CALIFORNIA RESEARCH BUREAU
CALIFORNIA STATE LIBRARY

Environment, Growth Management and Transportation Supplement

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**Introduction to Studies in the News**

Studies in the News is a current compilation of items significant to the Legislature and Governor's Office. It is created weekly by the State Library's [California Research Bureau](http://library.ca.gov/sitn) to supplement the public policy debate in California. To help share the latest information with state policymakers, these reading lists are now being made accessible through the State Library’s website. This week's list of current articles in various public policy areas is presented below. Prior lists can be viewed from the California State Library's Web site at [www.library.ca.gov/sitn](http://www.library.ca.gov/sitn).

- When available, the URL for the full text of each item is provided.

- California State Employees may contact the State Information & Reference Center (916-654-0206; [cslsirc@library.ca.gov](mailto:cslsirc@library.ca.gov)) with the SITN issue number and the item number [S#].

- All other interested individuals should contact their local library - the items may be available there, or may be borrowed by your local library on your behalf.

The following studies are currently on hand:

**ENERGY**

**ALTERNATIVE FUELS**


"Biofuel promotion policies should be tied to a Sustainable Fuel Standard that requires sustainable production methods for both ethanol and feedstocks. This includes sustainable management practices of land, water, and soil use, and measures to reduce impacts on wildlife and natural..."
ecosystems. Other criteria include bans on GMO crops and protected land conversion for biofuel crops; maintenance and development of land preservation programs; incentives for sustainable agricultural practices such as crop rotation, minimal use of inputs; disincentives for monoculture crops; and reduced tilling and replanting." [Request #S08-1-1287]

ALTERNATIVE FUELS


["Due to the concerns with significant expansion in corn-based ethanol supply, interest has grown in expanding the market for biodiesel produced from soybeans and other oil crops. However, a significant increase in U.S. biofuels would likely require a movement away from food and grain crops as feedstocks. Other biofuel feedstock sources, including cellulosic biomass, are promising, but technological barriers make their future uncertain. Therefore, some proposals would require ever-larger amounts of biofuels produced from feedstocks other than corn starch, including sugarcane, oil crops, and cellulose, to promote the development of these fuels."] [Request #S08-1-1387]

ETHANOL


Full text at: http://www.balancedfoodandfuel.org/ht/a/GetDocumentAction/i/7631

[“The current Federal ethanol subsidy program does not reflect realities of current energy and food markets. Elimination of the Federal subsidy, or placing it on a sliding scale based on gasoline prices, would reduce the effects of ethanol on energy and food costs. However, even if the Federal subsidy were to be completely eliminated, current energy prices are high enough to link gasoline and food prices. If wholesale gasoline prices increase significantly from today’s levels U.S. food costs and food availability will be severely compromised by further increased use of grain for fuel production.”] [Request #S08-1-1313]
HYDROGEN


Full text at: http://www.reason.org/ps363.pdf

[“If the U.S. replaced 20 percent of today's vehicles with hydrogen cars, CO2 emissions would either drop a tiny amount from 1.67 billion tons per year to 1.63 billion tons, or actually rise to 2.13 billion tons a year, depending upon what method is used to produce the hydrogen. And while hydrogen cars would reduce American reliance on crude oil, they would also significantly increase the need for foreign-produced natural gas. The countries with the largest natural gas reserves are Russia, Iran, Qatar, Saudi Arabia and the United Arab Emirates.”]

[Request #S08-1-1151]

ENVIRONMENT & NATURAL RESOURCES

AGRICULTURAL RESEARCH

"Management Reduces E. coli in Irrigated Pasture Runoff" By A. Kate Knox and others. IN: California Agriculture, vol. 61, no. 4 (October-December 2007) pp. 159-165.

Full text at: http://californiaagriculture.ucop.edu/0704OND/pdfs/IrrigationEcoli.pdf

[" Microbial pollutants, some of which can cause illnesses in humans, chronically contaminate many California water bodies. Among numerous sources, runoff from irrigated pastures has been identified as an important regulatory target for improving water quality. This study examined the potential to reduce E. coli contamination from cattle in irrigated pastures. During the 14 irrigation events examined, we found that E. coli concentrations were lowest with a combination of three treatments: filtering runoff through a natural wetland, reducing runoff rates, and letting the pasture rest from grazing at least a week prior to irrigation. Integrated pasture and tailwater management are required to significantly reduce E. coli concentrations in runoff.”]

[Request #S08-1-1130]
AIR POLLUTION


Full text at: http://www.nrdc.org/health/effects/driving/driving.pdf

"Truck drivers hauling cargo from the Port of Oakland face even greater cancer risks than residents of pollution-choked neighborhoods near the port. Monitors in seven trucks of varying ages and fuel types measured the amounts of diesel soot in the cabs as drivers worked shifts at the port. The average levels of soot, also known as black carbon, in each truck cab were at least 10 times the level found in an Oakland neighborhood about two miles away. The amount of carbon measured was enough to significantly boost the health risk for cancer and was about 2,000 times greater than the level typically considered acceptable by the state and federal environmental agencies." San Francisco Chronicle (December 4, 2007) 1.

[Request #S08-1-1358]

BEACHES

“Beach Sands Along the California Coast Are Diffuse Sources of Fecal Bacteria to Coastal Waters.” By Alexandria B. Boehm and others. IN: Environmental Science and Technology, vol. 41, no. 13 (July 1, 2007) pp. 4515 - 4521.

Full text at: http://pubs.acs.org/cgi-bin/abstract.cgi/esthag/2007/41/i13/abs/es062822n.html

"No one knows exactly what's causing it, but scientists do know that beaches often contain high levels of bacteria linked to the presence of harmful pathogens. And along the California coast, the majority of 55 beaches tested had detectable levels of these bacterial warning flags…. It provides evidence that bacteria permeating wet sands are carried away by waves, increasing bacteria levels in the adjacent waters. Dry sands above the tide line have low levels of bacteria, researchers noted." San Jose Mercury News (September 4, 2007) 1.

[Request #S08-1-635]
CLEAN WATER ACT


["Using information provided by the U.S. Environmental Protection Agency, this report analyzes all major facilities that exceeded their Clean Water Act permits between January 1, 2005 and December 31, 2005; reveals the type of pollutants they are discharging into our waterways; and details the extent to which these facilities are exceeding their permit levels. The 10 U.S. states with the highest percentage of major facilities exceeding their Clean Water Act permit limits at least once... [include] California. The 10 U.S. counties with the most facilities exceeding their Clean Water Act permits at least once...[include] Los Angeles County."]

Report. 81 p.

California facilities. Various pagings.

CLIMATE CHANGE


["The White House has systematically tried to manipulate climate-change science and minimize the dangers of global warming, asserts a Democratic congressional report issued after a 16-month investigation.... It said the White House over the years has sought to control public access to government climate scientists, suppressed scientific views that conflicted with administration policy and extensively edited government reports 'to minimize the significance of climate change.'... The ranking Republican on the House committee, issued his own report disputing the Democrats' conclusions, saying that they 'grossly exaggerated' assertions of political..."]
interference and ignored 'the legitimate role of policymakers, instead of scientists, in making administration policy.'" Washington Post (December 11, 2007) A4.]
[Request #S08-1-1389]


Minority Report. 28 p.

CLIMATE CHANGE


Full text at: http://www.csis.org/media/csis/pubs/071105_ageofconsequences.pdf

["Climate change could end globalization by 2040 as nations look inward to conserve scarce resources and conflicts flare when refugees flee rising seas and drought. Rich countries could 'go through a 30-year process of kicking people away from the lifeboat' as the world's poorest face the worst environmental consequences, which would be 'extremely debilitating in moral terms.'…. Climate change will force internal and cross-border migrations as people leave areas where food and water are scarce. They will also flee rising seas and areas devastated by the droughts, floods and severe storms that are also forecast consequences of climate change." Reuters (November 7, 2007) 1.]
[Request #S08-1-1141]

CLIMATE CHANGE


[“If the nations of the world continue to pump tons of carbon dioxide into the atmosphere from smokestacks and tailpipes, the world will suffer catastrophic droughts and heat waves and rising seas that could kill millions
of people, according to the most exhaustive work ever done on planetary climate change. The arid and semi-arid lands, including the western United States, would be hit by runaway wildfires, have less drinking water from shrinking snowpacks, and face unpredictable ocean conditions. But if the United States and China, the two top greenhouse gas producers, work with other countries to improve energy efficiency and invest in alternative technologies, the worst effects of global warming could be forestalled.”]

[Request #S08-1-1380]

CLIMATE CHANGE


["The outpouring of greenhouse gases from North America far outstrips the ability of the continent's fields, forests and wetlands to absorb all the carbon in the atmosphere…. The report calculated that the continent emits more than three times the amount of carbon dioxide than its varied sinks are capable of absorbing. All the rest stays in the atmosphere and creates the heat-trapping greenhouse effect that has been warming the planet for the past century." San Francisco Chronicle (November 15, 2007) 1.]

[Request #S08-1-1221]


Executive Summary. 14 p.

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CLIMATE CHANGE


Full text at:

[“Philanthropists who are concerned about climate change are inundated with a dizzying array of often contradictory options and opinions. Should they back renewable power sources, such as wind and solar, or try to clean
up coal-fired plants?... With experts' guidance, we developed an exhaustive list of possible interventions and used existing mitigation models to quantify each strategy’s expected cost and emissions reduction. As we prioritized the initiatives, we were guided by philanthropy’s comparative advantages. Our conclusions: first, don't lose - the battle could be lost in the next decade."
[Request #S08-1-624]

ENVIRONMENTAL REGULATION


Full text at:

"In a decision that affects all national forests, a court ruled that the U.S. Forest Service cannot cut brush and use controlled burns to reduce the risk of wildfires in and near urban areas unless it first performs a detailed assessment of the environmental impact. Environmentalists hailed the ruling, saying it halts part of the Bush administration's 'Healthy Forests' initiative and what they see as unchecked logging in national forests. But even one of the federal judges who concurred with the ruling questioned whether the net result would be years of delay before real efforts can be made to protect residents near national forests from wildland fires."
Sacramento Bee (December 6, 2007) 1.
[Request #S08-1-1386]

FISH


"The most exhaustive study to date on mercury contamination in Northern California sport fish has found that some of the most popular species, including striped bass and carp, have the highest concentrations of the potent neurotoxin. Government and private researchers behind the three-year, $4.7 million study say their findings shouldn't discourage diners from eating fish from the San Francisco Bay estuary - as long as they limit how much they consume, learn about the best and worst species to eat and avoid
the most polluted fishing spots." San Francisco Chronicle (November 6, 2007) 1.
[Request #S08-1-1129]

Report. 84 p.

Highlights. 8 p.
http://www.sfei.org/cmr/fishmercury/FMP07_FactSheet_screen.pdf

FISHERIES

"Genetic Effects of Captive Breeding Cause a Rapid, Cumulative Fitness Decline in the Wild." By Hitoshi Araki and others. IN: Science, vol. 318, no. 5847 (October 5, 2007) pp. 100-103

Full text at: http://www.sciencemag.org/cgi/content/abstract/318/5847/100

"When captive-bred trout are released in the wild, they are roughly 40 percent less successful at producing offspring that survive to adulthood than their wild cousins. With each generation through the hatchery, the fitness of the resulting fish when they breed in the wild declines remarkably quickly…. There are two different missions for fish hatcheries. The traditional mission has been to produce fish for harvest and they are really good at that. These highly domesticated stocks perform well in a hatchery. Another type of conservation-minded 'supplementation' hatcheries produce fish intended to be added to wild populations to augment their numbers. There are no good data showing that supplementation programs work." Reuters (October 8, 2007) 1.
[Request #S08-1-890]

FLOODS


"Conservationists tout the 9,200-acre island, located south of Walnut Grove in San Joaquin County, as a successful marriage between wildlife and agriculture. They applaud the state Department of Water Resources for its willingness to invest in wildlife preservation. But a state audit has raised
questions about the department's decision to hand $17.6 million in flood protection bond money to a non-governmental organization that emphasizes habitat protection over flood control." Sacramento Bee (November 12, 2007) 1.]
[Request #S08-1-1222]

GREEN HOUSE GASES


Full text at:
http://www.arb.ca.gov/cc/ccei/inventory/reports/staff_report_1990_level.pdf

The Global Warming Solutions Act of 2006 requires the Air Resources Board to determine the statewide greenhouse gas emissions level in 1990 and to approve a statewide greenhouse gas emissions limit, equal to that level, to be achieved by 2020. ARB staff is recommending that the Board approve 427 million metric tonnes of carbon dioxide equivalent as the total statewide aggregated greenhouse gas 1990 emissions level and 2020 emissions limit. This staff report discusses the development of the 1990 statewide emissions level and provides a summary of the key emissions sources, the methodologies used to calculate the emissions, and the sources of data.

[Request #S08-1-1303]

GREEN HOUSE GASES


["California became the first state in the nation to require oil refineries, electricity generating plants, cement kilns and other major polluters to report their annual greenhouse gas emissions beginning in 2009. The mandatory reporting rule approved by state air regulators would affect 800 manufacturing facilities that account for about 95 percent of emissions from industrial sources in California…. Under the new mandate, businesses will begin tracking their carbon dioxide, nitrous oxide and methane emissions..."]
next year with the first report due to the state in 2009. The initial submissions won't be audited by a third party, but future reports will have to be verified.” Fresno Bee (December 6, 2007) 1.
[Request #S08-1-1366]

GREEN HOUSE GASES


"California's air board adopted six new rules aimed at reducing greenhouse gases and helping the state meet its goal of cutting emissions 25 percent by 2020. Although the regulations that would put the rules into law are still as much as a year from being approved, the action puts industry on notice that the new rules are coming. Among the measures is a requirement that big rigs improve fuel efficiency by reducing aerodynamic drag. Ships docked at the state's sea ports will also be required to shut off their auxiliary diesel engines and plug into shoreside electrical outlets…. The nine 'early action' measures are expected to eliminate about 16 million metric tons of emissions - or about 10 percent of the state's goal." San Francisco Chronicle (October 26, 2007) 1.
[Request #S08-1-1154]

http://www.arb.ca.gov/cc/ccea/meetings/ea_final_report.pdf

Staff presentation. 36 p.

OCEAN RESOURCES


Full text at:

[“In the agreement, the Governors identified seven issues of regional significance that can be more effectively addressed through collaborative efforts by all three states. The Governors identified those priority areas as:
1) clean coastal waters and beaches; 2) healthy ocean and coastal habitats; 3) effective implementation of ecosystem-based management; 4) reduced impacts of offshore development; 5) expanded ocean and coastal scientific information, research, and monitoring; 6) increased ocean awareness and literacy among the region’s citizens; and 7) sustainable economic development of coastal communities.”

[Request #S08-1-1312]

WATER POLLUTION


"According to industry and agency officials, three main factors affect the cost of spills: a spill’s location, the time of year, and the type of oil spilled. Spills that occur in remote areas, for example, can increase costs involved in mobilizing responders and equipment. Similarly, a spill occurring during tourist or fishing season might produce substantial compensation claims. The type of oil affects costs in various ways: fuels like gasoline or diesel fuel may dissipate quickly but are extremely toxic to fish and plants, while crude oil is less toxic but harder to clean up. The total costs of the recent San Francisco oil spill are unknown, but these identified factors are likely to influence the costs."

[Request #S08-1-1508]

WATER POLLUTION


Full text at: http://www.oehha.ca.gov/fish/pdf/SF%20BayFishShell112907.pdf

"Metals and polycyclic aromatic hydrocarbons (PAHs) can become concentrated in bunker fuel and may pose major human health concerns following an oil spill. Analysis of the fuel released into San Francisco Bay indicated very low levels of metal contaminants, therefore our evaluation focused on PAHs. OEHHA calculated 44 ppb as a level of benzo(a)pyrene"
equivalent (BaPE) PAHs in fish or shellfish tissue that, when consumed, will not pose a significant human health risk.... Dungeness crab, Pacific herring, and shiner surfperch were not found to contain any BaPE PAHs.... Mussels at Berkeley Marina and Rodeo Beach were both found to contain levels of 53 ppb BaPE, and thus they were both above the limit of health concern."

[WATER RESOURCES


[“A study confirms that removing four dams on the Klamath River would be far cheaper than fitting them with fish ladders, boosting hopes among Indian tribes, fishermen and environmentalists that the dams are doomed.... The report does not recommend dam removal, but its findings may make that more likely.... Federal law requires dams to adopt adequate fish passage when relicensed. But that would be an expensive proposition for the Klamath dams; because the Klamath's canyons are narrow and confined, constructing fish ladders along the river is a complex undertaking.” Sacramento Bee (November 17, 2007) A4.

WATER RESOURCES


Full text at: http://www.nap.edu/catalog.php?record_id=12072#toc

["A report supports more water being released down the Klamath River to protect salmon runs, siding with authors of a 2006 study that critics said the Bush administration tried to suppress.... But the report also found fault with
two recent Klamath River scientific studies, including the one from 2006, saying they examine in detail portions of the complex river system but miss the complete picture of why it's in such crisis. The new report is not likely to result in any immediate changes by the Bureau of Reclamation, which tried to downplay its significance." Sacramento Bee (November 29, 2007) A4.] Note: "Hydrology, Ecology…” is available for loan. [Request #S08-1-1336]

WATER RESOURCES


["For a mere $115 million, homes in Marin County could soon be sucking de-salted bay water through their taps…. The district's 190,000 customers will have considerable say over whether water district directors eventually decide to build the plant, in part because the ratepayers will likely end up financing the construction through taxes or higher water rates…. The system would use a reverse osmosis filtration system to remove salt from the water. The highly concentrated salt water, or brine, that remains would then be mixed with treated wastewater, creating what experts believe would be a more natural byproduct for discharge back into the bay…. The amount of electricity needed to run the plant would double in drought years. For that reason, district officials would continue exploring alternative energy sources, including wind, solar power and methane gas from landfills." San Francisco Chronicle (November 5, 2007) 1.]
[Request #S08-1-1153]

Draft EIR. Various pagings.
http://www.marinwater.org/controller?action=menuclick&id=428

Summary. 18 p.
http://www.marinwater.org/documents/DesalDEIR_Section_2_Summary.pdf
WATER SUPPLY


Full text at: http://www.tuolumne.org/content/fmd/files/FromtheTuolumnetotheTapReport.pdf

"Not one drop more from the Tuolumne River. That's the message the Tuolumne River Trust delivered in response to a San Francisco plan to take up to 25 million gallons a day more than the city does today… The San Francisco Public Utilities Commission responded by saying that the proposed additional Tuolumne water diversion was just one of several possible alternatives contained in the draft program environmental impact report. … Wesselman noted, however, that the proposal calling for more water from the Tuolumne was identified as the SFPUC's 'preferred alternative.'" Modesto Bee (September 4, 2007) 1.

[Request #S08-1-636]

WEATHER


"Many areas will receive increased amounts of rain and snow over the course of a year; some areas will receive less. But scientists expect that, all across the country, the rainstorms and snowstorms that do occur will be more intense -- increasing the risk of flooding and other impacts. In this report, we evaluate trends in the frequency of storms with extreme levels of rainfall or snowfall across the contiguous United States over the last 60 years…. We find that storms with extreme amounts of rain or snowfall are happening more often across most of America, consistent with the predicted impact of global warming."

[Request #S08-1-1388]


[“Ash from wildfires in Southern California's residential neighborhoods poses a serious threat to people and ecosystems because it is extremely caustic and contains high levels of arsenic, lead and other toxic metals. Scientists warned that rainstorms are likely to wash the dangerous substances into waterways, polluting streams and threatening wildlife…. The scientists called for concerted efforts to clean the sites before winter rains, and to monitor them afterward.” Los Angeles Times (December 5, 2007) 1.]

[Request #S08-1-1383]


["The fires that roared through Southern California spewed the same amount of greenhouse gases as what is produced in about one week from the state's burning of fossil fuels. Preliminary data show that the fires emitted 7.9 million metric tons of carbon dioxide between Oct. 19 and 26. That's equivalent to 25 percent of the monthly emissions from all fossil fuel burning throughout California." San Francisco Chronicle (November 1, 2007) 1.]

[Request #S08-1-1282]
WILDFIRES


Full text at:  

["Burned Area Emergency Response team reports contain evaluations designed to assist federal, state and local officials in creating comprehensive remediation plans and to guide restoration efforts as a result of the October Wildfires. These reports will help officials develop plans to protect citizens from potential floods and debris flows associated with the upcoming winter rains."]

[Request #S08-1-1382]  

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TRANSPORTATION

AIRPORTS


["The rate of close calls between planes on the ground approached record highs in 2007 at Los Angeles International Airport and at other airports across the nation…. Even more worrisome, researchers found the rate of the most serious types of close calls had not markedly improved from 2002 through 2006, suggesting 'a high risk of a catastrophic runway collision occurring in the United States.' The report also questioned whether the FAA's data on close calls was accurate, saying that the airline industry reports more of such incidents than does the FAA." Los Angeles Times (December 6, 2007) 1.]

[Request #S08-1-1378]

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BICYCLING AND PEDESTRIANS

Neighborhood Design and Aging: An Empirical Analysis in Northern California. By Xinyu Cao, Upper Great Plains Transportation Institute, and others. (The Institute, Fargo, North Dakota) September 2007. 28 p.


["The low mobility of seniors may be due in part to a history of auto-oriented transportation and land use policy decisions. More recently, land use policies that make it possible to drive less show promise of effectiveness for the population as a whole. However, little attention has been paid to the implications of such policies for older people…. Elderly have stronger preferences for driving-reducing neighborhood attributes, but are less likely to live in a place that meets their preferences than younger people…. Enhanced accessibility has a much larger effect on the elderly than on the younger generation. Therefore, neighborhood design seems to be an important aspect of sustaining the accessibility of older people."]

[Request #S08-1-1107]

FINANCING


[“This guidebook was developed as a resource for states and metropolitan planning organizations. One section describes existing federal funding programs and financing tools that could be considered for funding freight improvements. In addition, this section provides an overview of several programs available through the States that have been created to support the increasing need for the public sector to invest in freight-related infrastructure as a way of promoting economic development and addressing multimodal transportation issues. Another section provides brief summaries of how various types of freight-related projects were financed.”]

[Request #S08-1-610]
HIGHWAYS


Full text at: http://www.reason.org/ps360.pdf

[“The states reversed the 2004 declines in highway condition by spending federal funds approved by Congress…. Substantial as it is, this progress was offset slightly by several troublesome problems. The condition of secondary and local roads continues to worsen. Over one half of urban interstates remain congested, and the states’ ability to deal with congestion seems to be slowing. And one quarter of the nation’s bridges are still rated ‘deficient’; at the current improvement rate it will take 50 years to eliminate bridge deficiencies…. Twelve indicators -- covering the states’ highway revenues and expenditures, pavement and bridge condition, congestion, accident rates, and narrow lanes -- make up each state’s overall rating.”] [Request #S08-1-641]

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TRAFFIC CONGESTION


Full text at: http://downloads.transportation.org/CTL-1.pdf

["The report summarizes the Congestion Summits, which brought together federal, state, and local transportation experts to identify and share practices to ease delays occurring on the nation's transportation system. The report outlines strategies that state transportation agencies are implementing to reduce congestion and enhance mobility on the nation’s highways. Innovative approaches to combat congestion highlighted in the report include pricing, integrated corridor operations, multimodal transportation corridor investments, and access and incident management." TRB Newsletter (October 30, 2007) 1.] [Request #S08-1-1106]

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TRAFFIC CONGESTION


Full text at:

["While many of the Nation’s bottlenecks can best be addressed through costly major construction projects, there is also significant opportunity for the application of operational and low-cost infrastructure solutions to bring about relief in the short term. This document describes bottlenecks and explores the opportunity for near-term operational and low-cost construction opportunities to correct them."]

[Request #S08-1-1108]