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**Briefing Document - Santa Barbara Conversion Technology Project  
Development of a Request for Proposals  
August 7, 2008**

Established in March 2007 under the direction of the Board of Supervisors, this project has been a joint effort of both the City and the County of Santa Barbara with the technical assistance of Alternative Resources, Incorporated.

Our feasibility report released in April 2008 identified eight (8) conversion technology contractors that could provide a conversion technology facility at the Tajiguas landfill.

The next step of this project is the development of a request for proposals (RFP) to choose a specific conversion technology contractor. In order to develop the RFP, there are a number of issues that need resolution and/or the support of the Elected Officials from the participating jurisdictions. A more in depth description of the RFP issues follows this summary page.

**Key RFP Discussion Items and Proposals:**

- **Ownership & Operation**  
Proposal: private ownership and operation with the option of a transfer of the facility to public ownership at the end of the term of the agreement.
- **Project Financing**  
Proposal: private financing to protect the local jurisdictions from financial risk and increase the level of scrutiny by private lenders on this project.
- **Contract Administration/Waste Supply**  
Proposal: each participating jurisdiction has an individual waste supply agreement with the conversion technology contractor, and a common contract would be developed by the City & County for use by all project participants.

**Additional RFP Issues and Proposals:**

- **Product Marketing**  
Proposal: responsibility of product marketing be given to the vendor with contract mechanisms that would require the generation of marketable products and maximizing diversion while sharing of significant profits with participating jurisdictions
- **Size of Facility (Quantity and Type of Waste)**  
There is currently no consensus among staff and consultants on the size of the initial or final facility.
- **Permitting**  
Proposal: permitting for this facility would be done cooperatively with the conversion technology contractor and County staff depending on the regulatory agency and the type of permit required.

**KEY DISCUSSION ISSUE:  
OWNERSHIP AND OPERATION**

**Proposal: private ownership and operation with the option of a transfer of the facility to public ownership at the end of the term of the agreement.**

The basic alternatives for project ownership and operation are a public model or a private model. Figures 1 and 2 (attached) illustrate, respectively, the concept for project roles under public and private ownership models. Tables 1 and 2 (attached) compare the advantages and disadvantages of public vs. private models for ownership and operation, respectively. A discussion of these ownership and operation models follows.

Under a public model, the public entity would own, develop and finance the project. One option for project delivery under a public model is traditional design-bid-build (DBB), where the public entity enters into one contract for the design of the project and then a separate contract for the construction of the project, followed by either public or private operation. To minimize public risk for design, construction and facility performance, a public model could also use alternative project delivery methods, such as design-build (DB) or design-build-operate (DBO). In these cases, the public entity would contract with a single party for designing and constructing the facility. In the case of DB, the facility could then be publicly operated or privately operated under a separate contract. In the case of DBO, the party responsible for designing and constructing the facility would also be responsible for operating the facility. It is important to note that public operation may not be an option for proprietary technologies.

Under a private model, the private entity would own, develop and finance the project, including private design, construction and operation of the facility, and would assume risk for technology performance and price. The public entity would sign a waste disposal contract and deliver waste to the facility. This minimizes risk to the public sector. A variation of the basic private model is a project delivery method called DBOOT (Design, Build, Own, Operate and Transfer). DBOOT varies from the basic private model in that it includes the right (but not the obligation) to have project ownership transferred to the public sector. The DBOOT model increases the level of public control since there is an option for public ownership, while continuing to place the risks assumed with private ownership on the Project Developer.

Due to the early stage of application in the United States of conversion technology to process municipal solid waste there is a level of risk associated with the ownership of this type of facility. Therefore, the consensus of the project team was that the most advantageous model for this project would be the DBOOT project delivery method (private model with option for public ownership).

**KEY DISCUSSION ISSUE:  
PROJECT FINANCING**

**Proposal: private financing to protect the local jurisdictions from financial risk and increase the level of scrutiny by private lenders on this project.**

Project financing alternatives include public financing or private financing, typically dictated by the ownership approach. Public financing often results in the lowest cost of capital (upwards of 100% tax-exempt debt, depending upon technology). However, public financing results in the public sector retaining debt service payment obligations. Private financing can result in somewhat higher cost of capital than public financing, because private financing typically requires a combination of debt and equity. However, private financing places the least amount of risk on the public sector, by placing debt service payment obligations with the private owner/operator. Private financing also requires an additional due diligence burden on the private lenders to determine the viability of the project and the solvency of the vendor. Table 3 (attached) provides a more detailed comparison of the advantages and disadvantages of public and private financing.

The consensus of the project team was that private financing would be most advantageous for this project. Also, with selection of DBOOT, private financing is dictated. Included in the recommended private financing option would be step-in rights for the local jurisdictions in the event of the facility being viable, but the owning party becoming bankrupt or administratively incapable of maintaining the facility. For purposes of financial security, the City and County would require a corporate guarantee, performance bonding and/or a letter of credit.

**KEY DISCUSSION ISSUE:  
CONTRACT ADMINISTRATION AND WASTE SUPPLY**

**Proposal: each participating jurisdiction has an individual waste supply agreement with the conversion technology contractor, and a common contract would be developed by the City & County for use by all project participants.**

Over the term of the project, contractual needs may arise that would require joint approval by the governing bodies of each respective public party (e.g., City Council and County Board of Supervisors). However, overall project success will require day-to-day contract administration. There are several options for addressing contract administration between the Project Developer and the public participants. These options include: (a) by individual waste generator; (b) under City and/or County Management; and, (c) through a new regional entity (e.g., joint power authority). Figures 3, 4 and 5 (attached) illustrate these three approaches to contract administration. Table 4 (attached) provides a comparison of the advantages and disadvantages of these options.

Project success (feasibility and sustainability) will also be dependent on an adequate waste supply to the facility over the project term. Typically, 60 percent or more by weight of facility throughput must be guaranteed to obtain revenue-based financing. The City and County, along with other public entities, if any, that are project participants, will be the individual waste generators. The contractual options for waste supply parallel those for contract administration: (a) by individual waste generator (i.e., each public entity signing its own waste supply agreement with the Project Developer); (b) with the City and/or County aggregating individual generator waste supplies for one agreement with the Project Developer; and, (c) through a new regional entity (e.g., joint power authority), with that entity aggregating individual generator waste supplies for one agreement with the Project Developer. Table 5 (attached) provides a comparison of the advantages and disadvantages of these options.

The consensus of the project team was to recommend joint and cooperative contract administration by the City and County, without the development of a new regional entity. Each public participant would have an individual waste supply commitment with the Project Developer, but a common contract would be developed by the City and County for use by all waste generators. To facilitate joint contract administration, a memorandum of understanding (MOU) or similar agreement would be entered into between the governmental parties. Under the MOU, these same parties would establish an advisory group for day-to-day contract administration. Individual public entities would retain elements of control, in that significant administrative and governing needs and decision-making under the contract would require joint approval by the governing bodies of each respective party (e.g., City Council and County Board of Supervisors).

The concepts for a cooperative arrangement will be defined during the RFP process to alleviate concerns of possible vendors and financial backers.

## **PRODUCT MARKETING**

Financial feasibility and sustainability of the project will depend on effective product marketing. Options for product marketing roles and responsibilities include: (a) public marketing and public price risk (with an option for shared risk); (b) private marketing and private price risk; and (c) private marketing with public price risk. The advantages and disadvantages of these options are compared in Table 6 (attached).

Under the recommended DBOOT private ownership/operation model, the Project Developer would be responsible for marketing the products (private marketing). Under the auspices of private marketing, the risks can be allocated to the public or private sector, or equitably shared. The consensus of the project team was to establish a mechanism whereby the Project Developer would have an incentive to generate marketable products to its financial benefit (i.e., best and highest use of products) and to the benefit of the public participants (i.e., lower tipping fee). The Project Developer would be requested to provide revenue sharing to the public sector to avoid a financial "windfall" to the Project Developer. This would be accomplished as follows:

- The Project Developer would be required to identify and quantify in its proposal all anticipated products and the intended use of all products.
- The Project Developer would be solely responsible for the transport and disposal of any products that are not marketable, including the cost associated with transport and disposal (with disposal at the Tajiguas Landfill at a fully-loaded rate for disposal, and in accordance with the landfill operating permit).
- The Project Developer would be subject to contractual "floor" and "ceiling" prices for all products (escalated, as applicable). The "floor" price would represent the unit price per product upon which the proposal is based. The "ceiling" price, which would be based on a specified percentage above the floor price, would represent the unit price per product above which the public sector would receive a revenue share.

## **SIZE OF FACILITY (QUANTITY AND TYPE OF WASTE)**

The Request for Information (RFI) that was issued to identify qualified technology suppliers and project developers specified a facility capable of processing 220,000 tons per year (tpy) of post-recycled municipal solid waste, if not initially then within ten years of the first operating year of the project. Most of the respondents indicated the ability and desire to develop a 220,000-tpy project from the onset. Two of the short-listed respondents indicated intent to start somewhat smaller and scale-up to full capacity over time.

For purpose of the RFP, the size of the facility should be specified, including the quantity and type of waste that would need to be processed (e.g., MSW, biosolids). The project team has not yet reached a consensus regarding facility size. This requires an assessment by each public participant of the quantity and type of waste it would likely commit to the project. Once such analyses are completed regarding the types and quantities of waste to be processed, a waste characterization study is required to determine the composition of the waste. The

waste characterization study would provide information on waste composition by material type (e.g., paper, plastic, glass, metal, food waste, and other organics and inorganics). It would also include an analytical assessment to determine the chemical composition of waste, the heating value of the waste, and the biomethane potential of the waste.

## **PERMITTING**

Permitting could be undertaken by either the Project Developer or the public sector, with the other party providing necessary support, or it could be a joint effort with allocated responsibilities. The consensus of the project team was to pursue permitting cooperatively, allocating responsibilities in a practical manner. Because the project site is within the boundaries of the Tajiguas Landfill, the County would be the permittee and would take the lead for obtaining permits and approvals effectively within its control (e.g., C.U.P., CEQA, Solid Waste Facility Permit, N.D.F.E. Amendment, and Stormwater). The role of other public participants in the permitting process would need to be defined. The Project Developer would be the permittee and would be responsible for obtaining permits directly related to its design, construction and operation activities (e.g., air permits to construct and operate from the SBAPCD). A permitting timeline is attached as Figure 6.

The project team engaged in a discussion regarding the regulatory framework around the permitting pathway. Specifically, the ownership/operation models may impact the permitting process. If this is a private project, a C.U.P. may be required and the County Planning Department may become the CEQA lead agency. If this is a public project, the land use process might be avoided and the County Public Works Department could serve as the CEQA lead agency. As discussed above, the consensus of the project team was to pursue a private development model with the option to transfer the project to the public sector (DBOOT). An interpretation from County Counsel is required as to whether the project can be considered "public development" under the DBOOT model, since it is a "public purpose project", regardless of initial ownership, and the County retains the right to purchase ownership, establishing the County Public Works Department as the CEQA lead agency.

## **List of Attachments**

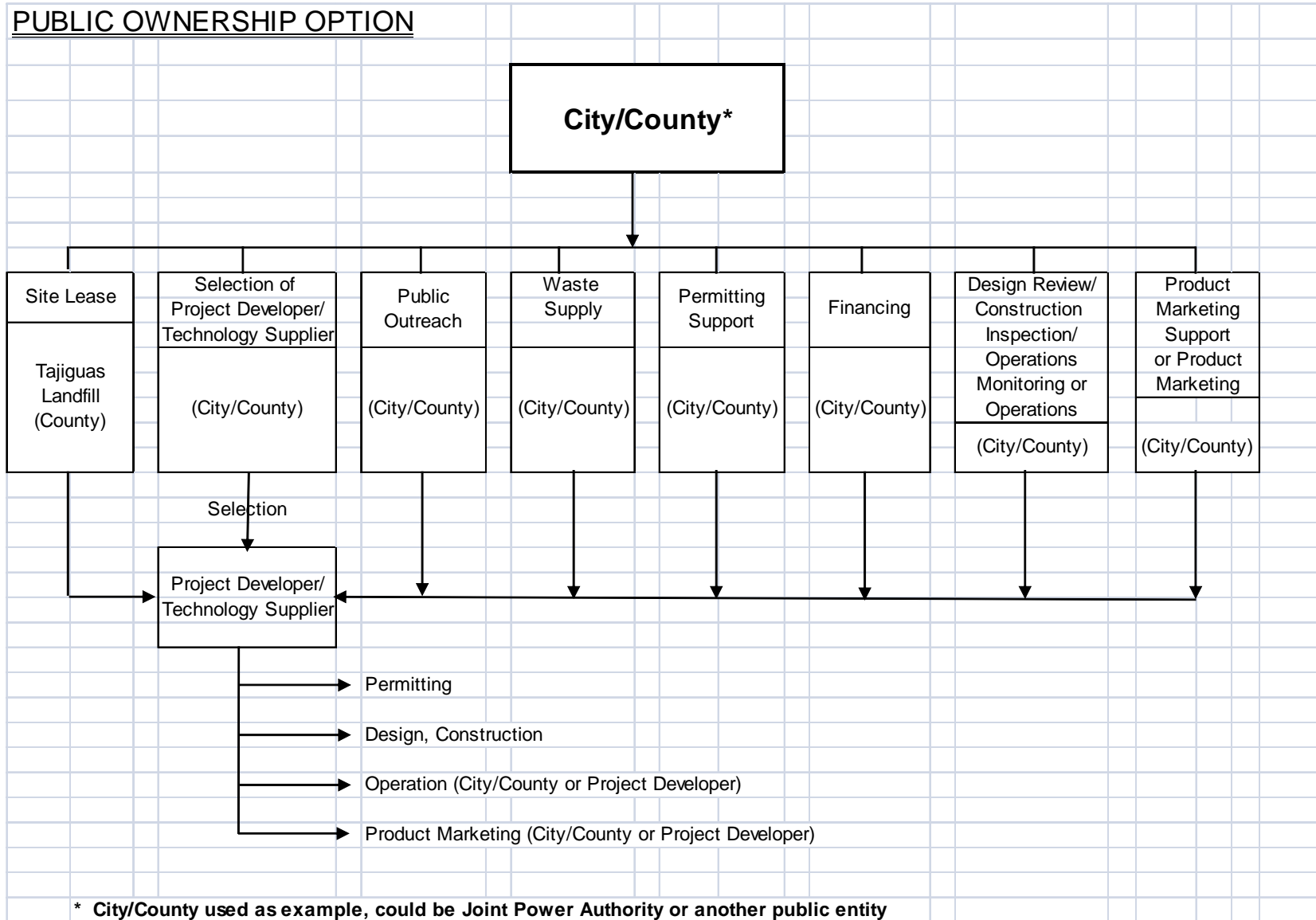
### **Figures**

- Figure 1. Concept for Project Roles: Public Ownership
- Figure 2. Concept for Project Roles: Private Ownership
- Figure 3. Contract Arrangement: Individual Contract Option
- Figure 4. Contract Arrangement: County Management Option
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- Table 1. Ownership Options - Advantages and Disadvantages
- Table 2. Operation Options - Advantages and Disadvantages
- Table 3. Financing Options - Advantages and Disadvantages
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- Table 5. Waste Supply Options - Advantages and Disadvantages
- Table 6. Product Marketing Options - Advantages and Disadvantages

**Figure 1. Concept for Project Roles: Public Ownership**



**Figure 2. Concept for Project Roles: Private Ownership**

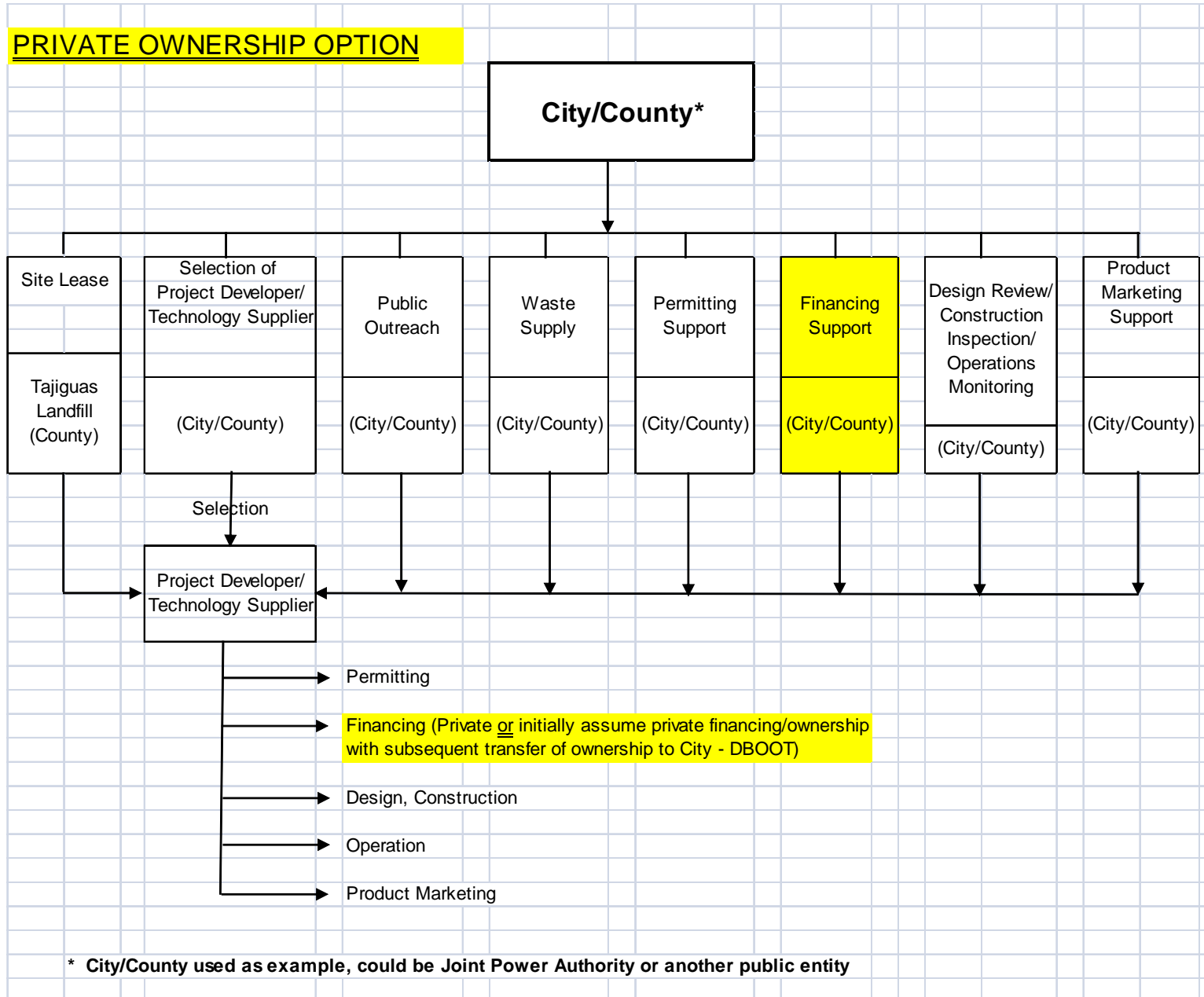


Figure 3. Contract Arrangement: Individual Contract Option

### Contract Arrangement: Individual Contract Option

The Advisory Committee will have representatives from each jurisdiction and will ensure contract continuity and execution. There will be no contractual or fiscal authority.

Contractual and fiscal responsibility is between each jurisdiction and the CT Contractor.



Figure 4. Contract Arrangement: County Management Option

## Contract Arrangement: County Management Option

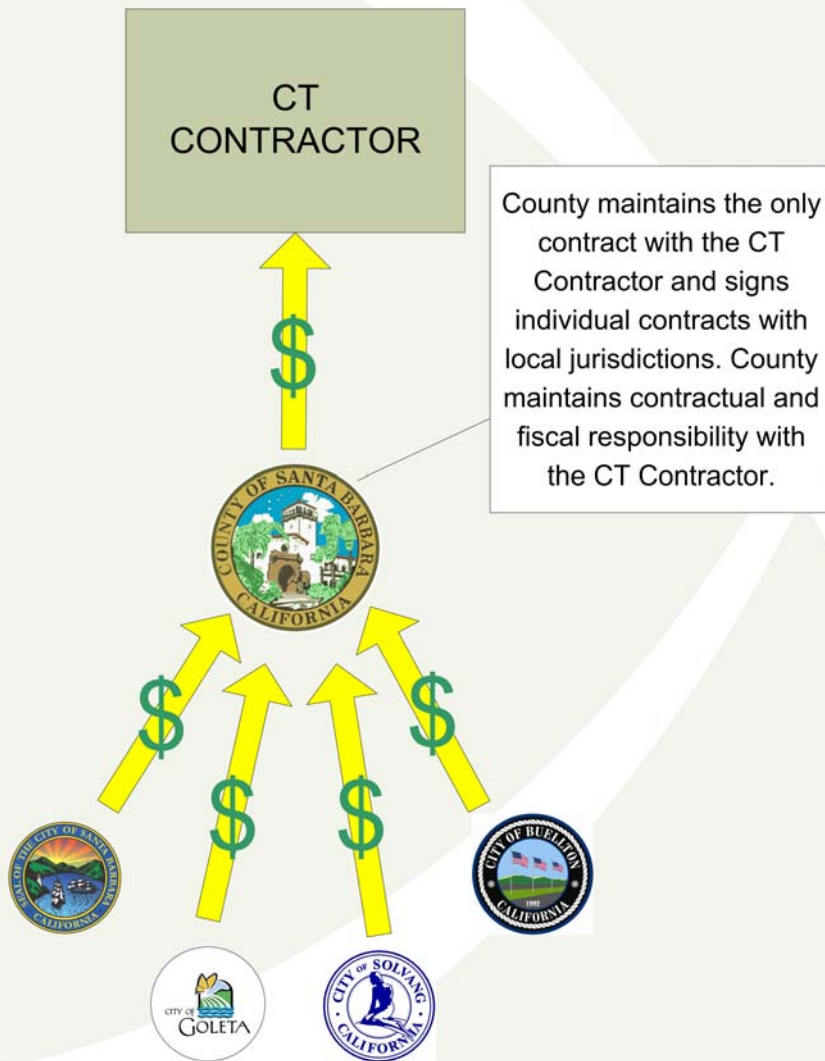


Figure 5. Contract Arrangement: New Authority Option

## Contract Arrangement: New Authority Option

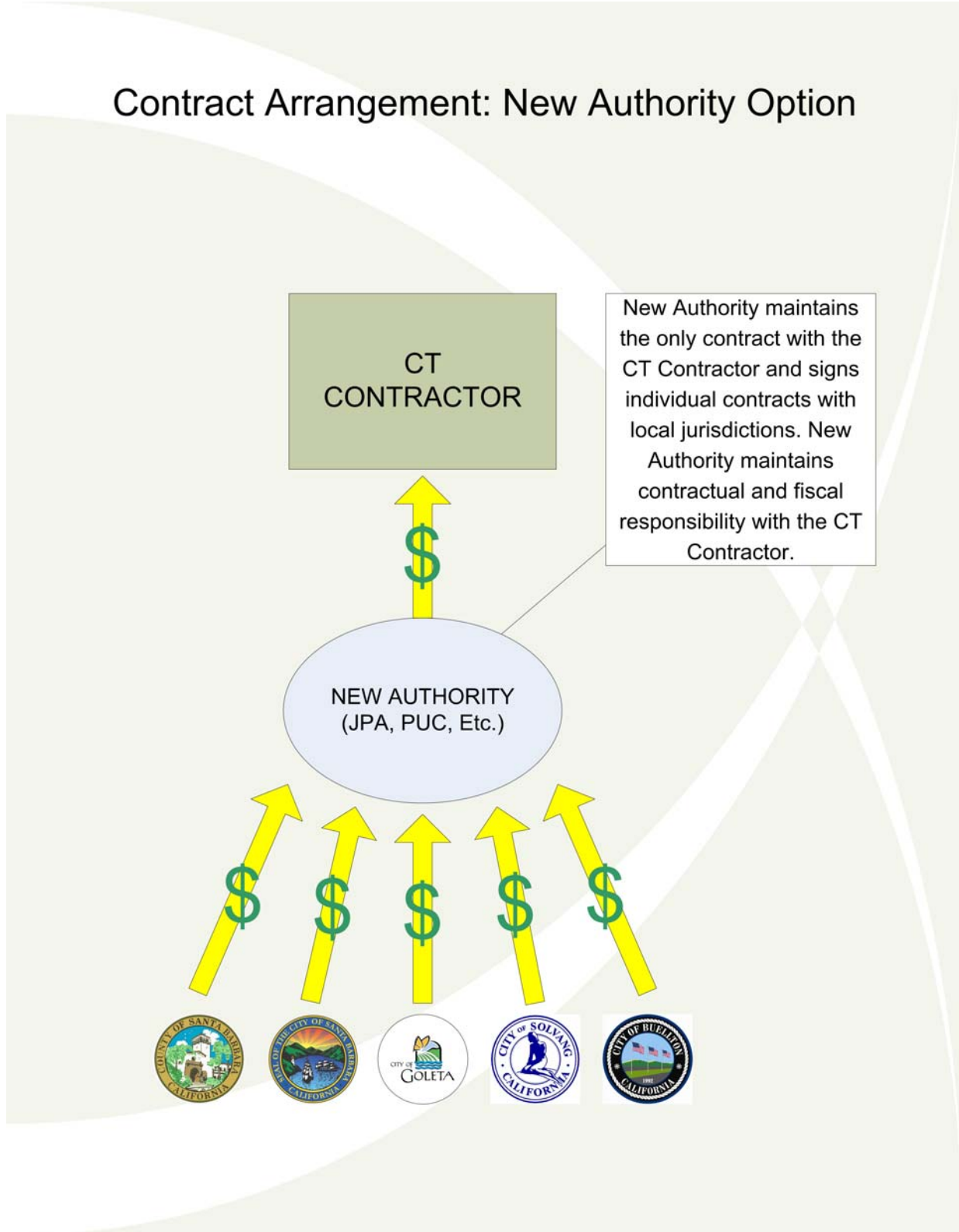
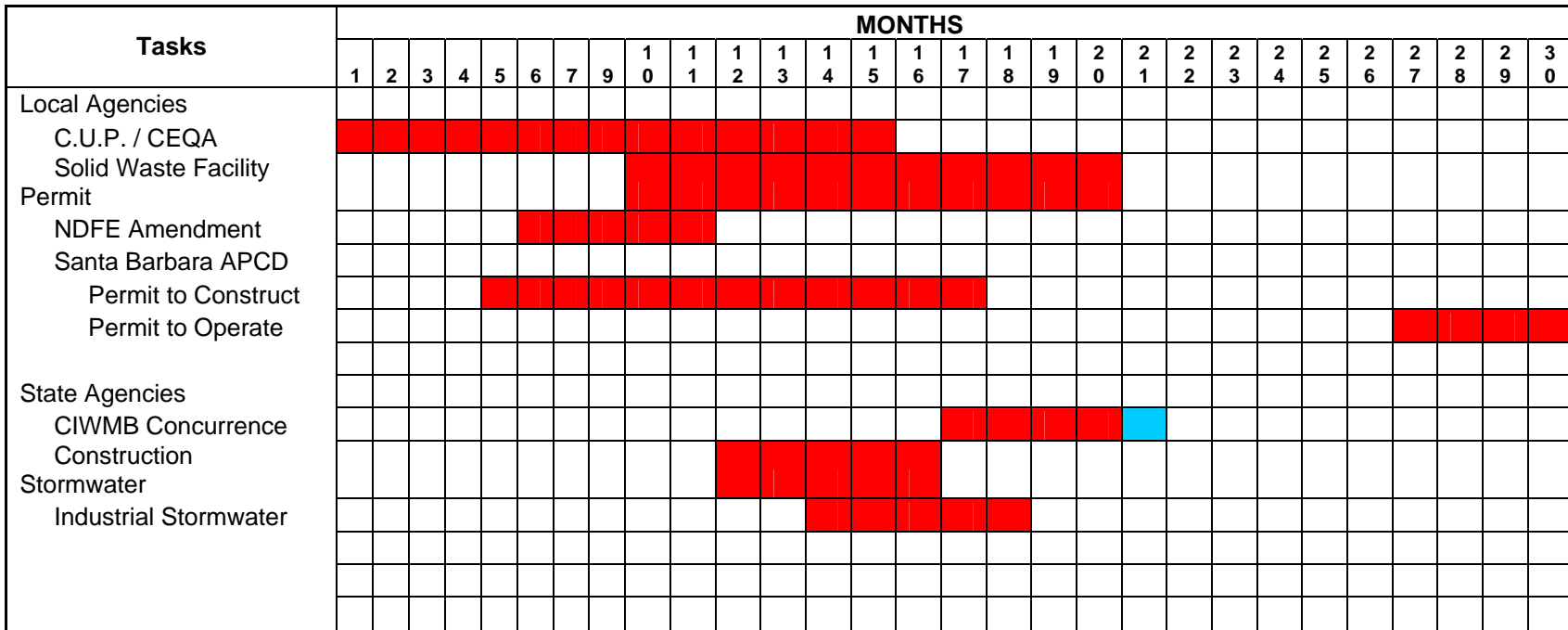


Figure 6. Permitting Timeline

## ENVIRONMENTAL PERMITTING SCHEDULE



█ End of environmental permitting (with exception of APCD Permit to Operate which must be completed when plant is in operation)

**Table 1. Ownership Options - Advantages and Disadvantages**

Public Ownership	Private Ownership
<p>Greater control: facility design, construction, operations and related pricing</p> <p>Lower financing costs</p> <p>But, assume development risk/cost and ultimate financial and performance responsibilities which result from ownership of facilities (e.g., payment of debt service)</p> <p>Can obtain competitive pricing, schedule, and private assumption of price, schedule, performance risk similar to private model through alternative project delivery (e.g., DB or DBO)</p>	<p>No risk for development efforts, success or failure, and cost</p> <p>Provides alternative means of project financing, likely higher cost</p> <p>Lower financial burden/risk to municipality: no long-term debt service obligation, only pay for service delivered</p> <p>Simpler to implement – no permitting, design, construction, operations responsibility</p> <p>Less control – facility design, construction, operations, and related pricing</p>

**Table 2. Operation Options - Advantages and Disadvantages**

Public Operation	Private Operation
<p><b><u>Advantages</u></b></p> <p>Day-to-day facility management – added control</p> <p>Public employees potentially more responsive to public needs</p> <p><b><u>Disadvantages</u></b></p> <p>Assumption of day-to-day management, and O&amp;M responsibility</p> <p>Requires highly-trained staff, special skills, with continued certification and training requirements</p> <p>Assumption of long-term performance responsibility and risk (waste throughput, product quantity and quality, residue disposed, meeting permit limits)</p> <p>Assumption of risk of operation and maintenance, repair and replacement costs – no guarantee fixed service fee</p> <p>Responsibility for labor negotiations, cost risk for wages, benefits</p> <p>Assumption of product marketing responsibility and market risk (could be contracted to private party)</p> <p>Diminished access to national and international resource base</p> <p>Potentially higher cost</p> <p>Potential loss of proposers who only offer DBO services</p> <p>Potential loss of equipment warranties</p>	<p><b><u>Advantages</u></b></p> <p>Relief from direct day-to-day facility management, O&amp;M, staff certification and training responsibility</p> <p>Private company assumes responsibility and risk for: performance; O&amp;M, capital repair and replacement</p> <p>Private company assumes permit risk</p> <p>Private assumption of some or all product marketing responsibility and market risk</p> <p>Affords national and international resource pool for support</p> <p>Potentially lower costs; guaranteed operating and maintenance costs</p> <p>Private responsibility for labor negotiations, cost risk for increases in wages and benefits</p> <p>Enhanced bidding interest – potentially more proposals; proposers may only do DBO services with their equipment</p> <p>Possibly greater ability to maintain equipment warranties</p> <p><b><u>Disadvantages</u></b></p> <p>Loss of day-to-day facility management, operations and maintenance control</p> <p>Loss of direct supervision of employees. Private employees may not be as responsive to public needs</p>

**Table 3. Financing Options - Advantages and Disadvantages**

Public Financing	Private Financing
<p><b><u>Advantages</u></b></p> <p>Financing can be revenue-based and “off balance sheet” to the public entities</p> <p>Lowest cost of capital (upwards of 100% tax-exempt debt, depending upon technology)</p> <p>May be eligible for state/federal assistance (grants, loan guarantees)</p> <p><b><u>Disadvantages</u></b></p> <p>Greatest exposure regarding risks of ownership and operation</p> <p>All cost aspects – construction, operation, tipping fee – will be focused on by lender</p> <p><i>Public sector retains debt service payment obligations</i></p>	<p><b><u>Advantages</u></b></p> <p>”Off balance sheet” to public sector</p> <p>Least exposure regarding risks of ownership – no debt service payment obligations</p> <p>May be eligible for state/federal assistance (grants, loan guarantees)</p> <p><b><u>Disadvantages</u></b></p> <p>Higher cost of capital (typically requires debt and equity; tax-exempt private activity bonds probable but not assured – need cap allocation)</p> <p>Financing may entail more restrictive debt and equity investment covenants</p> <p>More limited flexibility under worst case scenario (contractor default or failure, facility shutdown)</p> <p>May require more financial resources for project team</p>

**Table 4. Contract Administration Options - Advantages and Disadvantages**

<p align="center"><b>Option A: By Individual Waste Generator</b></p>	<p align="center"><b>Option B: County Management or Joint City and County</b></p>	<p align="center"><b>Option C: New Regional Entity</b></p>
<p><b><u>Advantages</u></b></p> <p>Minimizes administration and governing needs and costs - no regional entity</p> <p>Allows direct negotiation and dispute resolution by individual waste generators</p> <p>Allows maximum, direct control by individual parties</p> <p><b><u>Disadvantages</u></b></p> <p>Increases difficulty and burden of project development and implementation to project developer</p> <p>May result in less proposals being submitted and higher pricing and public risk</p> <p>Loss of public leverage for contract negotiation and dispute resolution</p> <p>Does not afford opportunity for independent decision making by third party or “shield” waste generator from project decision making, including rate setting</p> <p>Does not afford opportunity for regional public financing</p> <p>Reduces opportunity for project success, increases uncertainty of project to other public entities</p> <p>Does not allow for regional cost sharing of upfront project development costs</p> <p>Not likely to afford opportunity for public ownership and financing, unless is City or County</p>	<p><b><u>Advantages</u></b></p> <p>Reduces burden of project development and implementation to project developer</p> <p>Enhances potential for receipt of additional, competitive proposals, lower price, and reduced public risk</p> <p>Increases opportunity for project success, reduces uncertainty for other public entities to join project</p> <p>Increases public leverage for contract negotiation and dispute resolution</p> <p>Affords opportunity for City and County to share upfront project development costs</p> <p>Provides opportunity for public ownership and financing</p> <p><b><u>Disadvantages</u></b></p> <p>Requires staffing to meet administration and governing needs, adds related costs</p> <p>Administration and governing needs and decision making require joint City and County approval which may be more “cumbersome” than single-party administration and decision making</p>	<p><b><u>Advantages</u></b></p> <p>Same as Option B, plus</p> <p>Establishes new, independent administrative and governing entity (not directly affected by individual community administration and governing organization)</p> <p>“Shields” elected officials from communities from direct burden of project decision making</p> <p>Allows for independent financing without burdening individual members</p> <p>Allows for independent service rate setting</p> <p><b><u>Disadvantages</u></b></p> <p>Adds cost of new independent administration and governing entity</p> <p>Allows independent decision making, including service rate setting, which may not be to liking of all members</p>

**Table 5. Waste Supply Options - Advantages and Disadvantages**

<p><b>Option A: By Individual Waste Generator</b></p>	<p><b>Option B: City and/or County as Regional Administrator</b></p>	<p><b>Option C: New Regional Entity</b></p>
<p><b><u>Advantages</u></b></p> <p>Minimizes administration and governing needs – no regional entity required to aggregate waste <u>or</u> administer contract</p> <p>Allows direct negotiation by generator</p> <p><b><u>Disadvantages</u></b></p> <p>No single public entity for contract negotiation and administration</p> <p>Most difficult for project developer who must aggregate waste and develop individual contracts</p> <p>May lead to “no-bid” or reduced number of proposals</p> <p>May lead to higher priced proposals</p> <p>Presents uncertainty to public parties for project success (i.e., will adequate waste be committed for a project to be financed and move forward)</p> <p>Does not allow for as strong a public negotiation position when compared to a regional entity representing an aggregated waste stream</p> <p>Does not provide for a common public position to address future contract changes or disputes, thereby weakening future negotiating position</p>	<p><b><u>Advantages</u></b></p> <p>Provides a single point for negotiation and project administration with project developer</p> <p>Reduces burden on project developer to aggregate waste</p> <p>Improves certainty of project success for public partners</p> <p>Could lead to more proposals being submitted and lower priced proposals</p> <p>Will provide for greater leverage in negotiating terms of contract with more attractive risk allocation</p> <p>Will provide greater leverage for settling contract disputes and negotiating future contracts</p> <p><b><u>Disadvantages</u></b></p> <p>Additional administrative burden and expense for public entities</p> <p>Must establish administrative and governing organization within existing organizations</p> <p>Governing or administrative body would be directed by charter of existing public entities and subject to those financing and service rate setting policies and procedures</p> <p>Does not “shield” existing public entity from project decision making</p> <p>Does not allow for direct contract negotiation or administration by individual generator</p>	<p><b><u>Advantages</u></b></p> <p>Same as Option B, plus</p> <p>Establishes new, independent administrative and governing entity (not directly affected by individual community administration and governing organization)</p> <p>“Shields” elected officials from communities from direct burden of project decision making</p> <p>Allows for independent financing without burdening individual members</p> <p>Allows for independent service rate setting</p> <p><b><u>Disadvantages</u></b></p> <p>Adds cost of new independent administrative and governing entity</p> <p>Allows independent decision making, including service rate setting, which may not be to liking of all members</p> <p>Does not allow for direct contract negotiations or administration by individual generator</p>

**Table 6. Product Marketing Options - Advantages and Disadvantages**

<b>Option A: Public Marketing/Public Price Risk (Option for Shared Risk)</b>	<b>Option B: Private Marketing with Private Price Risk</b>	<b>Option C: Private Marketing with Public Price Risk</b>
<p><b><u>Advantages</u></b></p> <p>Maximizes public control over market selection</p> <p>Eliminates risk/fear of private “windfall”</p> <p><b><u>Disadvantages</u></b></p> <p>Places risk for disposing of non-marketed products on public entity</p> <p>Maximizes public risk for market selection and product pricing</p> <p>Requires assignment of staff/cost for identifying, comparing and selecting markets and product pricing. This is a daily function.</p> <p>Staff may not have knowledge/experience to effectively market products, nor will have national/international resources available to do so</p> <p>May result in additional materials requiring landfilling and less value being obtained for products</p> <p>Minimizes private incentives</p>	<p><b><u>Advantages</u></b></p> <p>Places risk for disposing of non-marketed products on private company</p> <p>Provides maximum incentive for private effort</p> <p>Increases access to national and international resources to assist in marketing</p> <p>Potential to result in increased revenues and least amount of materials requiring disposal</p> <p>Affords opportunity for revenue sharing</p> <p>Minimizes public risk for finding markets and obtaining best pricing</p> <p>Does not require assignment of public staff to perform service</p> <p><b><u>Disadvantages</u></b></p> <p>Minimizes public control over market selection and pricing</p> <p>Raises potential for private “windfall”</p>	<p><b><u>Advantages</u></b></p> <p>Places risk for disposing of non-marketed products on private company</p> <p>Provides incentive for private effort</p> <p>Reduces public risk for finding markets</p> <p>Does not require as substantial an investment of public staff</p> <p>Encourages private company to access its national and international resources</p> <p>Shares risk: private accountable for finding markets; public takes price risk</p> <p>Reduces opportunity for private “windfall”</p> <p>Affords opportunity for revenue sharing</p> <p><b><u>Disadvantages</u></b></p> <p>Public party at risk for market price</p> <p>Reduces private incentive for finding best price; i.e., more private concern for finding market to reduce potential for disposal</p> <p>Could result in less revenue</p> <p>Requires staff effort to monitor/review market pricing</p>