WATER: HOUSE & SENATE VOTE TO OVERRIDE PRESIDENT’S VETO OF WRDA

As expected, the House and Senate this week voted overwhelmingly to override President Bush’s veto of the Water Resources Development Act of 2007 (HR 1495). On November 6, 2007, the House voted 361-54 to override and the Senate followed with a vote of 79-14 on November 8th. This was the first time in his Presidency that Congress has overridden the President’s veto (which he has only exercised five times), with both houses easily surmounting the two-thirds majority needed to override.

The bill, with an estimated price tag of $11.2 billion for FY 2008 through FY 2012, and another $12 billion for the following 10 years, authorizes the Army Corps of Engineers to conduct over 900 national flood control, navigation, and environmental restoration projects and studies. Proponents of H.R. 1495 emphasized that a comprehensive water projects bill has not been passed in seven years and that partially explains the large number of projects, and the authorization level, approved in the bill. Moreover, they argued, the bill represents only an authorization -- appropriations have to be passed to fund specific projects.

Among the major California authorizations in the bill are:
- more than $600 million to improve flood protection for Sacramento including $444 million for a flood control project on the American and Sacramento Rivers and construction of an auxiliary spillway associated with Folsom Dam;
- $1.8 billion for flood control along the Santa Ana River;
- $52.4 million for flood damage reduction and environmental restoration in Hamilton City;
- $144.5 million for environmental restoration of Matilija Dam in Ventura County;
- $134.5 million for environmental restoration at the Napa River Salt Marsh Restoration project; and
- $30 million to study the feasibility of environmental pilot projects for Salton Sea restoration.
The legislation also contains comprehensive reform provisions that establish requirements for independent reviews of Army Corps projects and will expedite the process for de-authorizing unbuilt projects that are obsolete or no longer necessary.

WATER: HOUSE ENERGY SUBCOMMITTEE MARKS UP DRINKING WATER BILL TO COMBAT PERCHLORATE CONTAMINATION

The House Energy and Commerce Subcommittee on Environment and Hazardous Materials held a markup on November 8, 2007 to consider H.R. 1747, the “Safe Drinking Water For Healthy Communities Act, which amends the Safe Drinking Water Act to require the Environmental Protection Agency to promulgate a national drinking water regulation for perchlorate.

The bill, sponsored by Rep. Hilda Solis (El Monte) and co-sponsored by 19 members of the California delegation, is in response to EPA’s failure to promulgate a standard for perchlorate in drinking water. Hundreds of drinking wells in California and the nation have been contaminated by perchlorate, a component of rocket fuel. California and Massachusetts are the two states to have established perchlorate standards of their own for drinking water.

During her opening remarks, Rep. Solis pointed out that the Centers for Disease Control has found significant changes in thyroid hormone levels in humans exposed to perchlorate, including 36 percent of women, approximately 43 million, who are high risk; and that children are exposed to an average of 1.6 times more perchlorate than adults. Solis argued her bill was necessary because: “the EPA and the Defense Department have engaged in a game of finger pointing and delay. The EPA has had 10 years to make a determination whether to regulate perchlorate. Since 2002, the Defense Department actively sought to exempt itself from state and Federal public health and environmental laws which protect drinking water supplies from chemical constituents of military munitions, including perchlorate.

Meanwhile, the EPA has historically failed to exercise enforcement authority to undertake remedial actions to address perchlorate contamination at Department facilities.” Rep. Solis is vice chair of the subcommittee.

An amendment to the bill, which would have eased the requirement on EPA to promulgate a final rule, was defeated by a vote of 12-15 during the markup. H.R. 1747 was then reported to the full Committee by voice vote.

For more information, go to: http://energycommerce.house.gov.

TRADE: HOUSE APPROVES U.S.-PERU FREE TRADE AGREEMENT

On November 8, 2007, the House voted 285-132 to approve the implementing language for the US-Peru free trade agreement (FTA), H.R. 3688. While the vast majority of Republicans supported the agreement, Democrats split about evenly in their votes, signaling how highly controversial trade globalization and liberalization is in the current economic climate.
The agreement is the first one considered by Congress subsequent to the bipartisan deal worked out between Congress and the White House. Of primary importance, the text of the FTA includes core standards for labor and the environment. It also includes an agreement on logging, which Ways and Means Committee Chair Charles Rangel (NY) called “historic,” and provisions to provide greater access to life-saving medicines.

The Senate Finance Committee approved an identical bill (S. 2113) on October 4th. The President submitted the FTA to Congress on September 27th, and -- under fast track rules -- both houses of Congress share 90 days to take an up or down vote on the agreement.

For more information on the FTA, go to: http://www.waysandmeans.house.gov.

FAIR SHARE: CALIFORNIANS MAKE PLEA FOR PUBLIC EMPLOYEE PENSION FAIRNESS AS SENATE FINANCE SUBCOMMITTEE CONSIDERS GPO AND WEP

On Tuesday, November 6, 2007, the Senate Finance Subcommittee on Social Security, Pensions, and Family Policy held a hearing to examine two somewhat obscure provisions in the Social Security law that put public employees in California at a disadvantage compared to those of most other states. The hearing, entitled “GPO and WEP: Policies Affecting Pensions from Work Not Covered by Social Security,” examined the unequal effect on retirement incomes of federal, state and local employees that results from the Government Pension Offset (GPO) and the Windfall Elimination Provision (WEP).

The rules affect nearly 1 million employees nationwide, about 200,000 of whom are in California. Public employees in only a few states are subject to GPO and WEP.

For public employees whose spouses worked in private sector jobs and would otherwise be entitled to receive both Social Security and public pension benefits, the GPO cuts Social Security spousal or survivor benefits by about two-thirds of the public pension. (The effect is most pronounced on the benefits of widows and widowers, many of whose incomes are limited.) Likewise, for employees who themselves paid into Social Security when working in private sector jobs, the WEP cuts Social Security benefits by as much as half if he or she also receives public pension payments, regardless of how much or how long the employee had already paid into the Social Security system.

Senators Dianne Feinstein and Susan Collins (ME) have sponsored S. 206, the “Social Security Fairness Act of 2007,” which would repeal both the GPO and the WEP from laws governing Social Security benefits. The provisions were devised more than a generation ago to prevent public employees from being unduly enriched, but Sen. Feinstein noted that now, “the practical effect is that those providing critical public services -- teachers, firefighters, and police officers -- are unjustly penalized.” Feinstein added that the two provisions “make it more difficult to recruit teachers, police officers, and fire fighters -- and, it does so at a time when we should be doing everything we can to recruit the best and brightest to these careers. ... [I]t is counterintuitive that on the one-hand, we seek to encourage people to change careers and enter the teaching profession, while on the other hand, those wishing to do so are discouraged because they are clearly told that their Social Security retirement benefits will be significantly reduced.” She estimated that 9 out of 10 public employees affected by the GPO lose their entire spousal benefit, even though their spouse paid Social Security taxes for many years.

Testifying at the hearing was Priya Mathur, a member of the CalPERS Board and of AFSCME Local 3993 in Sacramento. She noted that more than one third of CalPERS active members are not covered by Social Security, and the same is true for nearly all public safety employees, predominately police officers, firefighters and correctional officers. Mathur focused on the inequity of allowing private pensioners to receive full Social Security even if their employers paid most or all of their pension payments, whereas public sector employees who may pay 20%-plus of income to a public pension are “penalized for their contribution to their own retirement.”
Sen. Collins commented that the GPO is “most harsh for those who can least afford the loss -- lower-income women.” Subcommittee Chairman John Kerry (MA) indicated that the Feinstein-Collins measure was likely to be marked up in 2008, but he warned that it may be challenging to find offsets for the $80 billion-plus that he said would be needed for complete repeal. Kerry was quoted as saying, “Sometimes the best intentions go awry, and this is one of those situations where an effort to try to create a fair playing field has, in effect, created an unfair playing field. It's up to us to try to rectify it.”

A parallel House measure, H.R. 82, sponsored by Reps. Howard Berman (North Hollywood) and Buck McKeon (Santa Clarita), has been cosponsored by 333 Members of Congress, more than 75 percent of the membership of the House of Representatives.


**AGRICULTURE: SENATE BEGINS FLOOR DEBATE ON 2007 FARM BILL**

On Monday, November 5, 2007, the Senate began floor debate on The Farm Bill Extension Act of 2007, H.R, 2419, also known as the Food, Nutrition, and Bioenergy Act of 2007. The $288 billion bill renews farm programs for the next five years.

Though debate has begun, no votes on the bill were taken this week. Democratic Majority Leader Harry Reid (NV) made a procedural move to limit the amendments that could be offered to the bill to those that were germane. He said that he did not want to see this bill become a way for Senators to try and push a separate agenda when the issues the bill is meant to address are so vital. He stated that he wants to give a good bill to the President to sign that deals with farm issues only. Some Republican members, however, expressed their disapproval with the amendment process and stalled debate on the measure to express their concerns.

Also, Senator Diane Feinstein decided to drop her plans to offer an amendment relating to agriculture guest workers, the so-called “Ag-Jobs Bill.” Feinstein decided to drop the proposal after making a “clear eyed assessment of the politics of the farm bill.” The amendment would have granted immediate temporary legal status to workers who have worked in U.S. fields for at least 150 workdays in the previous 24 months.

California has a particular interest in the farm bill because of new provisions relating to specialty crops, or fruits and vegetables, which make up the majority of California’s agricultural production. California produces over 40% of all specialty crops in the nation. As debate began, a Coalition of over a dozen of California’s specialty crop producers signed letters to Senators Feinstein and Barbara Boxer urging their support of the bill as approved by the Committee on Agriculture, Nutrition, and Forestry. The coalition stated that the provisions in the bill addressing specialty crops would “greatly improve the competitiveness of California specialty crop growers in global markets.”

Debate is expected to continue throughout this week and next. The Majority Leader expressed the desire to see the bill pass the Senate before Thanksgiving break, which is scheduled to begin in mid November.

For more information visit [http://www.senate.gov](http://www.senate.gov).

**TAXATION: HOUSE POISED TO DEBATE TAX BILL WITH AMT RELIEF AND R&D TAX CREDIT**

As early as Friday, November 9, 2007, the House may take up the $80 billion tax bill approved by the Ways and Means Committee last week. In addition to blunting the reach of the Alternative Minimum Tax (AMT), the bill contains numerous extensions of expiring tax credits and other provisions. A straight one-
year extension of the research and development (R&D) tax credit is contained in H.R. 3996. The R&D tax credit is extremely important to California’s information technology and biomedical industries, which are highly dependent on cutting edge research and development to stay competitive.

The bill also contains one-year extensions of the above-the-line deduction for qualified tuition and related expenses, and the above-the-line deduction for certain expenses of elementary and secondary school teachers. The bill also would increase the eligibility for the refundable child tax credit in 2008. The child tax credit is refundable to the extent of 15 percent of the taxpayer’s earned income in excess of approximately $11,000 as a result of inflation adjustments to the original floor of $10,000. The bill would reduce this floor to $8,500 for 2008. This is estimated to cost $2.87 billion over 10 years. The bill would also extend for one year the provision that allows for the expensing of costs associated with cleaning up hazardous (“brownfield”) sites. This proposal is estimated to cost $192 million over 10 years.

On the AMT, H.R. 3996 would extend for one year AMT relief for nonrefundable personal credits and increases the AMT exemption amount to $66,250 for joint filers and $44,350 for individuals. This proposal is estimated to cost $50.6 billion over 10 years.

California taxpayers have been far more affected by the AMT than those of the average state. Of the nation’s AMT-paying payers, 18.6 percent hail from California (despite the fact that only 11.5% of the nation’s returns originate in the state). Moreover, fully 22.3 percent of AMT tax dollars are paid by California taxpayers. The California Institute has posted on its website a table showing state-by-state AMT comparisons for 2003-2005, at http://www.calinst.org/datapages/AMTbyState-2003-05.htm. A two-year pdf version is available at http://www.calinst.org/datapages/AMT-2005-2004.pdf.

**CLIMATE: SENATE ENVIRONMENT AND PUBLIC WORKS HEARING LOOKS AT PROPOSED CLIMATE SECURITY MEASURE**


S. 2191 aims to reduce greenhouse gas emissions by 65% by 2050. Some of the methods mandated to reach this goal include implementing a cap-and-trade system for greenhouse gas emissions and increasing energy efficiency standards for buildings and appliances. The bill also outlines the use of other technologies, such as carbon sequestration, to aide in the effort to reduce emissions.

In a prepared statement, Senator Boxer said this bill “will create a great climate for strong economic growth, new green jobs, and vigorous environmental protection..... It sets the nation on a clear path to reducing greenhouse gas emissions to avoid the worst effects of global warming.” She also mentioned that it provides a framework that “preserves the right of states, including my home state of California, to implement their own solutions to global warming, building on the significant progress they have already made.”

Prior to the witness’s testimony, some minority members expressed concerns over the timing of this legislation and accused the Chairwoman of moving the bill too hastily, as it was only introduced on October 18, 2007.

Boxer affirmed that though this was the first full committee hearing on this piece of legislation, it passed on a bi-partisan basis out of the Subcommittee on Private Sector and Consumer Solutions to Global Warming. Further, she said, the bill is the outcome of over 20 hearings on approaches to addressing global warming conducted by the Senate over the last couple of years. Nevertheless, members requested a full analysis of this legislation from the Environmental Protection Agency (EPA).

The witness testimony was given by Peter A. Darbee, Chairman of the Board, CEO, and President, PG&E Corporation; Jonathan C. Pershing Director, Climate, Energy and Pollution Program, Climate and
Mr. Darbee testified that PG&E is supportive of the legislation, but would like to see some changes to key provisions. He said that the legislation was important because “we face unprecedented challenges” in addressing global warming, and that it is an issue that “urgently needs near term action.” Despite the changes that PG&E would like to see in the bill, Darbee said, it feels that this bill “provides an appropriate starting point” towards developing policies to address climate change.

Mr. Darbee spoke specifically to the cap-and-trade mechanism in the bill by saying that it provides an effective mechanism to start “ratcheting down emissions while protecting the economy.” The recommendations he made for modifications to the bill included enhancing provisions about energy efficiency, providing more clarity about the role of the Carbon Market Efficiency Board, and creating strong incentives for clean burning technology and giving recognition for early actions taken by companies. PG&E is California’s largest utility company.

Ms. Smith testified that there are several economic concerns to take into consideration when evaluating the effectiveness and feasibility of this legislation. She pointed specifically to concerns about the very short time allowed for compliance on such a large scale issue. She said much of the technology needed to meet these goals will not be fully developed until 2025, and only then will the processes be able to be implemented on a large scale. She argued that from an economic viewpoint, this legislation will, in the short term, cause a great disruption to the economy and a potential net loss of about 2.3 million jobs. Her projections were based on the difficulty that will be faced by companies, especially energy producers and coal factories, in reaching compliance with the mandates required by the Act. She also stated that initial compliance with these mandates would cause a disruptive shift toward natural gas, which would drive up prices.

Ms. Thorning testified that it was her belief that a “carbon tax” would be a more straightforward approach to controlling emissions than the cap-and-trade system.

For more information visit [http://epw.senate.gov](http://epw.senate.gov).

**TECH: GLOBALIZATION REVIEW CONTINUES AT HOUSE SCIENCE & TECH**

On November 6, 2007, the House Science and Technology Subcommittee on Technology and Innovation held the fourth and final hearing to review the impact of globalization and offshoring on the U.S. science and engineering workforce. The witnesses included: Dr. Michael S. Teitelbaum, Vice President of the Alfred P. Sloan Foundation; Dr. Harold Salzman, Senior Research Associate at the Urban Institute; Dr. Charles McMillion, President and Chief Economist of MBG Information Services; Mr. Paul J. Kostek, Vice President for Career Activities of the Institute for Electrical and Electronics Engineers – USA; and Mr. Henry Becker, President of Qimonda North America.

The witnesses discussed the new opportunities and challenges for workers created by globalization, including how globalization is reshaping the demand for science, technology, engineering and mathematics (STEM) workers and skills; how offshoring is affecting the STEM workforce pipeline; and, how incumbent workers are responding to globalization.

Mr. Becker informed the Subcommittee that Qimonda is a global semiconductor company that designs, manufactures and sells memory products to a worldwide customer base, including companies like AMD, Cisco, Sony, Dell, HP, IBM, and Microsoft. It is headquartered in Germany, with manufacturing operations in Virginia and research facilities in Vermont. In selecting Virginia, Becker noted the positive business climate and the state and local government’s strong commitment to partner with Qimonda to develop a skilled workforce. This commitment included financial incentives for the worker training Qimonda provided, cooperation on developing more technical training in community colleges, and establishing a Microelectronics Center and an advanced degree program at the Virginia Commonwealth University School of Engineering. Likewise in choosing Vermont and North Carolina for design centers,
the company looked at the same factors. Now, however, cost competitiveness and talent availability are growing issues for its manufacturing and design operations in the United States. Skilled worker shortages are especially acute, he testified, and Qimonda now supports more than 175 foreign workers for visas to make up for U.S. labor shortages. Becker laid out the numerous programs that it supports to encourage and assist in educating U.S. workers for the high-tech jobs Qimonda offers. But, he argued, unless the United States makes the commitment to actively develop “more home-grown talent” it is just a question of time before development, high tech manufacturing and design work shifts away from the U.S.

For the testimony of all the witnesses, go to: http://democrats.science.house.gov.

**CLIMATE: SENATE COMMERCE ASSESSES CARBON SEQUESTRATION**

On Wednesday, November 7, 2007, the Senate Commerce, Science, and Transportation Subcommittee on Science, Technology and Innovation conducted a hearing to investigate the feasibility of large-scale sequestration of carbon dioxide emissions. The Subcommittee heard from witnesses testifying to the types of technology necessary to make the sequestration of carbon feasible and what steps the federal government could take in order to move forward with its implementation. Carbon sequestration is the process of capturing carbon emissions and injecting those emissions into porous rocks sequestered under natural seals or above saline aquifers. The primary witnesses included Dr. Howard Herzog, Principal Research Engineer, MIT Laboratory for Energy and the Environment; and Dr. Sally Benson, Executive Director, Global Climate and Energy Project Professor, Energy Resources Engineering Department at Stanford University.

Dr. Herzog testified that many more experimental projects were needed to find the practical viability of carbon sequestration. He emphasized that, contrary to the existing projects, future projects had to focus on the collection of scientific data. He further testified that there needs to be major technological advancements to ensure that the technology is ready by the time carbon sequestration becomes a feasible market for investment. He said that the federal government would have to increase funding for these experimental projects by billions of dollars per year. He affirmed that there is an "urgency to get on the path to technological readiness now."

Dr. Benson testified that in assessing the technology needed and the feasibility of carbon sequestration, the question of scale cannot be ignored. She said that thousands of projects will be needed and that their assessment must account for unforeseen consequences. She also stated that the test projects will have to be hundreds of thousands times larger than current sites if we are to truly understand what is associated with large-scale implementation. The chief concerns highlighted by the witnesses were the safety of the sequestration and the question of liability should there be a breach in safety. Safety concerns lay around the potential leak of the seal under which the carbon dioxide is sequestered. The seal is a layer of impermeable rock resting above an aquifer or cavity from 1 to 3 meters underground. The liability question is who would be responsible for a response to a leak – the owner of the above ground land and the sequestering company would both be a party to the suit. Despite these major concerns, the panel expressed promise in the potential outcomes if carbon sequestration became feasible on a large-scale.

For more information visit http://commerce.senate.gov.

**IP: SENATE JUDICIARY EXAMINES INTELLECTUAL PROPERTY ENFORCEMENT**

The Senate Judiciary Committee on November 7, 2007 held a hearing entitled “Examining U.S. Government Enforcement of Intellectual Property Rights.” The Committee heard from several government witnesses, including: Sen. Evan Bayh (IN); Chris S. Israel, U.S. Coordinator for International Intellectual Property Enforcement, United States Department of Commerce; Chris Moore, Deputy Assistant Secretary for Trade Policy and Programs, Bureau of Economic, Energy, and Business Affairs, United States Department of State; and Kevin J. O’Connor, United States Attorney for the District of Connecticut,
Chairman of the Department of Justice Task Force on Intellectual Property, United States Department of Justice.

In his opening remarks, Sen. Leahy stated that “piracy and counterfeiting of intellectual property has reached unprecedented levels. Copyright infringement alone costs the U.S. economy at least $200 billion and approximately 750,000 jobs each year.” He noted that there are several bills before Congress addressing the issue, including his own PI RATE ACT, which would give the Department of Justice the authority to prosecute copyright violations as civil wrongs, and that of Sen. Bayh, which is focused on interagency coordination on intellectual property. However, he said, “This issue is too important to be addressed piecemeal. In order to effect the greatest change, we must examine enforcement efforts from the top down.”

Mr. Israel detailed the actions that the Bush Administration has taken to ensure that intellectual property protection remains a top priority in its relationships with foreign governments, including placing the issue on the agenda of the G8, the US-EU Summit and the Security and Prosperity Partnership with Canada and Mexico; and discussing ongoing concerns with leaders of critical markets such as China, Russia and India. He also detailed the actions of the Strategy for Targeting Organized Piracy (STOP!) and other Administration initiatives to halt piracy, including the activities of the Department of Justice and Customs and Border Protection. Israel also emphasized that the Administration is “making effective use of all of our trade tools” to push China towards greater IP protection, including moving forward with two pending WTO dispute settlement cases.

With respect to Russia, Mr. Israel testified that, “according to USTR’s Special 301 Report, poor enforcement of IPR in Russia is a pervasive problem. The report notes that prosecution and adjudication of IP cases remains sporadic and inadequate in Russia; there is a lack of transparency and a failure to impose deterrent penalties. Russia’s customs administration also needs to significantly strengthen its enforcement efforts.” However, he said, the U.S. Bilateral Market Access Agreement with Russia, concluded in November 2006, includes a letter setting out important commitments that will strengthen IPR protection and enforcement in Russia.

For testimony of all the witnesses, go to: http://judiciary.senate.gov.

SPACE: STATUS OF NASA’S NEAR-EARTH OBJECT PROGRAM REVIEWED BY HOUSE SPACE & AERONAUTICS SUBCOMMITTEE

On Thursday, November 8, 2007, the House Science and Technology Subcommittee on Space and Aeronautics held a hearing on the status of a survey program to study near earth objects. Primarily, NEOs are icy comets and rocky asteroids that often pass very close to the Earth’s surface.


At the hearing, Dr. Scott Pace, NASA’s Associate Administrator for Program Analysis and Evaluation, outlined the multiple goals of NEO-focused work, including detecting, tracking, characterizing, and cataloging such objects, as well as mitigating potential damage from any that might strike the earth by deflecting or destroying them, or at least reducing impact consequences. The NEO project’s goal of inventorying of 90 percent potentially hazardous objects by 2020 is “one to two orders of magnitude more technologically challenging than the [existing] Spaceguard program,” he estimated.

A study team considered alternatives for diverting a hypothetical NEO that was on a collision course with earth, and Dr. Pace indicated that “nuclear standoff explosions” were assessed to be between 10 and
100 times more effective than non-nuclear options. He also said that use of nuclear devices that actually impacted or penetrated the surface of the object could be even more efficient, but that they involved greater risks, and that “non-nuclear kinetic impactors” could work on a single, small, solid body. He said that gravitational attraction approaches would be of limited use absent many years to decades of lead time, and that new launch and propulsion systems would may be needed to augment vehicle performance enough to reach a distant object soon enough for such a scenario to work. Because accelerating the program would be costly, and because a short delay of 5 to 10 years would likely have little consequence (assuming an “impact interval” for a 140-meter objects to be every 500 years), Dr. Pace indicated that -- without additional resources to support it -- NASA “cannot place a new NEO program above current scientific and exploration missions.”

Dr. Donald Yeomans, manager of NASA’s NEO Program Office at the Jet Propulsion Laboratory (JPL), commented that only occasionally is a fragment large enough even to reach the Earth’s surface. He stated, “Larger impactors with diameters in the 50 to 140 meter range, while they do not usually impact the ground, can result in damaging air blasts that cause significant destruction. For example, on June 30, 1908, an impactor with a diameter of about 50 meters detonated over the Tunguska region of Siberia and leveled trees for 2000 square kilometers. Its impact energy has been estimated at about 10 million tons of TNT explosives (10 megatons), comparable in energy with a modern nuclear weapon.” Dr. Yeomans said that NASA has so far discovered only about 4% of the roughly 20,000 NEOs assumed to be 140 meters or larger, and less than 1% of the perhaps 200,000 objects larger than 50 meters. He added that current telescope surveys are incapable of detecting 140-meter objects, which are about 150 times fainter than 1-kilometer objects.

Dr. Yeomans also commented that radar imaging can be helpful, but it cannot be the primary detection method. Noting that there are only two planetary imaging radars in existence, he said, “The 70-meter Goldstone antenna in California’s Mojave desert is fully steerable, can track an asteroid and can cover large regions of sky while the larger 305-meter Arecibo antenna in Puerto Rico has twice the range but only observes within a 40-degree zone centered on the overhead position (20 degrees on either side of zenith).” Radar antennas are best used on “a close approaching target asteroid,” whereas optics can detect at greater distances. Unfortunately, he noted, NSF’s Arecibo radar is not funded beyond 2007. Yeomans concluded with the comment, “The first three steps in any asteroid mitigation process are: Find them early, find them early, and find them early!”

Dr. J. Anthony Tyson, professor of physics at the University of California, Davis, has been a key force behind the Large Synoptic Survey Telescope (LSST) -- an 8.4 meter aperture telescope and 3,000 megapixel camera now under development with support from NSF and the Department of Energy’s Office of Science -- and he is now the LSST project’s director. Thanks to the LSST, Dr. Tyson predicted, the risk of NEO impact can be converted from a probabilistic to a deterministic one -- meaning that an educated guess can be replaced with observed certainty -- in a matter of a relatively few years. With some timeline flexibility, the LSST could fulfill the stated requirements at a fraction of the cost of holding rigidly to the schedule. (LSST is to commence operation in 2014.)

Asked about the 2020 timetable, witnesses agreed waiting a few more years to complete the program more easily and cheaply via the LSST is unlikely to cause a safety problem. The subcommittee’s ranking Republican, Rep. Tom Feeney (FL) commented that concern for safety and security may have the potential to “convince some of our international partners to bear some of the financial load.”

Russell (Rusty) Schweikart, chairman of the B612 Foundation, which is based in Sonoma, California, criticized NASA for its analysis of the potential for NEO encounters and the risks thereof. In particular, he argued that nuclear weapons are not necessary except in the most extreme cases. NASA, he said, had overblown the likelihood of large NEO impacts, and it also did not sufficiently consider other deflection alternatives, such as “slow push mitigation” techniques (sometimes called a gravity tractor) that uses the gravitational attraction of the spacecraft to intercept and slightly divert the path of a NEO enough to avoid
collision. Mr. Schweikart concurred that radar is not a good tool for identifying all threats, but that it is important also to develop radar, or maintain Arecibo, to compliment the optical view and to track an object once optics identifies it. Mr. Schweikart also recommended that Congress study and hold public hearings on the issue of what government agencies should take the lead regarding NEO issues, with the current likely prospects being the Homeland Security Department, the Department of Defense, and NASA itself (a list to which Dr. Tyson added Department of Energy Office of Science and the National Science Foundation). Responding to a question by Rep. Rohrabacher, Mr. Schweikart noted that no agency at present is charged with protecting the earth from asteroid impact.

Rep. Rohrabacher reminded participants that scientists believe the extinction of the dinosaurs 65 million years ago -- and the elimination of 75 percent of life on earth -- was caused by a 10-kilometer asteroid, which is considered an event that could happen every 50 million years. He noted that just last year a large object narrowly missed Earth -- passing between the Earth and the moon -- and scientists did not even know it existed until it had already passed by. He also mentioned Asteroid Apophis, discovered in 2004 and estimated to be roughly 300 meters in diameter, which could pass the Earth at the altitude that communications satellites orbit Earth on April 13, 2029 (a “Friday the 13th”). The probability of impact is estimated to be 1/45,000. If the telescope is still operational, scientists hope to use Arecibo in 2012 to further refine Apophis’ orbital coordinates.

Responding to a question from Rep. Rohrabacher, Dr. Yeomans said, “We have discovered only about 4 percent of the perhaps 20,000 dangerous asteroids out there, and Dr. Tyson added that “a 300-meter asteroid would have the potential to wipe out entire countries.” Mr. Schweikart said the small (5-meter) Siberia asteroid in 1908 was the equivalent of a 5 megaton explosive and destroyed 200 square kilometers -- enough to wipe out all of Moscow or Washington DC or London. Noting that the 1908 NEO never even hit the earth (the damage was from a shockwave), Dr. Tyson suggested that -- with most of the earth covered with water -- a NEO-generated tsunami could devastate entire coasts.

California research centers are central to efforts to track and deal with NEOs. NASA’s Jet Propulsion Laboratory (JPL), operated by Caltech in Pasadena, tracks data about NEOs on its “Near Earth Asteroid Discovery Statistics” page, at http://neo.jpl.nasa.gov/stats/. And the NASA Ames Research Center in Sunnyvale provides information on asteroid and comet impact hazards at http://impact.arc.nasa.gov/. For hearing information and witness testimony, visit http://science.house.gov.

ENVIRONMENT: CALIFORNIA SUES U.S. EPA OVER DELAYED DECISION ON STATE’S TAILPIPE EMISSIONS STANDARDS WAIVER

In a suit filed on Thursday, November 9, 2007 in Washington DC, Governor Arnold Schwarzenegger and Attorney General Edmund G. Brown Jr. sued the U.S. Environmental Protection Agency to force the EPA to act on California’s request to curb greenhouse gas emissions from motor vehicles. The lawsuit, filed in the U.S. District Court for the District of Columbia, charges that EPA has unreasonably delayed its decision on a 2002 California law that mandates a 30 percent reduction in vehicle emissions by 2016.

Attorney General Brown stated, “Despite the mounting dangers of global warming, the EPA has delayed and ignored California’s right to impose stricter environmental standards. We have waited two years and the Supreme Court has ruled in our favor. What is the EPA waiting for?”

Governor Schwarzenegger commented, “Our air quality, our health and our environment are too important to delay any longer, and it is not just the people of California who are waiting. Those states that want to follow our lead cannot do so until federal permission is granted. In fact, fourteen other states are expected to join our lawsuit later today.”

Under the Clean Air Act, passed in 1963, California can adopt environmental standards that are stricter than federal rules, if the state obtains a waiver from the U.S. EPA. Congress allowed California to impose
stricter laws in recognition of the state’s “compelling and extraordinary conditions.” After a California waiver request is granted, other states are permitted to adopt the same rules.

Opining that “it should not have come to this,” Assembly Speaker Fabian Núñez pointed out that California is “setting the nation's pace in responding to global warming,” and he suggested that “since the President isn't leading on the issue he needs to either follow or at least get out of the way.”

In December 2005, the California Air Resources Board submitted a detailed 251-page assessment and applied for an EPA waiver to implement California’s 2002 law. On April 25, 2007, Governor Schwarzenegger wrote to EPA Administrator Stephen L. Johnson informing him of California’s intent to sue after 180 days under the Clean Air Act and Administrative Procedure Act, which provides mechanisms for compelling delayed agency action.

Sixteen other states -- Arizona, Colorado, Connecticut, Florida, Maine, Maryland, Massachusetts, New Jersey, New Mexico, New York, Oregon, Pennsylvania, Rhode Island, Utah, Vermont, Washington -- have adopted or are in the process of adopting California's emissions standards, and most of those states were expected to endorse California’s lawsuit.

To view the November 8 filing, visit the Attorney General’s website, at http://ag.ca.gov/.

**TAXATION: CCSCE STUDY COMPARES CALIFORNIA TAX BURDEN VERSUS OTHER STATES**

An October 2007 report by the Center for Continuing Study of the California Economy (CCSCE) seeks to answer the question “Is California a High-Tax State?” The report reviews data on California's four major tax revenue sources -- income, sales, property and corporate income taxes, respectively -- and compares California's tax structure to that in other states.

The report finds that of California’s state and local taxes, 11.5% are drawn from personal income taxes compared to 11.0% nationwide. It further notes that the share of income devoted to state and local taxes has risen over the past 25 years in both the state and the nation.

The report recognizes that California has one of the highest income taxes for individuals earning over $1 million per year, set at 10.3%. However, the report notes that California’s lowest income tax is set at 1%, whereas most states have a bottom bracket of 2, 3, or 4%. So lower income households face lower tax rates in California compared to most other states, the report notes.

California’s corporate income tax is comparatively high, set at a 8.84% flat tax across all income brackets, with a minimum tax of $800. Eleven states and the District of Columbia have a corporate income tax rate higher than California’s.

CCSCE concludes that California has comparatively high taxes for corporate income and sales taxes and comparatively high and low personal income tax rates depending on income.

For more information, visit http://www.ccsce.com.

**ENVIRONMENT: BRIEFING CONSIDERS REDEVELOPMENT OF BROWNFIELD SITES**

On Wednesday, November 7, 2007, the Northeast-Midwest Coalition hosted a briefing on issues of and opportunities associated with brownfield clean up. The goal of the briefing was to explain the nexus between brownfield clean-up, economic development, and environmental and energy conservation. Currently there are over 400,000 brownfield sites across the nation, and there is not one single Congressional district that does not contain a brownfield site.

According to the Coalition, brownfield clean-up and redevelopment holds numerous economic opportunities for cities, states and private entities. In a survey of 187 large and small cities throughout the nation conducted by the U.S. Conference of Mayors, redevelopment of existing brownfields would bring in additional tax revenues of approximately $2 billion annually and could create up to 550,000 jobs.
The coalition also gave examples of how brownfield development has positive environmental outcomes compared to greenfield development. For example, numerous brownfield sites are located in prime business locations near critical infrastructure, including transportation. The Smart Growth Coalition for America, part of NEMW, argues that brownfield development in urban locations reduces Vehicle Miles Traveled (VMT) by 20-40% for each increment of compact development. Moreover, its representatives argued, one acre of brownfield development saves 4.5 acres of greenfield development, helping to reduce urban sprawl. Many brownfield sites are also being retrofitted with green technology, reducing the amount of energy and water used per unit.

Currently there are somewhere between 450,000 and 1 million brownfield sites still undeveloped throughout the country. Development of these sites could save between 6.8 and 15 million acres of land, produce billions of dollars in tax revenue and create millions of new jobs.

Despite these benefits, there are impediments to developing these sites. The major problems cited by the Coalition were the lack of financial incentives for environmental clean-up and the need to clarify liability associated with these sites.

The Coalition cited two pieces of legislation -- H.R. 1753 by Reps. Xavier Becerra (Los Angeles) and Jerry Weller (IL), and H.R. 3080 by Rep. Michael Turner (OH) -- both of which attempt to address some of these barriers by offering tax credits and other incentives for clean up. The Coalition also urged Congressional staff to support the reauthorization of the EPA brownfields program and the reauthorization of the federal brownfields law.

For more information visit [http://www.nemw.org](http://www.nemw.org) and [http://www.smartgrowthamerica.org](http://www.smartgrowthamerica.org).

**ECONOMY: PPIC REPORTS ON PATTERNS AND TRENDS IN LOCATION DECISIONS FOR CALIFORNIA BUSINESSES**

This week, the Public Policy Institute of California (PPIC) released a report addressing the migration of businesses within California and between California and other states. The report, entitled “Business Location Decisions and Employment Dynamics in California,” addresses the prevalent discussion of whether California businesses are moving to other states and taking jobs with them.

The report seeks to provide a more accurate outlook of California’s economy by looking at the broader patterns of employment dynamics; the ways in which jobs and businesses into, around, and out of the state.

The reports findings hold that business “migration is too small to be a reliable basis for claims about the business climate or overall economic performance. The key implication is that any policy responses to concerns about the state’s business climate should emphasize sources of job creation and destruction other than business relocation.”

Some of the key findings of the study are:
- Job loss from interstate relocation tends to occur in better-paying industries. Although this indicates that California is losing high-paying jobs to other states, this tendency does not translate into a substantial effect on the overall composition of jobs because the total number of jobs affected by relocation is still small.
- Overall, the shift of employment of California-headquartered companies to other states has been more than offset by increased employment in the state by firms headquartered elsewhere, with the result that California’s share of national employment has remained roughly constant, with a dip during the economic downturn of the early to mid-1990s.