

# National Hispanic Environmental Council



## FACT SHEET

THE 5th ANNUAL

### CA MINORITY YOUTH ENVIRONMENTAL TRAINING INSTITUTE

*An Environmental STEM Program*

**“6 Days of Learning, A Lifetime of Experience”**

**JUNE 17—22, 2014**

**HELD AT CALIFORNIA STATE UNIVERSITY CHANNEL ISLANDS — AND —**

**NATIONAL FORESTS, NATIONAL PARKS, AND OTHER SITES IN/AROUND THE SOUTHERN CALIFORNIA AREA**

#### SUMMARY



*Students visit the Channel Islands National Park Visitor Center before ferry trip to Santa Cruz Island.*

**The National Hispanic Environmental Council (NHEC) is accepting applications from students from California, Arizona, and Oregon, aged 17—19, to attend its upcoming 5<sup>th</sup> annual, regional “California Minority Youth Environmental Training Institute”.** The Institute is an intensive, residential, strongly science-based 6 day environmental education and environmental career program for top students – competitively selected – and demonstrably active in the environment.

**The CA Institute will be held June 17—22, 2014 at California State University, Channel Islands (CSUCI),** where students will be housed and fed and classroom instruction held. **CSUCI is located in Camarillo, about 55 miles north of Los Angeles** on a beautiful, “Spanish Mission” style campus close to the coast. Students will also visit and conduct field studies at a number of national forests, national parks, state parks, and more in the S. California area. Sites include the Angeles National Forest, Santa Monica Mountains National Recreation Area, Channel Islands National Park, Malibu State Park and more.

NHEC operates three each Institutes each summer – our 11 day national in New Mexico, and two regionals in New York City and Southern California. All use the same model and have the same broad goal – through classroom and especially outdoor nature settings; use of a rigorous Environmental STEM curriculum; high-level issue presentations; environmental field studies including air, water, and soil testing; and the active participation of minority science role models – **build the next generation – especially scientists – of environmental and conservation professionals.**

NHEC's Institutes inspire, engage, and educate academically high achieving, high GPA students, especially Latino/minority, on a range of environmental and natural resource issues. Our Institutes also give detailed information and tutorials on the **many college and career opportunities in the environment/natural resources field**, and actively assist students to pursue these careers in the future. In the case of the CA Institute, this is **especially true with the U.S. Forest Service (FS), the Institute's major sponsor.**

Specifically, the major sponsors of the CA Institute are the Pacific Southwest Region of the U.S. Forest Service (FS); the Forest Service's Pacific Southwest Research Station; and the U.S. EPA, who is providing some additional support. NHEC and our sponsors work together closely on the planning and implementation of our Institutes.



*Potato Harbor, one of the many beautiful coves on Santa Cruz Island.*

If you are selected **NHEC will provide a full scholarship to the CA Institute that covers all your major costs to attend** the 6 day program, including travel (as negotiated/agreed to with NHEC; housing, 3 meals a day, academic materials, environmental science equipment, and more. There is no fee to apply, and only a \$25 registration fee if accepted.

## DAY-BY-DAY INSTITUTE OVERVIEW



*Students hike trails on windswept Santa Cruz, taking in vistas and conducting field studies.*

In addition to CA State University Channel Islands (where students will also conduct field studies), the CA Institute will be held in the Angeles National Forest; the San Gabriel Mountains, Channel Islands National Park; Santa Monica Mountains National Recreation Area; Malibu Creek State Park; and the Tapia Water Reclamation Facility.

**The Institute will begin at 8 am on Tuesday, June 17** at the Renaissance Airport Hotel (at LAX airport) in Los Angeles, where students will gather. Students will be greeted by NHEC's Instructors/staff and a light breakfast served. At 10 am students will depart by chartered bus (escorted by instructors) to CSUCI. Upon arrival, students will unload and proceed to the classroom, where the Institute will begin.

**Day One and Two will be held at CSUCI**, with classroom presentations and field studies occurring there. Beginning on Day 3 students will depart by bus on environmental field trips to the sites listed above, to explore, learn, and to conduct a variety of field studies, including air, water and soil testing, biological assessments, vegetation inventories, birding, and more.

**On Day 3 students will go to Malibu Creek State Park and then Solstice Canyon in the Santa Monica Mountains National Recreation Area**, to hike trails and conduct further environmental field studies.

**On Day 4 students will visit Tapia Water Treatment Facility, and then to the Angeles National Forest** for more field studies. Operated by the U.S. Forest Service "**the Angeles**" is the national forest closest to a major American city. Located just north and east of Los Angeles, this proximity to almost 10 million people in the greater Los Angeles area makes it a profoundly important environmental, economic, social, natural resource, tourism, and recreational treasure for Southern California.



*Students conduct field studies on the beaches and tidal pools of Santa Cruz island.*

The Forest is a vital part of Los Angeles, providing the area with 35% of its drinking water, 72% of its open space, and major, positive effects on air quality. And given the on-going drought in California, the Angeles's water resources are increasingly important.

The land within the Forest is as diverse in appearance and terrain as it is in the opportunities it provides for enjoyment. Elevations range from 1,200 to 10,064 feet. Much of the Forest is covered with dense chaparral which changes to pine and fir-covered slopes on the way to the majestic peaks of the higher elevations. In season, beautiful wildflowers and a variety of wildlife

are throughout the Forest. There are over 550 miles of hiking and equestrian trails, including 176 miles of the Pacific Trail.

Sadly, over 160,000 acres of the Angeles burned in the historic Station Fire of 2009. It was the largest such fire in the history of Los Angeles County. Major efforts, including a sizable reforestation drive, are underway to repair the ecological damage and return those parts burned to their former natural state.

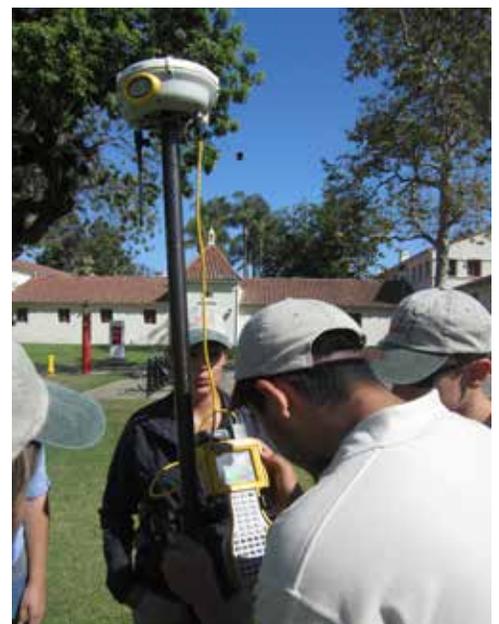
**On Day 5 students will travel by ferry to Santa Cruz Island (approximately 20 miles off the California coast), which is part of Channel Islands National Park.** The Channel Islands are often called the "North American Galapagos" because they are home to over 150 endemic or unique species. While on Santa Cruz, students will hike some of the island trails, see some amazing vistas, conduct field studies, and learn more of the history, ecology and marine biology of this truly special place.

**On Day 6 students will be back at CSUCI for more classroom work, followed by students preparing for and then giving their Final Presentations.** The last day of each Institute culminates in Final Presentations by student teams. Students create detailed power points using all their field test data, measurements, observations, and biological assessments.

Final Presentations are made to NHEC Instructors who evaluate and give feedback and corrections to ensure students have learned/used the applicable science principles. Following this, the Institute will end. That evening students will be transported by bus back to the Renaissance Airport Hotel (at LAX airport), where students will be picked up by parents or depart for home.

Students will be transported by chartered bus to the site of each day's activities, and will be accompanied by NHEC's skilled instructors, as well as role models from our sponsors and others. NHEC instructors will teach the curriculum, with some assistance from FS and other sponsors.

**Also present and participating are "role models", who are environmental/natural resource professionals** (often minority) from every discipline -- but especially from the sciences -- and who are volunteering their time, technical expertise, and heritage to help students learn the curriculum, plus share their hard-won environmental career, college and research, and job/internship knowledge.



*Students use high-tech science equipment in the Institute. Here, the Total Robotic Field Surveying Station with GPS unit and CAD software.*



*The Robotic field station uses laser beams and digital equipment to input various data to generate topographical maps and more for precise land surveys.*

We wish to be clear with students – this is not summer camp. The Institute is an academically challenging, science-focused, Environmental STEM program for mature students with strong GPA's and a deep interest in the environment. You will definitely have fun, but you will have work to do too.

But if you have a passion for the environment, enjoy science, and especially if you want to work in this field in the future, then we promise you will have one of the best experiences of your life. All our students from past CA (and our other Institutes) will tell you it is truly “**6 Days of Learning, A Lifetime of Experience**”.

## **APPLICATION PROCESS, SELECTION, AND THE INSTITUTE SCHOLARSHIP**

**The CA Institute is open to all students aged 17—19**, and all are welcome to apply, although Latino youth are particularly urged to do so given the severe under-representation of Latinos in environmental and natural resource fields. **Ages 17—19 is typically a senior in high school or a freshman or sophomore in college.**

Applications will be reviewed and selections made on a rolling basis and as received, **so applying as soon as possible is strongly encouraged.** See the attached “Application Form” and “How To Apply” documents. Students can also call or email NHEC for application materials, or go to our web page at [www.nheec1.org](http://www.nheec1.org)

However, while students can obtain application forms from our web site, you cannot apply on-line because you must include documents like your school transcripts in your mailed application package.

**As this is a regional Institute, eligibility is limited to students from 3 states--California, Arizona and Oregon. Further, as this is a federally funded program students must be either U.S. Citizens or Legal Permanent Residents. Students will be competitively selected** for the scholarship, based on a variety of criteria.

**Selection criteria includes:** 1. students' maturity and seriousness of intentions; 2. an academic background containing environmental-related coursework; 3. if in college the student is a declared major in some environmental or natural resource major, or if not yet declared it is demonstrably apparent the student will do so; 4. **a minimum 3.0 GPA**; 5. proven background in some environmental experience, activity or job; 6. ability to show a strong/genuine interest in an environmental or natural resources field as a future career—especially in the sciences; 7. extracurricular and/or community activities; and 8. diversity—by age, gender, race, ethnicity, geography, environmental experience and interest, and other factors.

An essay is also required (no more than 2 pages max), where applicants describe their qualifications; their interest in the environment; their future academic and career goals; and how they can make a difference to our environment now and in the future. **This essay will be especially important in selecting students to the Institute.**

As stated, with funding from sponsors **NHEC covers all costs for students to attend the CA Institute.** This includes travel costs (as necessary, and negotiated/agreed to in advance with NHEC); housing for the length of the Institute; all meals; transportation by chartered bus; educational materials; science equipment; and more. NHEC will also waive the \$25 registration fee for any student who is selected but unable to pay the fee due to proven financial hardship.

## CURRICULUM DESCRIPTION

The Institute will begin on Tuesday June 17 and end around 10 pm on Sunday, June 22. There will be approximately 30 students in the CA Institute. Following breakfast the Institute will begin at 8:30 am each morning and continues throughout the day, with breaks for lunch and dinner. The Institute will operate like school: students must arrive on time; participate fully in the classroom and outdoor field activities; be respectful of the instructors, role models, and fellow students; and follow instructions, especially regarding safety. There is also coursework and activities in the classroom every evening after dinner until 8:30 pm.



*Students do birding on the various site visits; here near the Santa Monica Mountains.*

The Institute uses a rigorous Environmental STEM (Science, Technology, Engineering, and Math) curriculum taught by NHEC's skilled Instructors (all of whom are educators and working environmental professionals). It begins by covering principles in environmental and conservation science topics, progressing to more advanced topics as each day builds on the one before.

The Institute combines daily classroom instruction with science-based field studies such as air, water and soil testing that complements the classroom presentations. Since a major Institute goal is to expose students to nature, students spend much time outdoors in closely supervised field studies in forests, streams, riparian areas, coastal beaches, tidal pools, and more.

Classroom instruction will explore a range of ecological, physical, biological, and chemical principles/methods, and high level presentations will examine a number of environmental/conservation issues. To conduct their multiple field studies, students use a variety of professional-grade environmental science equipment, ranging from low to very high tech, so students gain invaluable hands-on field science experience.

The Institute also includes sessions on environmental career paths, and gives students -- through interaction with role models from our sponsors and other agencies, non-profits, companies, and more -- a strong sense of how these jobs are done in the real world. A mix of federal agencies, including sponsors like the Forest Service and U.S. EPA, plus other such as the U.S. Fish and Wildlife Service will be on-hand to discuss job and internships opportunities, both for 2014 and next year.

In addition to NHEC's Instructors, **role models help with the curriculum and chart their "environmental journey" to and in these natural resource jobs**. Many role models are Latino or minority. Role models are an essential element of the Institute.

These role models are working environmental/natural resource professionals from many different fields, but especially the sciences -- foresters, wildlife biologist, fish biologists, ecologists, botanists, soil scientists, hydrologists, geologists, environmental engineers, and more. There are a minimum of 4--5 role models present each day.

Thus students will have their "own" to interact with, to be inspired by, to learn from, and who have a success story to tell about working in the non-traditional environmental arena. The message conveyed to students is not only clear, but believable -- **"I made it in this field and so can you"**.

## CA STATE UNIVERSITY CHANNEL ISLANDS--CA INSTITUTE SITE



*Students visited Bitter Creek Nat. Wildlife Refuge, home of one of the most endangered species in the world--California condor. Students used radio telemetry to track the condors, and several were spotted overhead.*

Founded in 2002 as the 23<sup>rd</sup> and newest campus of the CSU system, California State University Channel Islands (CSUCI) offers a strong student-centered learning experience in one of Southern California's most beautiful and scenic coastal settings.

Located only minutes from the Pacific Ocean and with panoramic views of the Santa Monica Mountains, CSUCI is comprised of architecturally significant, historic buildings surrounding a central mall, formal quads, quiet courtyards, and open green spaces. Total enrollment is almost 5,000 students.

First built in the 1930's as a state hospital, the buildings were constructed in the California and Spanish Mission style. Now newly renovated and with many new buildings added as the campus has grown, CSUCI is a charming mix of

the old world and modern, and is a state-of-the-art 21<sup>st</sup> century university.

Regarding accommodations, students will be housed in suites in one of several residence halls at CSUCI. Each suite has 2 bedrooms with locking doors, a common area with extra sinks, plus a bathroom. There is full internet access on campus.

Except when on field trips, students will eat breakfast, lunch and dinner in CSUCI Dining Hall. Classroom instruction will be held in the Bell Tower, a historic academic building just a short walk across the main quad to both the Dining Hall and residence hall

Regarding housing arrangements, male and female students are separated, with female students in suites at one end of a floor and male students at the other, with NHEC Instructors located in suites in-between. Supervised by instructors, students will follow the Institute Code of Conduct at CSUCI, including the lights-out policy at 11 pm.

CSUCI is located at One University Drive, Camarillo, CA, 93012. Phone: 805-437-8400. For more information on CA State University Channel Islands, go to: [www.csuci.edu](http://www.csuci.edu)

### SAFETY FIRST—ALWAYS

The CA Institute is designed to not only be highly educational and fun, but also safe. NHEC has a "safety first" ethic, and safety considerations are paramount for NHEC during the Institute. For example, when students are at national parks and forests we will have full access to NPS's and FS's medical/safety system, and park/forest rangers are available if summoned when students are doing field work.



*Students conduct water and soil tests at multiple sites in the Institute. Instructor Adam Deras at right.*



*Students visited Los Padres Nat. Forest and conducted field studies there. Lead Instructor Dr. Pedro Chavarria at right.*

## INSTITUTE CODE OF CONDUCT

**All students must follow the Institute “Code of Conduct”.**

This code is a set of reasonable rules that govern student behavior and dress at the Institute with Instructors, role models, and fellow students. NHEC enforces appropriate behavior at all times during the Institute, especially since this is a residential program. If selected, all students and their parents must read and sign the Code prior to the Institute, and agree in writing to abide by its terms. Failure to follow the Code can result in a number of penalties, including being dismissed from the Institute and sent home. NHEC is happy to state that given the caliber of our students, this has never happened.

Students and parents must also understand that

when on federal land (such as national parks and forests) students are governed by federal law, and can be prosecuted for any violation of civil and/or criminal laws, should that agency choose to do so.

The Code of Conduct is a vital tool for a group of teens in a residential program. NHEC uses it, you must follow it, and it is not up for discussion on-site. **If you have a problem obeying rules, then the Institute is not for you and you should not apply.**

## ABOUT THE U.S. FOREST SERVICE

**The major sponsor of the CA Institute is the Pacific Southwest Region of the U.S. Forest Service, as well as FS’s Pacific Southwest Research Station.** FS is a major, multi-billion agency in the U.S. Dept. of Agriculture. There are 155 forests in our national forest system, plus 20 national grasslands, as well as other FS science and research centers and laboratories like the Pacific Southwest Research Station.

Given that there are 18 large national forests and one national grassland in CA, the Pacific Southwest Region consists of one state -- California.

After years of overuse and degradation of western lands, President Cleveland, in 1897, proclaimed 13 new forest “reserves”. Two of these reserves were located in California; the San Jacinto and Stanislaus, in the Sierra Nevadas. In 1907 the name was changed to “national forests”. Wood, water, forage, and recreation on these lands became open for “wise” use, to be managed for the benefit of future generations.

The Forest Service is charged with managing natural resources in a sustainable manner that best serves the multiple needs of a growing, diverse nation. Managing these resources on our forests requires the complex integration of many functions, including planning, resource assessment/allocation, seeking public input, weighing competing interests, and building cooperative partnerships. **The FS motto is “Caring for the Land and Serving People”.**

Encompassing major cities like Los Angeles, San Francisco, San Diego, Fresno and more, the Pacific Southwest Region serves millions of Americans. As urban interest, influence, and impact grows, the



*At Wheeler Creek on Los Padres Forest; students use the 9828 Multiparameter water quality portable meter, a professional-grade device that tests/analyzes to the highest specifications up to 13 parameters of water.*

Region is a gateway to FS, and thus a wide range of opportunities. These include recreation, tourism, hiking, fishing, biking, and hunting, plus offering jobs, internships, education, business contracting, and more.

FS is also a major leader in natural resource science, technology, and policy development, and is leading research on key issues like climate change, forest management, carbon sequestration, endangered/invasive species, and fire ecology.

## **ABOUT THE PACIFIC SOUTHWEST RESEARCH STATION**

The Pacific Southwest Research Station is a world leader in natural resource research through its scientific achievements, commitment to excellence, and responsiveness to the needs of current and future generations.

The Station is the research and development branch of the Forest Service in the states of California and Hawaii and the U.S. affiliated Pacific Islands. The Station's primary work occurs in California and it is headquartered near Oakland. Staffed by top scientists and researchers in a variety of science and technical fields, the Station conducts original, in-depth forest ecology/natural resource research that supports the work of the Region, as well as state and private forestry. **Their motto is: "science that makes a difference".**

The U.S. Forest Service -- with over 33,000 full, part-time, and seasonal employees (including students) hired each year -- is a great path to a great environmental career, especially if you like being outdoors and love science. **NHEC is proud to partner with the Pacific Southwest Region and the Pacific Southwest Research Station. The FS welcomes participants to the CA Institute, urges you to get involved in their mission, and is eager to hire students to join them in this work.**

## **ABOUT THE NATIONAL HISPANIC ENVIRONMENTAL COUNCIL**

The National Hispanic Environmental Council (NHEC) is a national, non-profit membership-based organization founded in 1998 and headquartered in Alexandria, VA (just outside Washington, D.C). With over 4,000 members, NHEC is the oldest and largest national Latino environmental and natural resource organization in the country, and advocates for policies and runs programs that furthers our mission.

NHEC seeks to educate and engage Latinos and people of color on environmental and natural resource issues; encourage Latinos and especially youth to actively preserve and protect our environment; provide a voice for Latinos before federal and other national environmental decision-makers; and assists our community to pursue the many career, educational, programmatic, and policy opportunities in the environmental and conservation arena. Our guiding credo is: **"....because it's our environment too".**

## **FOR MORE INFORMATION ON NHEC AND OUR INSTITUTES**

Call or write us at:

**National Hispanic Environmental Council**

P.O. Box 1003

Springfield, VA 22151

**Attention: CA Institute**

At NHEC:

Office—703-683-3956 • Fax—703-256-8288

Or visit our website at [www.nheec1.org](http://www.nheec1.org)

For questions about NHEC but especially the Institutes, please contact Juan Rodriguez, NHEC Programs Coordinator at [jrodriguez@nheec1.org](mailto:jrodriguez@nheec1.org) or at 703-861-6064