 at Wallen Andrews Elementary School from 7 p.m to 8 p.m. to discuss a health survey being conducted by a resident's group—the Clean Air Coalition. Representatives from Supervisor Solis, DTSC, and reports on the status of a toxics testing program will be given. **This is an important issue in Hacienda Heights, particularly for those living within a ¼ to 1 mile radius of the plant located at 720 S. Seventh St City of Industry.** This plant is proposing to expand and will be the only plant receiving batteries from states west of the Rockies. It will also be taking batteries from Canada and possibly other foreign locations.



Logged Locations: Hacienda Heights

The area that will be surveyed for health concerns.

4. Judy Chu to introduce legislation to create a National Recreation Area (NRA) including the foothills of the San Gabriel Mountains, San Gabriel River, Rio Hondo

Approximately a year ago, President Obama created the San Gabriel Mountains National Monument using the Antiquities Act of 1906. Originally, the National Park Service had suggested the creation of a National Recreational Area that included much of the San Gabriel Mountains, the two river channels and the Puente Chino Hills. Good things have happened in the San Gabriel Mountains because of the designation. The federal government appropriated

an unprecedented \$3.5 million this year, and is appropriating \$3 million next year. The designation also inspired over \$4 million in additional new donations from generous individuals and organizations. The Forest Service has been able to hire new personnel including specialists, coordinators and provide needed rangers, cleanup and graffiti elimination crews. Management and facility plans are being developed.

However, the new national monument did not include the rivers or the Puente-Chino Hills. Now however, Congressional representative Judy Chu is preparing to introduce a proposal for a new national recreation area that would include areas of the foothills, the San Gabriel River and our local Puente-Chino hills. The NRA designation has been broadened to include other outdoor areas, particularly those in or near urban centers. Each NRA designation is unique, and recreational activities like boating, fishing and hunting are often explicitly authorized in its authorizing legislation.