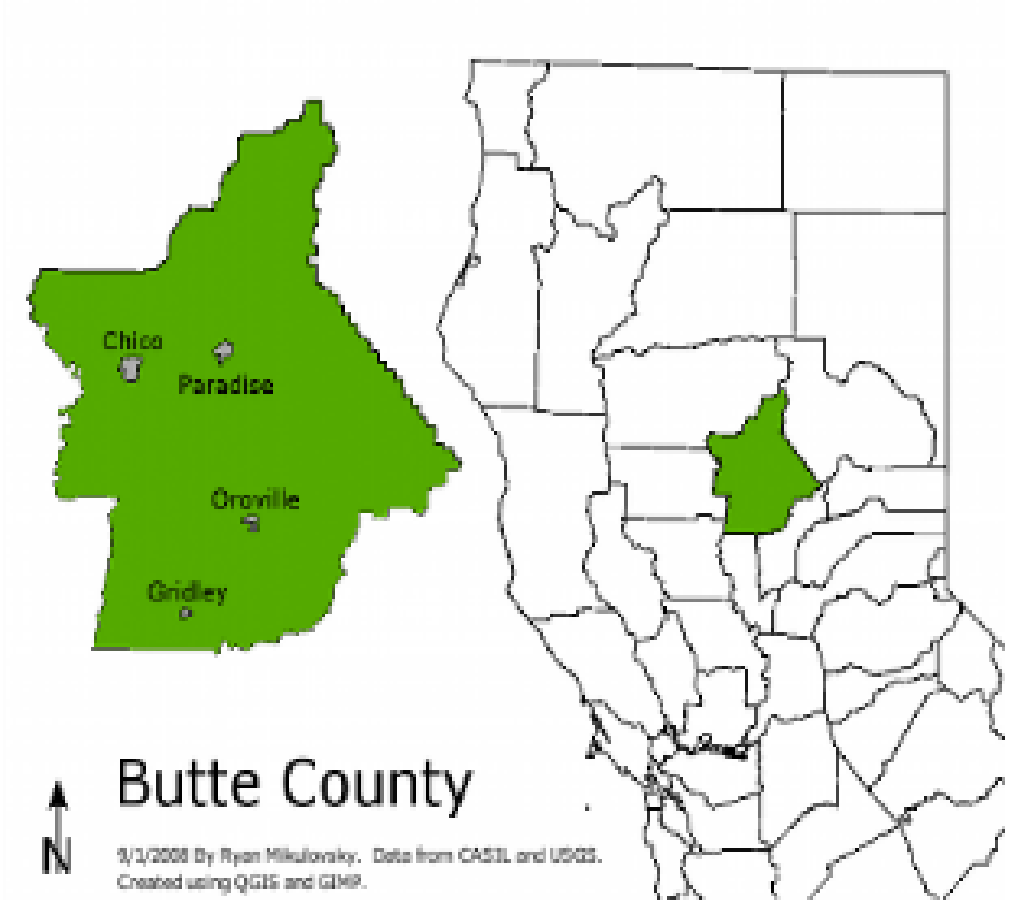
A Nickel Tour of the Neal Road Recycling & Waste Facility

NRRWF's Waste Stream



- Population = 220,000
- 5 incorporated areas
  - Biggs
  - Chico
  - Gridley
  - Oroville
  - Paradise
  - Unincorporated area
- Residential, commercial, and industrial municipal solid waste
- NO WASTE IMPORTED

Butte County….home to:

- Agriculture (rice, nuts, fruit)
- Beer – Sierra Nevada Brewery (Chico)
- California State University, Chico
- Gray Lodge Wildlife Area
- Feather Falls
- Feather River Canyon
- Lake Oroville
- Sacramento and Feather Rivers, Butte Creek
- Bill, Steve, Eric, Aaron Rogers….

First, Some History – Neal Road Landfill

- 1965 – opened as a burn dump
- 1970 – became sanitary landfill
  - Owned by Butte County
- 1970s thru 1990's
  - Privately operated by Neal Road Landfill Company & Waste Management (to 2003)
- 2003– Operated by Butte County Department of Public Works

Neal Road Recycling & Waste Facility

- Located 7 miles south of Chico
- Permitted area = 190 acres
- Solid waste = 140 acres
- Ancillary facilities include
  - Two septage ponds
  - One leachate pond
  - Storm water detention basins
  - Soil stockpile
  - Methane gas power plant

Neal Road Recycling & Waste Facility

- Tonnage = 600 to 1,000 tpd
- 2015 – 155,000 tons buried
- Vehicles – 300 to 400 daily
- Septage – 4.4 million tpy
- Hours: 7 AM to 4 PM
  - 7 days per week, 360 days per year
- Staff of 20
  - Two shifts (4-10's)
  - Supervisors, operators, maintenance workers, scale house, mechanics

Recycling (self-haul) Operations

Metals

Future program? Reuse?

Recycling Operations – Metals/appliances

Separating Appliances

Monthly Number Count

- White goods = 200 units
  - Washers – 50 to 60 units
  - Dryers – 30 to 40 units
  - Water Heaters – 30 to 50 units
- Refrigerators (Freon) = 120 units
- Air conditioners – 30 to 50 units
- Other
  - Refrigerators (ammonia)
  - Freezers
  - Stoves

Mattress Recycling

- We appreciate Mattress Recycling funds…
- Is a LOT of work
- Like loading WET sponges…
  - Or DRY sponges with bugs
- Currently average 1100+ per month
- QUESTION: What are Butte County guys sleeping on?
  - NOT sofas or couches
  - (we get 600 of those per month)

Recycling Operations - Mattresses

Mattresses

Mattress Loading

E-waste – TVs & Monitors

- TVs and monitors – about 300+ units per month
- No Charge to customers
- Dropped off at receiving area
- Organized & re-loaded onto trailers
- TVs ➔ ECS Refining
  - Same with microwaves
- Computer PCUs

  ➔to Computers for Classrooms

  TRASH TRIVIA: NRRWF receives 400+ feet of fluorescent lighting tubes/month

Recycling Operations - Tires

Passenger, truck, over-sized tires

About 400 Tires per month

Wood Waste Recycling/ Diversion

- Source separated wood/green waste diverted to an on-site stockpile
- Then ground into wood chips
- THEN sent to cogeneration facilities
- BUT…thanks to drought impacts, dead trees, and a weak cogeneration market…we either use and/or bury in the active fill

Chipped Wood Waste/ ADC

Oil and Oil Filter Recycling

Waste Oil Tank – 850 gallons

- About 750 gallons/month
- About 300 oil filters/month
- Oil Filter issues:
  - Paper vs. metal
  - Disposal vs. recycling
  - Recycling vs. hazardous waste
  - Crushed vs. punctured vs. whole versus…….
  - Regulations are clear for auto shops with bays BUT
  - Clear as mud for NRRWF

NRRWF Landfill Operations

Working Face - Commercial

Self-haul customers

Working Face (aka Rhomboidal Hexadron)

Aljon Compactor & D8 push & smush

Demolition waste

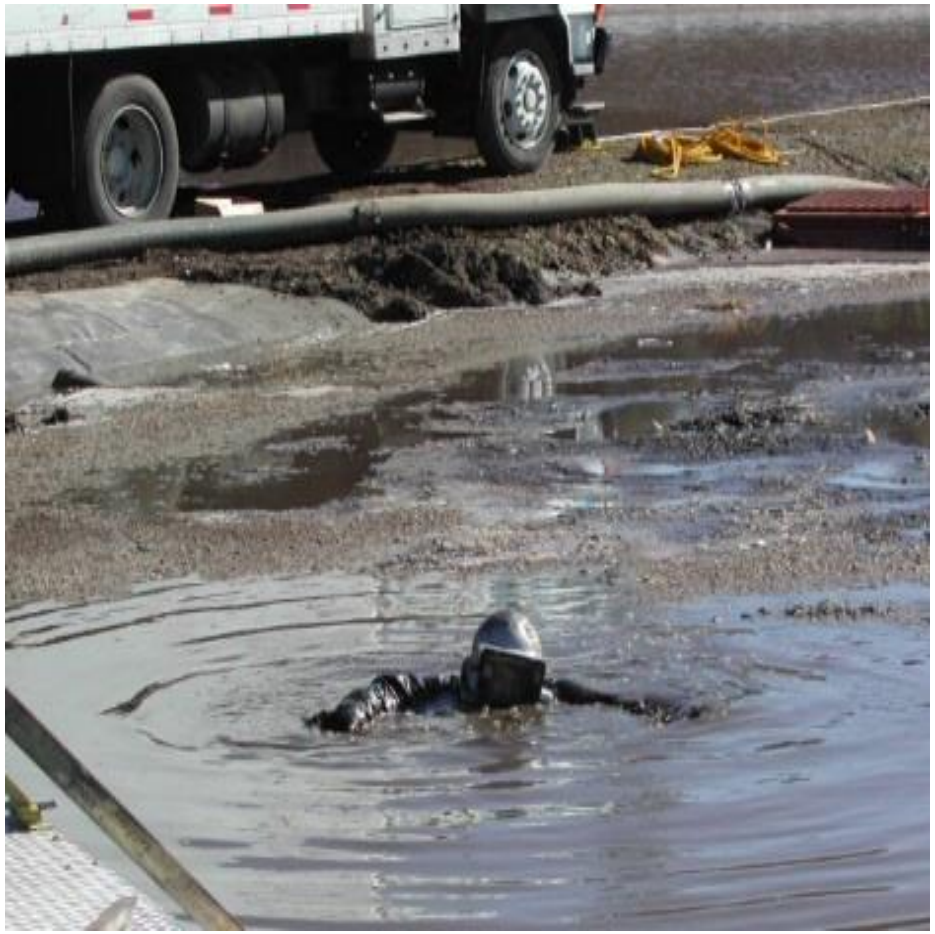
Our operators are smash specialists

- John: Jacuzzi's roll across the deck.
- Matt: Love to run over campers.
- Rick: Telephone poles cartwheel.
- Kevin: Saw a mannequin arm sticking thru the dirt, freaked out
- Jeremy: Boats and campers. Fun to crush.

Septage Disposal

Biosolids (centrifuge, dry, dispose)

Dirty Job: inspecting septage pond liner



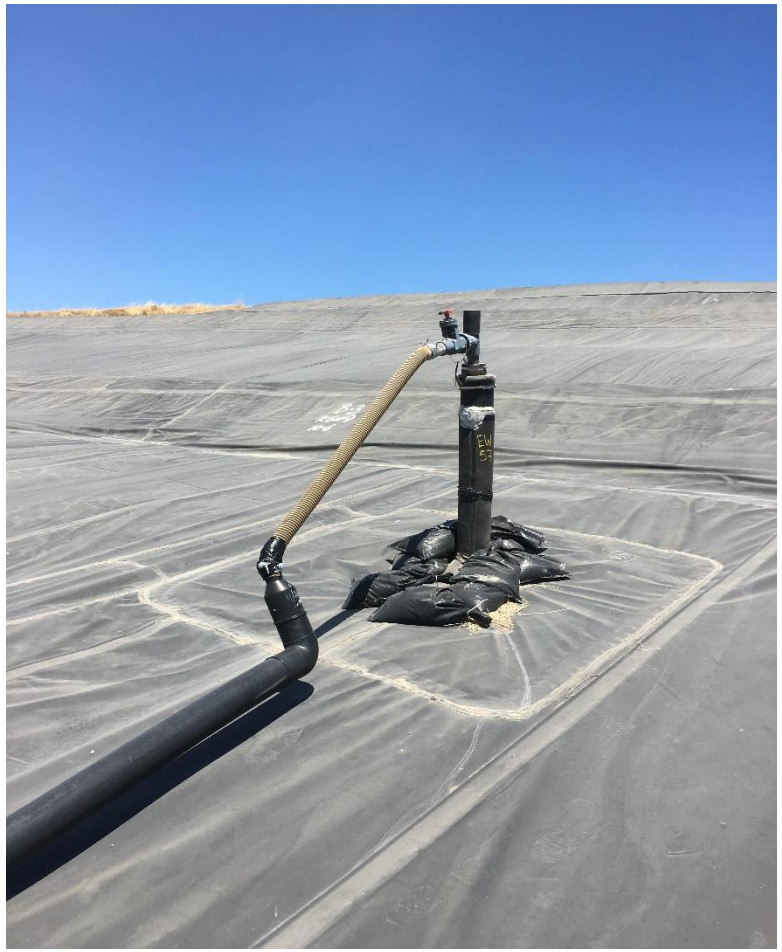
Compliance Monitoring (LFG and Water)

Groundwater

Soil Probes (Landfill Gas)

Landfill Gas Collection System

Extraction well



Ameresco Plant

Compliance Monitoring – Storm Water

Seagull Abatement

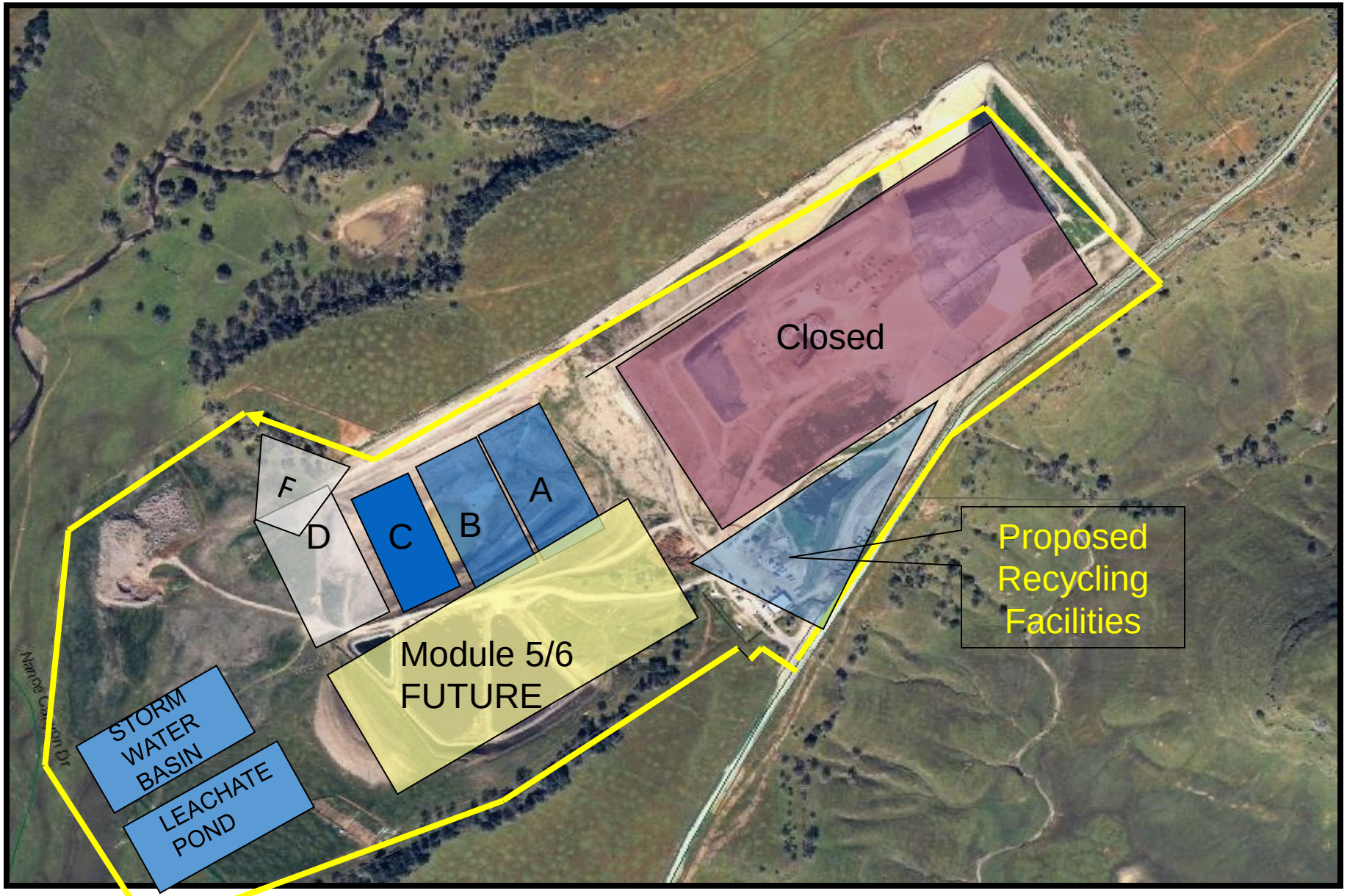
- Falconer on-site from October thru March
- Uses falcons, kites, balloons, screamers and drones to disperse flocks
- Seagulls – landfills are easier picking than nearby lakes and rivers
- Landfill buffet = junk food

Liquid Waste Management

Leachate Pond

Septage Ponds

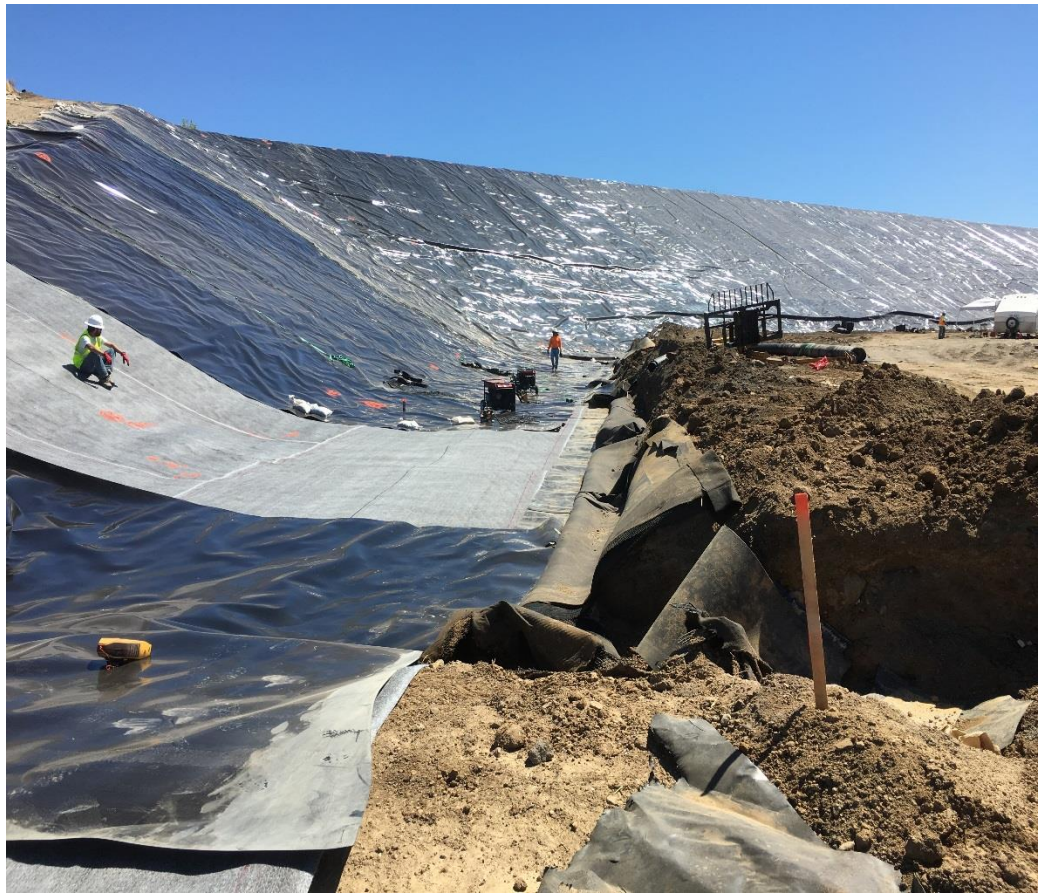
Landfill Development Sequence



Capital Improvements/Modules 4 and 5

Module 4, Phase F – clear & grub

Module 4, Phase F - Installing Liner



Capital Projects - 2017

Filling Module 4

Next up – Module 5 construction

Trash trivia – Weird Stuff

Campers, dogs, etc…

… and (some) unforgettable customers….

- Manure Mike
- Cousin Itt
- Bronco Billy
- Smiley
- Dog-doo lady
- Goat guy
- Forrest the Hippie
- OTHER WEIRD STUFF: Pet ashes, XMAS ornaments, jewelry, etc.

Key Projects - 2017

- Extension of power lines near leachate pond area
- Remove biosolids from septage pond, prepare for Module 5
- Develop septage transfer station
- Develop/construct Module 5 Phase A
- Install new LFG extraction wells
- Equipment replacement project (haul trucks, dozers, graders, to meet ARB requirements
- On-going air, water, and storm water monitoring & management

Thank You!