# Supplemental Sustainability Update (January 2021)

As summarized in our annual sustainability progress reports, Granite is committed to continuously improving sustainability in our operations and transparently reporting our progress. One major focus continues to be conducting a data gap analysis to standard reporting frameworks. As we continue to improve our understanding of stakeholder expectations and gather information, we want to share our progress in this supplemental update ahead of our next full report.

## GRANITE'S ENVIRONMENTAL PROGRAM

Granite's commitment to sustainability includes a focus on environmental stewardship—we recognize our duty to protect the environment and our responsibility to manage the environmental impacts of our operations. We are committed to creating a culture of environmental awareness, so that our teams are mindful of our environmental responsibilities and empowered to meet them. We strive to be an industry leader where our focus on environmentally responsible construction operations provides a competitive advantage.

Granite is committed to operating responsibly, managing our environmental risks, and continuously improving our practices. We are focused on the following objectives:

- Meet or exceed our clients' environmental goals
- Meet or exceed requirements of applicable environmental laws and regulations
- Reduce our environmental impacts
- Protect habitat and wildlife
- Conserve natural resources
- Prevent pollution
- Reduce our carbon footprint

## ENERGY & CLIMATE

### Emissions Reduction Strategy

The infrastructure construction industry currently relies on oil and fossil fuels which directly contribute to air pollution and greenhouse gas emissions. Granite recognizes that our industry must adapt and change with the evolving needs of society and intends to drive that change by advancing more sustainable construction practices, reducing emissions, and reducing our carbon footprint.

Granite's multi-tiered approach to reducing our emissions and carbon footprint focuses on these key elements:

1) The first step is to accurately quantify our greenhouse gas emissions. Effective long-term solutions can only be implemented based on sound science and data. Granite continues to improve methods for measuring and tracking accurate data on our carbon emissions to support the development of new reduction targets.

2) Investment in technologies and practices that directly and immediately reduce our emissions, including:

- Investing in fuel- and emissions-efficient equipment, including transitioning to hybrid technology construction equipment
- Participating in equipment upgrade programs allowing retirement of older and less efficient equipment
- Transitioning to the use of alternative fuels, resulting in immediate and direct air pollutant reductions
- Implementing the use of telematics in our vehicle and equipment fleet to improve fuel efficiency
- Using solar power at three of our construction materials facilities
- Investing in low NOX and ultra-low NOX burners to reduce air emissions in some of our asphaltic concrete (AC) plants in impacted air basins
- Utilizing lower impact processes such as Warm Mix Asphalt (WMA) production, which allows asphalt production at lower temperatures and consequently reduces fuel consumption
- Incorporating recycled products, such as Reclaimed Asphalt Product (RAP), in the production of construction materials (as permitted by specifications and product quality)

As stated in our 2019 Sustainability Progress Report, Granite has launched a new Climate Awareness Task Force to further integrate climate awareness into our operations. This task force is developing improved strategies for measuring, reporting, and reducing our carbon footprint. Our initial priorities include assessing our capability to provide disclosures on metrics outlined by the Sustainability Accounting Standards Board (SASB) and CDP (formerly Carbon Disclosure Project), as well as information on climate-related risks in line with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

Granite is actively working to improve our capacity to accurately quantify our greenhouse gas emissions. Granite's Scope 1 carbon footprint assessment (published in our 2016 Sustainability Progress Report) showed that most of our direct carbon emissions come from our mobile fleet and plant operations. Our operations have grown significantly since our last carbon assessment, in part through acquisition, creating the need to update our systems to accurately measure all emissions. As part of this effort, we have gathered information about the current direct contributions to greenhouse gases associated with our operations.

While there are still data gaps for certain types of emissions, we have gathered the following information based on currently available data for 2019:

- Total enterprise fuel consumption (gasoline and diesel) by vehicles and equipment = 13.7 million gallons of fuel

- Total $CO_2$ emissions (combustion only* for diesel and gasoline) by vehicles and equipment = 149,501 US Tons $CO_2$
    - *Note: this is $CO_2$ only; does not yet include $CO_2$ equivalents.
- Mobile sources (vehicles and equipment) normalized to total man-hours = 0.01 US Tons $CO_2$/Man-hour
- Total $CO_2$ equivalents emissions from asphalt production = 109,936 US Tons $CO_2$ equivalent
- Total asphalt produced in 2019 = 5.9 million tons produced
- $CO_2$ equivalent emissions per US ton of asphalt produced = 0.018 US Tons $CO_2$ equivalent/Ton of asphalt

## Investing in Emissions Reduction

Blue smoke recovery systems minimize fugitive emissions from asphalt plants. So far, Granite has invested a total of approximately $3,612,000 in installing these systems at plant locations as follows:

| Facility Location | Year Completed | Investment (Approximate $) |
|---|---|---|
| Santa Clara, CA | 2018 | 450,000 |
| Arvin, CA | 2015 | 270,000 |
| Buellton, CA | 2015 | 297,000 |
| Sacramento, CA | 2015 | 795,000 |
| Desert Cities, CA | 2013 | 511,000 |
| Tracy, CA | 2012 | 345,000 |
| Pleasanton, CA | 2010 | 100,000 |
| Ventura, CA | 2009 | 200,000 |
| Little Rock, CA | 2005 | 277,000 |
| French Camp, CA | Before 2005 | 180,000 |
| Twenty-nine Palms, CA | Before 2005 | 80,000 |
| Salinas, CA | Before 2005 | 107,000 |
| **Total investment** | | **3,612,000** |

## On-Site Renewable Energy Generation

Granite's materials facilities have on-site solar power at the following locations:

- Swan Facility in Tucson, AZ
- James Road AC Plant in Bakersfield, CA
- Coalinga Facility in Coalinga, CA

Coalinga Facility: A solar field was installed in 2011 and came online in early 2012. The solar field was designed to deliver 1.2 megawatts. The initial investment was approximately $3M. The solar field generates approximately 30% of the plant's daily power needs. When the plant is not running, the solar field returns power to the grid. The solar field has averaged 1,228 megawatts annually and has generated 9,827 megawatts over its lifetime.

## Investing in Energy Efficiency: Energy Conservation Technologies

Since 2012, Granite has invested substantially in energy conservation technologies at our construction materials facilities. Key examples of such energy conservation improvements include:

- Insulating piping and drums to prevent loss of energy, reducing fuel consumption and emissions
- Installing Variable Frequency Drive (VFD) technology to increase efficiency in plant operation, reducing electric power demand
- Replacing parallel flow drum plants with counterflow drum plants—counterflow plants allow more heat to be transferred from the burner to the finished asphalt product, increasing efficiency in heating and thus lowering fuel consumption
- Installing WMA systems to allow asphalt production at lower temperatures to reduce energy use—Granite was an early adaptor to drive this innovation and currently has 28 asphalt plants that have been retrofitted to produce WMA
- Optimizing RAP content based upon finished product quality to reduce consumption of natural resources—all of Granite's AC plants have RAP systems

Generally, insulation and VFDs provide a return on investment through energy savings each year equal to or above the initial cost of installation. These energy conservation programs benefit our operations on an ongoing basis, and we continuously improve energy efficiency at our plants with these types of programs every year. Granite currently has additional investments in energy conservation programs planned for 2021.

Granite has already made significant investments in energy conservation programs. Here is a summary of recent investments (with approximate dollar value) made to conserve energy in our construction materials facilities:

| Facility Location | Year Completed | Insulation | VFD | Other | Investment (Approximate $) |
|---|---|---|---|---|---|
| Santa Clara, CA | 2019 | x | x | counterflow | new plant installed (total 4.7M) |
| Lee Vining, CA | 2018 | | | counterflow | 1.75M |
| Vancouver, WA | 2017 | | | counterflow | 700,000 |
| Coalinga, CA | 2016 | x | x | | 90,000 |
| French Camp, CA | 2013 | x | | | 50,000 |
| Tucson, AZ | 2013 | x | | | 38,000 |
| Sacramento, CA | 2013 | x | x | counterflow | 1.4M |
| Marana, AZ | 2013 | x | | counterflow | 39,000 |
| Tracy, CA | 2013 | x | | counterflow | new plant installed (total 4.5M) |
| Anchorage, AK | 2013 | x | | | 30,000 |
| Bishop, CA | 2013 | | | replace diesel generators with line power | 35,000 |
| Bakersfield, CA | 2013 | x | x | automatic truck unload system | 165,000 |
| Arvin, CA | 2013 | x | x | | 90,000 |
| Felton, CA | 2013 | x | x | | 61,000 |
| Salinas, CA | 2013 | x | x | | 68,000 |
| Pleasanton, CA | 2013 | | x | | 52,000 |
| Lakeport, CA | 2013 | x | x | | 67,000 |
| Ukiah, CA | 2013 | x | x | | 45,000 |
| Buellton, CA | 2013 | x | x | | 108,000 |
| Richland, WA | 2013 | x | | | 26,000 |
| Dallesport, WA | 2013 | x | | | 19,000 |
| Everett, WA | 2013 | x | | | 20,000 |
| **Total investment (including new plant installation where listed above)** | | | | | **14,053,000** |

## Battery Demand Management Systems

Battery demand management systems at Granite materials facilities help reduce electrical costs and make the electrical grid more resilient by shifting demand from peak periods to periods with additional capacity. These systems charge a battery during periods of low demand (when power is cheaper). The power is stored on site in batteries, and later consumed during periods of peak demand, reducing power drawn from the grid during peak demand. Software determines when to charge the batteries and when to use the power for plant equipment.

Granite has five battery backup systems currently operating at these materials facilities:

- French Camp Facility in French Camp, CA – 315kw/510 kwh
- Gardner Facility in Buellton, CA – 350 kw/720 kwh
- Pleasanton AC Facility in Pleasanton, CA – 500 kw/950 kwh
- Highway 175 Facility in Lakeport, CA – 630 kw/1020 kwh

- Vernalis Facility in Tracy, CA – 315 kw/510 kwh
- Salinas Facility in Salinas, CA – 630 kw/1020 kwh

Granite is currently planning to deploy battery systems in these additional facilities in 2021:

- Capay Facility in Esparto, CA
- Coalinga Facility in Coalinga, CA

## WATER: STRATEGIZING TO CONSERVE A VITAL RESOURCE

Granite's primary consumptive water uses are related to construction activities at project sites (such as dust suppression and grading activities) and construction material production activities (such as aggregate washing and dust control).

### Water in Construction Activities

Granite's construction activities seek to acquire required water supplies near the project site via surface delivery systems or wells. Because potable water is not required for most construction activities, Granite commonly partners with local water suppliers to use reclaimed or recycled gray water, reducing impacts on potable water supplies. Our project teams aim to protect regional water quality and avoid negative water resource impacts by using best management practices. Examples of best practices include implementing storm water management plans, deploying spill prevention plans, and scheduling work processes and activities to protect regional water resources.

### Water Conservation and Reuse in Construction Materials Production

Granite operates 76 construction materials facilities within the United States, which produce a wide range of construction sand, gravel, and crushed stone in addition to AC for use in local construction projects. Many of the aggregate operations rely on self-extracted groundwater as their primary water source and implement strategies to maximize operational water efficiency. Our aggregate operations capture stormwater to the extent feasible and recapture processed water from our aggregate operations. We use settling ponds, clarifiers, and filter presses to separate the rinsed sediment fines from slurry before recirculating the reclaimed water back into the aggregate washing operations. Utilizing water reclamation and recycling significantly reduces consumptive use of water resources (generally by 70% or more). Operational water recycling rates vary throughout our US operations based on aggregate material quality, regional climate conditions, and pond loss resulting in groundwater recharge.

Nine of Granite's construction materials facilities are equipped with water recycling technology in addition to settling ponds. Below is a summary of these facilities with approximate figures for water recycling rates:

| Facility Location | Water Clarifier(s) | Filter Press | Water Recycling Rates (Approximate Gallons/Minute) |
|---|---|---|---|
| Cottonwood Heights, UT | x | x | 2,500 |
| Sacramento, CA | x | | 10,000 |
| Tracy, CA | x | | 12,000 |
| Esparto, CA | x | | 10,000 |
| Felton, CA | x | x | 5,000 |
| Llano, CA | x | | 5,000 |
| Marana, AZ | x | | 5,000 |
| Lakeport, CA | x | | 5,000 |
| Gonzalez, CA | x | | 5,000 |

### Participation in Regional Water Supply Reliability and Conservation Efforts

Granite has a long history of building water management and conveyance infrastructure, including a significant portion of the California Aqueduct, which has provided generations of Californians with safe, reliable water resources. Beyond building infrastructure, Granite regional management teams have partnered with regional authorities and stakeholders to develop regional water management and conservation plans within our California markets. These plans aim to improve regional water supply security, strengthen groundwater resources, and ensure the adoption of sustainable water resource governance.

## MINIMIZING WASTE

Conservation of natural resources is one of our priorities for responsibly managing environmental impacts associated with our work. The heavy civil construction industry by its very nature is resource intensive—this provides an opportunity to generate positive and large-scale contributions that support reduction, re-use, and recycling of materials and waste that have historically been diverted to landfills.

Reducing, re-using, and recycling natural resources generated throughout the entire lifecycle of construction projects represents a tremendous opportunity to bolster world-wide conservation progress and reduce negative environmental impacts from waste—an opportunity that is also good for business. Granite's primary purpose is to build infrastructure that supports societal needs. Our services assist our clients in meeting waste management goals for their projects, and we support them with means and methods to reduce waste and divert useable resources for beneficial reuse.

Granite's business operations do not generate large volumes of regulated or hazardous waste. Our equipment maintenance shops generate typical wastes including used oil, used antifreeze, paint waste, batteries, light bulbs, and electronic equipment waste. All our shop facilities located throughout the nation are categorized by the Environmental Protection Agency (EPA) as very small or small quantity generators of hazardous waste under the Resource Conservation and Recovery Act (RCRA).

Examples of continuous improvement in our operational waste management:

- During 2019, Granite produced approximately 6 million tons of asphalt. In total 1.02 million tons of RAP were directly recycled into our asphalt products. Granite is actively involved in the development of mix designs allowing for an increase in recycled products.
- Our equipment fleet of vehicles and construction equipment require the use of oils and other petroleum products. Granite's standard procedure is to recycle all used oil in operations across the United States. In 2018 and 2019, Granite recycled approximately 49,000 gallons of used oil in California alone (where used oil is uniquely regulated as hazardous waste).
- All our shop facilities have made tremendous progress in phasing out potentially harmful chemical products and transitioning to alternatives that are safer and more environmentally friendly. Key examples include replacing chlorinated solvents and degreasers (such as carburetor cleaners, brake cleaners, and shop solvents).

## PROTECTING HABITAT AND WILDLIFE

Granite maintains standard operating procedures and processes for managing environmental responsibilities and objectives. Through operationally embedded environmental professionals, Granite evaluates projects for all environmental requirements through a pre-construction process, which includes evaluation of critical or sensitive habitat as identified by the project owner and regulatory agencies. All construction methods include standard procedures for legal and other requirements ensure Granite's commitment to the protection of all resources identified through the local, state, and federal requirements impacting both Granite projects and facilities.

For construction projects, clients are generally responsible for conducting Environmental Impact Assessment (through which the project owner and regulatory agencies identify critical or sensitive habitat and other environmental concerns) prior to engaging with Granite. Through the pre-construction process, Granite 1) develops project-specific construction methods to protect identified resources, 2) embeds environmental professionals within the operation, and 3) actively monitors site activities to ensure resources are protected at the project location. Alternative procurement methods allow Granite to engage with the client's design and management team to collaborate for improved sustainability prior to a finalized design. Through value engineering, Granite can often provide additional opportunities to reduce environmental impacts beyond those originally anticipated by the client.

When designing construction material operations, Granite focuses on minimizing development and operational impacts, and designs an end of life reclamation plan based on local environmental resources and community needs. Reclamation plans outline reclamation or restoration of impacted areas with a focus on developing a beneficial re-use of disturbed lands, habitat restoration, or future wildlife reintroduction. Granite Regional Park provides one example—after completing mining, Granite partnered with the City of Sacramento to redevelop previously mined areas into a

mixed-use area with community park improvements and a habitat preserve. For construction material operations, Granite focuses on sustainable development, operation, and full lifecycle management of land assets.