

# Central Coast Transfer Station Planning

## Evaluation of Finalist Sites

County of Mendocino

City of Fort Bragg

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## **1. Project definition**

The County of Mendocino and City of Fort Bragg jointly plan to develop a commercial transfer station to serve the central coast area. A commercial transfer station is a facility that allows all vehicles, including franchise collection trucks, to dump waste, which can then be loaded for direct haul to a destination landfill.

In 2012, the central coast generated 11,200 tons of solid waste.

Solid waste transfer stations have the potential to create nuisance due to traffic, noise of operations and odors. With this project, the traffic volume is small, only an average of 91 vehicles per day. Noise and odor are impacts that can be controlled by facility design and operation. This facility is proposed to include a fully-enclosed transfer building so that off-site noise and odor can be prevented. The size of the building would be determined in final design, but could be up to 20,000 square feet. In addition to the transfer building, there would be outdoor recycling drop-off areas.

## **2. Project need**

The project is intended to

- reduce long-term costs of solid waste disposal
- increase the reliability and flexibility of long-haul transfer and
- reduce truck traffic and emissions.

When the Caspar Landfill closed in 1992, the site was converted to a self-haul transfer station. Empire Waste Management, the franchised collector for the City of Fort Bragg and the surrounding unincorporated area, introduced its “WMS” or “pod” system for medium-distance waste transfer, which uses specialized collection trucks with detachable pod bodies for compacted waste.

The pods are removed from the collection trucks at Empire’s Fort Bragg yard and loaded three-at-time on a flatbed semi-trailer to be hauled 36.6 miles to the Willits Transfer

Station, where they are dumped and reloaded for transfer to Potrero Hills Landfill in Suisun.

In addition to the pods, roll-off boxes (large open-topped dumpsters 20 to 50 cubic yards) for loose, uncompacted waste from the central coast are hauled two-at-a-time to Willits Transfer Station. Both pods (loaded using a stationary compactor) and roll-off boxes are used to receive self-haul waste at the Caspar property.

In March, 2013, the average payload of solid waste for Empire's trips to Willits Transfer Station was 13 tons. (This includes both pods and roll-off boxes). This payload compares to 22 tons which can be routinely achieved in conventional top-load "possum-belly" transfer trailers. In March 2013, Empire made 69 trips to Willits Transfer Station, compared to 40 transfer trips that would be required for the same tonnage using 22-ton transfer loads. This would be a 42% reduction in trips, saving more than 25,000 road miles per year and approximately 56 tons of greenhouse gas emissions.

With AB 32, the State declared that California would be "at the forefront of national and international efforts to reduce emissions of greenhouse gases." The Central Coast presently has a very inefficient waste transfer system that generates unnecessary greenhouse gas emissions. The project would reduce future emissions.

If the region's waste was hauled out in 22-ton transfer trailers, there would be no need to stop, dump and reload at the Willits Transfer Station. The trailers could travel directly to a destination landfill, which could be either the Potrero Hills Landfill in Suisun which is the current destination, or any other available landfill. This change would further reduce costs.

The WMS pod system was relatively new in 1992 but it turned out to have limited usefulness for Waste Management on a worldwide basis, and it is no longer manufactured. Besides Mendocino County, there is only one other location in the U.S. where the equipment is still used. After 20 years of exposure to the corrosive marine atmosphere, the pod system has essentially rusted out. Empire plans to replace it with the Wilkens truck-to-truck transfer system, in which the collection truck backs up a ramp to the back of a transfer trailer and dumps into it. It is difficult to completely fill the Wilkens trailer, so the average payload is only slightly higher than the pod system. It is important to note that the Wilkens system doesn't allow dumping of roll-off boxes, so they will continue to be hauled two-at-a-time to Willits Transfer Station, which has an exceptionally low efficiency. Based on Empire's test runs, replacing the pods with the

Wilkens will increase the average payload for all trips to Willits Transfer Station only to 14.8 tons.



Empire Waste Management has cannibalized 20-year-old pod collection trucks to keep the transfer system functioning in the Fort Bragg area.

In 2011, staff prepared a financial projection to determine whether the proposed transfer station would result in an increase or decrease in the cost of solid waste disposal for the region. The projection indicated that the project would decrease costs, when Empire's current internal expenditures for hauling to Willits Transfer Station were taken into account. This means that completion of the project could allow trash collection rates in the wasteshed to decline. This financial projection is attached as Exhibit A.

### **3. Project history**

In 2004, the County Solid Waste Division proposed construction of a new self-haul drop-off building for the Caspar transfer station. After some progress was made on this project, including detailed environmental review, it was abandoned because the self-haul facility serves only a fraction of the wastestream and major expenditures are justified only if the entire wastestream is served.

In 2006, Winzler & Kelly consulting engineers were retained to do a site search throughout the central coast area for suitable commercial transfer station locations. The study analyzed 25 potential sites according to numerous criteria. MSWMA paid for this study.

In 2007 the Board of Supervisors and City Council accepted the Winzler & Kelly report and directed staff to further analyze possible sites along the Highway 20 corridor and present recommendations. From this point forward, staff on the project consisted of Mike Sweeney and Linda Ruffing, assisted when necessary by others.

Winzler & Kelly's study was valuable as an "all-encompassing" land survey to ensure that no possible site was overlooked and that the more promising sites were identified. The scope of the study didn't allow much detailed examination and information-gathering on particular sites, and there were necessarily some errors and omissions. Also, circumstances changed over time. Additional study and thoughtful analysis of project issues was necessary. Eventually, staff narrowed the search to six "semi-final" potential sites based on site availability, cost, and other considerations. These included five sites along the Highway 20 corridor and the existing Caspar Landfill property.

Early on in the process, it became apparent that the primary obstacles to acquiring any site would be purchase cost and the availability for acquisition. Special efforts were made to obtain access to one of the highest-rated sites in the Winzler & Kelly study: a 17-acre "tab" of Jackson Demonstration State Forest just north of Highway 20 (hereinafter referred to as the "Highway 20 North" site).

After three years of negotiations with the State, Assemblymember Wes Chesbro sponsored AB 384 in 2011 which gave the County and City an option to take ownership of Highway 20 North at no cost. This potential land transfer was supported by both the JDSF Advisory Committee and the State Board of Forestry. The mechanism set forth in AB 384 is described in detail below in Section 11.

In 2011, staff presented a review of the six semi-final sites to the Board and Council, with a recommendation that the existing Caspar Landfill property and the Highway 20 North site be designated as finalists. Caspar and Highway 20 North were selected as finalists because it appeared that either of them would be superior to all other possible sites, when all considerations were taken into account.

A work plan was proposed to conduct a "fatal flaw" analysis so that the Board and Council could make a "preferred site" selection for evaluation in the Environmental

Impact Report (EIR) for the project. The work plan was approved by the Board and Council. The work plan is attached as Exhibit B.

Since detailed environmental review had already been done for Caspar in 2004, staff focused on the Highway 20 North site. LACO Associates prepared a geotechnical study concerning soils, seismic safety, and potential for on-site sewage disposal. WRA Associates prepared a botanical study and mapped the vegetation and wetlands. Nick Parsons prepared a comparative appraisal that concluded that an exchange of the Highway 20 North site for ownership or a covenant concerning the Caspar 35 acres would be a net increase in value for the State. A conceptual site plan for Highway 20 North was prepared by staff with assistance from LACO.

#### **4. Decision point & next steps**

To move ahead with the project, a selection of one of the two finalist sites must be made. Pursuant to the California Environmental Quality Act (CEQA), this selection would be conditional and subject to a comprehensive environmental evaluation in an EIR prior to final action by the Board and Council.

In accordance with the work plan, the Caspar Joint Coordinating Committee met June 5, 2013 and recommended that the Council and Board designate Highway 20 North as the preferred site for analysis in an EIR. The issue will be referred simultaneously to the Board of Supervisors and the City Council. If they concur on selection of a preferred site, staff will commission an EIR. Funding for site studies, including an EIR, is available from a rent payment made quarterly by Solid Wastes of Willits, operator of the Caspar self-haul transfer station. The rent totals approximately \$55,000 per year and \$85,780 was in the account in May, 2013.

Once an EIR has been certified and final site selection has been made, a Request for Proposal (RFP) will be issued to private industry to design, build and operate the new commercial transfer station. This RFP will be predicated on a flow commitment from the County and City which will guarantee that all solid waste from the central coast will be directed to the facility during the entire term of the operations contract.

#### **5. The “no project” alternative**

If no site is acceptable to the County and City, Caspar will continue indefinitely as the self-haul transfer station. Empire Waste Management, whose franchise contracts won't

expire until 2021, will continue to use the Wilkens & debris box system to move solid waste to the Willits Transfer Station.

Under the “no project” alternative, the inefficiencies of the current system will continue, together with the additional costs to the public and the truck trips and greenhouse gas emissions.

If diesel fuel prices go up, the impact on solid waste disposal costs will be substantially higher than what would occur if a commercial transfer station is successfully developed.

## **6. Selection of finalist sites**

Caspar Landfill and Highway 20 North were designated as finalist sites because both are available without land purchase cost and both are suitable for transfer station development, based on available information.

We are fortunate to have a choice of two locations, either of which could successfully do the job. But the two sites are significantly different in important ways which must be weighed by the Board and Council in making a choice.

## **7. Caspar – General Observations**

The 62-acre Caspar Landfill property has been used continuously for solid waste disposal since 1967. It is jointly owned by the County and City. Although rural residential development subsequently grew up around the site, residents knew that the solid waste activities were a preexisting condition. The nearest residence is 950 feet from the transfer station area and there are only three residences within 1000 feet. Russian Gulch State Park borders the facility to the south and the State Parks & Recreation Department has stated in the past that it opposes continued solid waste disposal activities.

Until the landfill closed in 1992, all solid waste was delivered to Caspar. Since then, only self-haul vehicles and transfer trucks have traveled to and from the site, but this constitutes the great majority of the 91 daily trips that would be generated by the project. In other words, almost all of the project’s traffic impact is already an existing condition at Caspar. The chart below compares current trips with the trips that would result from siting the project at Caspar.



Table 1. Average vehicles per day of operation

Type of vehicle	Current Caspar self-haul facility	Possible commercial transfer station
Self-haul customer	82	82
Solid waste transfer truck	1 [pod transfer trailers & debris box hauls]	2 [top-load transfer trailer hauls]
Recycling roll-off box truck	.5	.5
Solid waste collection truck	0	6
Total round trips	83.5	90.5

The Caspar property was originally pygmy forest but much of the original vegetation was stripped many years ago and there is now a large cleared acreage used for the existing self-haul facility. Little or no vegetation removal would be required if the project was sited at Caspar. An aerial view of Caspar is attached as Exhibit C.

The proposal from the County Solid Waste Division in 2004-06 for a new 2500 square-foot self-haul building included schematics that showed how new construction could fit easily into the existing developed area. A commercial transfer station would require a larger footprint but it could be placed at the same spot, toward the southern end of the existing facilities.

Electrical service, road access, and water wells are already established at Caspar, and on-site wastewater disposal could be developed to replace the existing portable toilets.

A CEQA Negative Declaration prepared for the 2004-06 proposal, based on a detailed Initial Study, found that there would be no significant environmental impacts from a new self-haul building. The staff report for this project is attached as Exhibit D.

One constraint of the Caspar site is that the intersection of Highway 1 with Road 409 is substandard for large, slow truck traffic and has limited potential for improvement because of the presence of the Highway 1 bridge over Caspar Creek just to the north.

Caltrans has stated that the current left turn pocket off Highway 1 is 300 feet and the standard size would be 435 feet. However, it should be noted that this intersection is presently used by about 6 big-rig transfer truck trips per week to serve the existing Caspar facility, and the Waste Management drivers report they have no problems using the intersection of Highway 1 and Road 409.

The sight distance for turning movements from Prairie Way onto Road 409 has also been questioned. However, the CHP accident records show no accidents at this location from 2000 through 2012.



Pod truck turns off Highway 1 onto Road 409 on way to Caspar transfer station.

Another disadvantage of Caspar is its relatively inefficient location for purposes of a transfer station. Caspar was originally purchased by the City and County for use as a landfill, so a remote location was desirable. A transfer station, conversely, is most efficient when it is close to the center of waste generation and to the route of outhaul. Caspar is 7 miles south of the approximate center of waste generation (Highway 1 at Highway 20). This means collection trucks would need to make an average round trip of 14 miles to Caspar to empty each load. Since the outbound transfer trucks will exit the region via Highway 20, they would similarly have to drive these additional miles.

Development of the facility would require a coastal development permit since it lies within the Coastal Zone, under the jurisdiction of the California Coastal Commission. While this factor could result in delay of final approval, there is no reason to expect that the Commission would block a minor alternation in the historical public utility use of the property.

Current and future use of Caspar has been opposed by residents in the vicinity. Letters of opposition received during the Winzler & Kelly siting survey are attached as Exhibit E. Most of the opposition arises from traffic concerns.

## **8. Highway 20 North – General Observations**

While it is part of Jackson Demonstration State Forest, the 17-acre Highway 20 North site hasn't played a role in JDSF's functions of timber production or recreation. As transitional pygmy, it lacks significant merchantable timber. It is isolated across the state highway from the rest of JDSF and dense understory vegetation makes it impenetrable for recreational use. An aerial view of Highway 20 North is attached as Exhibit F, with the proposed property lines highlighted.

JDSF has regarded the site as appropriate for utility purposes. Approximately 5 acres on the west side was cleared and rocked to be used as a backup helipad when the hospital's helipad in Fort Bragg is fogged-in. JDSF wants to continue to own the helipad, so it is not included in the potential land transfer.

WRA Associates' botanical survey identified wetlands that should be left untouched at Highway 20 North or which might be considered for off-site replacement. The botanical survey map is attached as Exhibit G. However, 8 acres of the site is suitable for development, and a conceptual site plan [attached as Exhibit H] was prepared to confirm that this space would be sufficient for the proposed facility. The remainder of the 17 acres would be undisturbed, and the dense growth would serve as visual and sound buffer. The project would require the removal of approximately 3 acres of existing vegetation, primarily Bishop Pine and Short Hydric Pygmy.

Highway 20 North is outside the Coastal Zone.

The location is favorable for several reasons. The frontage on the state highway means there is excellent access and the incremental transfer station traffic would be miniscule

compared to existing traffic. With construction of new turn lanes as recommended by Caltrans, large trucks could safely enter and leave the facility. The site is adjacent to the route to be used for outbound loads, and also close to the center of waste generation.

The state highway generates substantial noise, so that additional noise generated by the transfer station is not expected to create a noticeable impact. The nearest residence is 700 feet away and there are three residences within 1000 feet.

Electrical service is present along the state highway. LACO's geotechnical study confirmed that well water supply and on-site sewage disposal can be developed.

Development at this site would require a County major use permit and exercise of the option provided by AB 384 to assume local ownership.

A letter from a nearby property owner opposing the selection of Highway 20 North is attached as Exhibit I.

## **9. Development costs**

The same basic facility would be built at either site. Costs would be less at Caspar because certain infrastructure already exists and substantial acreage is already cleared and rocked. Also, Highway 20 North would require construction of a turn lane and acceleration lane on the state highway, with an estimated cost of \$500,000.

Winzler & Kelly made a facility cost estimate in 2007. This has been updated for construction cost inflation since 2007, and revised in certain respects including enlarging the transfer building. The overall project cost projection is:

Caspar: \$3.86 million

Highway 20 North: \$4.79 million

## 10. Site comparisons

The differences in the two sites are summarized below:

**Table 2. Site comparisons**

<b>Criterion</b>	<b>Caspar</b>	<b>Highway 20 North</b>
<b>Historical land use</b>	<b>Preferable.</b> Caspar received the entire central coast wastestream as a landfill from 1967-1992, and has received the self-haul portion since then.	Undeveloped forest land.
<b>Development costs.</b>	<b>Preferable.</b> About \$1 million less than the Highway 20 North site.	Higher costs due to additional infrastructure and Highway 20 widening.
<b>Separation from neighboring uses</b>	<b>Comparable.</b> Sparse rural residential development 1000 feet or more distant, mostly occurring subsequent to landfill's operation.	<b>Comparable.</b> Closest residence 700 feet away. Residences separated by state highway and/or dense forest vegetation.
<b>Travel distance</b>	The remote location would cause at least 25,000 additional miles of truck travel per year compared to Highway 20 North, releasing about 56 tons more greenhouse gases.	<b>Preferable.</b> Convenient location for users and outbound haul.
<b>Traffic safety</b>	Intersections less than optimal at Highway 1/Road 409 and Road 409/Prairie Way.	<b>Preferable.</b> With addition of turn and acceleration lanes, satisfactory access to state highway.

## 11. AB 384 provisions regarding Highway 20 North

AB 384 enacted Public Resources Code Section 4659 in 2011, which instructs the State Director of General Services to grant an option to the City or to the County to take title to the easterly 17 acres north of Highway 20 of A.P. Number 019-150-05. The option shall have a term of five years from the date of execution.

If the City or County exercises the option and takes title, it must open a solid waste transfer station within 10 years or the title will revert to the Department of Forestry.

When the option is exercised, a covenant restricting uses at the Caspar Landfill site will

be granted to the state Department of Parks & Recreation, together with a 99-year option to take ownership of the western-most 35 acres at Caspar for a price of \$1.

In addition to the above, the entity taking title to the JDSF site will compensate the state for any difference in value of the assets to be exchanged, and for administrative costs incurred to complete the transfer of title. To determine what the asset difference, if any, might be, MSWMA commissioned a comparative appraisal in 2012 by Nick Parsons, Certified General Appraiser. This appraisal found that the JDSF 17 acres had a value for the proposed use of \$563,000, compared to a market value of the western-most 35 acres at Caspar of \$685,000.