Image provided by Van Dyk Recycling Solutions

The ReSource Center to recover recyclables, organics from MSW

The first phase of the California project is the MRF, scheduled to be completed this fall.

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The Santa Barbara County Public Works Department's Tajiguas Landfill in Santa Barbara, California, serves the South Coast and Santa Ynez Valley areas of Santa Barbara County and accepts roughly 200,000 tons of material each year. To align with new California laws that mandate increased diversion and reduced landfilling of organics, Santa Barbara County invested in The ReSource Center, or what was previously referred to as the Tajiguas Resource Recovery Project, or TRRP. This $150 million project, built on the Tajiguas Landfill, is designed to address new mandates by increasing recycling, composting organics that are currently being landfilled and reducing the landfill's carbon footprint.

Set to be fully operational by early 2021, the first phase of the project is a new material recovery facility (MRF) that will process municipal solid waste (MSW) collected from the area, recovering recyclables and organics. At the MRF, two 3D trommel screens, various sizing screens, air density separators, three elliptical separators and 11 optical units will recover and separate paper and containers from the MSW. Van Dyk Recycling Solutions, Norwalk, Connecticut, is supplying and installing the MRF equipment, with Installation nearing completion and startup and commissioning planned to begin by this fall.

The recyclables captured at the MRF will be baled and sold, while the organics will move to the second phase of the project, the anaerobic digestion facility. Here, organics will be broken down and turned into compost and renewable energy. The energy generated by The ReSource Center (which also includes an existing landfill gas collection system) will be used to power the system as well as 2,000 local homes per year.

The county estimates about 60 percent of incoming MSW is either recyclable or compostable, Van Dyk says in a news release announcing its role in the project. The MRF is expected to recover that fraction (composed of roughly equal parts recyclables and organics) from the MSW, significantly reducing the county's landfill contributions. This will extend the life of the landfill by up to a decade while significantly reducing greenhouse gas emissions. In fact, the project will be the largest reducer of greenhouse gases in the county, slashing 117,000 metric tons of carbon dioxide from the landfill's output (the equivalent of taking 29,000 cars off the road) each year.