



## Drumbeat: February 20, 2012

Posted by [Leanan](#) on February 20, 2012 - 10:04am

### [Oil Profits Falling Fastest Since Lehman From Exxon to Chesapeake](#)

Profits for the biggest U.S. energy producers including Exxon Mobil Corp. are poised to decline the most since the financial meltdown of 2008-09 as the drilling technique known as fracking collapses natural gas prices.

Exxon and Chesapeake Energy Corp., which today reports 2011 earnings, will see net income in 2012 slide 7 percent and 10 percent, respectively, according to the mean of analyst estimates compiled by Bloomberg. That would be the biggest drop since 2009 for the companies, the largest U.S. gas producers.

While higher global demand for transportation fuels drove up crude prices about 30 percent since 2009, the domestic gas glut is pinching earnings for producers even as it pushes the U.S. toward energy independence. Especially hurt are Chesapeake and ConocoPhillips, which amassed gas assets before the full impact of fracking on supply growth was apparent, said Michael McMahon, a managing director for energy investments at Pine Brook Partners LLC, a private equity firm in New York.

### [A Little Bit Louder Now, Chevron Starts To Shout About Davy Jones And The Ultra Deep](#)

About a year ago, speaking at a popular oil and gas conference Chevron tipped its hat to McMoRan's Jim Bob Moffett and his work in the Gulf of Mexico Shallow Water Ultra Deep (SWUD) play that has been ongoing for more than five years. That event was truly noteworthy because major oil companies rarely, if ever, acknowledge a little player like MMR as being out front and leading the wave on any important new geological play. Chevron has recently promoted the Shallow Water Gulf of Mexico to one of its top three areas of geologic focus around the world. And it is becoming more vocal about its involvement.

### [Blame Iran And China For Rising Gas Prices](#)

Iran's Oil Ministry on Sunday announced the suspension of crude oil sales to companies from the U.K and France as the Islamic state responds to a European Union embargo set to take effect July 1. France's Total and Britain's BP had already ceased purchasing Iranian oil prior to the announcement, so the impact on supply and demand may be tiny.

Combined with a surprise decision on Saturday by the People's Bank of China to reduce banks' reserve requirements for the second time since November, however, Iran's

action helped to boost West Texas Intermediate crude oil above \$105 per barrel in electronic trading Monday.

### [Europe Must Choose Between an Iranian Oil Embargo and Default](#)

Experts say that if Iran stops its oil deliveries to the European Union, the EU will need several weeks to find alternative suppliers. Britain and France, to which Iran stopped deliveries on Saturday, February 19, are unlikely to be hit hard, but Greece, which is tottering under the weight of its economic problems and is the largest importer of Iranian oil, will most likely have to declare a default.

### [Oil prices spike on Iran export halt. Is \\$4 gas next?](#)

The price of unleaded gasoline in the U.S. will likely hit a nationwide average of \$4 by this summer, said Dan Dicker, oil trader and author of "Oil's Endless Bid." The last time prices topped \$4 was 2008 and Dicker said there's a one in three chance that gas could reach \$5 a gallon.

If gas prices do head to those lofty levels, that could put a crimp in the economic recovery as consumers will likely cut down on spending if they have to pay more to fill up their cars.

### [Petrol-price pain on way as Iran racks up tensions](#)

EXPERTS warned last night that fuel prices will get worse as the Iranian crisis deepened with President Mahmoud Ahmadinejad's regime threatening to expand its oil embargo to the whole of the European Union.

The threat saw the price of a barrel of crude oil climb to an eight-month high of \$121 (£76), just days after diesel hit a record level in the UK of 143.05p.

### [Asia taking lion's share of Iranian oil exports](#)

PARIS — Iran, which on Monday said it planned to halt oil sales to several more European Union states in addition to Britain and France, sends only around a fifth of its exports to the EU, with Asian countries taking the lion's share, according to U.S. and international oil agencies.

The Energy Information Administration (EIA) in Washington says that in 2010 four Asian states took around two-thirds of all the crude oil exported by the Islamic Republic, with China buying 20%, Japan 17%, India 16% and South Korea 9%.

### [Japan says no decision yet on Iran oil import cuts](#)

TOKYO (Reuters) - Japan's trade and foreign ministers said on Tuesday they haven't reached an agreement yet on how much Tokyo will cut Iranian crude imports to win waivers from U.S. sanctions designed to starve Iran of oil revenue.

Japan is likely to reduce imports of crude oil from Iran by at least 11 percent per year, the Yomiuri newspaper said earlier on Tuesday, to win an exemption from sanctions that could shut Japanese banks out of the United States if they facilitate trade in Iranian crude.

### [Iran struggles to find new oil customers](#)

Iran is struggling to find a buyer for nearly a quarter of its annual oil exports as looming Western sanctions targeting the country's nuclear program start to bite the world's third-biggest crude exporter.

Tehran is trying to sell an extra 500,000 barrels a day of oil, or nearly 23 per cent of what it exported last year, to Chinese and Indian refiners, according to two industry executives familiar with the talks.

### [Iran deploys warplanes, missiles in 'exercise' protecting nuclear sites](#)

TEHRAN — Iran deployed warplanes and missiles Monday in an “exercise” to protect nuclear sites threatened by possible Israeli attacks and warned it could cut oil exports to more EU nations unless sanctions were lifted.

### [Faulty flange link eyed as possible cause of BP refinery fire in Wash; facility still offline](#)

BLAINE, Wash. — A spokesman says a fire at BP's Cherry Point refinery might have been caused by a leaky flange connection.

However, BP spokesman Scott Dean said Monday the information filed with the Coast Guard's National Response Center is very preliminary and the cause remains under investigation.

### [Ecuador court snubs arbitration panel on Chevron](#)

QUITO, Ecuador—An Ecuadorean appeals court has rejected an order by an international arbitration panel seeking to prevent Amazon rain forest residents from collecting an \$18 billion damage award against Chevron Corp. for oil contamination.

### [FF calls for extensive review of fracking](#)

FIANNA Fáil energy spokesman Éamon Ó Cuív has called on Minister for Energy Pat Rabbitte to initiate a far more extensive review of fracking than that already commissioned.

### [Canada revs up for fight over second tar sands oil pipeline](#)

Reporting from Fort St. James, Canada — The prime minister is talking about being "held hostage" by U.S. interests. Radio ads blare, "Stand up to this foreign bully." A Twitter account tells of a "secret plan to target Canada: exposed!"

Could this be Canada? The cheerful northern neighbor: supplier of troops to unpleasant U.S.-led foreign conflicts, reliable trade partner, ally in holding terrorism back from North America's shores, not to mention the No. 1 supplier of America's oil?

### [U.S. and Mexico Agree on Gulf Oil and Gas Drilling](#)

WASHINGTON — The United States and Mexico on Monday reached agreement on regulating oil and gas development along their maritime border in the Gulf of Mexico, ending years of negotiations and potentially opening more than a million acres to deepwater drilling.

### [TEPCO opens up Fukushima plant to media](#)

TOKYO — Tokyo Electric Power Co on Monday opened up its stricken Fukushima plant to journalists for the second time, weeks ahead of the anniversary of the March 11 disasters, and insisted the crippled complex was in cold shutdown.

As part of TEPCO's efforts to reassure the public, it allowed reporters to see the ongoing work to make safe the reactors that were hit by last year's quake-tsunami.

### [KEPCO shuts down nuclear reactor](#)

TOKYO — Kansai Electric Power Co (KEPCO) on Monday night completed the shutdown of No. 3 reactor at the Takahama nuclear plant in Fukui Prefecture, a KEPCO spokeswoman said Tuesday.

The reactor was shut down completely just after midnight, leaving all 11 reactors around the country owned by KEPCO idle, she said.

### [Energy debates need imagination, public interest and honesty](#)

We often focus on what it may take to create new energy paradigms so called renewable or nuclear futures but what about asking what it might take for us to simply keep the foundations of our current societies intact? Do we ever ask ourselves such questions? How we ensure the simple *maintenance* of our vast and complex society, our built infrastructure, our technology, our institutions of learning, production, government and trade and our way of life just never seems to enter our heads. Maybe its all just too, too complex to appreciate. In theory that is. Like most things, it is all likely to become much clearer in practice if things start to unravel a bit!

### [Motorists hit by record surge in gas prices](#)

NEW YORK — Gasoline prices have never been higher this time of the year in the U.S.

At \$3.53 a gallon, prices are already up 25 cents since Jan. 1. And experts say they could reach a record \$4.25 a gallon by late April.

"You're going to see a lot more staycations this year," says Michael Lynch, president of Strategic Energy & Economic Research, referring to people staying at home on their vacations. "When the price gets anywhere near \$4, you really see people react."

### [Concern high over global oil supplies](#)

The risks to global oil supplies are greater than at any time in the past 30 years, according to a leading banker.

Tension in the Gulf, sanctions against Iran and disruptions to African exports have created a threat level last reached when tankers transiting the Gulf were attacked during the Iran-Iraq war.

"Not since the late 1970s/early 1980s has there been such a serious threat to oil supply," said Soozhana Choi, an energy analyst at Deutsche Bank, adding that Iranian threats to close the Strait of Hormuz were unsettling. Oil futures in London are expected to open near an eight-month high today, having closed at US\$119 a barrel on Friday, while US crude oil ended the week at \$103 a barrel.

### [Oil Rises to 9-Month High; Iran Says Halts Europe Exports](#)

Oil rose to a nine-month high in New York after Iran said it halted some crude exports and investors bet that fuel demand will increase as Europe moves closer to bailing out Greece.

Futures climbed as much as 1.9 percent for a fourth day of gains, the longest rising streak since December. Iran will supply crude to "new customers" instead of companies in the U.K. and France, the oil ministry's news website, Shana, said, citing Alireza Nikzad Rahbar, a spokesman. Prices also advanced as European finance ministers prepared to meet to discuss a 130 billion-euro (\$172 billion) aid package for Greece, the country's

second rescue in less than two years.

### [Japan January Liquefied Natural Gas Imports Rise 28.2%; Oil Purchases Drop](#)

Japan's liquefied natural gas imports rose to a record in January after the Fukushima nuclear disaster led to the shutdown of most of the country's atomic reactors, causing utilities to use more fossil fuels.

The nation's LNG imports climbed 28.2 percent from a year earlier to 8.15 million metric tons, according to a preliminary report released today by the Ministry of Finance.

### [API: Taxing onshore oil, gas wrong policy](#)

WASHINGTON (UPI) -- A proposal to raise royalty rates for onshore oil and natural gas in the United States sends the wrong message about domestic production, trade group API says.

U.S. President Barack Obama kept taxes on oil and natural gas production in his budget proposal that some analysts say could push the bill for developers to more than \$27 billion during the next decade.

### [Russian Oil Boom Ending Signals Lower Energy Tax That Risks Unrest](#)

Russia's 12-year oil boom is nearing its peak, forcing the next president to decide whether to cut taxes and revive production or use the windfall from \$100 oil to boost public spending and quell mounting unrest.

As Vladimir Putin campaigns for a second stint in the Kremlin, the nation's existing fields are losing pressure and oil companies OAO Rosneft, OAO Lukoil and TNK-BP (BP/) say production taxes give little incentive to invest. Since Putin first became president in 2000, crude output has grown 57 percent to 10 million barrels a day, surpassing Saudi Arabia and flooding the state treasury.

### [Which Presidential Candidate Will Solve the Gas Problem?](#)

According to an article in USA Today, as spring progresses into summer, gas prices will only go up. This will negatively impact the economy, slowing growth that is "only moderate" after a recession. Gas prices are a hot topic this election year. Newt Gingrich is saying we must make use of more of our own resources, a position that Rick Perry also took early in his campaign. Is it really that simple?



### [Iraq's January oil exports slightly decline, but revenues up on higher oil prices](#)

BAGHDAD — Iraq's oil ministry says oil exports have declined slightly in January compared to the previous month.

Monday's statement says last month oil exports averaged 2.107 million barrels per day, down from 2.145 million barrels per day in December.

### [Gazprom Says Fully Restored Gas Flows To Europe](#)

MOSCOW – Russia has fully restored natural gas shipments to Europe, the country's state gas firm said Monday, after it had been unable to meet rising demand in recent weeks due to cold weather across the continent.

### [Gazprom downplays U.S. natural gas](#)

MOSCOW (UPI) -- Rising expectations about U.S. natural gas exports doesn't mean it would be a major competitor to Russia's Gazprom, an executive said.

With Russia falling to the No. 2 position in terms of natural gas production, the U.S. Energy Information Administration last month said the United States would be a net exporter of liquefied natural gas by 2016. Initial sales would be around 1.1 billion cubic feet per day.

### [Poland, EU Discussing Shale Gas Incentives - Talisman CEO](#)

LONDON – Poland is still in discussions with the European Union on developing a tax regime that incentivizes shale gas exploration in the eastern European country, Talisman Energy Inc. (TLM) Chief Executive John Manzoni said Monday.

### [Iran Stops Exporting Oil to U.K., French Buyers](#)

Iran stopped sales of crude to French and British buyers to pre-empt a European Union ban on imports of its oil and as OPEC's second-biggest producer negotiates contracts to supply China.

Iran “will give its crude oil to new customers instead of French and U.K. companies,” the Shana oil ministry news website reported, citing Alireza Nikzad Rahbar, a ministry spokesman.

### [Iran finds new oil customers](#)

TEHRAN (UPI) -- An Iranian official said it was selling crude oil to new customers after opting to stop oil deliveries to British and French companies.

### [Iran says may extend oil cut to more EU countries](#)

TEHRAN, Iran (AP) — An Iranian semiofficial news agency says Tehran is considering extending an oil embargo on France and Britain to other European countries.

### [IEA says EU could live with abrupt Iran oil halt](#)

(Reuters) - The European Union could cope with an abrupt halt by Iran of its oil exports to the region as buyers of Iranian oil are already adjusting to the EU's forthcoming ban on Iranian shipments, an International Energy Agency official said on Monday.

### [Israeli Attack on Iran Would Be Destabilizing, Joint Chiefs' Dempsey Says](#)

An Israeli attack on Iran would be “destabilizing,” Army General Martin Dempsey, the chairman of the U.S. Joint Chiefs of Staff, said.

“It’s not prudent at this point to decide to attack Iran,” Dempsey said today on CNN’s “Fareed Zakaria GPS” program. The U.S. government is confident the Israelis “understand our concerns,” he said.

### [Iran: More high oil prices ahead for EU](#)

TEHRAN (UPI) -- Last week's spike in oil prices is what's in store for Europe if it follows through on moves to ban Iranian imports, a senior Tehran lawmaker says.

### [Expert: Attack on Iran may mean \\$200/barrel oil](#)

(CBS News) An Israeli air strike on Iran, with the intent of knocking out that country's nuclear facilities, may only speed Tehran's race to build a bomb, a nuclear policy expert told CBS News.

### [China's Unipet to take less Iran oil in 2012](#)

BELJING (Reuters) - One of China's two major buyers of Iranian crude has reduced the amount it will take this year although by how much was unclear, trade sources said on Monday, after expectations that China would be the buyer of last resort for Iranian crude displaced by sanctions.



### [Sudan oil dispute keeps tanker from Japan port](#)

SINGAPORE (Reuters) - A ship carrying disputed Sudanese crude is awaiting permission to dock in Japan, unable to unload its cargo for the past week because of uncertainty surrounding the ownership of the oil, shipping sources and traders said on Monday.

### [Factbox: Key political risks to watch in Yemen](#)

DUBAI (Reuters) - Political unrest and economic deterioration continued to plague Yemen ahead of the February 21 presidential election many hoped would give Yemen a chance to bring about reforms that could help the country recover from a year of protests.

### [China's Zhai Urges End to Syria Violence After Damascus Talks With Assad](#)

China's vice foreign minister, Zhai Jun, urged Syria to end violence and restore stability after a meeting with President Bashar al-Assad.

### [Syria Presses Crackdown on Protestors After China Urges an End to Violence](#)

Syrian security forces maintained their crackdown against opponents of President Bashar al-Assad's rule after China urged an end to the violence.

### [Syrian Gunmen Kill Officials as U.K. Foreign Secretary Warns of Civil War](#)

Opponents of Syrian President Bashar al-Assad's rule stepped up their deadly attacks against government officials as the violence of the past 11 months pushes the country toward civil war.

### [Syrian opposition sees radicals at work for regime](#)

BEIRUT – The Free Syrian Army says terrorists are operating in Syria on behalf of the Assad regime as its military forces continue to bombard opposition cities despite United Nations condemnation.

Aref Hamoud, a colonel in the Free Syrian Army, said his units are encountering a growing number of radical elements in some parts of the country. He said the radicals are Syrians and not foreigners from al-Qaeda.

### [Syrian rebel: Uprising is an 'orphan revolution' without foreign support](#)

(CNN) -- President Barack Obama's top military adviser says it is premature to aid in arming the Syrian opposition, reinforcing the belief of a rebel commander that the uprising is an "orphan revolution" without the international support prevalent in other Arab Spring revolts.

### [Aramco, Sumitomo May Delay Rabigh Chemical Expansion, HSBC Says](#)

Saudi Arabian Oil Co. and Sumitomo Chemical Co. (4005) may postpone a \$6 billion plan to expand their joint-venture petrochemical plant in the Red Sea town of Rabigh, HSBC Holdings Plc said.

### [Hindustan Petroleum to construct underground storage facilities](#)

VISAKHAPATNAM: Public Sector Hindustan Petroleum Corporation Limited (HPCL) has taken up construction of underground storage facilities for keeping crude oil stocks which could be used to meet petroleum requirement during oil crisis, Union Minister S Jaipal Reddy said.

### [Director: Nabucco's obituary premature](#)

VIENNA (UPI) -- Existing plans for the Nabucco natural gas pipeline for Europe make the best proposition to diversify the regional energy sector, an official said.

Europe is looking for ways to break the Russian grip on the natural gas sector by pursuing a series of pipelines for the so-called Southern Corridor. Of those, Nabucco is the most ambitious though its \$10 billion price tag and lack of firm supplier commitments is causing critics to emerge.

### [Canada 'threatens EU' over oil sands move](#)

Canada has threatened to take its oil sands spat with the EU to the World Trade Organisation ahead of a key vote in Brussels on the contentious issue later this week, a report has claimed.

### [Canada fighting for oil pipelines](#)

OTTAWA (UPI) -- The Canadian government is working to establish a new consumer base for crude oil in light of U.S. opposition to a planned oil pipeline, a scholar said.

### [Head of Canadian navy says climate change boosts need for bigger presence in Arctic](#)

CALGARY - The head of the Royal Canadian Navy says Canada needs to bolster its military presence in the Arctic to prepare for a boom in human and economic activity resulting largely from climate change.

Global warming is thought to be occurring faster in the North than anywhere else. The gradual disappearance of sea ice is opening up commercial shipping as well as previously inaccessible areas rich with oil, natural gas and mineral resources.

### [U.S. slowly opening arctic waters for oil](#)

WASHINGTON (UPI) -- Cautious exploration for oil and natural gas off the coast of Alaska will boost U.S. energy security, the U.S. Interior Department secretary said.

Interior Secretary Ken Salazar said he saw "great promise" in the resource base in Alaska. In the arctic frontier, he said, cautious exploration would support the goal of increasing domestic oil and natural gas production.

### [North Slope Blowout on Land Clearly Shows We Are Not Ready to Deal with an Accident in the Arctic](#)

"Yesterday, Spain's big oil company Repsol drilled into a methane pocket that resulted in an exploration drilling blowout on Alaska's Arctic shores. This is yet another wake-up call for the Obama Administration that oil and gas activities are risky business. We are incredibly lucky this is not an oil well blowout offshore in the Arctic Ocean; because the nation is not prepared to deal with an accident like that in offshore Arctic waters where the ability to respond is limited at best, and impossible at worst. As of right now 42,000 gallons of drilling lubricant or "mud" have spilled and an unknown amount of methane has escaped.

### [Agenda 21 provokes conspiracy fears in Chattanooga](#)

The Chattanooga Tea Party has been talking for months about Agenda 21, an action plan adopted at a 1992 conference of the United Nations. The action plan calls for governments worldwide -- national, state and local -- to focus on sustainable development.

But tea party groups and others say there is more to the plan that intrudes on the private rights of individuals. They say the agenda proposes such things as trying to make people live closer to cities instead of giving them free choice, guiding such things as annexation to give cities more control of individuals and cities using code enforcement as a way to trump individual rights.

### [Stars & Cars: Adrian Grenier Awaits the Electric-Vehicle Revolution, Does Not Advocate Knee Driving](#)

I've been waiting for the electric-vehicle revolution. I live in New York and I don't need a car there. I need a car mostly when I'm in L.A., to go to auditions or meetings. And these new electric cars go 100 miles on a charge. You talk about the price of gas these days—not only the financial cost but the environmental implications of oil, and the political conflicts connected to oil scarcity. Advancing electric cars seems the way to go.

### [Pathways to a Lower Carbon & More Electrified Future - Unveiling the Equinox Blueprint: Energy 2030](#)

WATERLOO, ON /PRNewswire/ - Imagine a world with too much energy... clean energy. How different would our human civilization be with fewer energy limitations - less risk of climate change, no peak oil, and more renewable ways to provide power to an exploding global population?

But, this is not our present scenario. Today's energy needs are met largely by high-carbon sources and inefficient technologies. But, is there a better way? How could we use the latest scientific knowledge to best prepare ourselves for a lower carbon, more electrified future?

### [India May Levy 19% Import Tax on Power Gear Including From China](#)

India's cabinet is likely to approve a proposal to impose a 19 percent duty on imports of power generation equipment to help local manufacturers Bharat Heavy Electricals Ltd. (BHEL) and Larsen & Toubro Ltd. (LT) compete for orders with Chinese rivals, according to a government official.

### [Hydropower has big potential; many detractors](#)

Hydroelectric power is climate friendly, but it remains a disputed energy source. It's not always the case that renewable energy has a positive impact on the environment, as some major dam projects have proven.

### [U.K. Wind Power Reached Record High of 3,428 Megawatts Feb. 17](#)

U.K. wind generation set a record on the evening of Feb. 17, according to National Grid Plc data compiled by Bloomberg.

Wind generation peaked at 3,428 megawatts at 9:20 p.m. on that day, the data show.

### [U.K. Needs to Streamline Marine Energy Fund Process, Report Says](#)

The U.K. needs to streamline its funding process for marine energy and provide clarity

on support beyond 2017 so it doesn't repeat the mistake that allowed it to lose its lead in wind power to Denmark in the 1980s, a government report said.

### [Energy poverty killing more people than malaria](#)

A lack of clean energy for cooking is causing severe respiratory diseases that kill around two million people each year, says a scientist from the University of British Columbia.

"Energy poverty is one of the biggest human welfare issues of our day," says Hisham Zerriffi, who is presenting his research at the 2012 Annual Meeting of the American Association for the Advancement of Science. "We're talking about more people who die each year from cooking than from malaria."

### [A Plan to Restrict Flight Paths, to Hush the Blender Over Long Island](#)

Mary-Grace Tomecki, a Floral Park resident who lives near the train track route, said that during the summer helicopters passed overhead every five minutes and it sounded like "being in a blender." She said it made it difficult to tend to the morning glories and tomatoes she grows.

"It would be an incredible improvement in quality of life," Ms. Tomecki, an academic adviser at New York University, said of the ban. "It means actually being able to have a barbecue on Friday night and be able to talk."

### [Textile Recycling Is Thriving in New York](#)

Last May, the city formed a partnership with Housing Works, a group that helps homeless people who are H.I.V.-positive, to pick up donated clothing at apartment buildings in one of the first large-scale consumer textile recycling programs in the country. The goal is to capture most of the 200,000 tons of apparel and other textiles that New Yorkers throw away each year but that could be reused instead and thereby reduce the city's garbage disposal costs.

### [Economic crisis slows U.S. population growth](#)

The U.S. population is growing at the slowest rate since the Great Depression after two decades of robust increases.

### [Veteran climate researcher sees major threats](#)

The world needs an immediate reduction in the burning of fossil fuel to head off potentially disastrous effects from global warming, a prominent American scientist warned Sunday in Vancouver.

James Hansen, head of NASA's Goddard Institute for Space Studies and an iconic figure among climate researchers, said "even the skeptical scientists now agree" that Earth is undergoing a warming trend.

### [Attacks paid for by big business are 'driving science into a dark era'](#)

Most scientists, on achieving high office, keep their public remarks to the bland and reassuring. Last week Nina Fedoroff, the president of the American Association for the Advancement of Science (AAAS), broke ranks in a spectacular manner.

She confessed that she was now "scared to death" by the anti-science movement that was spreading, uncontrolled, across the US and the rest of the western world.

### [Preparing for the flood: Visualizations help communities plan for sea-level rise](#)

The four alternate scenarios show Delta over the next century where the municipality adopts various strategies to prepare for sea-level rise including: raising the dikes ("Hold The Line," Fig. 3); building offshore barrier islands to absorb the impact of incoming storms ("Reinforce and Reclaim," Fig 4); moving parts of the community out of the floodplain and on to higher ground ("Managed Retreat," Fig. 5); and reducing vulnerability through design by raising homes, roads and critical infrastructure above the floodplain ("Build Up," Fig. 6).

The visualizations packages not only show what the region could look at the end of the century but also takes into account other important factors like the cost of each solution for the municipality, the cost to individual property owners, and the trade-offs between protecting roads, habitat, homes, waterfront views and agricultural production.

### [Rising tide of sea-level warnings drowned out by wave of shoreline development](#)

The science that backs this advice gets drowned out when developers wave big money at county officials craving revenue. A classic "lose-lose" - for the environment and for taxpayers - results.



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