

1. 11/8 - DHS NOMINEE'S VIEWS ON C.C.; Kirstjen Nielsen, nominated for boss of DHS, told the Senate Homeland Security Committee she knows c.c. exists, but can't determine what/who is causing it. - "not prepared to determine causation". Her view contrasts with the findings in the National Climate Assessment [see #25, 6. A. (11/10) - MANDATED REPORT , , , ] The Dems pounced; the Reps purred. Carper (D-Del) said his state is "sinking", and "98% of our scientists say this is a problem and we as humans are the root cause." Sen. Hassan (D-NH): "Educate yourself. What I heard in your answer is politics before science."
2. Chron 11/9 - NEW SAFETY RULES FOR UTILITIES: The PUC will likely require utilities to cut branches farther back from their wires, and new lines to be spaced farther apart from each other. This is certain to raise rates. > It remains to be seen if these rules will satisfy legislators and Cal Fire who want real supertough and supersafe ones.
3. Chron 11/9 - GOODBYE, DIABLO CANYON: A PUC draft order would close it when its licenses expire in 2024 and 2025. It is surrounded by earthquake faults. The present draft requires PG&E to foot the bill; not ratepayers. (The Legislature would have to approve the latter.)
4. Merc 11/9 - MORE HYDROPOWER: The House (257-166) O.K'd a bill to expand hydropower. The bill defines hydropower as a renewable energy source. It streamlines approval only to the Federal Energy Regulatory Commission and requires states, tribes and all other agencies to defer to the Commission and kiss its ring. > Opponents called it a giveaway to large power companies.
5. Merc 11/9 - AVS - CA SHOULD LEAD THE WAY: AV's will do so much good! - bringing safety and profits. CA already has draft rules in place. They require a driver, but that requirement should be removed. > The rules must call for complete transparency about accidents and their causes. > The Chron prefers our state rules over federal because the feds require less info about accidents. [Opinion: No. Fix the federal rules; we can't

have 50-state local option rules.]

6. NYT 11/9 - EUROPE THREATENS CO2 EMISSIONS: The European Commission, the EU's executive arm, is likely to order CO2 emissions to be cut by almost a third by 2030 and to make half of that cut by 2025. There was instant criticism by environmentalists, who see the cuts as too puny and a sop to Germany. > The Commission failed to set a quota for the number of zero emission cars to be sold by 2030, but it does award money to carmakers who meet certain benchmarks. This is a slight incentive to get more EVs on the road. > The "sop" to Germany is the less rigorous reduction. German cars (Audi, BMW, Mercedes-Benz and Porsche) would have to make more emissions cuts than the lighter Renault (French) and Fiat (Italy.)

7. NYT 11/9 - FEMA'S DILEMMA: By 2030 about half of the Florida Key's roads might be flooded again from storm surges. The county hopes to restore 2 washed-out [Irma] sections costing \$7M per mile. The county will need help. > All the nation's recent storm damages to the Gulf and Caribbean will cost about \$50B to repair. But how repair them when the next storm series are expected to be more damaging? > Under Trump, it is not the federal policy to rebuild with the future in mind. Here's FEMA's policy: Don't think about the forbidden words "c.c.", but heed the congressional mandate "attend . . . to future risks and reduce the cost of future disasters." > Besides FEMA's work in the South, some states, even where Doubting Thomases are in control, are doing this - notably in northern FL and WI. (It's not known if the federal budgeteers realize that when storms are so severe as to call for them to bring their checkbook, how much more the FEMA policy might cost. > And then there's the "moral hazard" argument: A dollar invested in pre-disaster mitigation will prevent, on average, \$4 in damage losses. But when cities and states are partially off the hook (anticipating federal help) would they be more likely to approve developments in vulnerable areas (for tax revenue) - like coastal flood plains? FEMA does what it can to discourage this, but it remains a problem. Under Obama (but not now) flood plain developments had to be built 2-3 feet higher. Another: Obama required risk assessment and mitigation plans every five years before states could qualify for disaster relief. First reports aren't due until 2018 - but might this rule also be scratched? > FEMA tries carrots and sticks. States would get less federal

money if they had failed to mitigate, but were offered discounts on flood insurance premiums if they had.> FEMA is somewhat more sanguine that mitigation policies will survive. Not all of them have been overturned. But don't expect any expansion.

8. NYT 11/10 - editorial - WE STAND ALONE - ONE OUT OF MANY: Syria has joined the club. We are odd man out. The Times encourages the Paris accord nations to honor their pledges and keep planning for the future. The Times name and scorns Trump, Pruitt, Perry and Mrs. White (EQA), and looks back in sadness and anger that Cheney and GWB kept us from signing the Kyoto pact 20 years ago.

9. Chron 11/10 - op ed -OFFSHORE WIND POWER: [Writer is policy analyst for Green Economy Program, UC-Berkeley.] State and federal officials had been considering leasing areas for giant wind farms in the Pacific. At the last minute the Navy said No to Santa Barbara and SLO counties. Then it said the full 36 square miles L.A. to Big Sur is needed for testing. The Chron asks why, saying there are already oil rigs, fishing fleets and commercial shipping. > They'll be discussing this more. Perhaps Plan B [Sonoma, Humboldt and Del Norte counties]. > Wherever. the plan is for floating platforms out in our deepwater ocean.

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Newsletter #25 vol. 3

1. NYT 11/2 - ANTARCTICA CALVING: Two fast-moving glaciers are dumping more ice into the Amundsen Sea - Pine Island and Thwaites. They hold back a lot of ice that could, over centuries, raise seas over 4 feet. > Think of glaciers as ice rivers. The ice sheets that cover the continent flow into it. The warmer water in front of the glaciers is melting them faster.

2. NYT 11/3 - EV TAX CREDIT IS THREATENED: Looks like the tax proposal will wipe out the \$7,500 tax credit that makes them more affordable. If this happens it surely will take steam out of any rapid replacement of fossil fuel cars.

3. NYT 11/3 - WHO WILL SERVICE EV CAR FLEETS?: Waymo has picked AutoNation. Because EVs will be driverless they have to be super-

serviced and super-maintained. Being driven around the clock they'll have to be repaired at the 1st sign of wear - not when they fail or a warning light goes on. AutoNation does this already in CA and AZ.

4. NYT 11/3 - THE CORPSE AT THE BONN WEDDING: The administration will go to Bonn. It plans to inform the delegates that fossil fuels are still long-lived. Fossil fuels and nuclear are still helpful to developing nations. They'll be part of the mix (40%-50%) by mid-century and very likely much cleaner. > Expect a little pushback.

5. Chron 11/3 - SUIT AGAINST PG&E REINSTATED: A federal court reinstated a 2010 suit filed by the Ecological Rights Foundation. It claims pentachlorophenol (cancer-causing and other ailments) contained in sawdust and wood chips were washed into S.F. and Humboldt bays. The suit asked for a halt and a cleanup. In 2015 a judge ruled that the facts were correct, but this was not violative of the Resource Conservation and Recovery Act as the suit charged, because the activities causing them were exempted by the the Clean Water Act. (The EpA had earlier decided not to require PG&E to ask for permits for them.) > The EpA (Obama's) appealed and the court (3-0) reversed the decision, ruling that the EpA could have required permits, and therefore the Clean Water Act was governing. > PG&E is deciding what to do next.

6. A. Merc 11/4 - MANDATED REPORT REFUTES TRUMP'S STANCE ON C.C.:

There were fears that the Trump views on c.c. would affect the every-4-years mandated (1900) National Climate Assessment. either by a refusal to release it or fudging the figures or slanting the language. But no! The report affirms that c.c. is almost entirely driven by human action, warns of sea rise of 8 feet by 2100, and it details all the climate change damages. > The Assessment is the work of many U.S. agencies, and it's reassuring to realize that they're just doin' their thang and grindin' out their reports despite the opposition, disparagement and muzzling by political appointees. > The WH did downplay the report's significance. "The climate has changed and has always changed. As [it] states. the magnitude of future climate change depends significantly on 'remaining uncertainty in the sensitivity of Earth's climate to (GHG) emissions,' [Thus WH spokesman Raj Shah] "In the U.S., energy related CO2 emissions have been declining,

are expected to remain flat during 2040. "The administration supports rigorous analysis and debate." > (This Assessment will provide continuing validity to the original "endangerment finding", the foundation of the Clean Air Act. > The format of the report splits it into two segments. One is the Climate Science Special Report. That has been peer-reviewed by the National Academy of Science. [The Merc wrote nothing about the second segment.]

6. B. NYT 11/4 - The second segment is still under review by the expert committee of the National Academies of Science, Engineering and Medicine. It is supportive of earlier Assessments but with more certainty and less predictive speculation. > The document notes that too little has been done nationally to take action against the many threats, including international economic and political tensions.

7. Chron 11/5 - OZONE HOLE SHRINKS: It's the smallest since 1988. Two months ago it was 7.6M sq. mi. wide (2-1/2 times the size of the U.S.) > Warmer air destroys the chlorine that enlarges the hole, and we've had a lot of that since 2016.

8. Chron 11/5 - L.A. AND LONG BEACH HARBORS TO HAVE ZERO EMISSIONS: The harbor commissions announced a 20-year plan to clear the air - cleaner moving equipment and trucks, starting with switching diesels to natural gas and ultimately emission-free equipment. The \$14B cost and who will pay for them isn't yet clear. > Progressively, equipment entering the ports must clean up their act, beginning in 2020 (or pay a fee), 2023 more restrictions, and finally in 2035 - "smell that sea air.!" > There are critics. Some say this is just to benefit the natural gas folks; others that it will be weakly enforced; others that it's a boon for East Coast port without such stringent rules.

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Newsletter #24 vol. 3

1. Chron 11/1 - FEDS BACK OFF SAFETY REQUIREMENT: As the Obama administration exited, it ordered that all new cars and light trucks be equipped with vehicle-to-vehicle (V2V) technology transmitting location, speed and direction 10 times per second. This would let drivers detect a

red light-runner or a car approaching on a blind curve, thus avoiding collisions. While there was no formal announcement, just anonymous word of mouth rumors, but the plan changed, as seen on the WH's OMB list of pending regulations when it dropped this idea back to its long-term agenda list because NHTSA still has 460 comments on this item to review. > There is speculation that this heeded Trump's policy not to lay heavy, expensive burdens on businesses that might slow the economy. . . . Alas, because Transportation Dept. estimated that 80% of accidents (excluding drugs and booze) would have been prevented or damage reduced. Another benefit: Knowing the traffic situations, traffic lights can be jiggered to turn green without delay, saving time, gas and emissions. > Cable and tech industries oppose V2V. To make it work would require dedication of a spectrum band they covet for their use.

2. A. Chron 11/2 - [see #23, 7, (11/5) TESLA MISSES TARGET: It will be March 2018, not December 2017 before Tesla produces 5K cars per week. The delay is caused by slow battery production. These production delays fray the nerves of impatient buyers and Tesla investors hoping for a RoI.

2. B. NYT 11/2 -

Musk blasted press reports about the 700 job cuts, reported as "large-scale layoffs" and suggesting the workers lacked production skills. (Tesla sees them as a "result of a routine annual performance review." (Some accounts claim union organizers and those complaining of safety practices and repetitive stress injuries were laid off.) > One analyst called into question Tesla's policy of "vertical integration" - building many of its component parts (batteries, seats), contrary to "tried-and-true" industry practice.

3. Chron 11/2 - S.F. BAY'S MARITIME COMMUTE: Next September, weather permitting, a new ferry service will be launched from Richmond to S.F. - 3 in the a.m./4 back to Richmond in the p.m. > This should ease the highway commute, starting with 700-800 voyagers and rising to 1,750 plus by 2035.

4. Chron 11/2 - WILDLIFE PROTECTION: Sixteen Northern CA counties using the Dept. of Agriculture's Wildlife Services to control predators for ranchers and homeowners settled a suit filed by 5 wildlife protection

groups. The settlement calls for the Service, by 2023, to report on the impact of its present lethal methods. Immediately it will end the use of lead ammunition, cyanide sprays and fumigants and, in designated areas, aerial gunnery and body-gripping traps. > The agreement does not constitute an admission of any of the wrongs alleged in the suit. > The death count last year was more than 4,136 coyotes, foxes, black bears, bobcats and "thousands of other creatures." (This does not count any killings by the "three S's" - shoot, shovel and shut up.)

5. Merc 11/2 - [see #23, 1 (11/2) CONGRESS REACTS TO FIRES:] The House (232-188) passed it. It goes to the Senate. The Dems and environmentalists, in opposition, say this bypasses environmental policies to ban clear cutting and will harm wildlife and the environment, all in an effort to undermine the National Environmental Policy and Endangered Species Act. > Easy passage in the Senate may be difficult, and the administration dislikes a provision requiring firefighting agencies to compete for funding with each other for all natural disaster money. It prefers a separate fund for fires.

6. NYT 11/2 - WEED KILLER "DICAMBA": Wind drift of dicamba caused crop damage in 25 states. New instructions ban spraying when winds are more than 10 mph. Since dicamba is used to spray soybeans that are dicamba-resistant the EpA had allowed spraying them after seeds sprout instead of only before. Also, users must now carefully clean storage tanks to be sure there is no lingering contamination if other chemicals are later stored there. > Thirty-four states were sprayed and 25 reported problems, AR and MO particularly. > The EpA will keep an eye on future results and, after 2018, decide if these protective measures were adequate. (AR is thinking of banning dicamba right now; the pesticide companies will challenge that effort.)

7. NYT 11/2 - SIGNS OF THE TIMES - LETTERS:

CHLOROPYIFORUS - BAD!: [Writer is the president of the American Academy of Pediatrics.] Extensive studies associated exposure to this pesticide with all sorts of adverse effects with birth and development outcomes, including pediatric cancer and permanent nerve damage. The EpA itself estimates chloropyiforus exposure is greater than 5 times the

"safe" amount for babies and 11-15 times more for toddlers and older children. "The chemical is unambiguously dangerous and should be banned for use. We urge the E.P.A to reverse its [earlier] decision [that it was safe] and protect child health."

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Newsletter #23 vol. 3

1. Chron 10/30 - STORM WATER PROTECTION, S. F. STYLE: S.F.'s PUC expanded a grant program to residents wishing to install improvements to reduce or prevent storm water damage. Typically, these might be doorway seals, flood gates or plumbing upgrades. Until now the grant amount was \$1.75M (\$30K maximum payout). Next year it will be \$2M (payout may be as much as \$100K.) > On a larger scale, the PUC, looking forward to 2032, will consider renovating its water treatment plant and replacing sewers. > The city may impose mandatory flood resistant protections for new construction in flood zones.

2. NYT 10/30 - MORE ON AV SAFETY: Some of the AVs running around with standby drivers are simultaneously doing computer simulations to record any "oops" events that require software tweaks. This is called "machine learning". > When driverless testing starts it will be on a short leash, perhaps initially limited to low-traffic, broad-street, little-rain locations. [Phoenix comes to mind.]

3. Chron 10/31 - WAYMO TEST SITE: Waymo opened up its Atwater (Fresno County) test site to the press to demonstrate its robotic testing. Part of this involves methods to wean gas-powered drivers used to total control to becoming just interested passengers. This begins with an elaborate console with buttons to start, pull over, lock and unlock doors and call for technical assistance. Additionally, there's a screen that pictures cars, cycles, fire engines and other "things" - even traffic cones. This comes with a message screen identifying school zones and construction zones (to explain slow speeds.> Waymo says AVs are Way More safe.

4. Chron 11/1 - JORDAN DRYING UP: Its reservoirs are one-fifth full; its rivers are dry or a trickle; it's one of the driest countries in the center of a water-poor region. Forecasts predict 30% less rain and an 8.1 degree

temperature increase and drought duration double the 1981-2010 droughts by 2100. > Jordan shares the Jordan River basin with Palestine, Syria and Lebanon. (Among them the milk of human kindness doesn't flow.) Jordan is trying to build a desalination plant it will share with Israel, but the two have border-crossing problems with construction materials. > A master plan of EcoPeace for a huge Jordan Valley "oasis" requires a Palestinian nation. Wanna bet?

5. Chron/NYT 11/1 - EXXON MOBIL PAYS FINE: THE EpA and DOJ reported Exxon will pay a fine of \$2.5M for flaring gases at 8 of its Gulf Coast plants. It will spend another \$300M to install more gas recovery systems and new monitoring and pollution control equipment. > PDC (CO), an oil and gas company with leaking storage tanks will share payment of a \$2.5M [no explanation of federal involvement] . > Both the DOJ and the EpA point out these fines show how zealous they are about pollution enforcement. [An environmentalist group's review of fines collected since the new administration finds they were just 60% of those collected in each of of the last 3 administrations for the same periods.]

6. Chron 11/1 - op ed - CAL FIRE CRITICISM: Writer is L.J.McQuillan, director, Center on Entrepreneurial Innovation at the Independent . Institute, and author of "CA Burning: Cal Fire Wins Dishonor of the Golden Fleece Award" > We have to reform wild fire management. In CA there are 31M acres of forest, watershed and rangeland - private, federal and state-owned. (Plus, for some reason, Cal Fire is First Responder to automobile accidents and other accidents - 350K times a year!) >It's budget is \$2.2B now, and over the years it has declined. Cal Fire spends 80% of that suppressing fires. > The U.S. Dept. of Agriculture wrote last year: The Forest Service "lacks a consistent, cross-agency process for selecting its highest priority hazardous fuels reduction projects for completion." [A Sacramento Bee study in 2015 found \$43M of a fire prevention fee was unspent. This left low income citizens' property uncleared of vegetation and dead trees.] > What the state and Cal Fire should do: a. Consistent vegetation removal and controlled burns. b. Convert more public land to private ownership to get more stewardship. c. More drone patrols for early detection. d. More training of home owners. e. More involvement of local communities.

7. Merc 11/1 - TESLA MISSES TARGET: By a lot. In the 3rd quarter - only 260 Model 3's were produced. (Target was 1,500.) Analysts wonder how long those signed up to get one will wait. > Tesla's job cuts of hundreds of employees doesn't help. > Tesla is forecasting a profit in 2018.

8. NYT 11/1 - PRUITT OUSTS SCIENTISTS FROM EpA PANELS: He removed 6 scientists from advisory positions and barred anyone paid from EpA grants from serving on panels that give advice on scientific decisions. He's expected to replace the 6 with some former industry representatives. (Pruitt placed no restrictions on advice from them.) > Pruitt said he wanted sound science; not political science. > Pruitt's critics [Opinion: Let me count the Nays.] say there no evidence that the political scientists, paid \$77M over 3 years, have, other than their fees/stipends, ever profited from their advice.

9. NYT 11/1 - RESTRICTIONS ON SOLAR IMPORTS: The U.S. International Trade Commission recommended putting a range of restrictions on solar panels from abroad, including perhaps a 35% tariff. U.S. buyers of them, of course objected. The president has 60 days to decide on which measures to approve. (One of the two firms which asked for the restraints said they weren't enough.)> Those who will be adversely affected include solar industry workers, utilities that buy the imports and those hoping to see a more rapid conversion to renewables.

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Newsletter #22 vol. 3

1. Merc 10/27 - CONGRESS REACTS TO FIRES: A bill aiming to speed up approval for tree cutting in national forests to reduce forest fires is one of several to satisfy complaints of the timber industry. The industry says it sometimes takes years. The measures have the support of the Senate Environment and Public Works Committee and the House's counterpart. > This year we've spent \$2.4B, a record, and burned almost 9M acres.

2. Merc 10/27 - editorial - PG&E AND FIRES: [see #21, 1. 10/31 - PG&E'S LATE REPAIRS:] PG&E is not to be trusted. The CPUC audits confirm this. The Chron recommends cutting PG&E's guaranteed profit level

(11.3% return on equity) to get more funds for fire safety. Either this or begin to break it up and provide some other operating system. "It's time for the PUC, the governor and the Legislature to look at alternatives.:

3. Merc/Chron/NYT 10/28 - MONUMENT SHRINK: Trump told Sen. Hatch that Bears Ears (1.35M acres) and Grand Staircase-Escalante [1.9 acres] will be reduced - extent not announced. Hatch and Utah officials rejoiced; environmentalists and Indian rights supporters lamented and promised law suits. Hatch recommended negotiations with all concerned locally to find some mutual agreement. [There is a possibility that besides an area shrinkage there may be a usage expansion - {"national conservation area" and/or "A national conservation area"/" a national recreation area".}]

4. NYT 10/28 - VW WOES: VW earnings dropped 50% in the 3rd quarter and it set aside Eus2.6B to cover cost of its U.S. cars with the cheatin' software inside. These losses will place VW behind Ford and GM for R&D money to invest in EVs, AVs, and battery-powered cars. (Even Ford and GM may find themselves on the shorts, since they're continuing to build gasoline-powered cars.)

5. NYT 10/29 - RWANDA - NO PLASTIC BAGS: Chief among 40 nations which have placed restrictions or bans on plastics, Rwanda imposes criminal penalties on traffickers caught using them. [Pharmacies and hospitals are exempt; biodegradable bags are permitted for frozen meat and fish.] > So broad is the ban that there is a policy to require even plastic packaging to be removed upon entry or at point of delivery. > Enforcement is vigorous and penalties severe.

6. Merc 10/29 - EV CHARGING: It's getting easier to install home EV charging, but probably not by the do-it-yourselfer. The cost of the hardware is getting lower also. CA is the top market. > The hardware cost runs about \$200-\$800 and installation \$1,200 or higher. > Almost all installations in most jurisdictions require permits and periodic inspections during installation.

7. Chron 10 10/29 - /29 - MORE ON FORD'S CRUISE: Cruise is established as an autonomous shuttle service. Additionally, Cruise is now testing ride-hailer pick-up. Tests seem to be working, so this will possibly

be O.K.'d next year.

8. Chron 10/29 - OROVILLE: Reconstruction has been the fastest on record. This week the final concrete for the 1/2-mile long spillway will be poured. The surface concrete is underlain by layers of compacted concrete. The chute has, on average, 7-1/2 foot depth (originally 2-1/2 feet); the steel pillars anchoring it are sunk 15-25 feet into bedrock (previously 5 feet). > Until the full completion in 2018 there will be restrictions on water storage, meaning there may be less supply available (but other reservoirs in the system are brimful). Water must be held 200 feet below the rim. > All these goodies are costly - about double the originals estimate and now at \$500M. CA hopes the feds will pay 75%; the rest comes from the benefited water districts.

9. Merc 10/30 - RANGE LIMIT ON EV BATTERIES?: Back in 2015 Musk predicted his Teslas would travel about 750 miles on a single charge by 2020. Maybe so. They get 330 miles now on a single charge. (One study group made 670 miles - 25 mph and no AC.) > That rosy glow idea is dimming now. Some engineers are predicting, on average, about 200-240, unless more batteries are provided. Doing that would both increase the cost and decrease the payload - not good. [It's likely the government subsidy will be withdrawn pretty soon, so the costs will be higher also.

10. SIGNS OF THE TIMES - LETTERS:

NYT 10/27 - [see #19, 6 (10/27) - CHEMICAL INDUSTRY INFLUENCE IN EPA:] [Author is president of American Chemistry Council.] It was unfair and inaccurate to reduce the issue to a turf battle between two officials and to personalize it . It is really a method and process used to simplify a complex policy debate by using credible studies and applying "best available science" and "weight of scientific evidence". Remember, the 2016 chemical safety law calls for transparency, flexibility and safety. Public comment is required; there is a mandatory 5-year review for updates, and the EpA can prioritize its approach and study the dangerous chemicals first.

1. A. Chron 10/25 - PG&E'S LATE REPAIRS: CPUC audits show that PG&E is the most-cited utility for late repairs and maintenance. Audits of electricity equipment (poles, wires, vaults) 2013-2017 in the Bay Area tell us this. Examples: a. Sonoma County audit in 2015: 3,527 late repairs. b. North Bay Division (incl. Marin/Napa), 2013 audit: 9,520 late and of those, 3,270 still undone. c. Six of 9 other districts had more than 1K outstanding, a record among CA's 3 utilities. (PG&E covers 66% of CA.) > PG&E replies that the backlog is caused by its decision to concentrate repairs on a backlog of safety-related and repair jobs, making these their priority. It notes with pride that most of those jobs had been done before the 5-year span had expired. > The CPUC is required to audit each district every 5 years, but it is understaffed and sometimes doesn't meet that requirement, so their report does not give the entire picture.

1. B. Merc -10/26 -MORE DETAILS: In the Sonoma/Napa areas: Tree limbs closer than 18 inches; 16 lines not inspected; vegetation surrounding poles, making them unclimbable. > Seventeen violations in Peninsula//Hayward/Pleasanton/Livermore/Dublin areas; 7 in Central Coast district (Monterey). > Sen. Jerry Hill wonders if PG&E has improved as much as it should have since San Bruno.

2. Merc 10/26 - op ed - AV's IN SAN JOSE: [Writer is Director of Policy and Education Programs, SilVal Leadership Group.] The city and SVLG jointly hope to have AVs under test before winter. > AV safety: In 2016 just over 100 AVs were running. Between 2014-2016 they had traveled 1.1M miles and in that period they had been involved in 44 accidents. [2017 data not yet available.] > In contrast, in 2015, S.J. had 60 traffic death involving non-AVs.

3. Merc 10/26 - FEDS EXIT TUNNEL(S) DEAL: The Dept. of Interior has chosen not to continue Obama's partial funding of the job. Later, they added "in its current form". > During his campaigning Trump had favored more water for agriculture, but not tunnels specifically.

4. Chron 10/26 - op ed - FARMS AND FISH CAN BOTH SURVIVE: [Writer is senior scientist with CA Trout and GM of River Garden Farms, Knight's Landing.] They both compete for scarce water. Now they're trying to co-

exist. Farmers, conservationists, state agencies have formed the Sacramento Valley Salmon Restoration Program to improve the habitat for chinooks in the Sacramento Valley. River Valley Farms have made 25 fish habitat shelters, using almond stumps and walnut tree root wads bolted to 6-ton limestone boulders and dropped into the river near Redding. There act as a shield against swift currents. So far the fish are thriving and wagging their little tails.

5. Chron 10/26 - ENVIRONMENTAL protection AGENCY CUTS BACK: At the suggestion of the chemical industry the EpA is drawing back from a congressional mandate to review some chemicals in public use - asbestos, flame retardants and others - present in homes, offices and factories. Under Obama it monitored "heritage chemicals" - those never or seldom used now, but still present and remaining lethal. EpA now wants to limit its review to products still being made and sold. For asbestos the risk study would be only for the few hundred tons imported annually; not for the 8.9M tons imported and used 1970-2016 but still present in homes and old waste sites. Health workers, consumer advocates, Congress people and environmentalists think asbestos' presence is dangerous. Firemen and construction workers will not breathe easy. > Likewise for firemen inhaling flame retardants in furniture and carpets after fires.

6. SIGNS OF THE TIMES - LETTERS - NYT 10/23 -

6. A. [See #17, 5 (10/26) FIVE CLIMATE TRUTHS MR. TRUMP DOESN'T GET:] TWO MORE: Energy-efficient technology (LED lights/insulated windows) did and does a lot to reduce need for energy. This reduction contributed to lowering power plant pollution by 43% since 2010. [Writer is Carl Pope, co-author with Bloomberg of "Climate of Hope".

6. B. Dan Coats, Director of National Intelligence, is on record announcing that "This warming is projected to fuel more intense and frequent extreme weather events that will be distributed unequally in time and geography" [Report to Senate Intelligence Committee on 'Worldwide Threat Assessment.']

7. NYT 10/24 - [See #1 above] Pruitt can muzzle all he wants, but he can't alter the laws of physics. > Forget Pruitt. It is now the job of Congress to

enact carbon pricing.

8. NYT 10/24 - [see #19, 6 (10/27) CHEMICAL INDUSTRY INFLUENCE IN EPA: Writer, a Yale Chemistry prof: The American Chemistry Council should publicly call for more transparency on what it and the EpA are doing, or their reputations will suffer.

9. A. NYT 10/25 - [see # 17, 1 (10/20) - AV SAFETY: Agrees that carmakers are rushing the jump. There are still many unknowns and doubts; we have no experience under our belts. "Gradual, incremental introduction of this radical technology is the only sane route to travel." [Writer is Joan Claybrook, former administrator NHTSA.]

9. B. NYT 10/25 - AU CONTRAIRE, MA SOEUR: People want AVs now. Consumer Technology Association research shows 62% of people are now willing to trade for an AV. And 75% find lower insurance, mobility for the disabled, reduced accidents and injuries are very attractive; 93% of AV owners love them. [Writer is Gary Shapiro, CEO, Consumer Technology Association.]

9. C. NYT 10/25 - AND FURTHERMORE: If you want more auto safety, use seat belts more, don't drive while impaired, obey speed limits, don't text, don't smoke, don't toke, don't talk. Safety can be achieved without using "an unproved technology by exempting automated cars from existing safety regulations."

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Newsletter #20 vol. 3

florence, 1. NYT 10/23 - Ep<1>A MUZZLES ITS SCIENTISTS: The EpA canceled a speaking engagement of 3 scientists, all substantial contributors to a study on the effect of c.c. [I dare not spell out the words] on the health and productivity of Narragansett Bay. The EpA is partially funding the nationwide study of estuarine health. > There was no further explanation. <1> [Note to readers: I am punishing the EpA for its failure to do its job of protection. Hereafter expect only lower case for "p" and "protection".]

2. NYT 10/24 - OLD DIESELS TARGETED IN LONDON: It costs more to

drive an old diesel into London. There's already a \$9.80 "congestion fee". Beginning 10/30 add \$13.20 for a "pollution fee". > They have some kind of license plate photo system that they can check to see if drivers have paid. (Failure to pay hits you with an additional fine. )> Other cities - Paris, Madrid, Athens, Stuttgart and Munich may play copycat.

3. NYT 10/24 - GAO REPORT ON COSTS OF C.C.: A new report says that by century's end we can expect \$150B will have been lost in labor productivity and \$53B in crop yields. The report urges the administration to take these risks seriously and begin to formulate a response. [The total losses are less than 1% of our almost \$4T budget.]

The report, two years in the making, was requested by Sens. Collins (R-ME) and Cantwell (D-WA), who say, like Mrs. Loman, "Attention must be paid." > Thirty studies and 26 scientists and economists contributed to the report. > The Rhodium Group, a contributor, said the figures were conservative. > Many believe not much will be done. {Lower case "p" , you know.)

4. Chron 10/14 - CHARIOT'S BACK: Chariot, a Ford S.F. shuttle, recently shut down briefly until all its drivers got their proper license, is back on the job.

5. Chron 10/24 - BART'S NEW CARS: The new equipment passed all its tests and should be in service by Thanksgiving. Getting all the proper paper work done will take that long. In the beginning the 10 cars will be restricted to just a few trains; you'll see more and more of them next summer. [Another report says the couplers of the old cars aren't compatible with the new ones, so never the twains/trains shall meet.

6. NYT 10/24 - CHINA'S POLLUTION CRACKDOWN AND ECONOMIC SLOWDOWN: China's push to clean up its environment may put a drag on economic growth - maybe two-tenths of a % - according to a French study. Their economy has already been hit with slumping iron ore and steel prices. > All Chinese industry has been ordered to address pollution, and a greater burden may fall on them than on the general population, because the government doesn't want to cause undue distress to its growing and sometimes restive middle class.

7. NYT 10/25 - ONLY TWO BLACK SHEEP NOW: Nicaragua has signed on to the Paris climate deal. This leaves just Syria and the U.S. in the outer darkness.

8. NYT 10/25 - C.C. DISRUPTS OLIVE INDUSTRY: Italian temperature change is crazy. Sometime it heat up early; sometimes late; never the desirable "mezze stagione" (half-seasons). The olive trees can't figure it out. Right now Italy and Spain foresee less olive oil; Greece and Tunisia more. Do CA, Australia and NZ have a bright future? Warmer temperatures are predicted and less rain.

9. Merc 10/26 - FEDS EXIT TUNNEL(S): The Department of Interior has chosen not to continue Obama's partial funding of the project. (Later, they added "in its present form.) In his campaigning Trump had favored more water, but not tunnels specifically.)

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Newsletter #19 vol. 3

1. PADailyNews 10/20 - MTN. VIEW - UP ABOVE OR GROUND LEVEL?: The council had a study session. The issue: Should they put an "automated guideway" at street level or above? It would be fully automated and driverless. > One thought: Elevate it, so we don't lose any traffic lanes. Another: Don't worry about the lane. If we build it attractive enough, people won't be using their cars. Yet another: Do it incrementally. Start with transit-only lanes; automate later. And another: Stay at grade if that is significantly cheaper. > There's urgency. "We need it yesterday!" North Bayshore Area development (20K housing units) fast approaches.> There were 3 representatives from people-movers now in operation, pitching their wares. > A very rough rough estimate: \$15M per mile. Clearly needs tax funding, said the mayor. > A final, more detailed plan, with cost estimates, will come early next year.

2. Chron 10/22 - MORE DIE FROM POLLUTION THAN WARS/ DISASTERS/HUNGER: Report from dean of global health, Icahn School of Medicine, Mt. Sinai, N.Y.: War, disease and violence are #2, but air and water win the death prize. Nine million a year premature deaths are just a partial estimate. It'll be many more when they study sub-Saharan Africa, soil pollution and more than half of the 5K chemicals introduced recently.

What the West has been doing to reduce pollution, the emerging economies in Asia and Africa (India the most lethal - 2.5M premature deaths; China #2 - 1.8M) were messing up.

3. Merc 10/21/Chron 10/22 - ELECTRIC POWER - IMPROVING THE GRID: 1880s: the first power line pole in CA. 2018: A lot more. Their wires measure 210K miles. We know they can cause fires. What to do? We haven't done much yet, but maybe? . . . after the Sonoma/Napa fires? . . . we could: A. Underground them or B. Better insulate them or C. Replace poles with steel or concrete or D. Turn off power during storms. The electric power sector has invested little (0.17% from 2001-06 ) of its income (second to pulp and paper). > About 9% of CA fires are caused by power lines but those were 4 of our 20 largest fires. > What have utilities done? [See Para. 7 below.] PG&E says it spent almost \$200M in 2016 in trimming and aerial inspections. [Aerial inspections: About 9 years ago the CPUC ordered utilities to prepare maps showing the more hazardous fire areas. This is not yet complete.] Undergrounding has been sluggish in the U.S. (Germany and a lot of other European countries went UG.) Oakland, after the 1991 fire did it, and Anaheim. S.F. did about half before it ran out of money; almost all new developments are UG. It cost about \$1M a mile in easy country; scads more in remote and rocky territory. > PG&E does just 30 miles a year. <1> The CPUC has placed a limit on how much ratepayers must pay. > When the hazard maps are finished, more can be done to monitor danger zones when there's a threat of high winds, low humidity and dry vegetation. <1> San Diego Gas & Electric (much smaller) is 60% UG.

4. NYT 10/21 - EPA THINS ITS WEBSITES: Some websites useful for local governments have been removed; some have been re-named for more obscurity; and the words "climate change" have disappeared from 15 places on the main page. Now somewhere up in Cloudland are descriptions of c.c. [you know what I mean] and its attendant risks and damages, and of local efforts to mitigate them. > This negativity has been called by the Environmental Data and Governance Institute which monitors changes to federal websites as "substantial". > The EPA has now restored a portion of the removed material - 175 pages of the 380 first removed. > Apparently no material has really been destroyed; it's just better concealed. Try the Internet Archive.

5. NYT 10/21 - SCIENCE VS. DOCTRINE - N.M. STYLE: The state Public Education Department wanted to update its science education for grades K-12. They used, as a basis, the 2013 Next Generation Science Standards, prepared by a state/federal consortium, including the National Research Council and the National Science Teachers Association. . But N.M. changed or deleted some of the language, and this aroused some local teachers, scientists and 2 U.S. Senators (Udall/Henreich). <1> > The changes: a. "the rise in global temperatures" became "the fluctuation in temperatures". b. "4.6 billion years" (for approximate age of the earth) disappeared, c. one use of the word "evolution" disappeared (although others did not). > The department said it would return to the suggested original. <1> They objected to "weakening science and facts with ideology which will put N.M. at a distinct disadvantage."

6. NYT 10/22 - CHEMICAL INDUSTRY INFLUENCE IN EPA: PFOA [perfluorooctanic acid], linked to kidney cancer, birth defects, immune system disorders and other nasties - To the surprise of Office of Water Scientists, a Trump administration appointee ordered a rewrite of a rule, making it harder to track PFOA's health consequences. The administrator was Nancy B. Beck. (Her letter named another dozen chemicals.) Who she? For 5 years she had been an executive with the American Chemical Council, the industry's trade association. She had left her fellowship position with the EPA with a reputation of competence and knowledge of the issues, then into cosmetics (Estee Lauder), then the ACC. > Upon the letter's receipt a top Water official wrote an internal confidential memo [the NYT obtained a copy] pointing out the risk to human health and the environment. [PFOA is one of many "legacy chemicals", i.e., those no longer used or allowed to be used but, because they are present in the ground long after disuse, still bear watching. The alarmist letter writer was Nancy Hamnett (now retired - "I had become irrelevant.") -who had a career with the EPA. Said she: "The industry met with EPA political appointees. And then I was asked to change the agency's stand." > [I heard the new Time magazine has an article about "The Wrecking Ball" - the many replacement of Obama policies.]

7. Merc 10/22 - UTILITIES DRAG THEIR FEET: In 2007 the CPUC ordered utilities to prepare a fire hazard map. Ten years later it's almost

finished. The history of this effort shows that the utilities regularly asked to slow the pace and courts were usually accommodating. ("bogged down for six years", said one state Senate subcommittee.) > When the maps are finished they may be very useful. Both recent fires (Napa/Sonoma) were located in what the maps declared "elevated" or "extreme" areas. > We can expect strong pressure from the CPUC to proceed vigorously.

8. Merc 10/22 - editorial - SCVWD "NO" VOTE - NOW WHAT?: We have to be sure we (SCV) have water; we have to be sure we save the Delta. AND we can't try to send more water down south, if that would defeat either of the first two. Right now we're well-advised to explore "cheaper is better", One Tunnel possibilities. > The Merc realizes this may take the bloom off the rose for the southern districts with this cheaper/less water approach. > Water problems are really complicated, aren't they? Who knew?

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Newsletter #18 vol. 3

1. Merc 10/18 - TWIN TUNNELS - COUNTY WATER DISTRICT'S "NO": Unanimous, 7-0. Instead, the SCVWD endorsed a cheaper, smaller One Tunnel compromise. If this turns out to be the acceptable project, years will be needed to re-plan and re-engineer it. The new governor will be in charge, identity and outlook unknown. > The district's chair said Brown is willing to discuss this change in scope.

2. NYT 10/18 - TRUMP'S SQUARE PEGS IN ROUND HOLES  
NOMINEES: There's a pattern: Nominate a person to undermine the mission of the agency. > a. EPA: William Ehrum, clean air czar, a GWB functionary who disliked regulating for clean air. b. WH Council on Environmental Quality; Kathleen Hartnett White, who thinks CO2 is harmless. c. EPA: Michael Dourson, to review chemical safety, a former Have Gun Will Travel hired gun for making favorable studies for the chemical industry. (Dourson is still awaiting a vote.) d. EPA: And, of course, Scott Pruitt.

3/ NYT 10/18 - IMPACT OF NATURAL GAS BOOM: Shale gas drilling has made us an exporter of LNG. It is causing a glut and low costs. Energy

experts think this change will last for decades. > With LNG Mexico will continue to wean itself off coal power. (25% LNG now.) Its proximity to TX and LA permits much cheaper pipelines for transit, and not tanker shipment, requiring freezing/thawing. > Russia: Russia will lose its leverage in Europe and China. (Qatar and Australia will also loom less large.) Other European nations will use our LNG to weaken Putin's geopolitical clout. > China and India are seen to be the future top buyers, China increasing annually at 8.7% through 2022 and India 6%. > In 2005 only 15 countries imported LNG; today, 45, including Pakistan, Poland, Thailand, Jordan, Egypt and Colombia. Bahrain, Bangladesh, Ghana, Haiti, Jordan, Namibia, Panama, the Phillipines and Uruguay are gearing up. > Oil producers see LNG as a way to reduce CO2 and methane emissions while still sustaining a healthy income.

4. NYT 10/19 - editorial - "ALASKA IS OPEN FOR BUSINESS": So said Zinke of Interior. In April Trump allowed drilling in the Arctic; in May Zinke said he planned to invade the National Petroleum Reserve, and Pruitt O.K.'d a gold mine in Bristol Bay. > There are a few Republicans (McCain, Collins) who sound balky. Anyone else? . . . Please?

5. NYT 10/19 - U.N. CLIMATE CHANGE MEETING: The U.S. will attend the meeting but says it is planning a divorce. As the other members write more of the rules for the Paris agreement, the U.S. will be there to protect our interests. Although we're not looked on with much favor, there is some hope we'll not be totally negative, although should we try to make any demands there's doubt they'll be heard. (Uncharacteristically for us, "soft speak/soft stick"? > Ironically, we'll also be in company with a coalition of governors, mayors and millionaires (Bloomberg, Steyer, et al) who will fund a \$200M pavilion to exhibit their efforts to adhere to the Paris accords.

6. A. Chron 10/20 - COMMUTER SHUTTLE "CHARIOT" GROUNDED: Ford's S.F. commuter shuttle got closed down because it failed some 3 safety inspections. (Chariot says it's really a bum rap, but it will quickly do whatever it takes to square it away.) (There have been complaints about Chariot's double-parking, blocking driveways and taking revenue away from public transit <1>, but these aren't the reason for the shutdown. <1> The city may "grandfather" existing public transit routes and ban any close private transit competition.

6. B. Chron 6/21 - CHARIOT: An undisclosed number of drivers lacked proper licenses during 3 CHP safety inspections over several months. Drivers needed "Class B or Class C with passenger endorsement licenses": Despite 2 warnings Chariot hadn't fully complied, so the hammer fell.

7. Chron 10/20 - TESLA IN AUSTRALIA: Tesla will supply batteries, solar panels, Vestas Wind Systems and technology to Australia's Kennedy Energy Park in Queensland. This will cost \$160M (government/private funding). It will go on line in 2018 and will connect the 3 technologies at one connection point.

8. Merc 10/20 - OROVILLE - THE COST OF REPAIRS: The cost of repairs has doubled from \$275 to almost \$500. > At the time the contract was let in April, the design plans were only 30% completed. Because of the urgency, the contract was awarded, but it was acknowledged the estimate was shaky. Now that they're working and the plans complete they've had to excavate more than they'd thought to reach bedrock and had to pour twice the amount of concrete. > It looks like they'll have 41% of the main spillway re-barred and repaved by Nov. 1; the remainder by the end of 2018. > One bright spot: As actual cost figures come in for all the emergency work last year, the original estimate of \$275M looks high. It's more likely \$140M-\$160M.

Merc 10/20 - LA NINA - LESS RAIN? OR MORE? OR THE SAME?: They don't know. "Wait and see."