TAC Meeting – July 24, 2007
Announcements from the Chair

At tonight's meeting the TAC will be discussing the Summary of Viable Project Alternatives as outlined in chapter 7 of the Los Osos Wastewater Project Fine Screening Analysis.

Each of the committees has addressed this chapter and during this meeting we will here their conclusion on this chapter.

At our next regular TAC meeting on Monday, July 30, we plan to discuss and accept the Pro/Con summary along with the detailed version of the TAC Pro/Con Analysis Report on Project Component Alternatives. The results of that meeting will be incorporated into the report to be adopted at our August 6th meeting and sent to the Board of Supervisors.

Following our July 30th meeting, the TAC and its committees will be meeting with the Project Team and Carrolo Engineering to discuss their recommendations for the projects brought forward. As a result of this effort we have scheduled two additional TAC meetings to be held here at the Community Center on August 13th and August 20th. The purpose of those two meeting will be to develop a TAC Pro/Con Analysis Report on Wastewater Projects to be presented to the county Project Team.

We hope that in listening to our discussions that your understanding of the viable solutions to our wastewater project and basin groundwater issues become clearer.

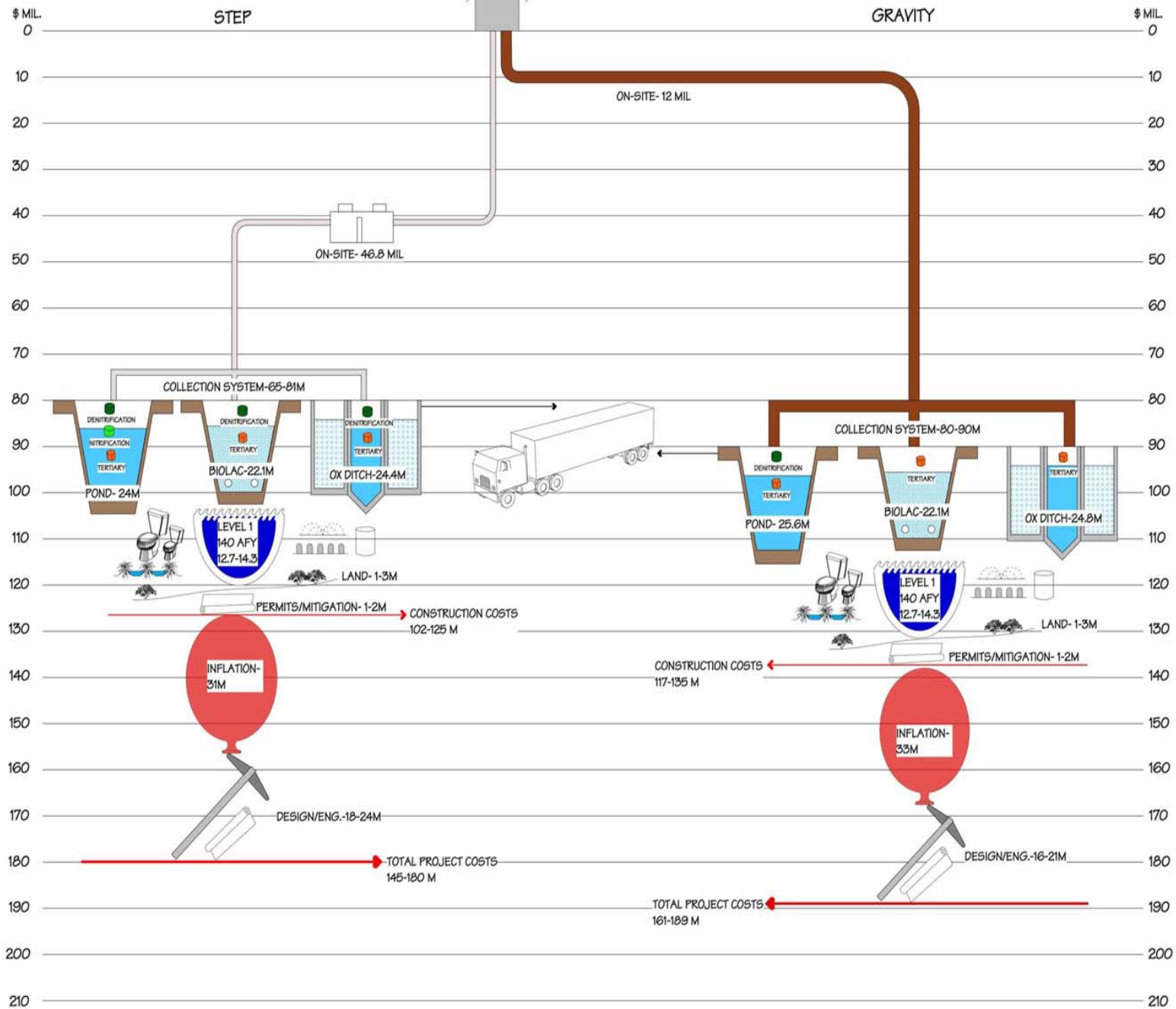
Public comments and questions will be taken after the three committees have presented their draft of the pros and cons and before the TAC begins its discussion.

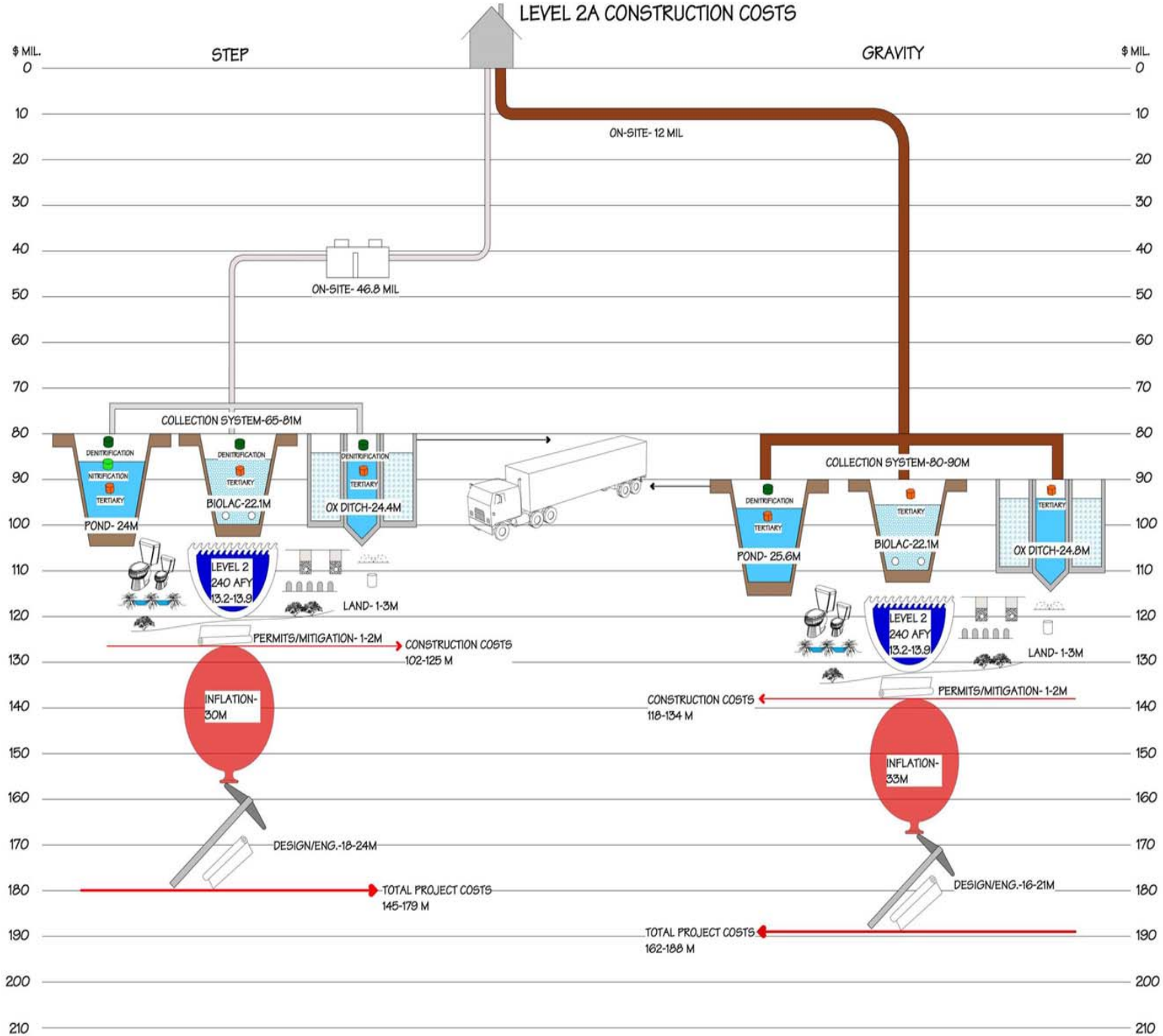
At that time only comments and questions pertaining to the alternate methods of ~~Effluent Disposal~~ will be allowed. If you have any other comment or question relating to the TAC and it role there will be a second public input period at the end of the meeting.

Questions to the Project Team will be answered as time permits at the end of the meeting. Please be sure and fill out Public Input slips and hand them in to a member of the project staff. If you wish to speak in both comment periods please submit two slips.

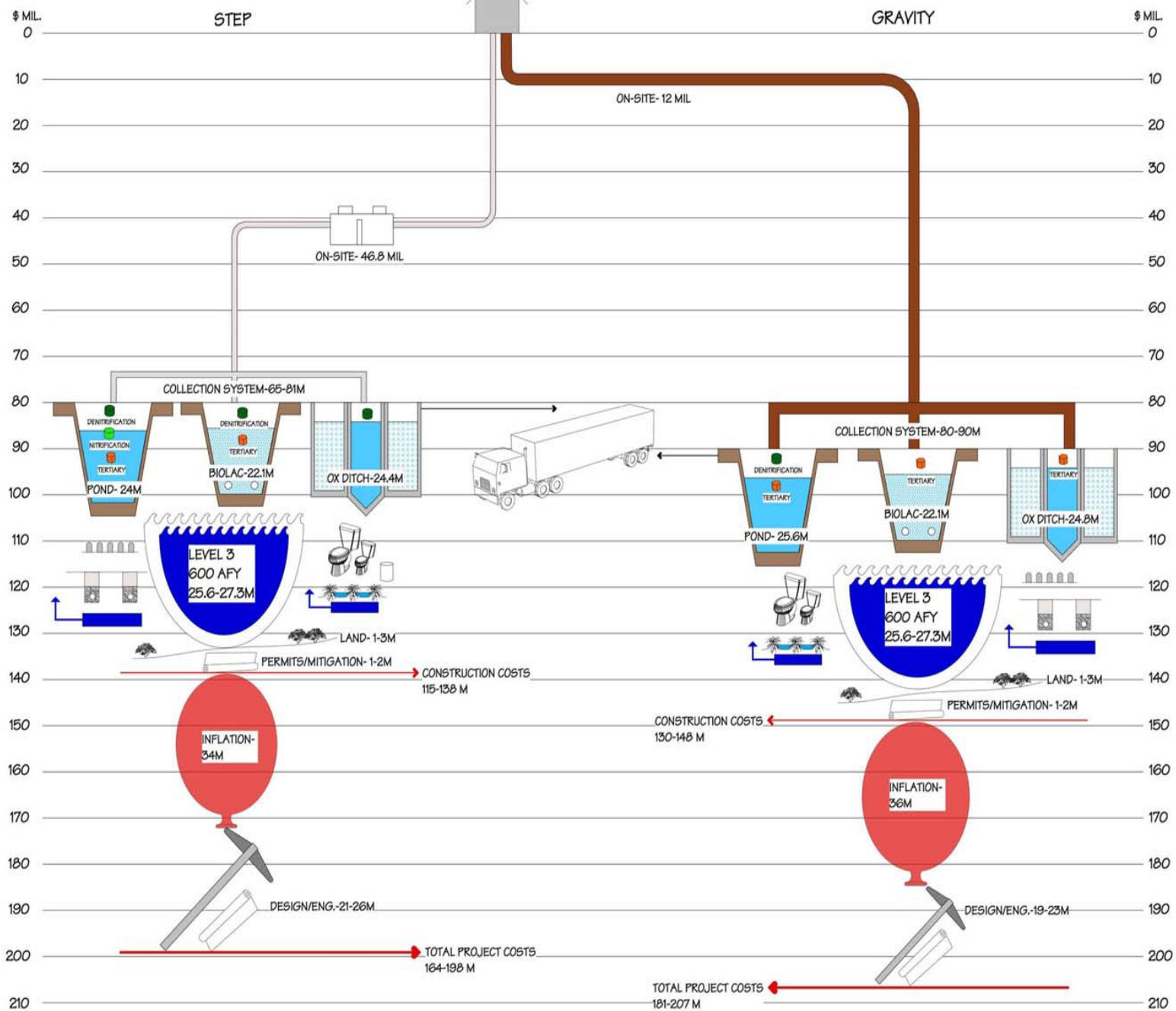
You may follow the progress of our pro/con analysis by visiting our website (http://www.slocounty.ca.gov/PW/LOWWP), select the TAC page and then the link to the working draft Pro/Con Analysis on Project Alternatives. This report has been updated to include information from last weeks meeting. We encourage you to send us any of your questions or comments on this report. Our e-mail address is LOWWP@co.slo.ca.us. I wish to acknowledge those of you who have submitted to our website. Your comments have been distributed to the committees for their consideration.

LEVEL 1A CONSTRUCTION COSTS

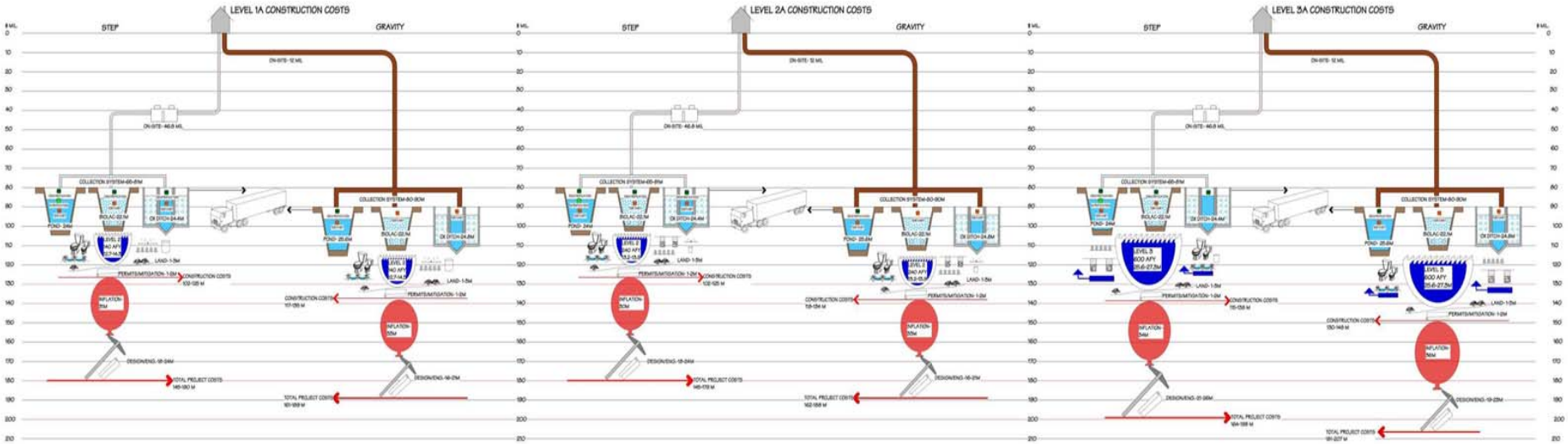



LEVEL 2A CONSTRUCTION COSTS
$ MIL.
STEP
GRAVITY
$ MIL.
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160
170
180
190
200
210
ON-SITE- 12 MIL
ON-SITE- 46.8 MIL
COLLECTION SYSTEM-65-81M
DENITRIFICATION
NITRIFICATION
TERTIARY
POND- 24M
BIOLAC-22.1M
OX DITCH-24.4M
LEVEL 2
240 AFY
13.2-13.9
LAND- 1-3M
PERMITS/MITIGATION- 1-2M
CONSTRUCTION COSTS
102-125 M
INFLATION-
30M
DESIGN/ENG.-18-24M
TOTAL PROJECT COSTS
145-179 M
COLLECTION SYSTEM-80-90M
POND- 25.6M
BIOLAC-22.1M
OX DITCH-24.8M
LEVEL 2
240 AFY
13.2-13.9
LAND- 1-3M
PERMITS/MITIGATION- 1-2M
CONSTRUCTION COSTS
118-134 M
INFLATION-
33M
DESIGN/ENG.-16-21M
TOTAL PROJECT COSTS
162-188 M

LEVEL 3A CONSTRUCTION COSTS



PROJECT COSTS



LOS OSOS WASTEWATER PROJECT
TECHNICAL ADVISORY COMMITTEE
San Luis Obispo County Department of Public Works

TAC

Environmental Working Group

Draft Discussion on Chapter 7:
Summary of Viable Project Alternatives

Rather than a pro-con analysis for chapter 7, the Environmental Working Group is presenting a brief summary of the key issues we felt should be highlighted out of this Chapter.

Tri W – Consideration of the Tri-W alternative should include some discussion of what aspects of that project have flexibility to be modified from the original design and which do not. For instance the full range of effluent disposal options appear to be applicable to a plant located at Tri-W and may in fact benefit from the high quality of effluent produced by MBR treatment. Biosolids options may be more limited by available site area and greater community impacts from odors at this location. The cost impacts of the feasible range of options at Tri-W should be considered and presented in the Final Fine Screening Report

Biosolids Hauling of Subclass B Biosolids is carried through all alternatives in Chapter 7. This is the least preferred biosolids option from the Environmental Working Group's perspective. Composting and re-using this resource locally is a more sustainable option that is not dependent on outside receivers nor trucking costs. If Subclass B hauling is carried through due to financial considerations, the potential for future additional treatment should be maintained (i.e. site space).

Section 7.3.3 Litigation and Permitting (including mitigation and restoration)

The Tri-W project appears to have a significant advantage in this area with most permits and mitigation in hand and most potential litigation already resolved.
Permitting other viable projects is entirely feasible, but will require additional time relative to Tri-W, and provide opportunities for appeals and litigation that will result in more time and cost.

Project delays have multiple negative impacts:

- The current pollution of the upper aquifer and estuary continues,
- Sea water intrusion continues (some measures to address this can and should be implemented separate from the Wastewater Project.)
- Regulatory pressure intensifies (although the Water Board has in the past recognized that litigation and permitting are largely out of the control of the party working to implement a project).

- Increased costs. These costs are difficult to estimate but include inflation in materials and labor, difficulty obtaining grant funding for projects in litigation, higher bids on projects in litigation, and the cost of litigation and permitting itself.

Water Balance, Figure 7.4 – Level 2 costs no more than Level 1, and should therefore be the 'base project'. Level 3 Sea Water Intrusion Mitigation achieves groundwater balance at current population while level 2 only gets us halfway there. Level 3 is needed, and the additional cost to achieve it (estimated at ~$15 M in the report) should be shared among all water users, tiered to water use, and compared to the cost to import the equivalent water from outside the basin.

Purveyor cooperation is an integral component of solving this problem and should be included in the analysis to the extent reasonable estimates of effectiveness and costs are available.

COST COMPARISON OF VIABLE PROJECT ALTERNATIVES
FOR ILLUSTRATIVE PURPOSES ONLY

TAC Finance Group Draft 7/21/07

Project/ Mitigation	Siting	Collection and On-Lot costs	Treatment	Biosolids	Reuse/ Disposal (2)	Total Capital Costs $M	Annual O&M
A **140 AFY**	**Giacomazzi** $1.5M	**Gravity** (1) $80.3M - $89.7M	**Ponds** $22.8M	**Sub-Class B** - 0 -	**Level 1a**: $12.7M - $14.3M	**$117.3 - $128.3**	**$1.3M - $1.5M**
B **140 AFY**	**Giacomazzi** $1.5M	**STEP/ STEG** (3) $64.8M - $81.2M	**Ponds** $21.7M	**Sub-Class B** - 0 -	**Level 1a:** $12.7M - $14.3M	**$100.7 - $118.7**	**$1.6M - $1.7M**
C **140 AFY**	**Giacomazzi** $1.5M	**Gravity** $80.3M - $89.7M	**BIOLAC** $19.9M	**Sub-Class B** $1.9M - $2.4M	**Level 1a** $12.7M - $14.4M	**$116.3 - $127.9**	**$1.7M - $1.9M**
D **140 AFY**	**Giacomazzi** $1.5M	**STEP/ STEG** (3) $64.8M - $81.2M	**BIOLAC** $19.4M (4)	**Sub-Class B** $1.9M - $2.4M	**Level 1a** $12.7M - $14.4M	**$100.3 - $118.9**	**$1.7M - $1.9M**
E **190 AFY**	**Tri-W** Value $3.1M	**Gravity** $77.6M - $85.6M	**MBR** $55.0M	**Sub-Class B** Included	**Level 2b** $18.0M - $20.0M	**$153.7M - $163.7M** (5)	**$2.2M - $2.4M**

(1) On-lot costs for Gravity collection system will not be included in project costs, as they are paid by property owners.
(2) Level 1a effluent reuse/ disposal utilizes spray fields, agricultural and cemetery reuse, conservation, and storage.
(3) Ripley's 2006 Update indicates STEP/ STEG collection costs of $56.4M – a difference of $8.4M to $24.8M from the Fine Screen.
(4) Includes Nitrification/ Denitrification and Tertiary treatments.
(5) Based on MWH reports, Ripley's 2006 Update indicates the total capital costs for the Tri-W system will be $201.6M – a difference of $37.9M to $47.9M from the Fine Screen.

ADDED COST TO UPGRADE

		Gravity	**STEP**
1) Composted Class A biosolids	Capital costs	$1.5M - $1.8M	$0.9M - $1.6M
	Annual O&M	$170,000	$160,000

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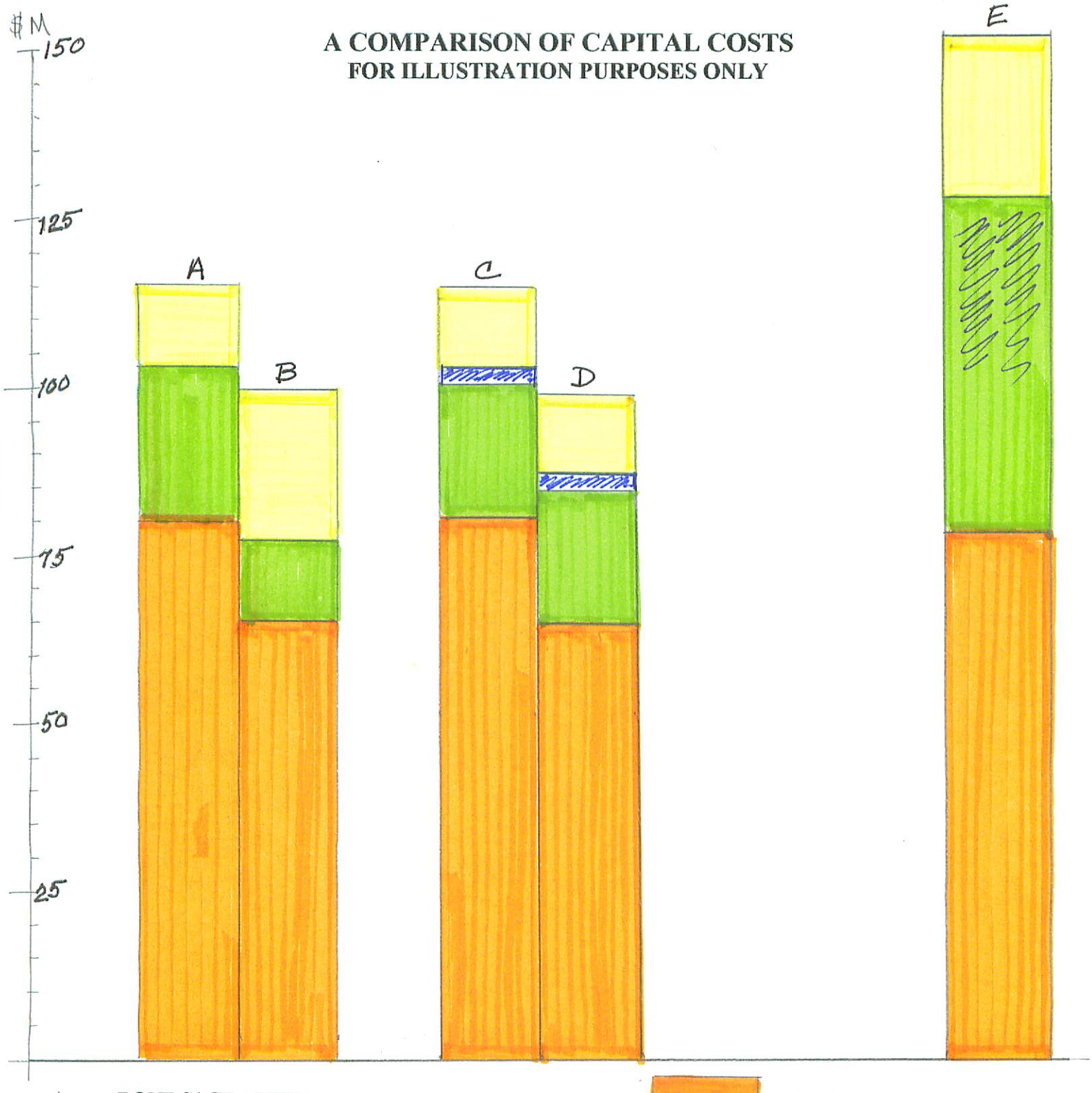
A COMPARISON OF CAPITAL COSTS
FOR ILLUSTRATION PURPOSES ONLY



A	PONDS/ GRAVITY
B	PONDS/ STEP
C	BIOLAC/ GRAVITY
D	BIOLAC/ STEP
E	TRI-W/ MBR

Collection

Treatment

Biosolids

Reuse/ Disposal

Submitted by
Karen Venditti
7/24/07

A COMPARISON OF RIPLEY AND CAROLLO'S NUMBERS FOR STEP/ STEG

Draft 7/20/07 - KV

	Ripley	Carollo	Ripley's Difference
Tri-W Costs			
On-lot	$17.0M	$10.9M - $12.0M	
Collection	$82.3M	$69.4M - $77.7M	
MBR	$55.7M	$55.0M	
Engineering, Admin	$38.8M	??	
Land value: Tri-W & Broderson	$ 7.8M	$7.8M	
Total Capital Costs @ 1.4 MGD	**$201.6M**	**$143.1M - $152.5M**	**+ $58.5M - $49.1M**
O&M (3)	**$2.95M/ yr**	**$2.4M - $2.5M/ yr**	**+ $0.5M/ yr**
STEP/ STEG Costs			
On-lot and Collection	$56.4M	$59.4M - $75.3M	
Treatment (BIOLAC)	$17.7M (4)	$19.4M (4)	
Aesthetics	$ .5M	Not included	
Storage	$ 4.1M	Not included	
Disposal	$ 1.9M	$12.7M - $14.3M	
Monitoring Wells	$ .25M		
Land: Giacomazzi + Site #2	$ 1.5M	$ 1.5M	
Total Capital Costs @ 1.2 MGD	**$82.0M**	**$93.0M - $110.5M**	**($11.0M – $28.5M)**
O&M	**$ 1.6M/ yr**	**$ 1.7M/ yr**	**($ 0.1M/ yr)**

Ripley's numbers adjusted to 1.2 MGD for STEP and 1.4 MGD for Gravity. Ripley dollars escalated to April 2007 at 5% per year

CONCLUSION: **Carollo shows a difference in total capital costs between Tri-W and STEP of $42.0M to $50.1M. Ripley shows a difference of $119.6M.**

(1) NOTE: per LOCSD #s for 2005-2006: Total water usage= 288,910,600; Estimated 8500 people served ÷ 2750 connections = 3.1 people/ connection
(288,910,600 GY ÷ 8500 people =) 33,990 gpc/yr; ÷ 365 = 93 total gpcd; X 70% = 65 gpcd
(2) OBSERVATION: Carollo's # of units in Build-out of PZ (based on stated 18,428 ÷ stated average 2.5 people/ connection) exceeds total # of lots in PZ.
(3) Difference in total wastewater flow: Ripley projects .1MGD higher than Carollo. Therefore, for comparison purposes, Ripley's cost numbers have been adjusted to 1.2 MGD for STEP and 1.4 MGD for Gravity collection systems.
(4) Includes Tertiary treatment. For comparison purposes, nitrification/ denitrification has been excluded.

Submitted by
Karen Venditti
7/24/07

July 24, 2007
Los Osos Technical Advisory Committee

Viable Project Alternatives

In consideration of the topic for discussion at the above referenced meeting please review the following as it relates to the selection of viable project alternatives. This outline is somewhat over simplified, however provides a basic outline of the key components to a waste water project in Los Osos.

Collection

STEP/STAG in areas of high ground water (along the bay front)

Gravity collection everywhere else-including connecting those subdivisions with collection systems already in place (Vista de Oro, Monarch Grove, Bayridge Estates, The Highlands)

Treatment Location and Methodology

Site location at the Los Osos Valley Equine Farm (Gorby) includes 15 usable acres and Los Osos Creek frontage.
Proposed treatment method is an oxidation ditch, which will use will use no more than 5 acres.
Ancillary facilities include; drying beds for sludge, solar panels, administration and other facilities.

Disposal

Winter (Nov. – Apr.) disposal/recharge at the Borderson complex will accommodate up to one million gallons per day on approximately 10 acres.

Summer (May-Oct.) disposal/recharge at the treatment site (Gorby -- Los Osos Creek).

Groundwater basin recharge enhancement with construction of downstream community supply wells below both winter and summertime recharge locations.

Jeff Edwards

FROM DRAFT EIR: 2000

Ranking of Alternatives (Environmentally Superior Alternatives Shown In Bold)	
Project Component	Alternative
Collection	**STEP/STEG**
	STEP/STEG Hybrid
	Gravity (proposed)
Treatment	**Extended Aeration Hybrid (proposed)**
	Extended Aeration
	Sequencing Batch Reactor
Treatment Sites	**Andre**
	Holland
	Morro Shores Southwest
	Tri-W (proposed)
	Pismo
Disposal	**Subsurface Leach Fields (proposed)**
Bio-solids	**Hauling**

Submitted by
Bo Cooper
7/24/07

DRAFT EIR NOV. 2000 p. 299

LOS OSOS WASTEWATER PROJECT

Table 8-1: Comparison of Alternative Collection Systems

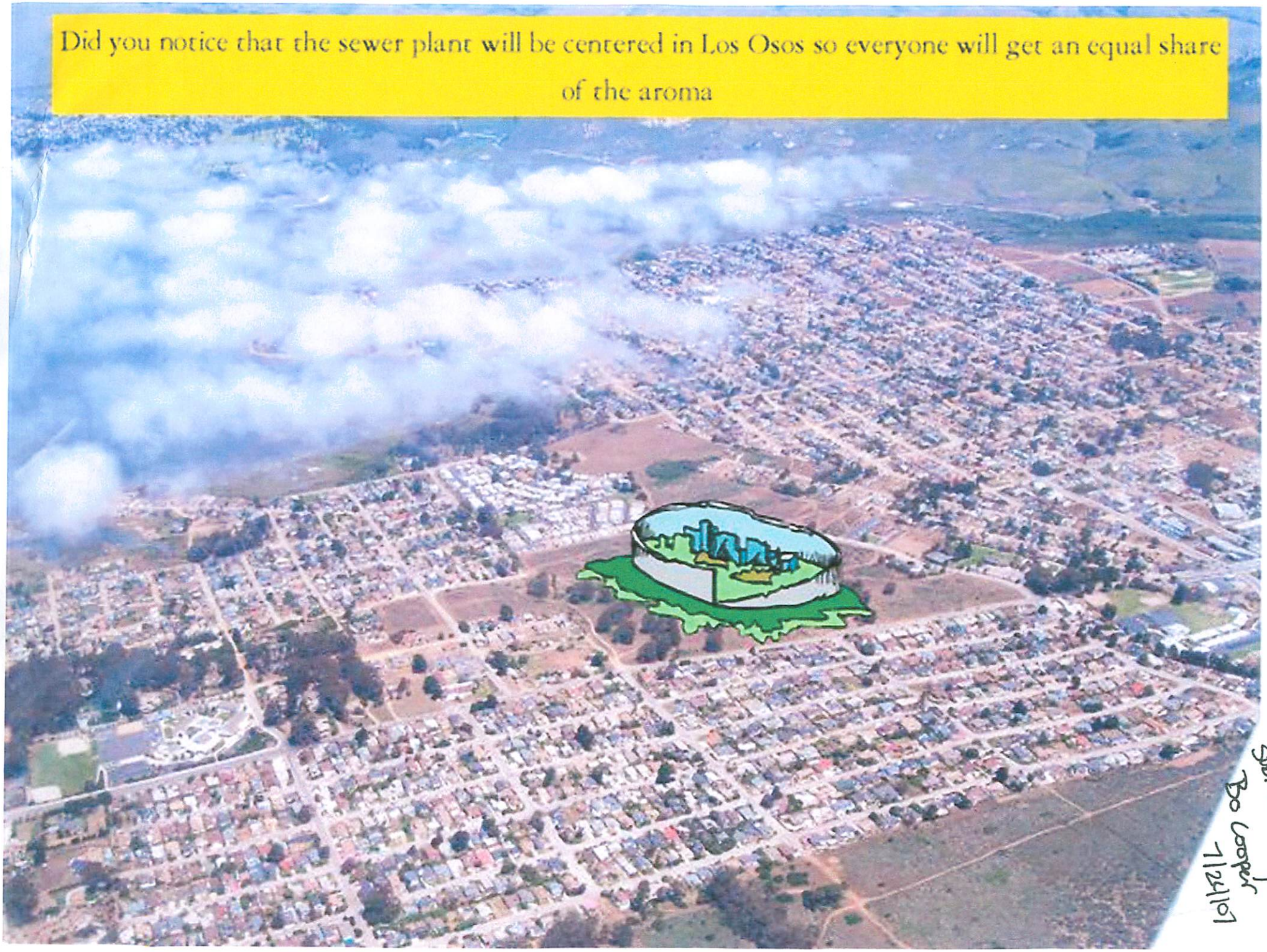
Attributes	Impacts of Alternatives Compared With Preferred Project TRI-W GRAVITY	
	STEP/STEG	Hybrid
Impact Assessment		
Geology	Less	Slightly Less
Hydrology and Groundwater	Slightly Less	Slightly Less
Drainage	Less	Slightly Less
Cultural Resources	Slightly Less	Comparable
Consistency With Adopted Plans	Comparable	Comparable
Traffic	Greater	Comparable
Air Quality	Less	Slightly Less
Noise	Slightly Less	Comparable
Public Health and Safety	Comparable	Comparable
Visual Resources	Comparable	Comparable
Biological Resources	Slightly Less	Comparable
Overall	Less Impacts	Slightly Less Impacts

Submitted by Bo Cooper 7/24/07

Submitted by
Bo Cooper
7/24/19

Submitted
by
Bo Cooper
7/24/07

Did you notice that the sewer plant will be centered in Los Osos so everyone will get an equal share of the aroma



Submitted by
Bo Cooper
7/24/07