**U.S. shale oil producers pay to get out from under price hedges**

(Bloomberg; May 3) - U.S. shale giants stung by billions of dollars in hedging losses are spending big bucks to ditch their positions in a risky bet that oil prices will stay high and they can make even more money. Companies including Pioneer Natural Resources and EOG Resources are poised to post historic profits when they report earnings this week. But those windfall earnings would be even higher if it weren't for massive accounting losses from hedges that protect against falling prices while limiting upside potential.

Producers in total are looking at about $42 billion in oil and gas hedging losses through 2023, according to BloombergNEF calculations of data. While the hit won't necessarily affect their balance sheets — instead representing money left on the table — the sheer scale of the miss has companies spending hundreds of millions of dollars to exit their positions. Hess in March paid $325 million to exit some of its hedges — more than twice what it cost to enter the contracts six months earlier. Pioneer, which reported $2 billion in hedging losses in 2021, spent $328 million to drop its hedges.

The moves could pay off big. For Pioneer, dropping the hedges could generate more than $1 billion of additional revenue this year, according to energy researcher Enverus. But it’s risky. If prices fall and producers aren't hedged, they could be left with losses in the billions — and those won't be just on paper. It would likely unravel all the hard work companies have put into earning back investor trust over the past couple of years. And it could bring another rollback to production at a time when global markets are tight.

**OPEC members continue to fall behind production targets**

(Bloomberg; May 3) - The OPEC cartel — which has struggled for months to revive oil supplies halted during the pandemic — failed to increase total output at all last month, as some members remained plagued by capacity constraints. While Iraq made a substantial boost, countries such as Libya and Nigeria saw their production fall amid operational disruptions and diminished investment, according to a Bloomberg survey. Even Saudi Arabia didn’t increase output by as much as permitted by its agreed quota.

International crude prices are holding near $105 a barrel as OPEC’s struggle is exacerbated by a de facto embargo on Russian supplies by many refiners following the invasion of Ukraine. The lofty price levels are feeding into an inflationary spike that’s battering consumers and threatening growth, alarming policy makers around the world.
The OPEC+ coalition is likely to stick with its established plan, ratifying another modest addition of 430,000 barrels a day when it gathers on May 5, according to delegates.

But as the survey indicates, the group may struggle to implement much of the stipulated amount. The Organization of Petroleum Exporting Countries added just 10,000 barrels a day in April, compared with a scheduled 274,000 a day, the survey showed. It pumped an average of 28.7 million barrels a day. While Iraq bolstered output by 170,000 barrels a day to 4.46 million, Libya countered with yet another stumble, slipping by 150,000 a day amid port and field closures. Saudi Arabia added just 70,000 barrels a day.

**European Union proposes ban on Russian oil within six months**

(The Wall Street Journal; May 3) - The European Union proposed a phased-in embargo on Russian oil imports, the delisting of more Russian banks from the Swift payment messaging system and fresh sanctions targeted at people spreading disinformation on Russia’s war in Ukraine, EU officials said May 3. The EU’s foreign policy chief Josep Borrell became the first official to set out the key parts of a new sixth sanctions package against Russia drawn up by the EU’s executive body, the European Commission.

The centerpiece of the package is a proposal that the bloc’s member states stop importing Russian crude within six months and purchase no more Russian refined oil products by the end of the year, according to two officials familiar with the details. However, Hungary and Slovakia, both heavily dependent on imports of oil, would be allowed a phase-out of Russian imports over 20 months under the plan, officials said.

The bloc’s 27 member states, which can only adopt the measures unanimously, discussed the proposal May 4 and could make a decision as early as this week, although diplomats said differences remain between capitals on some of the proposed sanctions. The EU’s move toward banning Russian oil imports marks a particularly significant escalation for the bloc because of the importance of energy exports to the Russian economy. It is also potentially costly for Europe, which is highly reliant on Russian oil for transportation, heating, power generation and industrial production.

**India pushes Russia for deeper discounts on crude, down below $70**

(Bloomberg; May 4) - India is trying to get deeper discounts on Russian oil to compensate for the risk of dealing with the producer as other buyers turn away, according to people with knowledge of the matter. The South Asian nation is seeking Russian cargoes at less than $70 a barrel on a delivered basis to compensate for additional hurdles, such as securing financing for purchases, in high-level talks between the two countries, said the people, asking not to be identified as discussions are confidential. Global benchmark Brent is currently trading near $108 a barrel.
State-owned and private refiners in the world’s third-biggest oil importer have bought more than 40 million barrels of Russian crude since the invasion of Ukraine in late February, the people said. That’s 20% more than Russia-to-India flows for the whole of 2021, according to Bloomberg calculations based on trade ministry data. India’s state refiners can take about 15 million barrels a month — around 10% of overall imports — if Russia agrees to the price demands and delivers the oil to India, the people said.

India — which imports more than 85% of its oil — is among the few remaining buyers of Russian crude. Falling European demand is putting pressure on Russia’s oil industry, with the government forecasting output could drop by as much as 17% this year. Flows of Russian oil to India aren’t sanctioned, but tightening international restrictions such as marine insurance and U.S. pressure on India are making the trade more difficult.

**Russia faces logistical challenges to redirect oil and gas to Asia**

(The New York Times; May 3) - Last year, the Grand Aniva, a Russian liquefied natural gas tanker, sailed between the Sakhalin-2 export terminal in Russia’s Far East and import depots in Japan and Taiwan. But two days after Russia invaded Ukraine, the ship switched routes, sailing to China. The change underlines that President Vladimir Putin can still find buyers in Asia for his country’s exports despite Western sanctions.

He needs to look for buyers as governments exact more pressure to try to stop his war in Ukraine, including an expected move in the next several days by the European Union to gradually halt imports of Russian oil. Putin has called for his country “to redirect our exports gradually to the rapidly growing markets of the South and the East.” Obvious destinations are China, the world’s largest energy market, and India, the third largest.

Any attempt to shift Russia’s energy exports to Asia from Europe would face obstacles. Russia would need to offer big discounts to make its oil and coal exports worth the risk and cost to buyers, and would need to start the yearslong task of building more ports and pipelines for exports. Redirecting more Russian gas to Asia would require building very long pipelines or specialized liquefaction facilities like the one on Sakhalin Island.

Sending oil to Asia would require tankers. But because of Western financial sanctions, insurers are refusing to cover ships with Russian cargoes. Banks are refusing to lend money for the time that the oil is in transit. Oil companies in countries like India have demanded very steep discounts on the price to cover the extra cost and risks. Despite the obstacles, global energy leaders are betting that Russia can find a way to export at least the oil and the coal, in large part because global demand remains high.
Big Oil made big profits, but also faces pressures

(EnergyWire; May 2) - Big Oil made billions in the first three months of this year, as the Russia-Ukraine war pushed oil and gas prices to their highest level in a decade. But the picture may not be as rosy as it sounds for the U.S. oil industry. Profits for major oil companies announced last week weren’t as high as Wall Street expected — and the war cut into the bottom line for some players. Other ongoing pressures, from inflation to investor demands to domestic politics, seem likely to dog companies for the near future.

And energy companies don’t expect high prices to last indefinitely. “One of the lessons of history is, just as the bad times don’t last forever, neither do the times when prices are strong,” Chevron CEO Mike Wirth said April 29 on a call with analysts. Meanwhile, there are investment losses: Exxon took a $3.4 billion write-down on its investment in the Sakhalin energy project in Russia. TotalEnergies, the French oil producer, declared a $4.1 billion write-down on a project to export natural gas from the Russian Arctic.

Analysts are worried about risks to oil production in the broader region, too. Chevron has a major investment in the Tengiz oil field in Kazakhstan, a country that was wracked by street protests over fuel prices this year. Chevron also owns a stake in the Caspian Pipeline Consortium, which transports oil from Tengiz to a Russian port on the Black Sea. Wirth acknowledged the potential for problems in the region, and said there are similar hazards in other oil-producing regions. “You can’t take your eyes off those risks.”

New offshore platforms coming online in Gulf of Mexico

(Bloomberg; May 2) - A new wave of oil platforms is sweeping into the U.S. Gulf of Mexico as crude prices are riding historic levels and demand for barrels is higher than ever. But don’t count on the new production to close the oil-supply gap that has plagued the world’s economies since the pandemic. Even with the new platforms, Gulf output will not grow substantially in the coming years as mature fields decline, analysts said.

BP’s Argos and Shell’s Vito — floating production platforms that are taller than 20-story buildings and have decks the size of football fields — will start pumping crude off the Louisiana shore later this year. They will join Murphy Oil’s King Quay, a behemoth that started producing oil in April, also off the Louisiana coast. Others from Chevron, Shell and Beacon Offshore Energy are expected to start production in two years. Once all six platforms are online, they could produce up to 560,000 barrels a day.

The timing for these new projects couldn’t be better. The offshore sector has been battered by back-to-back busts and a pandemic that forced bankruptcies and mass layoffs. But even with oil at $100 a barrel, a big comeback is unlikely. After a decade that saw one of the worst oil spills in U.S. history, shale’s ascendance and mounting climate-change concerns, some experts believe that the sun may be setting on the Gulf. Offshore projects cost billions and rarely come online in less than a decade.
Since the first offshore rig was built off the Louisiana coast in 1938, the gulf has been a reliable source of oil. Its deep trove of reservoirs is responsible for about 14% of U.S. crude production, second only to shale fields. Gulf producers pumped 1.7 million barrels of oil per day in January, shy of the pre-pandemic record of 2 million barrels a day.

**Iran’s oil minister visits Venezuela**

(Bloomberg; May 1) - Iran Oil Minister Javad Owji made a rare trip to Venezuela that included visiting oil facilities and signing energy deals between the two U.S.-sanctioned nations, said people with knowledge of the situation. Owji and more than a dozen delegates arrived in Caracas on April 30, according to the people, who asked not to be identified. Owji and his delegation visited the Paraguana refining complex in western Venezuela with Petroleos de Venezuela head Asdrubal Chavez.

Both Iran and Venezuela have been slapped with sanctions by the U.S., which doesn’t currently import oil from either nation. Venezuela and Iran have increased cooperation in light of U.S. sanctions. Venezuela imports condensate from Iran, key to thinning its extra-thick crude oil. Iran has also stepped in to help its South American ally with engineers, refined products and spare parts for its oil industry.

A rare meeting between Venezuelan President Nicolas Maduro and high-ranking U.S. officials in Caracas in March prompted speculation that sanction relief was on the table to help Venezuela boost its oil production in the wake of Russia’s invasion of Ukraine.

**U.S. natural gas production growth slows amid pipeline shortage**

(Reuters; May 2) - U.S. natural gas production growth is waning at the same time many countries are looking for new suppliers to help break their dependence on Russian gas after Moscow's invasion of Ukraine. The United States is already the world's largest producer of natural gas. But the two mainstays of production — the Appalachian region and West Texas — are seeing growth rates slow down, with companies blaming a lack of adequate pipeline infrastructure, despite prices near 14-year highs.

Since Moscow invaded Ukraine on Feb. 24, U.S. gas prices have soared about 50% as European countries look to the United States to sell more liquefied natural gas to wean Europe off Russian pipeline gas. But production growth has slowed in Appalachia, which supplied about 37% of U.S. gas in 2021, as it has become increasingly difficult to build new pipes to move gas out of the Pennsylvania, Ohio and West Virginia region.

Appalachia "is nearing takeaway capacity limits," said analysts at Bank of America, who estimated there would be "little to no production growth" until new pipes enter service.
The Atlantic Coast pipeline was canceled in 2020 after costs rose from an estimated $6 billion to $8 billion. Another long-delayed project, the $6.2 billion Mountain Valley line from West Virginia to Virginia, has not been completed due to ongoing lawsuits.

With pipelines filling quickly in the Permian Shale, the nation’s second biggest supply basin at 19% of U.S. output, analysts said production growth in that Texas-New Mexico basin could slow significantly next year unless firms start building new pipelines soon.

**Bookings increase for proposed U.S. LNG projects**

(Bloomberg; May 3) - About 30% of planned new U.S. LNG export capacity has been booked since war disrupted Europe’s supplies, a dramatic reversal of fortune for as many as 10 proposed projects stymied by a lack of financing. Energy Transfer on May 3 announced an 18-year deal with South Korea’s SK Gas Trading in the latest sign that its long-stalled Lake Charles LNG plant in Louisiana is gaining momentum. A day earlier, Energy Transfer inked a 20-year contract with Gunvor, while French utility Engie locked in nearly 2 million tonnes of LNG per year from NextDecade’s proposed Texas plant.

Low winter inventories and record high gas prices in Europe already had two-thirds of U.S. LNG cargoes heading to Europe before Vladimir Putin’s invasion of Ukraine. The war pushed Europe to ease dependence on Russia and expand infrastructure to take in more LNG tankers. Since then, prospects have improved for up to a dozen U.S. LNG projects that held federal permits but lacked supply deals and funds to move forward.

Long-term purchase agreements are critical to securing financing for the multibillion-dollar projects, demonstrating market demand and ensuring that lenders will be repaid. Meanwhile, as European buyers have become more active, China and other Asian customers have emerged as the largest long-term buyers of U.S. LNG as part of a strategic move to secure supplies and prevent a bidding war between the two continents over every last molecule available on the spot market.

**French utility agrees to buy LNG from proposed Louisiana project**

(Bloomberg; May 2) - French utility Engie has agreed to buy liquefied natural gas from NextDecade after the U.S. developer committed to slash most of the emissions associated with its proposed LNG export terminal in Brownsville, Texas. The pact marks a U-turn for the European powerhouse, which less than two years ago had scrapped plans to buy LNG from the same project. It comes at a time when European gas consumers aim to diversify their supplies and eliminate reliance on Russian fuels.

Under the pact, Engie will purchase 1.75 million tonnes a year of fuel produced at the Rio Grande LNG export project for 15 years, NextDecade said May 2 in a statement.
Engie’s 2020 decision to drop the $7 billion deal with NextDecade came amid pressure from an environmental group and was a major pushback for the U.S. industry. Suppliers have since increased efforts to reassure European consumers of their green credentials including by tracking and slashing emissions of methane, a powerful greenhouse gas.

NextDecade aims to reduce carbon emissions by more than 90% via carbon capture and storage while relying on so-called responsibly sourced gas and the use of net-zero power to produce a lower carbon-intensive LNG. NextDecade said it should make a final investment decision on a minimum of two liquefaction trains of the Rio Grande project — 11 million tonnes annual capacity — in the second half of 2022, pending further LNG contracting and financing. The developer has more than half of the first phase output under contract. The terminal is expected to start up as early as 2026.

**Singapore unit of global trader signs on for 20 years of U.S. LNG**

(Reuters; May 2) - Long-term liquefied natural gas deals are ramping up as sanctions on Russian fuel squeeze an already tight market and increase global demand for U.S. LNG. Pipeline and terminal operator Energy Transfer and developer NextDecade announced new LNG supply agreements on May 2 for customers in Europe and Asia.

Energy Transfer said it has agreed to supply 2 million tonnes per year of LNG from its proposed Lake Charles, Louisiana, project to the Singapore unit of Swiss commodity trading house Gunvor. The deal is for 20 years and first deliveries are expected to begin in 2026, the U.S. company added. The companies did not disclose the purchase price, but said it is indexed to the Henry Hub U.S. gas benchmark plus a fixed liquefaction charge. The deal will become fully effective upon the satisfaction of certain conditions, including Energy Transfer taking final investment decision on the project.

**European Union sees LNG supply potential from Africa**

(Bloomberg; May 2) - The European Union will seek to step up cooperation with African countries to help replace imports of Russian natural gas and reduce dependence on Moscow by almost two-thirds this year. Particularly in the western part of the continent, Nigeria, Senegal and Angola offer largely untapped potential for producing more liquified natural gas, according to a draft EU document seen by Bloomberg.

The communication on external energy engagement could be adopted by the European Commission later this month as part of a package to implement the plan to cut reliance on Moscow. The 27-nation bloc also seeks to prepare for imports of 10 million tonnes of hydrogen by 2030 to help replace Russian gas, in line with the ambitious EU Green Deal to walk away from fossil fuels and reach climate neutrality by mid-century.
The EU plan to increase LNG imports requires setting relationships with traditional suppliers on a new basis and extending trade to new emerging suppliers, according to the document. The bloc also plans to support the doubling of the capacity of the Southern Gas Corridor pipeline, which brings gas from Azerbaijan.

**Germany accelerates plans for first LNG import facilities**

(S&P Global Platts; May 3) - Germany is to end its dependency on Russian gas by mid-2024 amid a rush to bring four floating LNG terminals online to supply almost 1.2 trillion cubic feet of gas per year, with the first of the FSRUs to be available in late 2022 and 2023, energy minister Robert Habeck said May 1. The share of Russian gas has already dropped, from 55% in 2021 to about 35% by mid-April, the minister said.

The progress has been even faster for oil and coal, where shares have dropped to 12% and 8% respectively. Germany is on course to phase out Russian oil and coal by late summer. Berlin has taken options for four floating LNG terminals (floating storage and regasification units, or FSRUs) with lease agreements set to be signed soon by energy companies Uniper and RWE, the ministry said, adding that it would provide Eur2.94 billion ($3.09 billion) in support. The first two FSRUs will be located at Wilhelmshaven and Brunsbuettel and are due to start up later this year and in 2023.

In addition, planning for two permanent LNG terminals at Brunsbuettel and Stade is on course for start-up in 2026, with a view to fully phasing out Russian gas. Meanwhile, emergency planning to secure supply is also being advanced through new legal storage mandates for gas and coal and regulatory updates, including ownership issues, to prepare Germany for all scenarios including a complete halt to Russian gas flows.

**Japan intends to remain a partner in Russian LNG project**

(The Wall Street Journal; May 2) - The head of a top Japanese investor in Russia said his company would push ahead with a Siberian liquefied natural gas project, part of Tokyo’s decision to buck Western moves and keep relying on Russian energy. Kenichi Hori, chief executive of trading and investment company Mitsui, spoke on May 2 amid doubts about whether the $21 billion Arctic LNG-2 project can start exporting next year as planned because of Western sanctions against Russia over its invasion of Ukraine.

The project aims to liquefy gas extracted in Siberia and ship it mostly to East Asian users such as China and Japan. Mitsui is participating in a Japanese government-led consortium that owns 10% of the project. “Considering the future demand for LNG in our nation and the world, we have to move ahead with this project. Otherwise, the world’s energy balance will collapse, or there will be shortages,” Hori said at a news
Already, nearly one-tenth of Japan’s gas comes from an existing Russian LNG export terminal on Sakhalin Island, where Mitsui owns a 12.5% stake.

Hori’s comments made clear that, in contrast to Europe trying to reduce its reliance on Russian energy, Japan looks to add supplies by backing Russian projects. President Vladimir Putin and Japan’s prime minister took part in a 2019 signing ceremony, when the Japanese government and Mitsui agreed to invest in Arctic LNG-2. In 2021, the Japan Bank for International Cooperation committed loans of up to $1.8 billion to the project. Masahiko Hosokawa, a former Ministry of Economy official, said Tokyo would hurt itself by pulling out of Arctic LNG-2 because China would take any available stake.

**Japan will consider financial support for existing U.S. LNG projects**

(Nikkei Asia; May 5) - Japan will consider providing financial support to boost production of liquefied natural gas in the U.S., Nikkei has learned, as it seeks to lessen its energy dependence on Russia following Moscow's invasion of Ukraine. Koichi Hagiuda, Japan’s minister of economy, trade and industry, is visiting the U.S. and met with Energy Secretary Jennifer Granholm on May 4. They expect to agree on forming a bilateral consultative body devoted to green energy and energy security.

Senior Japanese officials will meet to advocate for expanded American production of LNG. They plan to increase investment for expansion of existing projects in the U.S. through Japan Oil, Gas and Metals National Corp., the state-owned explorer known as JOGMEC. Compared with developing projects from scratch, this approach is seen as a less risky option to boost LNG output quickly. JOGMEC can provide 75% of the funding if necessary. Debt guarantees also will be on the table. The support is expected to go toward projects in the U.S. where Japanese companies already are involved.

For example, the Cameron LNG terminal in Louisiana counts trading houses Mitsui and Mitsubishi as well as marine shipper Nippon Yusen as participants. The Freeport project in Texas involves Osaka Gas and LNG importer JERA. Last year, Japan imported 74.32 million tonnes of LNG. Of that, 8.8% came from Russia with 9.5% from the U.S.

**Canadian gas producer will supply Cheniere’s LNG terminal in Texas**

(S&P Global Platts; May 4) - Canadian driller ARC Resources will supply natural gas to Cheniere Energy that the U.S. exporter will use to produce LNG and then market those volumes to international customers, the company said May 4. ARC will get a netback, linked to S&P Global benchmark price for spot LNG delivered to Northeast Asia. Fixed LNG shipping costs and a fixed liquefaction fee for Cheniere will be deducted.
The 15-year agreement announced May 4 is similar to ones Cheniere has previously signed with U.S. gas producers Apache and EOG Resources and Canadian producer Tourmaline. ARC, Canada's third-largest gas producer, with operations in the Montney in Alberta and northeastern British Columbia, will sell approximately 140 million cubic feet per day of gas to Cheniere's proposed expansion of its Corpus Christi terminal in Texas, where the company is looking to add 10 million tonnes of annual output capacity. Cheniere expects to make a final investment decision on the project this summer.

**Qatar regains title in April as top LNG exporter**

(Bloomberg; May 2) - Qatar reclaimed the crown as the world’s top liquefied natural gas exporter from the U.S. just as the end of winter lowered demand for the heating fuel in the Northern Hemisphere. April exports of the fuel from Qatar surpassed 7.5 million tonnes, edging out the U.S., according to ship tracking data compiled by Bloomberg.

During the winter months, low temperatures, combined with Europe’s desire to cut dependence on Russian energy, drove up the demand for natural gas and prices of the fuel. Once winter ended, some U.S. export terminals have used the period of softer demand and lower prices to undergo maintenance, which has lowered the U.S. output.

Looking ahead, the U.S. and Qatar are expected to engage in a two-horse race for dominance in the global LNG market. Once the Calcasieu Pass export terminal in Louisiana is complete later this year, the U.S. is expected to reach a peak LNG production capacity of 13.9 billion cubic feet of natural gas per day. Meanwhile, Qatar is planning a gargantuan export project that will come online in the late 2020s, which could cement the Middle Eastern nation as the top supplier of the fuel.

**Vietnam turning to LNG to replace coal-fired power plants**

(Nikkei Asia; May 3) - Liquefied natural gas is entering the spotlight in Vietnam as the country tries to wean itself off carbon-intensive coal, keeping pace with a growing regional trend that could be tripped up by intensifying competition and rising prices for the fuel. Samsung C&T and Vietnamese construction company Lilama announced in March a $940 million engineering, procurement and construction contract for what is expected to be the country's first LNG-fueled power plant.

The 1,500-megawatt facility will be operated by PetroVietnam Power, a unit of state-run Vietnam Oil and Gas Group, and is slated to come online in 2024 or 2025. Vietnam now generates roughly half its electricity from coal, which is usually cheaper and more accessible than other fuels. But its high carbon footprint is not compatible with Prime Minister Pham Minh Chinh's pledge last year to achieve net-zero emissions by 2050.
The ruling Communist Party remains resolute against nuclear power after scrapping plans for Japanese- and Russian-backed plants in 2016, while output from renewable sources like solar and wind tends to fluctuate. LNG — which, although a fossil fuel, generates about half the emissions of coal when burned — is seen as a more promising route to cutting back on carbon. The country has more than 20 LNG-fired power plants in the pipeline nationwide, according to local media reports.

**North Dakota opposes tribal claims to oil and gas rights**

(InForum; North Dakota; May 2) - The state of North Dakota is seeking to intervene in a lawsuit to determine ownership of the bed of the historic Missouri River flowing inside the boundaries of the Fort Berthold Reservation. At stake in the legal dispute is who has legal rights to oil and gas revenues worth over a hundred million dollars — the state or the Mandan, Hidatsa and Arikara Nation, which occupies Fort Berthold Reservation.

The tribes filed the federal lawsuit in 2020, seeking to establish that they are the rightful owner of the riverbed and the mineral wealth beneath it. The suit came after the Trump administration, at the urging of the state, reversed decades of administrative decisions and concluded that the state was the owner. The Department of the Interior in the Biden administration reversed the Trump administration’s decision, however, restoring the government’s long-held position that the riverbed and minerals beneath it were held in trust by the U.S. government for the Mandan, Hidatsa and Arikara Nation.

The state filed its motion to intervene in the lawsuit on April 29. “The state has never relinquished its claim to the historical riverbed, which it acquired at statehood in 1889 under the equal footing doctrine, which provides that a state entering the Union retains title to the beds of navigable rivers and lakes within the state, unless Congress has expressly designated otherwise,” according to the state. The disputed land includes about 255 oil and gas wells. Through horizontal drilling, wells can access land beneath the waters. The state receives royalties on oil and gas production from the leases.