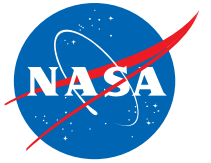


Communication and Stakeholder Involvement for Remediation: Lessons Learned

Presented by Merrilee Fellows
NASA
Manager, Risk Communication for Environmental Matters
November 18, 2011
ESTEC, Noordwijk

Some materials presented here were provided by Dr. Susan L. Santos, FOCUS GROUP

NASA'S COMMUNITY INVOLVEMENT – Three Cases from Three NASA Sites

- **Santa Susana Field Lab ("SSFL") in rural county near Los Angeles, California**
- **Jet Propulsion Lab ("JPL") close to neighborhoods and on a working NASA center in Pasadena, California**
- **Plum Brook Reactor Facility (PBRF), at the NASA Glenn Research Center, Plumb Brook Station, 50 miles west of Cleveland, OH**

Actions are used for different situations yet similar "lessons learned"

Our approach

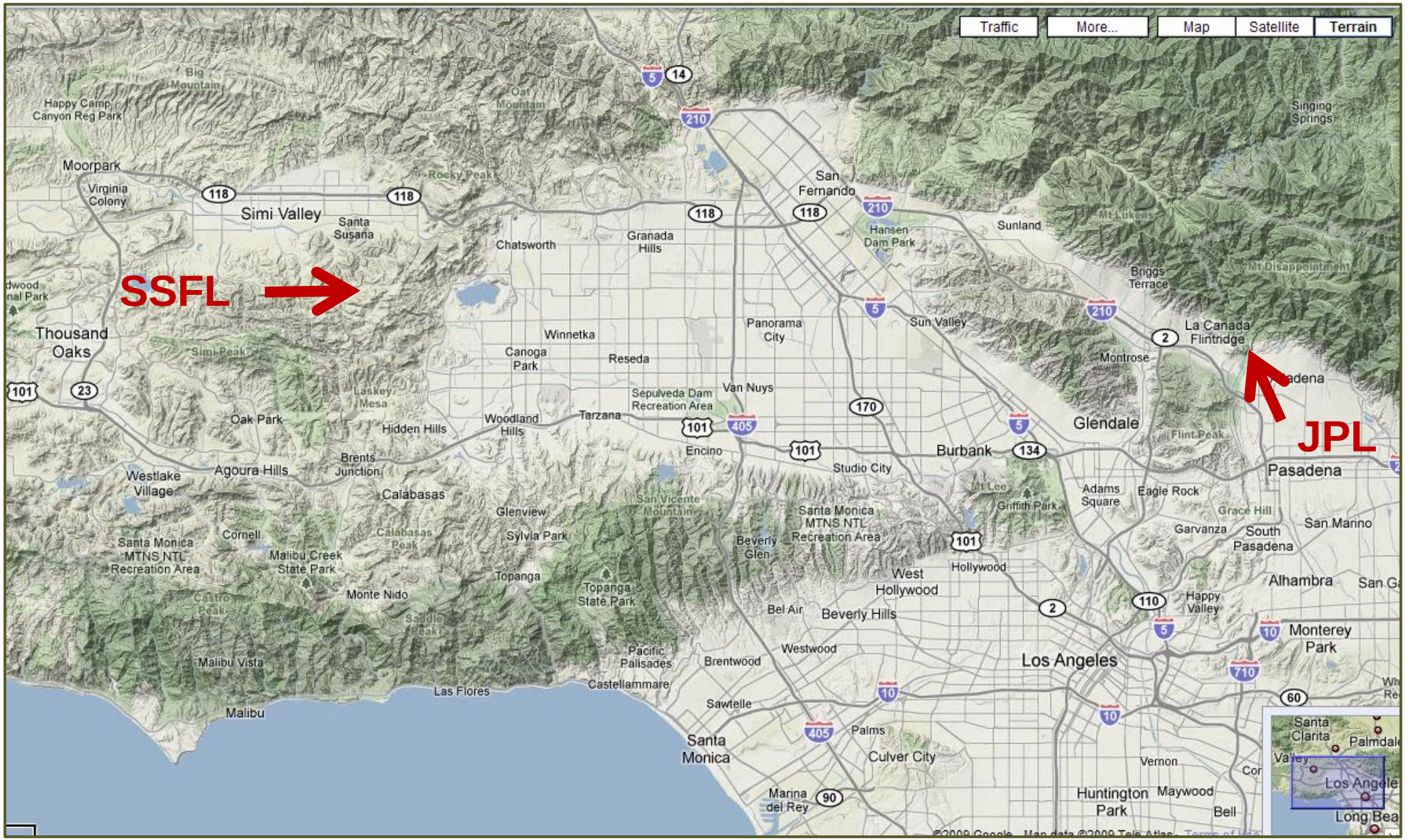
- We involve the community because it is “the right thing to do”
- We believe involvement of the community increases the likelihood of remediation success
- We apply methods of communication, risk communication and public involvement
  - Selected methods depend on political background, geography, demographics, and history of communication with neighbors.
  - Neighbors are supportive, concerned, fearful, hostile, and/or distrustful

NASA Centers and Component Facilities

LEGEND

1. Moffett Field, CA
2. Edwards AFB,CA
3. Houston, TX
4. Stennis, MS
5. Huntsville, AL
6. **Sandusky, OH**
7. Cleveland, OH
8. Cape Canaveral, FL
9. Hampton. VA
10. Greenbelt, MD
11. **Simi Valley, CA**
12. **Pasadena, CA**
13. Las Cruces, NM
14. New Orleans, LA
15. Wallops Island, VA
16. Washington D.C.

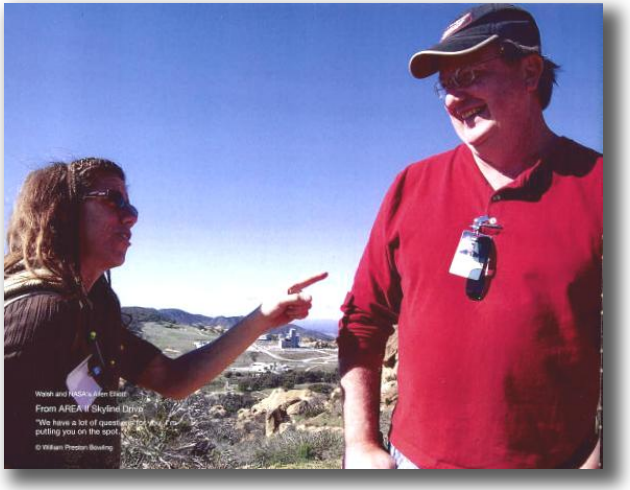
Infrared photo from STS-73, 1995. Large red areas are probably parks or golf courses.


Traffic
More...
Map
Satellite
Terrain
SSFL
JPL
Thousand Oaks
Simi Valley
Moorpark
Chatsworth
Granada Hills
San Fernando
Sunland
Sun Valley
Panorama City
Winnetka
Canoga Park
Reseda
Van Nuys
Sepulveda Dam Recreation Area
Encino
Studio City
Burbank
Glendale
Montrose
La Canada Flintridge
Pasadena
Oak Park
Hidden Hills
Woodland Hills
Tarzana
Agoura Hills
Westlake Village
Calabasas
Malibu Creek State Park
Topanga
Topanga State Park
Monte Nido
Malibu
Malibu Vista
Las Flores
Pacific Palisades
Brentwood
Westwood
Bel Air
Beverly Hills
West Hollywood
Hollywood
Beverly Glen
Santa Monica MTNS NTL Recreation Area
Griffith Park
Los Angeles
Alhambra
Monterey Park
South Pasadena
San Marino
Eagle Rock
Adams Square
Garvanza
Grace Hill
Happy Valley
Santa Monica
Culver City
Palms
Sawtelle
Marina del Rey
Huntington Park
Maywood
Bell
Vernon
Santa Clarita
Palmdale
Long Beach

Why is Risk Communication Important?

Environmental issues have the potential for:

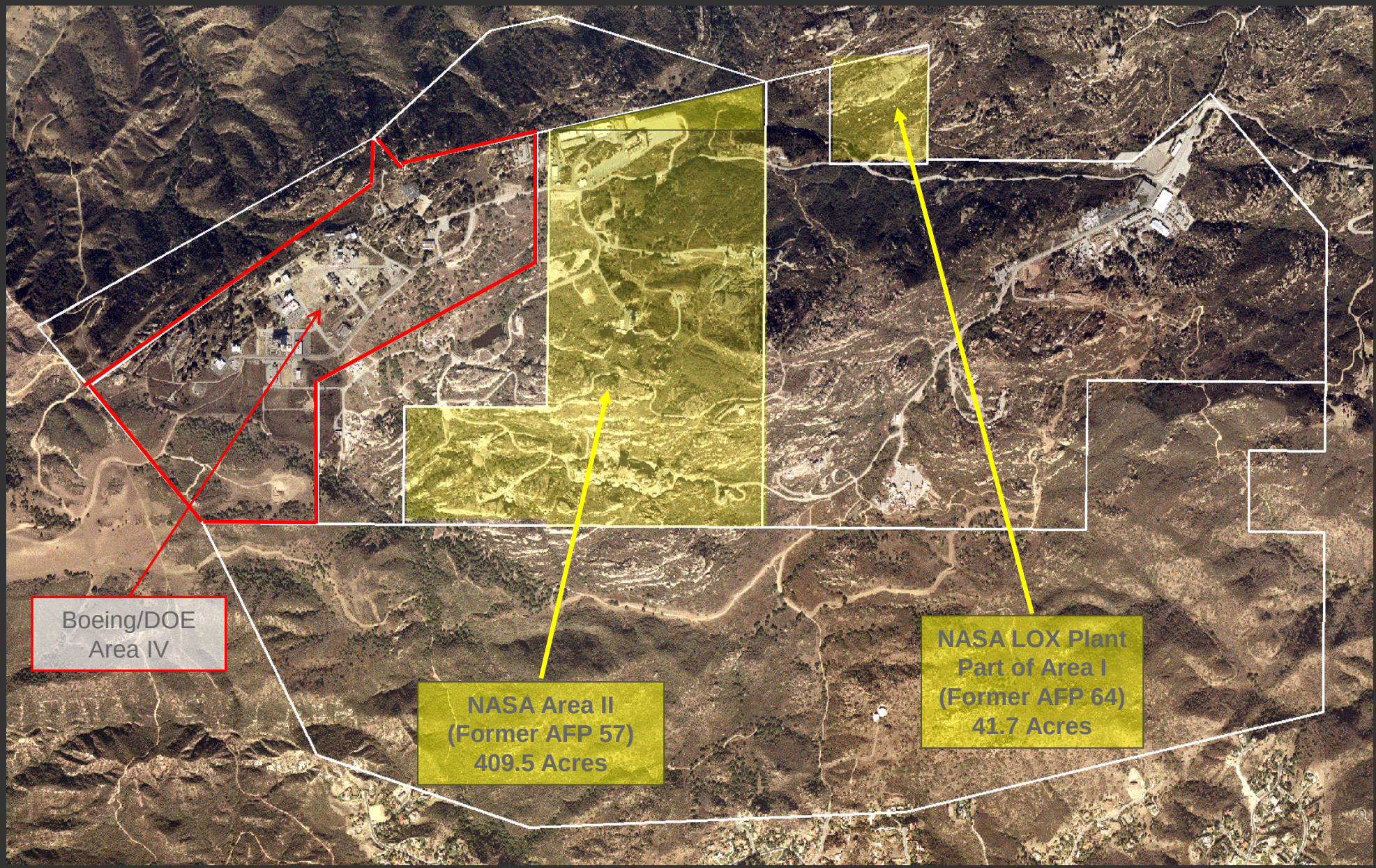
- High public concern and/or low trust
- Highly technical/complex/sensitive information
- High uncertainty or expert disagreement



SSFL has a long history of:

- Activist and stakeholder concerns
  (extreme views, high concerns, political environment)
- Low trust among at least a segment of population

Risk Communication techniques are critical for building trust in the Agency and fostering understanding of the technical underpinnings.


Boeing/DOE
Area IV
NASA Area II
(Former AFP 57)
409.5 Acres
NASA LOX Plant
Part of Area I
(Former AFP 64)
41.7 Acres

The Impact of Neighboring Activity

Site History includes Nuclear Research on neighboring parcel

- High public concern and/or low trust – radiation causes fear
- Highly technical/complex/sensitive information – radionuclides are difficult to understand
- High uncertainty or expert disagreement – experts do not agree on health impacts of detected radionuclides

SSFL has a long history of:

- Activist and stakeholder concerns
  (extreme views, high concerns, political environment)
- Low trust among at least a segment of population – public feels that site operators failed to explain reactor incident openly

What's the Risk/Cost of Poor Communication?

- Continued stakeholder pressure for additional investigation (regardless of value)
- Letters to government officials
- Negative media coverage
- Legal/regulatory challenges
- Further delays in project
- Further loss of trust and credibility

- Aggressive clean up requirements regardless of technical basis

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

THE BOEING COMPANY,

Plaintiff,

v.

LEONARD ROBINSON, in his official capacity as the Acting Director of the California Department of Toxic Substances Control,

Case No. CV 10-04839-JFW (MANx)

JUDGMENT PURSUANT TO FED. R. CIV. P. 54(b)

l Plaintiff The Boeing Company's Motion for
s determination that there were no genuine issues as
intiff was entitled to judgment as a matter of law
e of the Amended Complaint, IT IS NOW,
ERED, ADJUDGED, AND DECREED that
n as follows:
d in favor of Plaintiff The Boeing Company as to
the Amended Complaint.
Bill 990 ("SB 990"), codified at Cal. Health &
ared invalid and unconstitutional in its entirety
the United States Constitution.

(B) CASE NO. CV 10-04839-JFW (MANX)

ckering Hale and Dorr LLP
th Grand Avenue
les, California 90071

UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA

NATURAL RESOURCES DEFENSE COUNCIL, INC.,COMMITTEE TO BRIDGE THE GAP, AND CITY OF LOS ANGELES

Plaintiffs,

v.

DEPARTMENT OF ENERGY, SPENCER ABRAHAM, Secretary, Department of Energy, and **CAMILLE YUAN-SOO HOO**, Manager, National Nuclear Security Administration, Oakland Operations Office

Defendants.

COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF

ADMINISTRATIVE PROCEDURE ACT CASE

1. This case challenges the Department of Energy's ("DOE") March 2003 decision concerning the cleanup of radioactive and other contamination on Area IV of the Santa Susana Field Laboratory ("SSFL") in Simi Valley, California, a DOE-controlled area that, for over fifty years, was used for the development, fabrication, and disassembly of nuclear reactors, reactor fuel, and other radioactive and highly toxic materials. For decades, Area IV was the site of widespread radiological

Stakeholder Involvement

Key Principles of Effective Risk Communication

- Have clear goals for communicating and plan carefully
- Identify stakeholder concerns, values, perceptions and information needs in advance of communicating
- Understand and address risk perception
- Be a trusted source
- Develop messages that meet stakeholder needs and your goals
- Select methods that target your priority stakeholders and provide for feedback - not just dissemination
- Monitor effectiveness

Points To Remember

- Risk communication is a process (not gimmicks)
- Risk communication recognizes that the public:
  - Has a right to receive information, and
  - Should be actively involved in the:
    - Dialogue regarding the nature of the risk/problem, and
    - Providing input on how to minimize or control the “risks”

Points to Remember

- Communication must be done by those perceived as credible – expertise and competency only accounts for a small % of trust…
- Two-way communication increases likelihood of success – this means you need to listen as much as respond, and adjust communication accordingly
- Addressing prior beliefs of the audience is important
- Trust and credibility are FRAGILE and must be NURTURED!

Understanding Your Stakeholders

- Have a process for systematically identifying their values, concerns, and perceptions
- Determine stakeholder information needs
- Who do they trust as information sources?
- What are the best ways to inform and involve them?
- Who are they?
- This is an enormous time commitment, but worthwhile.

Santa Susana Stakeholders

United States

- NASA
- White House (Council on Environmental Quality)
- US Environmental Protection Agency (EPA)
- US Department of Energy
- NASA
- US General Services Administration
- US Fish and Wildlife Service
- US Army Corp of Engineers
- US House & Senate
- National Park Service (Rim of the Valley)
- Local Congressional Representatives

State of California

- California EPA
- California Department of Toxic Substances Control
  - Public Participation Group (“PPG”)
- California Department of Public Health
- State/Regional Water Quality Boards
- State Historic Preservation Office (SHPO)
- California Senate & Assembly
- Office of the Governor

Local Governments & Special Districts

- City of Simi Valley; City of Los Angeles
- LA Dept of Water & Power
- Ventura County Air, Environmental, & Land Use Departments
- County Fire Departments

Industry

- The Boeing Company

Consultants (Contractors)

- CH2M Hill; GSE Inc.; Focus Group

Environmental Groups

- Natural Resources Defense Council
- Physicians for Social Responsibility
- Santa Monica Mountains Conservancy
- CleanupRocketdyne.org
- Walsh “CAG”
- Committee to Bridge the Gap
- Santa Susana Mountain Parks Association
- ACME
- Radiation Rangers
- Heal the Bay
- Save Open Space

Community Groups

- West Hills Neighborhood Council & Others
- Bell Canyon Home Owners Association
- Santa Susana Knolls Homeowners Association

Interagency Work Group

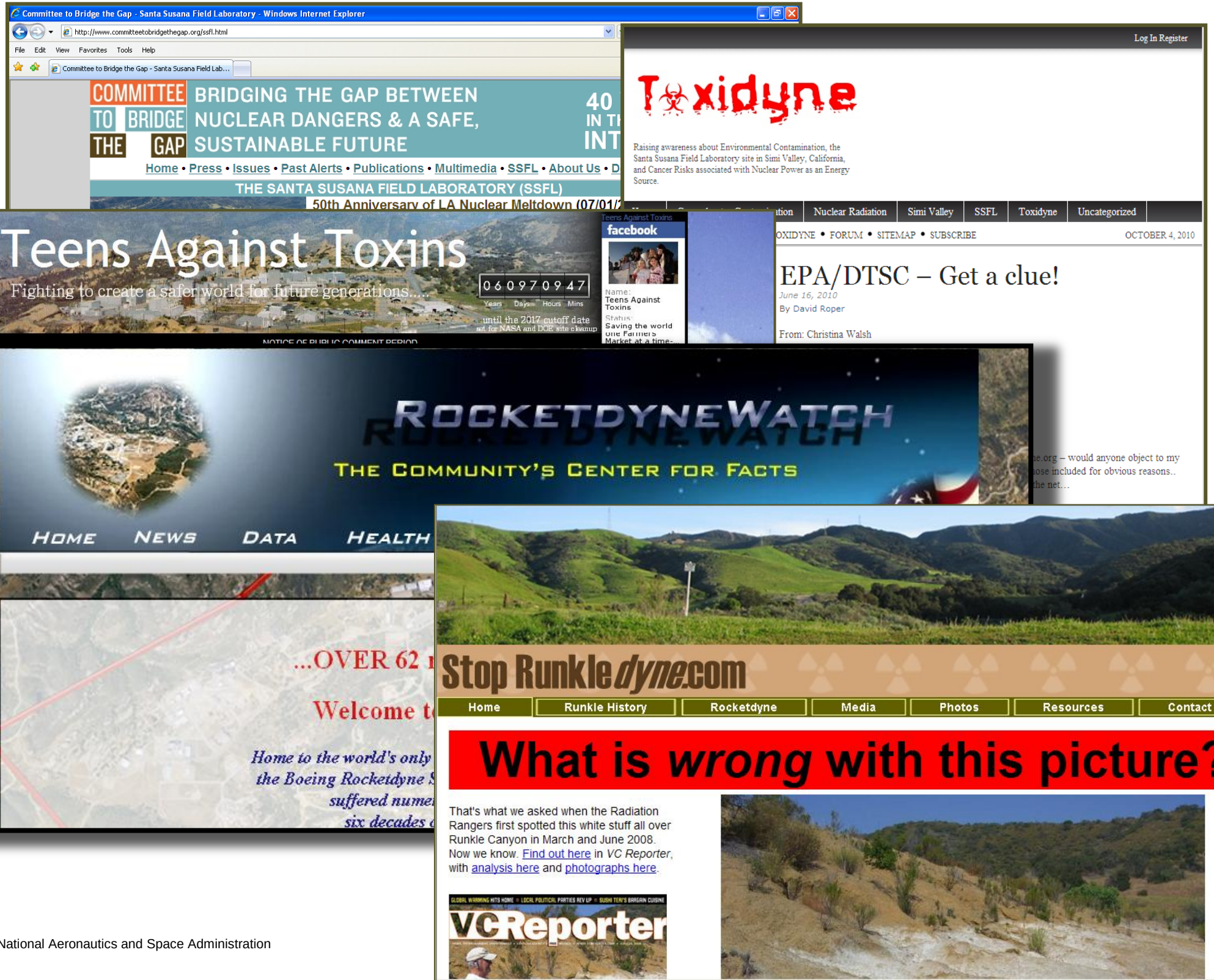
Native American Tribes

- The Santa Ynez Band of Mission Indians (Chumash)
- Fernandino/Tataviam Tribe
- Gabrielino Tribe
- Mati Waiya/Wishtoyo Foundation

News Media/Social Media

- Numerous Websites

MANY INDIVIDUALS!!



National Aeronautics and Space Administration

Santa Susana Field Laboratory - Wikipedia, the free encyclopedia - Windows Internet Explorer

http://en.wikipedia.org/wiki/Santa_Susana_Field_Laboratory

wikipedia ssfl

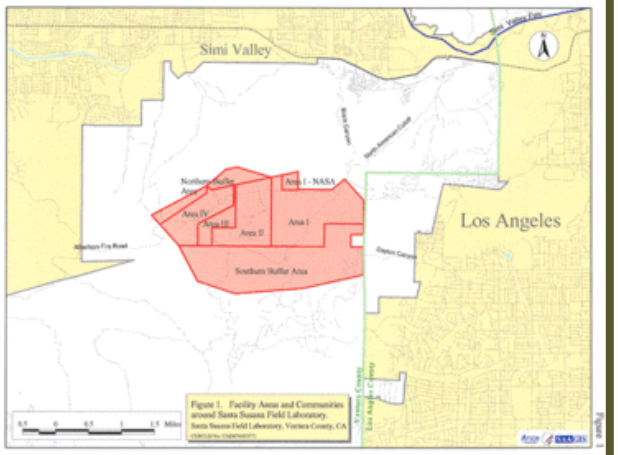
File Edit View Favorites Tools Help

Santa Susana Field Laboratory - Wikipedia, the free e...

Page Tool

Introduction [edi

Since 1947 the Santa Susana Field Laboratory location has been used by a number of companies and agencies. The first was Rocketdyne, originally a division of North American Aviation-NAA, which developed a variety of pioneering, successful and reliable liquid rocket engines.[4] Some were those used in the Navaho cruise missile, the Redstone rocket, the Thor and Jupiter ballistic missiles, early versions of the Delta and Atlas rockets, the Saturn rocket family and the Space Shuttle main engine.[5] The Atomics International division of North American Aviation utilized a separate and dedicated portion of the Santa Susana Field Laboratory to build and operate the first commercial nuclear power plant in the United States[6] and for the testing and development of compact nuclear reactors including the first and only known nuclear reactor launched into Low Earth Orbit by the United States, the SNAP-10A.[7] Atomics International also operated the Energy Technology Engineering Center for the U.S. Department of Energy at the site. The Santa Susana Field Laboratory includes sites identified as historic by the American Institute of Aeronautics and Astronautics and by the American Nuclear Society. In 1996, The Boeing Company became the primary owner and operator of the Santa Susana Field Laboratory and later closed the site.



Santa Susana Field Laboratory administrative areas, and the surrounding communities.

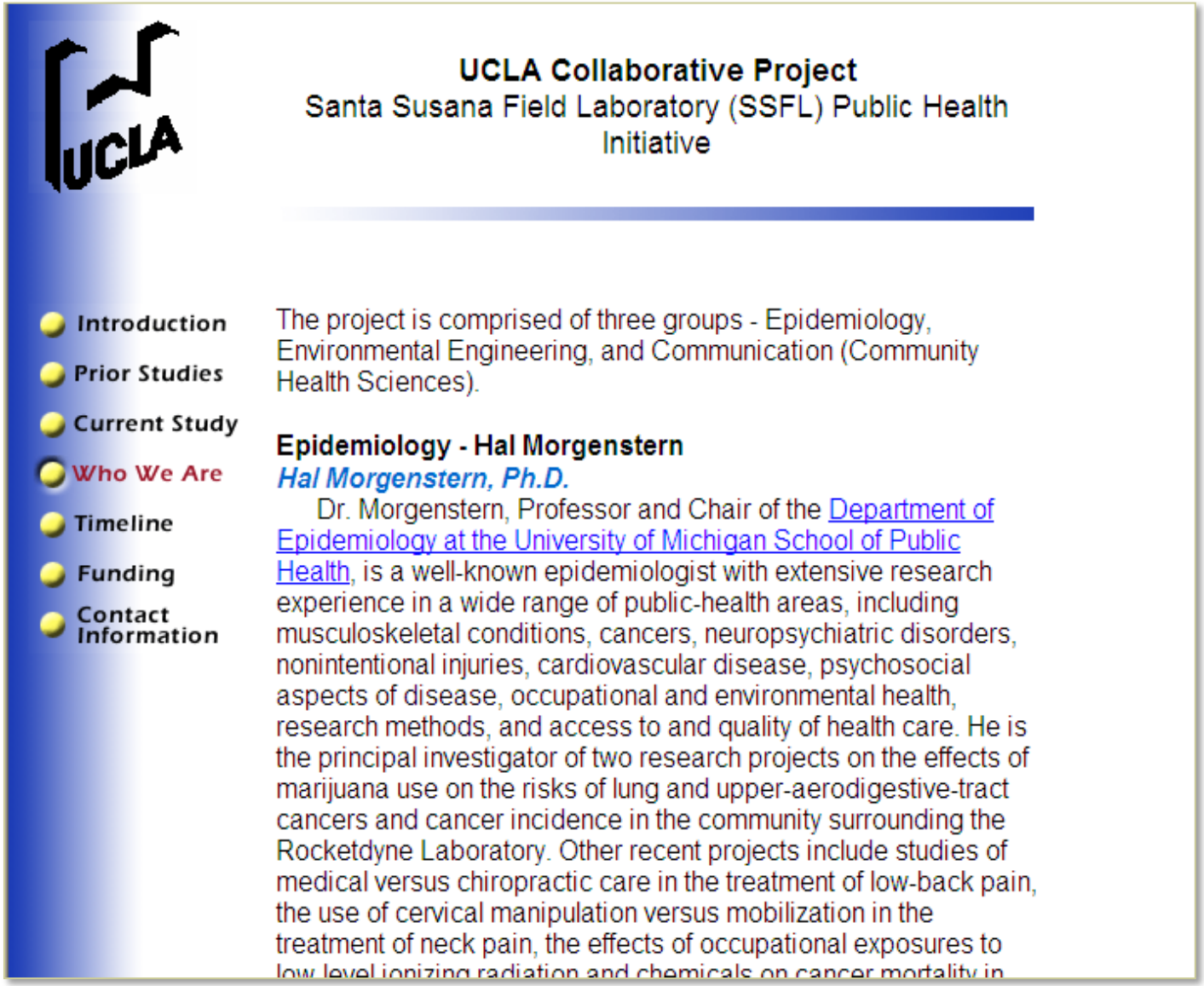
Three California state agencies and three federal agencies have been overseeing a detailed investigation of environmental impacts from historical site operations since at least 1990.[8] Concerns about the environmental impact of past disposal practices have inspired at least two lawsuits seeking payment from Boeing and several interest groups are actively involved with steering the ongoing environmental investigation.

The Santa Susana Field Laboratory is the focus of diverse interests. The National Register of Historic Places listed Burro Flats Painted Cave is located within the Santa Susana Field Laboratory, on a portion of the site owned by the U.S. government. The drawings within the cave have been termed "the best preserved Indian pictograph in Southern California." Several tributary streams to the Los Angeles River have headwater watersheds on the SSFL property, including Bell Creek (90% of SSFL drainage), Dayton Creek, Woolsey Canyon, and Runkle Creek.[9]

Several unidentified flying object sightings have been associated with the Santa Susana Field Laboratory,[10][11] one as recent as April 2007.[12]

History [edi

SSFL was slated as a United States government facility dedicated to the development and testing of nuclear reactors, powerful rockets such as the Delta II, and the systems that powered the Apollo missions. The location of SSFL was chosen in 1947 for its remoteness in order to conduct work that was considered too dangerous to be performed in more densely populated areas. In subsequent years however, the Southern California population grew, along with housing developments surrounding "The Hill." Today, more than 150,000 people live within 5 miles (8 km) of the facility, and at least half a million people live within 10 miles (16 km).


UCLA Collaborative Project
Santa Susana Field Laboratory (SSFL) Public Health Initiative
Introduction
Prior Studies
Current Study
Who We Are
Timeline
Funding
Contact Information
The project is comprised of three groups - Epidemiology, Environmental Engineering, and Communication (Community Health Sciences).
Epidemiology - Hal Morgenstern
Hal Morgenstern, Ph.D.
Dr. Morgenstern, Professor and Chair of the Department of Epidemiology at the University of Michigan School of Public Health, is a well-known epidemiologist with extensive research experience in a wide range of public-health areas, including musculoskeletal conditions, cancers, neuropsychiatric disorders, nonintentional injuries, cardiovascular disease, psychosocial aspects of disease, occupational and environmental health, research methods, and access to and quality of health care. He is the principal investigator of two research projects on the effects of marijuana use on the risks of lung and upper-aerodigestive-tract cancers and cancer incidence in the community surrounding the Rocketdyne Laboratory. Other recent projects include studies of medical versus chiropractic care in the treatment of low-back pain, the use of cervical manipulation versus mobilization in the treatment of neck pain, the effects of occupational exposures to

SERVING
L.A., San Fernando Valley, Conejo Valley, Simi Valley, Moorpark, Antelope Valley, Santa Clarita, Glendale, Burbank

Daily News
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WEATHER
Sunny, warm
Highs: 66-76
Lows: 48-55
Air quality: Moderate
For details, see back of Business

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FRIDAY, FEBRUARY 3, 2006

50 Cents
DESIGNATED AREAS HIGHER

Cancer in our backyard

Studies show rates higher for those within 2 miles of Santa Susana lab

By Kerry Cavanaugh
Staff Writer

Residents living within two miles of the Santa Susana Field Lab may have been exposed to toxic chemicals through air, water and soil contamination — and they have higher cancer rates than people in communities farther from the lab, researchers revealed Thursday in two landmark studies.

People living close to the Simi Hills lab had slightly higher rates of all cancers, particularly those linked to radiation and chemical exposure, the studies found.

Authors of the two reports warned the results do not conclusively show that contamination from the former nuclear research and rocket engine testing lab caused cancer and other illnesses in the surrounding community.

However, the studies are the strongest evidence to date that residents near the lab were exposed to hazardous chemicals that could have increased their chance of developing cancer.

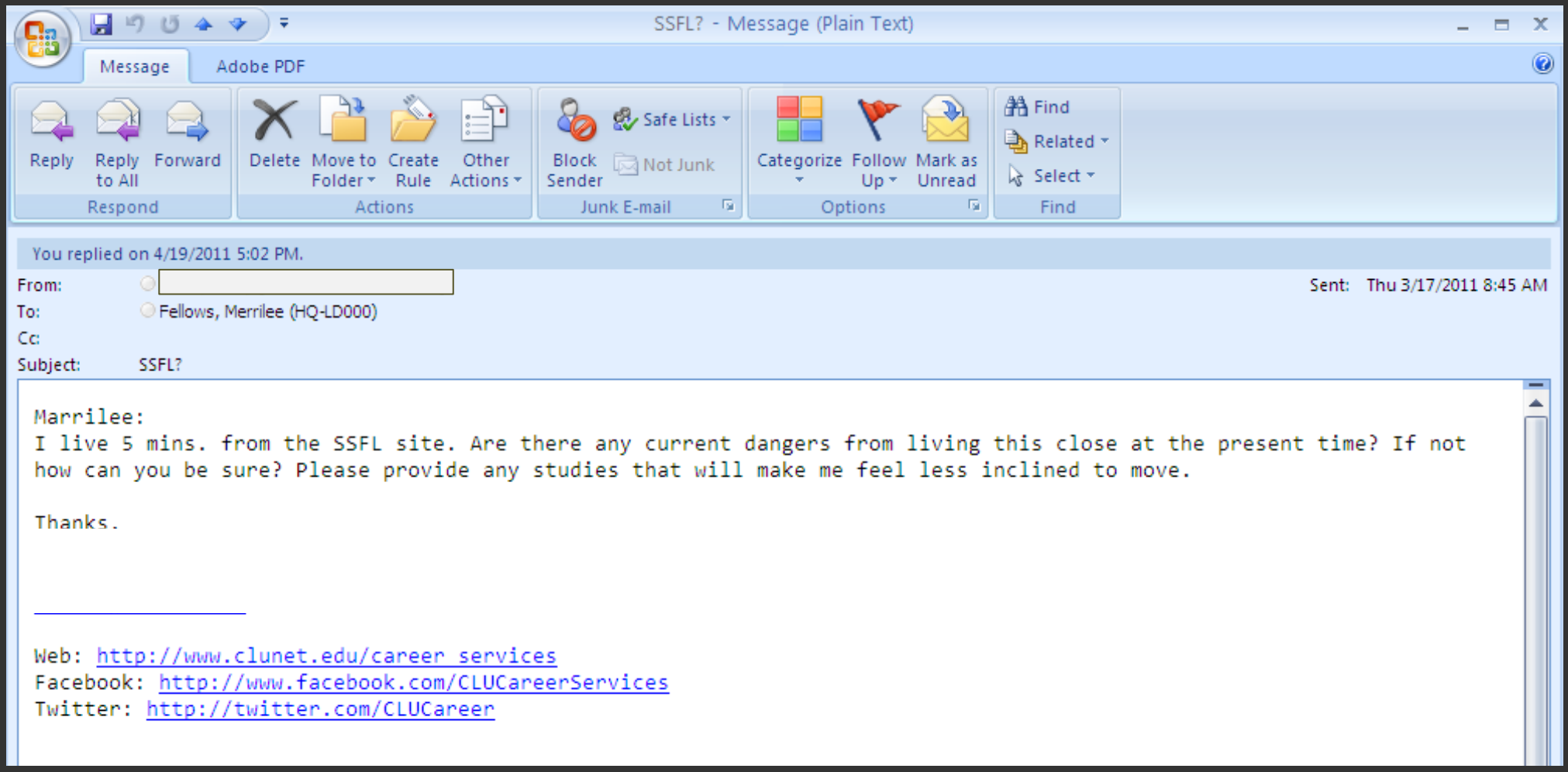
"I was actually surprised by some of these results," said Hal Morgenstern, author of one of the studies and chairman of the epidemiology department at the University of Michigan School of Public Health.

"This may be something that has nothing to do with Rocket dyne and Santa Susana, but it' provocative enough that we hav to pursue it."

The Boeing Co., which ha owned the lab since 1996

Please see CANCER / Page 1

Understand stakeholder concerns



Understand stakeholder concerns

I want the test stands preserved!

Understand stakeholder concerns

I want the place to be a public park!

Understand stakeholder concerns

I want to preserve the Native American sites

Understand stakeholder concerns

I just want to be safe!

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Daily News
dailynews.com

WEATHER
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The Boeing Co., which ha owned the lab since 1996

Please see CANCER / Page 1

Lessons Learned

- Provide several vehicles for two-way communication. Website, Community Information Sessions for soliciting stakeholder feedback, lunches, long telephone calls, small guided tours, and numerous meetings.

- Think of communications as being a deposit in the 'Trust Bank'.

- Every time you are open and honest with the public, you earn a little more trust. When something goes wrong and you need to tell the public "trust us, there's no risk to you and your children" it's too late to build trust. You must have this established before it's needed!

Lessons Learned (con't)

- Identify and Engage Stakeholders – Communication needs to be two-way. Know your public and **listen** to them.
- Giving them information and a communication conduit back to the project goes a long way towards giving them some sense of control – therefore the perceived 'risk' goes down
- Involve regulators and collaborate with them—early and often!
  - Include regulators in risk communication training and dry-runs

September 30, 2010

Merrilee Fellows
NASA
Santa Susana Field Lab, Ventura County, Calif.
818-393-0754
mfellows@nasa.gov

RELEASE: SSFL10-002

NASA ANNOUNCES ADDITIONAL SOIL CLEANUP AT SANTA SUSANA FIELD LAB

In 2008, to protect surface water quality the Regional Water Quality Control Board issued an order requiring soil cleanup at Santa Susana Field Laboratory (SSFL). In 2009, NASA completed soil removal in two small areas on property NASA administers.
NASA is proceeding with soil removals in additional areas to remove soil contamination sources and prevent discharges to surface water of the chemicals of concern.

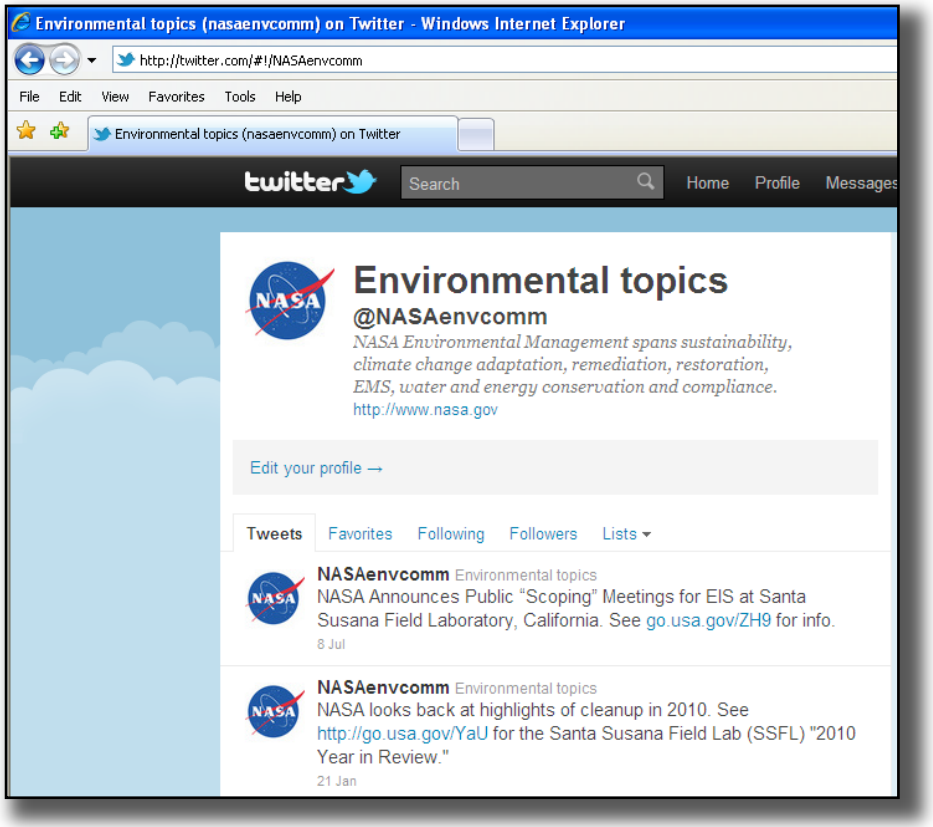
Soil removal in these additional areas – shown on the following page (Fig. 1) as polygons noted as AP/STP-1A, -1D and -1F – is near a former incinerator and related ash pile. Work will begin on Tuesday, October 5th, weather permitting, and is expected to take about three weeks. Soil removed as part of this cleanup will be disposed of at Waste Management's landfill in Lancaster, Calif.

Prepare and Issue Press Releases

NASA's Community Information Session for SSFL
May 4, 2010

Establish Trust & Credibility

- **The more information disseminated, the greater the trust factor…**
  - Use all appropriate communication tools, including print, direct mail, Websites and social media outlets.
  - Remember that about one-fourth of Americans still do not have any access to the Internet, and about 40 percent of Americans do not have high-speed or broadband connections.



National Aeronautics and Space Administration

2010

YEAR IN REVIEW

NASA and Santa

NASA administers 451.2 acres in two areas of Santa Susana Field Laboratory (SSFL) used historically for the research, development, and testing of rocket engines associated with the Apollo and Space Shuttle programs. NASA is committed to a cleanup of those areas to a level protective of public health and the environment.

During 2010, NASA continued its environmental investigations and cleanup at SSFL and demonstrated its commitment to ongoing

National Aeronautics and Space Administration

Santa Susana Field Laboratory

Archaeological Resources Survey

This is a description of the survey conducted to identify and evaluate archaeological resources in the portions of the Santa Susana Field Laboratory (SSFL) that are administered by NASA.

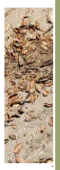
Engines tested by NASA at the Santa Susana Field Laboratory (SSFL) were the engines used in rockets that landed modern man on the surface of the moon - the same moon ancient cultures had looked upon for thousands of years. Just as modern man left footprints on the moon's surface, ancient cultures left behind cave paintings, tools and other proof of their presence long ago in the Simi Hills of Southern California. NASA recognizes the importance of the historic resources and culture of the people

NASA's Archaeological Survey

A site-wide Cultural Resources Inventory of federally-owned Areas I and II was completed in April 2008. The goals of this survey were twofold: to determine whether there were any previously unrec resources on the lands administered by NASA, and to b the nature and extent of the previously recorded Bur Cave site (see page 3). This effort assists NASA with Section 110 of the National Historic Preservati which directs Federal agencies to identify histo including archaeological resources. Having this inventory enables NASA to better manage these resour

Archival Search and Field Investigation

A CHRIS (California Historical Resources Information System) search was conducted by archaeological professionals as part of NASA's survey. This involved reviewing all previously recorded archaeological sites on federally-owned land in Areas I and II, and the cultural resources reports already on file. Next, a thorough field investigation was performed. Archaeologists conducted a systematic survey on federally-owned land in Areas I and II from June 2007 to February 2008. This was conducted as an intensive pedestri



National Aeronautics and Space Administration

Santa Susana Field Laboratory

The Use of Trichloroethylene at NASA's SSFL Sites

This provides information on the cleanup of NASA properties at the Santa Susana Field Laboratory (SSFL).

The Bravo Test Stands (including those pictured above) were among four areas

NASA administers 451.2 acres in two areas of the Santa Susana Field Laboratory (SSFL). NASA recognizes the importance of communicating directly with the community regarding our current and former operations at SSFL and the ongoing environmental cleanup taking place throughout the entire 2,850-acre facility. The other areas of SSFL

What is TCE?

Trichloroethylene (TCE) is a non-flammable, colorless liquid that belongs to a group of chemicals known as Volatile Organic Compounds (VOCs). It is used mainly as a solvent for removing grease from metal parts, and in adhesives, paint removers and spot removers. The

National Aeronautics and Space Administration

FieldNOTES

APRIL 2011

A Newsletter on NASA's Cleanup Efforts at Santa Susana Field Laboratory

NASA administers 451.2 acres in two areas of Santa Susana Field Laboratory (SSFL) used historically for the research, development and testing of rocket engines associated with the Apollo and

WELCOME!

We're delighted to welcome you to **FieldNOTES.** We thought it would be fun to ask people in the community what we should call our newsletter. We held a mini contest and several of you responded with some great ideas. We agreed that **FieldNOTES** was a nice play on words and our thanks goes to William Preston Bowling for the winning title.

Our premier edition of **FieldNOTES** is brimming with news about our cleanup efforts on the land NASA administers in Areas I and II at Santa Susana Field Laboratory (SSFL). Implementing these activities takes a dedicated team committed to achieving our cleanup goals. In these pages, we'll introduce you to some key people and the work that's going on here at SSFL - in all phases of the cleanup program, in environmental compliance and in cultural and natural resources management.

As a major communications piece, this inaugural newsletter was printed and mailed to reach a very wide audience. NASA is committed to reducing the use of paper and we will send future editions of this newsletter and most other written communications **only** via email. (See details to sign up below.)

It continues to be a busy time for NASA here at SSFL. We recognize the importance of being actively involved daily and engaged locally with stakeholders. All of us

National Aeronautics and Space Administration

Santa Susana Field Laboratory

An Overview of NASA's History at SSFL

This provides information on the cleanup of NASA-administered at the Santa Susana Field Laboratory (SSFL).

The SSFL is located on 2,850 acres in the Simi Hills, nearly thirty miles northwest of downtown Los

NASA administers 451.2 acres in two areas of the Santa Susana Field Laboratory (SSFL) and has operated here since 1973, when we first acquired land from the U.S. Air Force (USAF). Prior to 1973, NASA conducted testing at SSFL in cooperation with the USAF. NASA recognizes the importance of communicating directly with the community regarding our properties, current and former operations at SSFL and the ongoing environmental cleanup taking place. Other areas are owned and operated by the Boeing Company. NASA is committed to a cleanup of the areas we administered to a level protective of public health and the environment. This literature is part of our efforts to keep you informed.

The activities conducted throughout the NASA-administered areas of the SSFL have included research, development and testing of rocket engines associated with the Apollo and Space Shuttle Programs, and for Air Force missile programs. The 41.7 acres of Area I formerly administered by the USAF (and since 1976 by NASA) were used for a Liquid Oxygen (LOX) Plant, which operated under the USAF from the early 1950s until the late 1960s. The plant's buildings and tanks were removed in the 1970s. At its peak, our other property, Area II, contained some 125 buildings and other structures, many of which have been demolished during the past three


Engine Hot Fire Test on Alfa Test Stand - 1960
Engine Test Stands
Consent Order 101

Welcome to

GROUNDWATER U

Building an understanding of groundwater at Santa Susana Field Laboratory

Sponsored by:
The Boeing Company, DOE, and NASA in cooperation with the California Department of Toxic Substances Control (DTSC)

"In cooperation with the California Department of Toxic Substances Control (DTSC)" was very important.

Presentations
All posted as videos

Participant Information
Presenter Bios
Glossary
Acronyms

Suggested Readings
Fact Sheet: What is GroundWater?
Link: Basic Groundwater Geology (13MB—right-click to download)
Practice of Characterization and Remediation of Contaminated Groundwater at Fractured Rock Sites
Handbook for Dense Non-Aqueous Phase Liquids (DNAPLS)
Frequently Asked Questions Regarding Management of Chlorinated Solvents in Soils and Groundwater

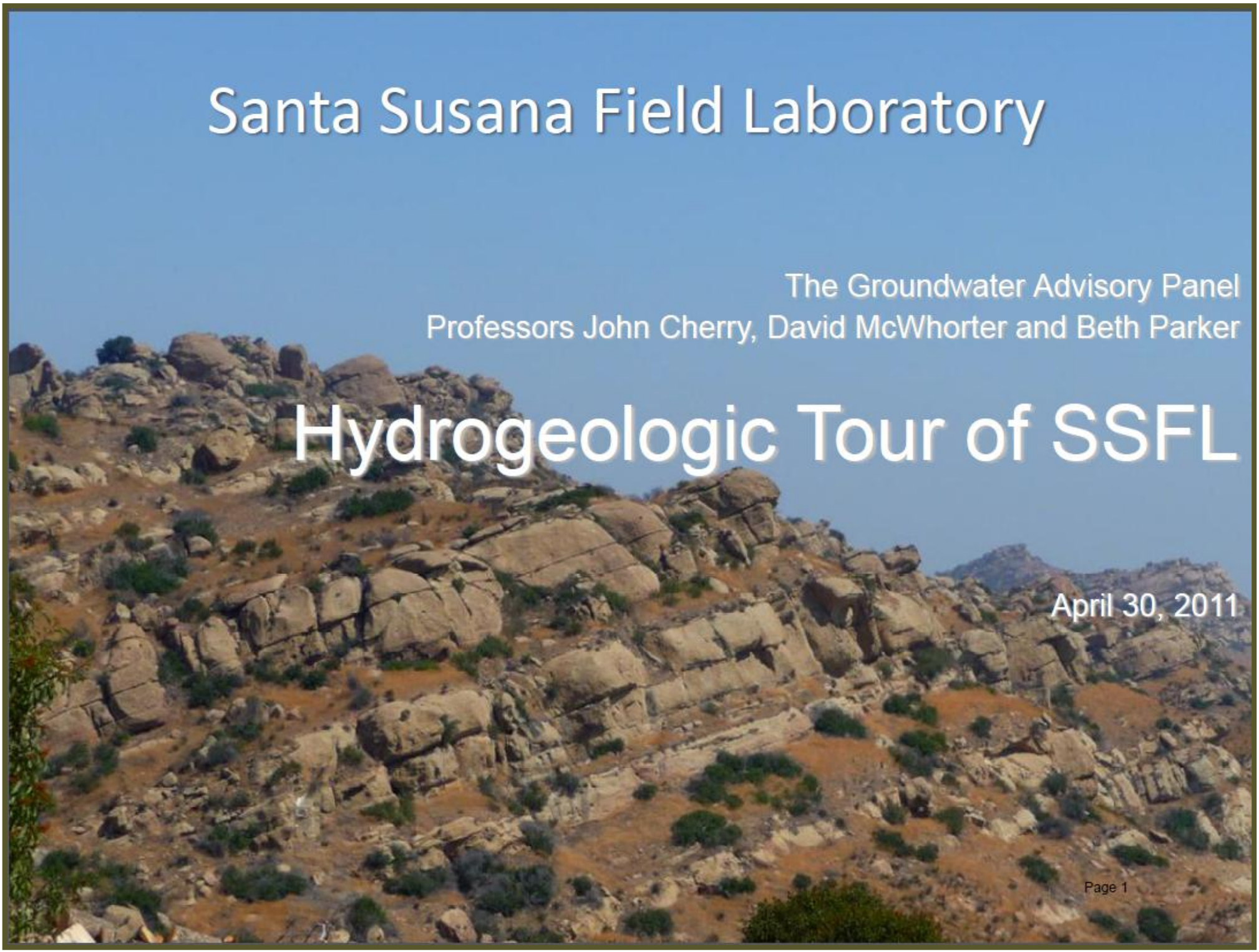
Site Tour Booklet

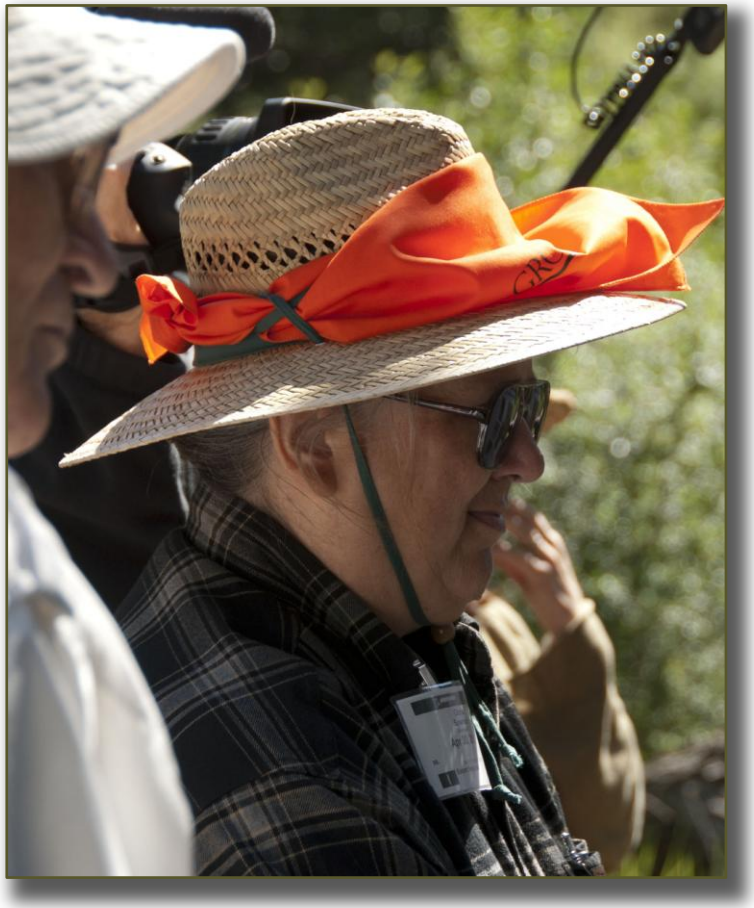
Posters from Session 7, June 27, 2011

Establishing Trust & Credibility

- Used Independent Selection for Speakers on “Basic Hydrogeology”
- Did not Contact Independent Speakers Except Through the Regulator

- Used Internal “Expert Panel” for Specifics of SSFL
- Worked with Expert Panel to Ensure Clear Communications


Santa Susana Field Laboratory
The Groundwater Advisory Panel
Professors John Cherry, David McWhorter and Beth Parker
Hydrogeologic Tour of SSFL
April 30, 2011
Page 1



Famous hydrogeology experts

Dr. Beth Parker

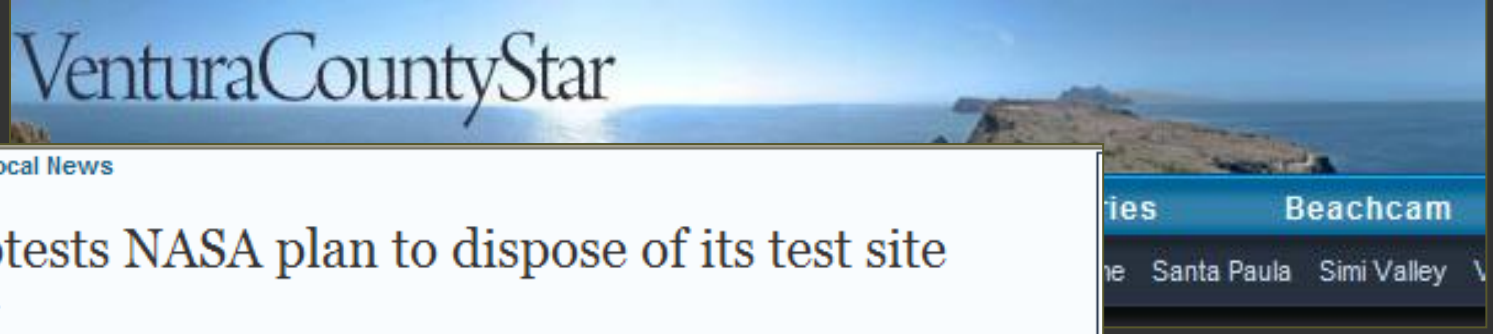
Dr. John Cherry

Lessons Learned

- Local activists are hungry for information.
- They need technical background to digest and respond to requests for their input.
- They want “access” to the site; helps remove the sense of secrecy
- The series was seven sessions over a couple of months and we still had high attendance at the last sessions.
- They are now more interested in the site, more knowledgeable, and their questions are more technical.
- And we have identified an additional set of interested residents to participate in our discussions!

Lesson Learned

- Less positive results when the public is not included early



State protests NASA plan to dispose of its test site property

By Teresa Rochester (Contact)
Wednesday, May 27, 2009

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State agency casts wary eye as medical spas proliferate
Gunman hunted in Oxnard shooting

State officials ar
declare its land
Laboratory exce
sale or transfer
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The National Ae
452 acres of the
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A California law
be subject to the
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negotiations bet
terms governing
which owns most of the land, and the U.S. Department of
area at the site, are also part of the negotiations with the
Control.

"NASA remains committed to doing the contamination cle
manager for community involvement, adding that the cultu
with pictographs, will also remain under the agency's stew

Officials object to Field Lab lot sale

By Teresa Rochester (Contact)
Sunday, May 31, 2009

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MORE FROM LOCAL NEWS
37 years of tradition to end as Ventura private school shuts down
State agency casts wary eye as medical spas proliferate
Gunman hunted in Oxnard shooting

As soon as NASA answers questions from at least one member of Congress, the space agency plans to move forward with controversial plans to have land it owns at the polluted Santa Susana Field Laboratory declared excess property and ultimately sold or transferred.

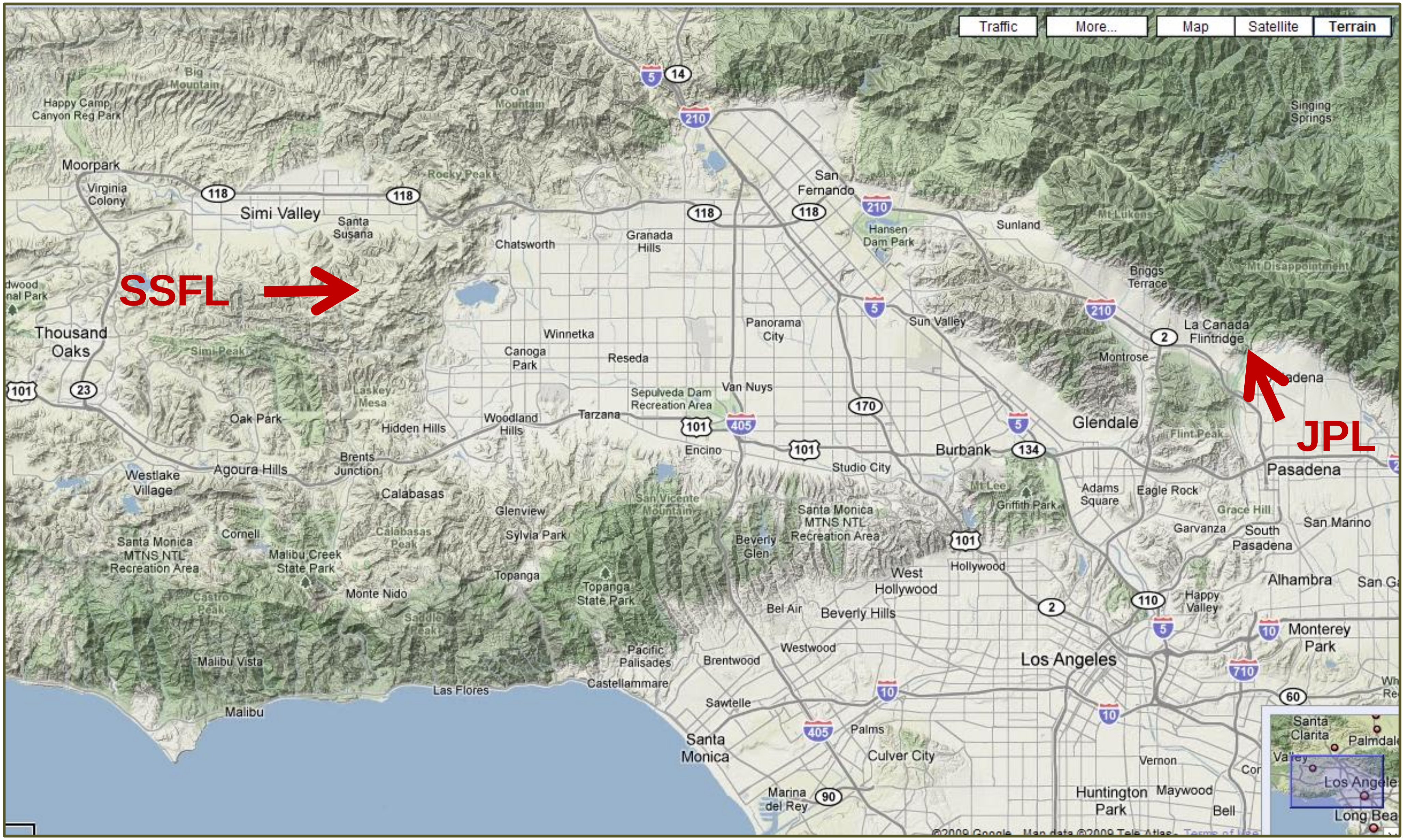
NASA's efforts, which became public in April, have caused a storm of bipartisan concern and a flurry of letters from state and federal legislators. A California law governing the cleanup of radiation and chemical contamination at the former rocket engine and nuclear test site requires that state officials sign off on any transfers or sales, and only after the land is cleaned to stringent standards.

A number of elected and state officials also have complained they were not notified by the National Aeronautics and Space Administration about its plans.

Representatives of several elected officials spoke against NASA's plans Thursday night in Simi Valley at a meeting of the Santa Susana Field Laboratory Work Group.

Lessons Learned

- The activists were angry that we had not — as we had promised — told them what we were going to do before we publicly announced it.
- Points up need to resolve conflicting objectives within the Agency.
- Always need an after-action Review:
  - Have a dialogue with those involved (or who were not)
  - Everyone needs to be part of the outreach process.


SSFL
JPL
Traffic
More...
Map
Satellite
Terrain
Moorpark
Simi Valley
Santa Susana
Chatsworth
Granada Hills
San Fernando
Sunland
Thousand Oaks
Winnetka
Canoga Park
Reseda
Panorama City
Sun Valley
La Canada Flintridge
Montrose
Van Nuys
Tarzana
Woodland Hills
Encino
Burbank
Glendale
Pasadena
Studio City
Agoura Hills
Calabasas
Westlake Village
Oak Park
Hidden Hills
Topanga
Malibu
Santa Monica
Beverly Hills
West Hollywood
Hollywood
Los Angeles
Culver City
Alhambra
Monterey Park
South Pasadena
San Marino
Huntington Park
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Importance of Understanding Stakeholders

- JPL cleanup of “source area” required facility construction adjacent to buildings with sensitive instrumentation.
  - Coordinated construction with “mission critical” activities.
- Offices adjacent to plant required special focus.
  - Hydrogen sulfide meeting and protocols
  - Construction noise required altered work schedules
- Hold special “public meetings” for employees
- Work closely with regulators

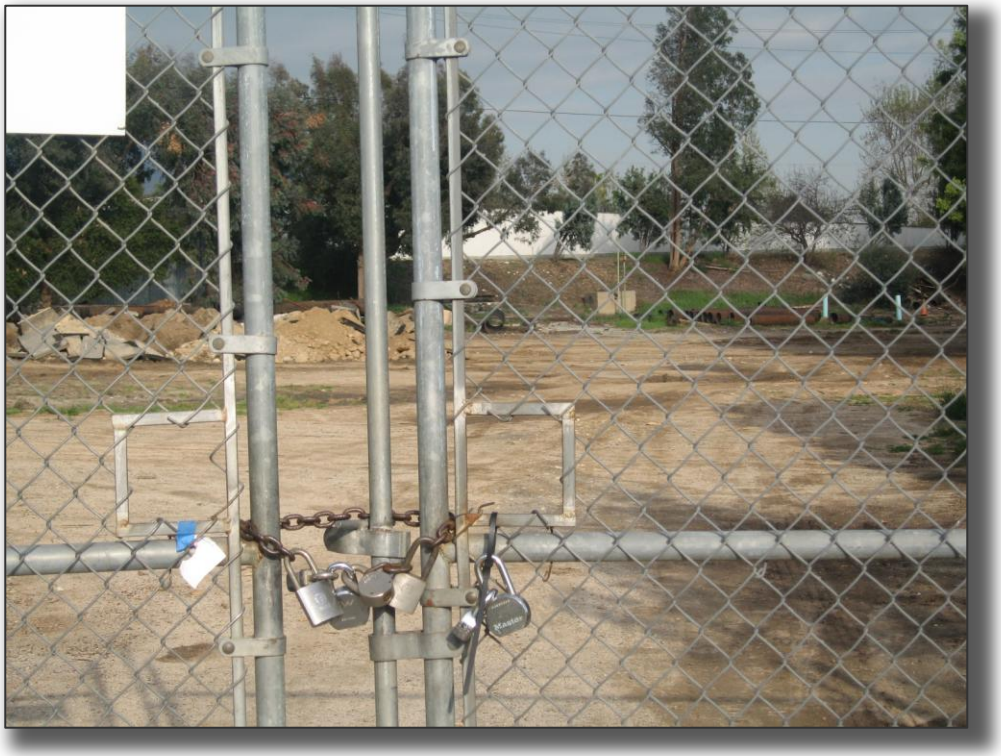
Importance of Understanding Stakeholders

- Residents near JPL in closer proximity than at most other NASA centers.
- Need for two off-site treatment plants—in neighborhoods– required great attention to their needs.
- Demographics different than at other NASA centers.
  - Assessment of cultural characteristics
  - Translation needs

- Meet with small neighborhood groups
- Added public meeting on “health” when we heard concerns.

Importance of Being Responsive

- Neighbors use the street adjacent to the treatment plant and abut it on all sides.
- Much attention focused on “seeing the treatment plant” from their eyes.
- Involved neighbors in selection of “plant pallette.”
- Addressed their desires to hide the treatment plant from view.



Plum Brook Reactor Facility Decommissioning Project

PBRF Background

- The Plum Brook Reactor Facility (PBRF) at NASA Glenn Research Center, Plum Brook Station, 50 miles west of Cleveland, OH
- NRC licensed facility consisting of:
  - 60 MW main reactor (pressurized)
  - 100 KW mock up reactor (swimming pool)
  - Seven Hot Cells and supporting infrastructure
- PBRF built to perform test and analysis of neutron irradiated materials

The Role of Outreach & Involvement in the PBRF Decommissioning Project

- NASA recognized having the support of the community would be key to successful decommissioning.
- Goals were to:
  - Establish NASA as a trusted source of information;
  - Recognize the importance of risk perception and risk communication; and
  - “Get out early” in advance of negative opinions or the formation of fixed negative beliefs.
- NASA was initially unsure how to balance being open with not raising “undue concern".

Planning to Begin

- Stakeholder identification was key to establishing a Decommissioning Outreach program prior to start of decommissioning (1998-99).
- Nearly 40 interviews with retired and former workers, residents and officials.
- Interviews covered stakeholder awareness, perceptions, concerns and information needs and preferred channels.
- Results of interviews used to create comprehensive Community Involvement Plan, including mix of communications vehicles.

Community Workgroup
Opening the Lines of Communication and Building Trust

- Interviews indicated community members would trust information from respected neighbors, local leaders.
- While not “required,” formed a Community Workgroup to serve as two–way vehicle.
  - NASA would provide information to the Workgroup and
  - Members would raise questions and concerns and disseminate information to the community.
- Group consisted of local residents including emergency responders, educators, health professionals, nearby neighbors, members of environmental, religious and minority communities.

Preparing for the Start of Decommissioning Communications Help

- All outreach activities tied to project schedules and milestones often “leading the way”.
- In advance of starting decommissioning, NASA conducted 8 additional interviews, mostly with minority community members to ensure EJ concerns were addressed.
- Identified more than 200 households living within 1.5 miles of PBS fence line as priority stakeholders.
- Workgroup expanded to represent “minority” populations and nearby neighbors.
- Created and distributed a “Project Update” fact sheet to nearby neighbors.

Building the “Trust Account” and Getting into Gear

- NRC approved Decommissioning Plan in March 2002 -- work could “officially” begin.
- Workgroup Members given tour of PBRF. Members wear dosimeters that show no radiation; focus on safety measures and monitoring.
- NASA invited 300 neighbors to reception held near PBS. Workgroup members attend.
- NASA published 4-page Decommissioning Project Supplement in two local newspapers. Goal was to reach larger Erie and Huron county residents and those along “transportation routes”.
- On 6/26 NASA hosted representatives from 11 Ohio media outlets for guided tour of PBRF.

Drawing on the “Trust Account”

- Several communications vehicles help Decommissioning Project meet unexpected challenges.
- Delay in completion (to 2011) and finding off-site contamination in Plum Brook sediment in 2005.
- Community Workgroup proves valuable conduit for discussion of off-site contamination and transport (railcar), reporting to NASA on public concerns and communicating with the larger community.
- Workgroup message: Trust NASA, they have always been honest and open. NASA commitment: NASA will do the right thing.
- Key Messages: Contamination does not pose a health concern. We will continue to sample and take action as needed.

Dealing with Off-site Issues

- Regularly-scheduled 1/06 Workgroup meeting provided venue for Public Meeting hosted by U.S. Rep. Marcy Kaptur (D-OH). NASA presentations and responsiveness praised by Rep. Kaptur in local radio interview.
- Fact Sheets: Two fact sheets devoted to off-site issues published (1/06, 4/06).
- Focused attention on nearby neighbors and media produces positive results.
- NASA makes good on Key Message!

Keeping Interest as Project Progresses

- Newsletters focus on decon efforts (Hot Cells, embedded piping) and NRC approvals.
- 2007 CIS at Sandusky High School draws large diverse audience.
- Workgroup presentation by PBS management, displays on PBS/SPF, robotics demonstration by student team from NASA-sponsored national Robotics competition.
- Increased emphasis on PBS as whole, with newsletter articles on NASA Glenn Renewable Energy efforts, NASA Glenn & PBS Open House events.

Lessons Learned: Risk Communication A Message From the Program Manager

- Whether required by regulations or regulators, have an aggressive, proactive community communications effort.
  - Get public and media involved early
  - Focus on getting out the facts to better control your story, listen carefully to questions and comments and respond.
  - If there is going to be a hard spot with neighbors it is much cheaper to find it and deal with it before the work force has mobilized at site.

Lessons Learned (Cont)

- Identify and Engage Stakeholders – Communication needs to be two-way. Know your public and listen to them.
- Don’t be afraid to engage in initially adversarial relationships. Openness can build trust over time. Interviews with environmentalists, health professionals and first responders showed there were doubts about decommissioning but people were willing to engage.
- Seek frequent feedback. NASA asked Workgroup members to complete a survey every two years. Also solicited feedback via Evaluation Forms completed at Community Information Sessions.

Lessons Learned (Cont)

- Provide several vehicles for two-way communication. NASA used a Workgroup, Information Line, Website Mailbox, and annual CIS for soliciting stakeholder feedback. People were reassured by existence of these vehicles, even if they did not use them.

- Think of communications as being a deposit in the 'Trust Bank'.

- Every time you are open and honest with the public, you earn a little more trust. When something goes wrong and you need to tell the public "trust us, there's no risk to you and your children" it's too late to build trust. You must have this established before its needed!

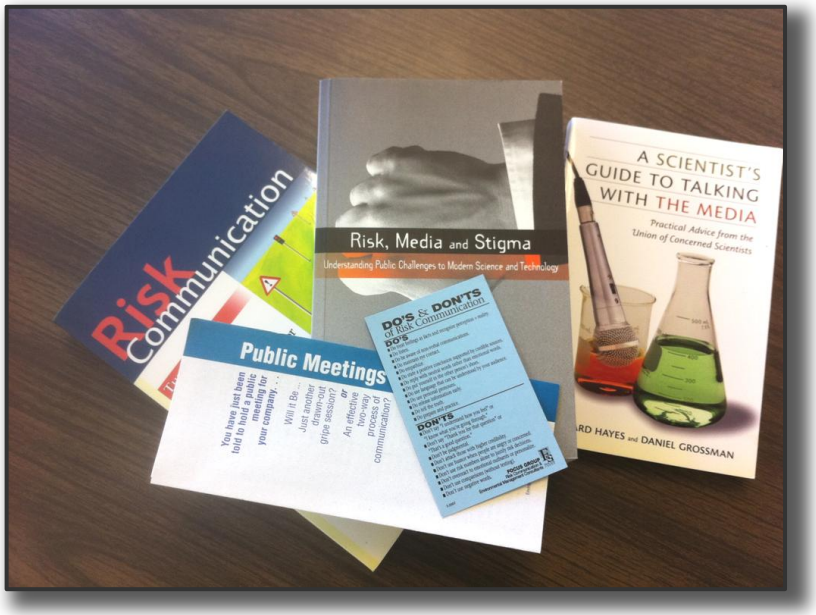
Lessons Learned (Cont)

- Seek opportunities for input/comment from credible third party sources. County Health Dept. praised NASA openness and procedures shortly after off-site issues began.
- Keep your promises to follow up with the public. Most community members understand that all issues cannot be resolved in one meeting, but keeping a promise to follow up on a question/issue builds trust.
- Acknowledge “mistakes” and focus on how you intend to respond.
- Lack of large audiences does not mean lack of public concern. Many Workgroup members have said “If there were a problem, you’d be hearing about it.”

The Bottom Lines

- Proactive communications can work!
- Identify and respond to community concerns.
- Become a trusted source of information.
- Training and preparation helps.
- Risk Communication and outreach takes time and commitment.

Suggested Literature



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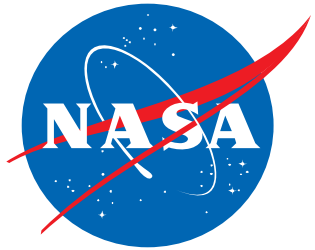
NASA