August 28, 2020

NOTICE OF PREPARATION
Environmental Impact Report (EIR) &
Notice of Public Scoping Meeting

To: California State Clearinghouse, Responsible Agencies, Trustee Agencies, and Interested Parties

Project Title: Yolo County Central Landfill Permit Revisions

Project Proponent: Yolo County Department of Community Services, Division of Integrated Waste Management

Project Location: 44090 County Road 28H, Woodland, CA 95776

Comment Period: Closes at 4:00 p.m. on September 28, 2020

Environmental Impact Report: The Yolo County Department of Community Services, Division of Integrated Waste Management (DIWM) is preparing an Environmental Impact Report (EIR) for several major changes to the design and operation of the Yolo County Central Landfill (YCCL) (the "Project"). The County will be the lead agency under the California Environmental Quality Act (CEQA) for the Project. This Notice of Preparation (NOP) describes the Project that will be analyzed in the EIR and identifies areas of probable environmental effects.

Agencies and interested members of the public are invited to provide input on the scope of the environmental analysis. If you are a responsible or trustee agency, we need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the Project. Due to the time limits mandated by state law, your response must be sent as soon as possible, but no later than 30 days after the receipt of this notice.

Written Scoping Comments:

Please submit written comments on the scope of the environmental analysis by Email or Regular Mail by 4:00 p.m. on September 28, 2020:

Email: Stephanie.Cormier@yolocounty.org

Regular Mail: Yolo County Department of Community Services, Attn: Stephanie Cormier, 292 W. Beamer Street, Woodland, CA 95695

For questions regarding this notice, please contact Stephanie Cormier, at (530) 666-8041 or the email address above.

Public Scoping Meeting: To avoid a public gathering during the COVID-19 crisis, a Zoom Webinar will be held on Wednesday September 16, 2020 at 2:00 p.m. to explain the Project and provide an opportunity for public and agency comments. For those who are unable to participate in the Zoom Webinar, a video of the live Webinar will be posted on the County's website below, shortly after the Webinar.

Zoom Webinar Details:

Please click or enter the link below to join the webinar:

https://us02web.zoom.us/j/82061822938?pwd=ZUdvVGhUeG1pNi94NDZKUGZtTkd1dz09

Webinar ID: 820 6182 2938
Passcode: 595333

Or by Phone (669) 900-6833 or (253) 215-8782 Webinar ID: 820 6182 2938 Passcode 595333

Details of the webinar will also be posted on the County's website:

https://www.yolocounty.org/community-services/planning-public-works/planning-division/current-projects

Project Location:

Figure 1 shows the regional location of the YCCL. **Figure 2** shows the layout of the existing landfill and locations of the proposed Project Description Elements/Activities (discussed below).

Current Landfill Operations:

The YCCL is a municipal solid waste (MSW) landfill located in unincorporated Yolo County about four miles northeast of Davis, and three miles southeast of Woodland, near the intersection of County Roads 28H and 104. The YCCL is owned by Yolo County and operated by the County's Department of Community Services, Division of Integrated Waste Management (DIWM); it has been in operation since 1975. The landfill is open seven days per week, accepting non-hazardous MSW from both incorporated and unincorporated areas of Yolo County. YCCL is permitted to accept up to 1,800 tons per day of waste. In recent years, average daily throughput has exceeded 1,000 tons per day.

The site covers 725 acres and includes several discrete areas, totaling 473 acres, that are permitted for disposal. These include seven Class III landfill areas for disposal of MSW (designated as Waste Management Units [WMUs] 1 through 7) and four Class II surface impoundments for holding liquid wastes. The site also includes one existing composting facility and one under development, a construction, demolition and inerts debris (CDI) recycling facility, areas for metal, wood, and inert material (concrete, rock, etc.) recovery and recycling, and a permanent household hazardous waste collection facility. Five of the Class III landfill areas (WMUs 1-5) have undergone final closure. WMU 6 is operational now and includes eight 20-acre modules (100 acres are active, and 60 acres remain to be developed). WMU 7 is approved for future development and consists of eight modules (160 acres total).

Purpose and Need for The Project:

The Project evaluated in this EIR consists of several proposed changes to the design and operation of the YCCL. The DIWM is proposing these changes to achieve the following objectives:

(1) To decrease the environmental impacts of landfill development, operations, and final closure, and increase the environmental benefits that can be derived from certain aspects of landfill operations;

(2) To increase the County's ability to divert waste (including organics) from the landfill and continue to meet the state-mandated diversion goals provided in AB 1383, other state-mandates to reduce waste from landfill (AB 341), and reduce greenhouse gas (GHG) emissions (AB 32);

(3) To increase efficiency, diversify operations, and operate more economically; and

(4) To extend the overall site life through new operational methodologies.

Project Description/ Elements:

The Project consists of several changes to YCCL's existing operations and permits including but not limited to the Solid Waste Facility Permit, Yolo-Solano Air Quality Management District Permits, and Waste Discharge Requirements. These changes would be undertaken to allow the County greater flexibility in developing and implementing processes and operations that would reduce waste from the landfill, reduce environmental impacts of landfill operations, decrease GHG emissions, increase the recovery of materials and energy from waste, operate more efficiently and economically, and extend the facility's lifespan.

While some of the Project elements, such as construction and operation of a biomass gasification facility, are entirely new, many of the Project elements are revisions or improvements to existing designs and operations. The following proposed changes to the design and operation of the YCCL constitute the Project proposed for evaluation in this EIR. Some of the elements may appear to be increasing landfill disposal, but that is not the goal or intent. The increases are reflective of additional waste streams that can benefit from new processing elements, effects of population increases and/or accommodations for peak days/months that have higher tonnage of certain waste streams that can be processed at YCCL (not increased landfill disposal). Some of the Project elements would potentially process out-of-County waste streams more efficiently than other options and generate revenues for the County.

A. Increased Daily Permitted Tonnage

DIWM is proposing to expand the overall permitted tonnage for the YCCL to a monthly average of 2,500 tons per day (TPD) with a daily peak of 3,000 TPD. Currently, the YCCL Solid Waste Facilities Permit limits YCCL incoming waste tonnage (disposed and recycled) to a maximum of 1,800 TPD. The 1,800 TPD includes various waste streams, including waste for landfill disposal, organics (yard waste, food waste), wood waste, CDI, liquid waste and recyclables. The current average daily waste disposed in the landfill at the YCCL is about 500 tons. County intends to increase the overall tonnage of waste processed at YCCL (recycling, composting, gasification, etc.) and expand construction of various waste conversion technologies in order to extend landfill life and reduce landfill disposal of wastes, reducing GHG emissions. The current TPD limit also does not distinguish between a monthly average and "peak" daily. YCCL currently has days when waste tonnage would exceed 1,800 tons if not for the daily limit. Such peak days are typically the result of heavy vehicles delivering liquid wastes to the Class II surface impoundments or seasonal peaks for yard waste collection (i.e., leaf fall season).

B. Biomass Gasification Facility

DIWM is proposing to develop a biomass gasification facility to utilize biomass fuel (clean wood waste) to generate power. The facility would accept up to 30,000 tons of feedstock per year, producing up to 3 megawatts (MW) of power. While the footprint of the gasification units is small, the facility operations would need approximately 2 acres, including the area for receiving and grinding feedstock. The facility would be sited on or near the CDI Facility, east of Compost Facility #2. The facility would be integrated with the electrical grid, which would allow the YCCL to sell excess power when more electricity is produced than needed. The facility would divert waste from the landfill and

create renewable energy, which would reduce GHG emissions. The facility would be eligible for the Bioenergy Market Adjusting Tariff (BioMAT) program. The BioMAT program uses a standard long-term contract and a market-based mechanism to arrive at offered contract prices for eligible projects up to 3 MW.

Gasification is a process that uses a feedstock, often municipal or industrial waste, for a thermo chemical conversion of waste in high heat. This is done in a low oxygen environment and causes material breakdown at the molecular level. Once the molecular breakdown occurs, the gasification process recombines them to form a syngas, a gas similar to natural gas that can be used as fuel in a natural gas fueled generator (genset) to create electricity and heat, and biochar, a high carbon charcoal-like substance (biochar) that can be used as a soil amendment that helps soil retain water and nutrients. With a feedstock limited to only clean wood waste, there is no mixing of materials. The chipped wood goes directly into the gasification reactor. By depriving the fire of sufficient oxygen the wood does not burn, but rather gives off a flammable gas (syngas). As the wood gives off the syngas, it is transformed into biochar. The syngas is then captured, cleaned, and cooled before being sent as fuel to the genset which converts the syngas into electricity and heat.

C. Wood Pellet Facility

DIWM is proposing to develop a wood pellet facility that would utilize biomass fuel (e.g., wood, woody fraction of green waste, compost overs) to create pellets as an energy source that could be sold. The facility would be sited within an approximately five-acre portion in the approximately 80-acre north central area at the YCCL identified for future facility development. Much of the facility's operations would be in a building and/or under a covered awning and would also include outdoor storage. The facility could generate up to 50,000 tons per year, which would require approximately 100,000 tons of incoming biomass feedstock per year. However, incoming biomass feedstock availability and regional demand for wood pellets is still under review by DIWM. The facility would include conveyors, debarkers/, shredders/chippers, dryers/ovens, mixer/agitators, pelletizers, screeners/sifters, coolers, baghouses/cyclones, storage silos, and other necessary material handling and storage equipment. Wood pellet facilities currently operate in California in Stockton, Rocklin and Mendocino County (Capella).

D. Large Scale Floating Solar Project & Small-Scale Roof and Parking Lot Style Solar Panels

DIWM is proposing the installation of a Solar Photovoltaic (PV) System to address energy usage and demand on-site as well as selling electrical power off-site. The proposed system design would include a floating PV array that would tie into seven PG&E meters for on-site use and off-site sale through county owned power poles along County Road 28H and substation at the intersection of County Road 28H and County Road 102. The floating solar panels would cover a large portion of the existing Water Storage Reservoir and would be part of a public-private partnership by the County to generate renewable energy locally.

DIWM is also proposing small-scale roof and parking lot style solar panels, in the future, as locations become available. These small-scale installations would be exempt from CEQA through SB 226, which was established with the intent to not require in-depth environmental review for rooftop and parking lot solar projects (Public Resources Code §21080.35). As such, no additional CEQA review will be included for these small-scale systems and they can be developed when locations and funding are available.

E. Waste Gasification

DIWM is proposing to develop a gasification facility using MSW for power generation. The facility would be sized to handle current waste inflow as well as importation within the greater Sacramento region following pilot scale demonstration (200 TPD facility) of the technology. The facility would be a Sierra Energy FastOX® gasifier or similar technology. Davis-based Sierra Energy has built the first commercial FastOX® system at US Army Base Fort Hunter Liggett in Monterey County.

Wastes to be processed by the system would have preprocessing, shredding, and metal and inert removal. The FastOx® system treats wastes at high temperatures (4000º F). The organic materials turn into syngas (hydrogen and carbon monoxide) and inorganic materials form a non-leaching stone that can be used as construction material. The syngas is then conditioned to produce renewable energy products in the form of hydrogen, electricity or transportation fuels. Similar systems (i.e., plasma arc gasification) have been pilot tested for decades worldwide, but none can claim to be commercially available now or for processing large amounts of MSW. The EIR will provide, as made available, non-proprietary available emissions and waste product information from Sierra Energy. Receiving and processing would be in a new building, and the facility would be sited in the approximately 80-acre north central area at the YCCL, which has been identified for future facility development.

F. Expanded Biogas Utilization Options

DIWM is proposing expanded biogas uses. The landfill gas is all dedicated to the landfill gas to energy generators (LFG to Energy), with the electricity going to SMUD. Additional biogas sources (not dedicated to producing electricity for SMUD) could include the biogas produced from City of Davis Wastewater Treatment Plant (WWTP) digester that is just east of the landfill, the anaerobic compost facility (Compost Facility #1), and the existing In-Vessel Digester (IV Digester). The IV Digester is a covered pond that digests slurry food wastes to generate biogas. The Project will consider other biogas utilization options for these non-landfill activities that produce biogas. Options for the non-landfill biogas sources include producing Renewable Compressed Natural Gas (RCNG) vehicle fuel (at a location just north of the LFG to Energy facility) or injection of RCNG gas into a pipeline (PG&E or SMUD high pressure gas line). PG&E gas line is directly next to the LFG to Energy facility and SMUD gas line runs past YCCL along County Road 28H just south of the landfill main entrance. Removal of biogas contaminants such as volatile organic compounds (VOC's), hydrogen sulfide (H_2S) and other contaminants would be considered as part of the environmental evaluation for these options.

G. New Class 2 Surface Impoundment

DIWM is proposing to develop a new Class 2 liquid surface impoundment to store and treat leachate and liquid waste received at the YCCL. The pond would be a Class 2 double lined liquid surface impoundment. The surface impoundment would be approximately 10 acres and located directly south of the existing WMU H3 surface impoundment. This impoundment would include treatment of the liquids (i.e., more aeration) that could then be sent to Davis wastewater treatment plant.

H. Organic Waste Fertilizer Facility

DIWM is proposing to develop an organic fertilizer facility that utilizes organic waste (compost, compost feedstock, liquid waste, and animal manures) and converts it into fertilizer. The facility would be sized to handle up to 50,000 tons to 100,000 tons of organic waste per year. Digestate would be removed from the Compost Facility #1 (anaerobic composter) and transported to the fertilizer facility to be processed. Digestate will be heated to dry, sorted by size, and mixed with other products to produce a specific organic fertilizer for sale.

I. Stormwater Treatment System and Discharge

DIWM is proposing to develop a storm water treatment system to treat collected storm water that would meet EPA benchmarks for discharge into Willow Slough bypass. The system would be sized in conjunction with storage capacity to manage the 100-year, 24-hour storm, as required by the facility's Waste Discharge Requirements (WDRs).

J. Additional Groundwater Pumping (possible treatment and discharge)

DIWM is proposing to increase groundwater pumping at the YCCL. The YCCL area has naturally high groundwater. The landfill also has a groundwater extraction and treatment system to lower groundwater under several modules and treat volatile organic compounds (VOC's) detected in several wells. Currently this water is retained on-site due to naturally occurring boron and selenium. Recent groundwater readings indicate that this system is not completely effective at lowering groundwater under several of the closed landfill units and the Central Valley Regional Water Quality Control Board (CVRWQCB) has directed the County to address the issue. DIWM proposes to increase the

groundwater pumping to address this and there may not be space to retain this water on-site. Currently, plant production (growing fescue for phytoremediation on 45 acres each year) is used to treat groundwater because of the high levels of naturally occurring boron and selenium. Additional treatment options may be necessary to allow this water to be discharged off-site. Various treatment options will be reviewed and evaluated in the EIR.

K. Transfer Station

DIWM is proposing to develop a transfer station to transfer solid waste to an off-site landfill in approximately ten years. The transfer station would be in the 80-acre north central area at the YCCL identified for future facility development (**see Figure 2**). The physical size of the main transfer station building will be evaluated in the EIR, as well as tipping floor operations and transfer trailer loading options. The transfer station would be designed to handle County's current and projected waste disposal. Transfer stations are typically quite tall to accommodate several levels of traffic and transfer trailer loading. The transfer station is being analyzed due to the increased soil needs and cost to develop new landfill modules as well as the associated air pollution and GHG emissions. The transfer station would be sized to handle the landfill's current and future waste flow and the reductions of landfill disposal as required by the regulatory agencies. After loading waste into transfer trailers, it would be transferred to another landfill in the region.

Incoming materials now generally go to the organics recycling area or directly to landfill disposal. Materials going directly to landfill disposal are wastes that are low in organics content and low in recoverable recyclable materials. These loads would be directed to the transfer station, where they would be consolidated for transport to an off-site landfill. Transportation impacts and off-site impacts would be analyzed.

L. Non-specific Future Borrow Site

DIWM may need to purchase a new soil borrow area. YCCL has a shortage of soil for daily, intermediate, and final cover material, and DIWM imports soil from off-site sources for these purposes. The County may need to purchase additional property for development of an off-site soil borrow area that would supply soil to the facility. In 2014 the DIWM purchased a 320-acre parcel directly to the west of the landfill as a soil borrow source [EIR SCH # 2014102015]. No additional parcel of land has yet been identified for this purpose, but DIWM estimates that up to an additional 640-acre parcel would be needed. Ideally, the parcel would adjoin or be near the existing landfill property. Candidate properties would be surveyed for any important biological, archaeological, or historical resources, and appropriate mitigation measures would be developed and employed prior to commencement of borrow operations. This aspect of the Project may require additional or future land use and zoning considerations to allow soil borrow operations, including a mining permit. Another option that will be considered in the EIR is using soil from the Cache Creek Settling Basin. Sacramento Area Flood Control Agency (SAFCA) has been evaluating soil reuse options for the settling basin.

Project Alternatives:

The EIR will evaluate a reasonable range of Project alternatives, including the required No Project Alternative.

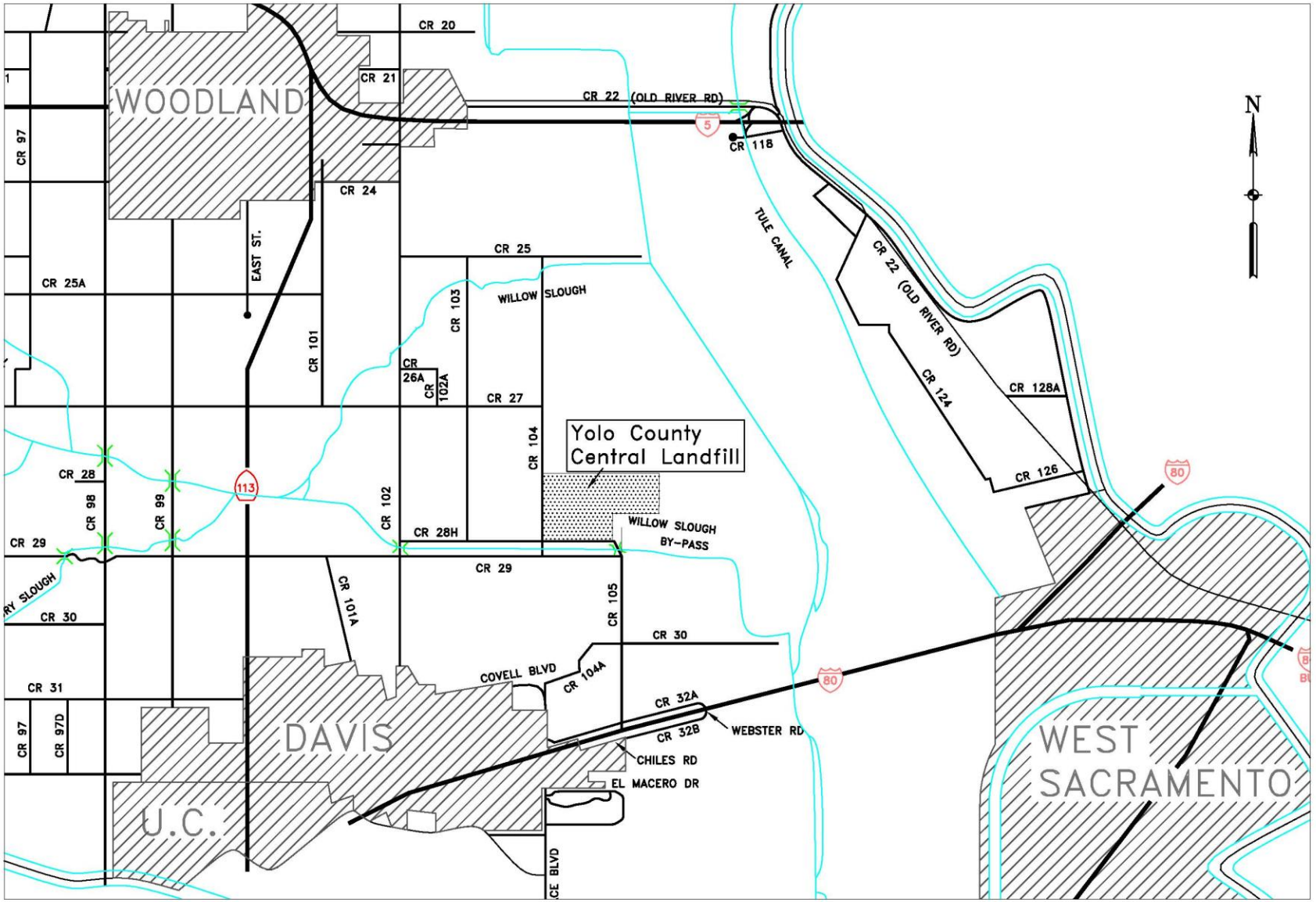
Potential Environmental Effect Areas:

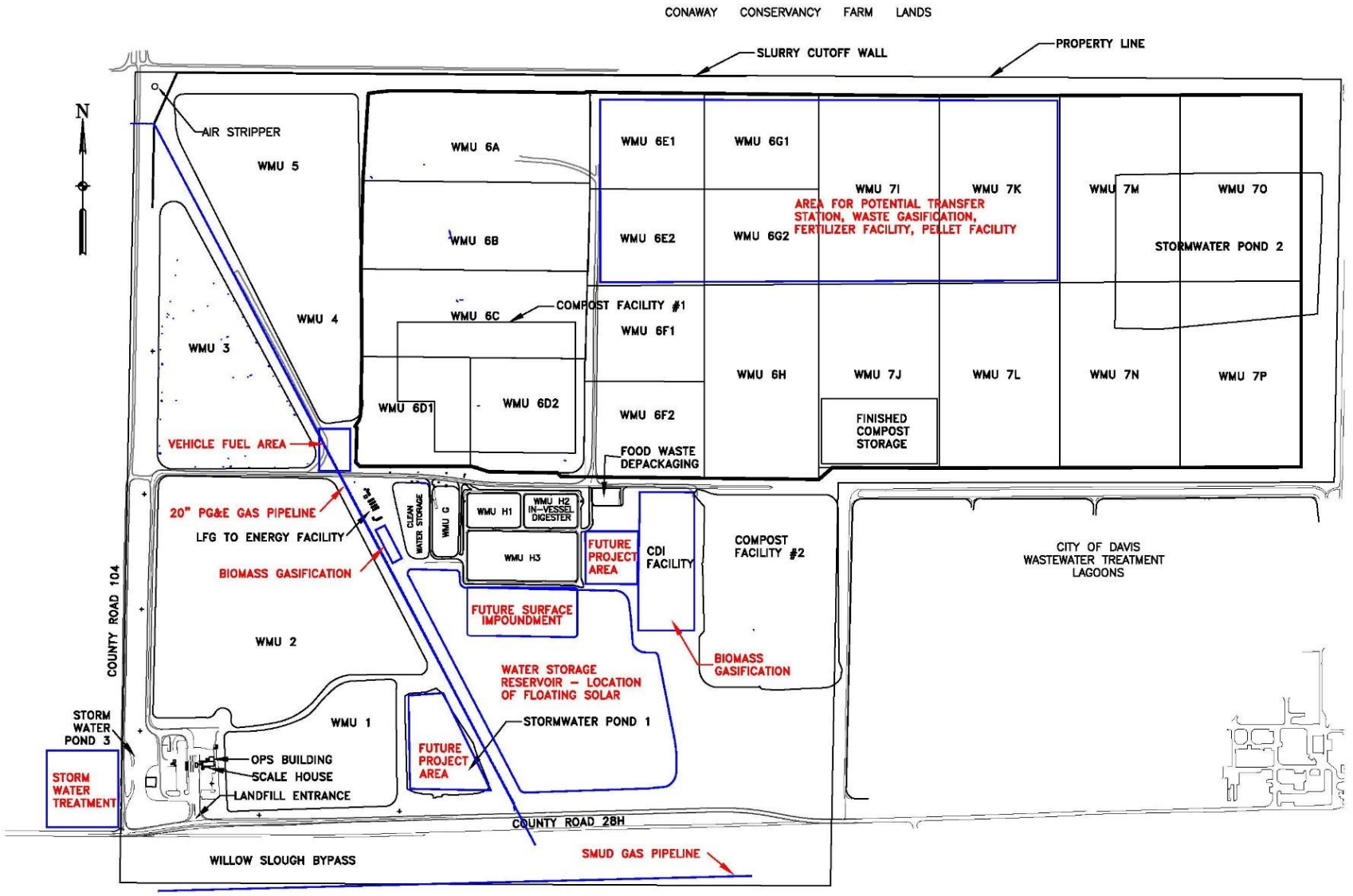
The EIR will describe the reasonably foreseeable and potentially significant adverse effects of the Project (both direct and indirect). The EIR also will evaluate the cumulative impacts of the Project when considered in conjunction with other related past, present, and reasonably foreseeable future projects. The County anticipates that the Project could result in potentially significant environmental impacts in the following topic areas, which will be further evaluated in the EIR.

- Aesthetics/Visual
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire
- Cumulative Effects

As environmental documentation for this Project is completed, it will be available for review at the Yolo County Department of Community Services offices located at 292 W. Beamer Street, Woodland, CA, and online at:

https://www.yolocounty.org/community-services/planning-public-works/planning-division/current-projects


WOODLAND
DAVIS
U.C.
WEST SACRAMENTO
Yolo County Central Landfill
CR 20
CR 21
CR 22 (OLD RIVER RD)
CR 118
CR 24
CR 25
CR 25A
CR 97
EAST ST.
CR 101
CR 103
WILLOW SLOUGH
CR 26A
CR 102A
CR 27
CR 104
CR 28
CR 98
CR 99
CR 102
CR 28H
WILLOW SLOUGH BY-PASS
CR 29
CR 30
CR 101A
CR 105
COVELL BLVD
CR 104A
CR 31
CR 97D
CR 32A
CR 32B
WEBSTER RD
CHILES RD
EL MACERO DR
TULE CANAL
CR 124
CR 128A
CR 126
113
5
80
N
YOLO COUNTY
COMMUNITY SERVICES DEPARTMENT
44090 County Road 28H
Woodland, CA 95776
Phone: (530) 666-8868 FAX: (530) 666-8868
REVISIONS
DESIGN JDK 08/14/20 1
DRAWN JDK 08/14/20 2
REVIEWED RM 08/14/20 3
SCALE: NONE 4
YOLO COUNTY CENTRAL LANDFILL
LOCATION MAP
FIGURE 1
SHEET No.
FIG. 1


CONAWAY CONSERVANCY FARM LANDS
SLURRY CUTOFF WALL
PROPERTY LINE
N
AIR STRIPPER
WMU 5
WMU 6A
WMU 6E1
WMU 6G1
WMU 7I
WMU 7K
WMU 7M
WMU 7O
AREA FOR POTENTIAL TRANSFER STATION, WASTE GASIFICATION, FERTILIZER FACILITY, PELLET FACILITY
WMU 6B
WMU 6E2
WMU 6G2
STORMWATER POND 2
WMU 4
WMU 6C
COMPOST FACILITY #1
WMU 6F1
WMU 3
WMU 6H
WMU 7J
WMU 7L
WMU 7N
WMU 7P
WMU 6D1
WMU 6D2
WMU 6F2
FINISHED COMPOST STORAGE
VEHICLE FUEL AREA
FOOD WASTE DEPACKAGING
20" PG&E GAS PIPELINE
LFG TO ENERGY FACILITY
BIOMASS GASIFICATION
CLEAN WATER STORAGE
WMU G
WMU H1
WMU H2 IN-VESSEL DIGESTER
WMU H3
FUTURE PROJECT AREA
CDI FACILITY
COMPOST FACILITY #2
CITY OF DAVIS WASTEWATER TREATMENT LAGOONS
COUNTY ROAD 104
FUTURE SURFACE IMPOUNDMENT
WMU 2
WATER STORAGE RESERVOIR – LOCATION OF FLOATING SOLAR
BIOMASS GASIFICATION
STORM WATER POND 3
WMU 1
STORMWATER POND 1
FUTURE PROJECT AREA
OPS BUILDING
SCALE HOUSE
LANDFILL ENTRANCE
STORM WATER TREATMENT
COUNTY ROAD 28H
WILLOW SLOUGH BYPASS
SMUD GAS PIPELINE
REVISIONS
DESIGN JDK
DRAWN JDK
REVIEWED RM
SCALE: NONE
YOLO COUNTY
COMMUNITY SERVICES DEPARTMENT
SITE PLAN – LOCATION OF PROPOSED PROJECTS/ACTIVITIES
FIGURE 2
SHEET No. FIG. 2