

**CITY OF LODI
INFORMAL INFORMATIONAL MEETING
"SHIRTSLEEVE" SESSION
CARNEGIE FORUM, 305 WEST PINE STREET
TUESDAY, AUGUST 9, 2005**

An Informal Informational Meeting ("Shirtsleeve" Session) of the Lodi City Council was held Tuesday, August 9, 2005, commencing at 7:00 a.m.

A. ROLL CALL

Present: Council Members – Hansen, Hitchcock, Johnson, Mounce, and Mayor Beckman

Absent: Council Members – None

Also Present: City Manager King, City Attorney Schwabauer, and City Clerk Blackston

B. TOPIC(S)

B-1 "Lodi Lake water quality"

Parks & Recreation Director Goehring reported that the Lodi Lake beach area has been closed to swimmers on two occasions this summer, due to exceedences of recommended standards for fecal coliform bacteria in recreational fresh water. It is estimated that 130 to 150 Canada geese have made the lake their permanent home. Public Works staff contend that the elevated levels of bacteria in the lake appear to be caused by fecal matter the geese deposit in and around the beach area. There are 2.6 million Canada geese in the United States at this time. These geese do not migrate and their life span is 20 to 25 years. They prefer wide open mowed grass areas to natural terrain. One goose can produce 1.5 pounds of fecal matter each day. Canada geese are protected by the Federal Government, but not recognized as a protected species by the State of California. Methods of dealing with this bird include: 1) changing the terrain where the geese are living; 2) using noise making devices, physical deterrents, or harassment techniques; or 3) recreational hunting.

City Manager King explained that the Canada geese are protected through an international treaty and Federal protection is extended through the Migratory Bird Act.

Mr. Goehring stated that other communities with an overabundance of Canada geese have tried to repel them with noise makers, visual scare devices such as coyote and alligator replicas, dogs, fencing, taste aversion products that are spread on grass areas, and addling (i.e. spraying their eggs while in the nest with vegetable oil, which makes them non-productive). None of these measures have resulted in a lasting effect. There is a new conceptive product on the market that shows promise. Lodi has used noise makers, fencing, and taste aversion products.

Council Member Johnson commented that in Anchorage, Alaska, they used pigs, which ate the eggs.

Mr. Goehring reported that staff has contacted the division chief of the Fish and Wildlife Services non-migratory bird division in Portland, Oregon. He has committed to visiting Lodi to evaluate the situation and help staff develop a long-range plan. For a short-term solution, the birds could be relocated while in the molting season when they cannot fly. All supplemental feeding of the geese should be eliminated. Currently, there are no signs posted at the park prohibiting feeding the geese, nor are there regulations in the Lodi Municipal Code that allow the City to cite those who illegally feed the birds.

Council Member Hansen recommended that educational fliers be handed out at the park gate, which explains the problem and instructs people not to feed the geese.

Council Member Johnson suggested that the City's leash law be relaxed, and allow dogs to run free and chase the birds away.

Council Member Mounce commented that a "blue sheet" (filed) communication dated March 28, 2000 from Jack Loftus was received, in which he suggested that feeding be prohibited, noise deterrents be instituted, and guard dogs be stationed on the beach at night. Ms. Mounce noted that motion detectors are available that make the sound of barking dogs when activated.

Mayor Beckman recommended that the geese be used for food.

Mr. King noted that the standards for water quality have changed over the years and what was acceptable several years ago, is not acceptable now.

Council Member Johnson felt that the problem extends beyond water quality, because some of the grass areas can no longer be used for recreational purposes, as it is covered in goose feces.

Frank Beeler, Assistant Water/Wastewater Superintendent, reported that from 1993 to 1998 there were no beach closures at the Lake. Water sampling of bacteria levels has been done in the lake and river areas, and the river was shown to have higher levels than the lake. Tests done in 1985 indicated that the river had higher bacteria levels than either the beach or the lake. The lake is already saturated with oxygen; therefore, aeration would not add oxygen to the water. Circulating additional river water into the lake may not be beneficial either, considering it has higher bacteria levels. He stated that there are very few diseases that transfer from animal to man.

Council Member Hansen noted that the lake will be filled year round in the future, which will likely worsen the problem.

Council Members Johnson, Hansen, and Mayor Beckman expressed an interest in having staff draft an ordinance that would allow Park staff to cite those who feed the geese.

Council Member Hansen emphasized that communication and education of the public should be the focus, rather than penalties. He warned against allowing dogs to run loose at the park, due to associated problems that could occur.

Council Member Johnson stated that people who routinely bring large quantities of food to the geese should be discouraged from doing so immediately.

C. COMMENTS BY THE PUBLIC ON NON-AGENDA ITEMS

None.

D. ADJOURNMENT

No action was taken by the City Council. The meeting was adjourned at 7:59 a.m.

ATTEST:

Susan J. Blackston
City Clerk

WHAT'S HAPPENED TO OUR LAKE?

(FREQUENTLY ASKED QUESTIONS)

1. **Question:** *The Lodi Lake beach area has been closed to swimmers on, at least, two occasions this summer. The first time was over the Fourth of July weekend and a few days beyond. The second was just a couple of weeks later for about 6 days. Are these closures occurring more frequently than in the past?*

Answer: *Over the past few years, since the Canada Geese have made Lodi Lake their permanent home, we have experienced lake closures. In fact, from 1993 through 1998 there were no fecal coliform bacterial test failures.*

2. **Question:** *To what do you attribute the high fecal coliform bacteria counts?*

Answer: *Our in-house lab experts contend that the elevated levels of bacterial samplings in the lake appear to be caused by a high population of geese and the fecal matter they (geese) deposit in and around the beach area.*

3. **Question:** *How many Canada geese and ducks are making Lodi Lake their permanent home?*

Answer: *We estimate that there is somewhere in the neighborhood of 130-150 birds in the park today.*

4. **Question:** *Is Lodi the only community experiencing a problem with Canada geese?*

Answer: *No. According to our research there are an estimated 2.6 million resident Canada geese in the U.S., and they are multiplying dramatically. Any community having a lake, golf course or park with a water amenity is potentially a habitat for this bird. What makes them a nuisance is that they **don't** migrate; they prefer wide open, mowed grass to natural terrain, so their prolific droppings often litter parks and golf courses, and contaminate water related amenities.*

5. **Question:** *There are 130-150 of these birds in our lake today.....Where do they go during the winter months when the lake is emptied?*

Answer: *These geese have very predictable behavior patterns. The resident Canada geese will spend much of their time in the same general area and fly only far enough to find food or open water when our lake is dry. In our case, the river and nearby wildlife friendly areas provide adequate resources. But, these geese will always return to the "Hilton-like" environment of Lodi Lake.*

6. **Question:** *Are the Canada geese protected by any government agency.*

Answer: *Yes, they are protected by the U.S. Government, but not recognized as a protected species by the State of California.*

7. **Question:** *Other communities are obviously experiencing geese related problems similar to that of Lodi. What are they doing to mitigate these problems?*

Answer: *Communities seeking to oust the geese have tried noisemakers, scarecrows, fake coyotes, alligators, dogs, fencing, addling and a product called Goose-X. More often than not, these mitigation measures have resulted in little lasting effect. There is also a new contraceptive product on the market that shows promise, but is still unproven to date.*

8. **Question:** *What is addling?*

Answer: *In layman's terms, it's a method of spraying the eggs while in the nest with vegetable oil making them non-reproductive, but leaving them in the nest for a few weeks, so they don't lay another egg.*

9. **Question:** *Does this method work?*

Answer: *Some say it's the most effective method; but it requires a permit from the Division of Fish and Wildlife Services in Portland, Oregon.*

10. **Question:** *What are we doing or have we done to discourage and/or control the geese population at Lodi Lake?*

Answer: *We are using Goose-X on lawn areas, have used noisemakers and are protecting the beach area daily with snow fencing. We have discussed using dogs, considered an accepted hazing technique; but according to other agencies, it can get expensive. Addling, contraceptives and relocation, to my knowledge have not yet been tried.*

11. **Question:** *Where do we go from here?*

Answer: *We have contacted Division Chief, Brad Bortner, of the Fish and Wildlife Services Non-migratory Bird Division in Portland, Oregon. He has committed to visiting Lodi, evaluating the situation and assisting us in developing a long-range mitigation plan. Due to his busy summer schedule, time frames have not been established.*

12. **Question:** *In the short-term, then, what can be done?*

Answer: *Relocate as many birds as possible and/or take away their food source. Eliminating **all** supplemental feeding of the geese is absolutely the first step that should be taken to minimize conflicts with Canada geese.*

13. **Question:** *Are there other contributing factors to the elevated fecal coliform bacteria levels?*

Answer: *Perhaps. Some suggest that water quality (oxygen levels), water clarity, lake circulation and water temperatures could independently, or in the aggregate, contribute to the elevated levels.*

14. **Question:** *What do your experts say?*

Answer: *Very simply – Oxygen levels in Lodi Lake are at or above saturation, and aeration will not increase oxygen levels. Research shows that water clarity seems to have little effect on the measurements of fecal coliform bacteria levels. Circulating additional river water, which oftentimes has higher bacteria levels than the lake itself, into the lake -- may not be beneficial. And, fecal coliform bacteria may, in fact, die off faster in warmer water than in the colder water of the river.*

15. **Question:** *So what do we do?*

Answer: *As Yogi Berra would say, “If you want cooked goose, you gotta cook the goose!”*



Memorandum, City of Lodi, Public Works Department

To: Tony Goehring, Parks and Recreation Director
From: Richard C. Prima, Jr., Public Works Director
Frank Beeler, Assistant Water/Wastewater Superintendent
Date: August 4, 2005
Subject: Lodi Lake Water Quality Report

The water quality at Lodi Lake has come into question due to this summer's exceedences of recommended standards for Fecal Coliform Bacteria in recreational fresh water. Understanding the relationship between "water quality" in Lodi Lake and the Mokelumne River and Fecal Coliform Bacteria is essential to developing viable solutions to alleviate this problem.

- **Fecal Coliform Bacteria:** Fecal Coliform Bacteria generally occur in the digestive systems of humans and other warm-blooded animals. Fecal Coliform Bacteria are not necessarily pathogenic (disease causing) of themselves, but they are easy to monitor and detect. The goal of testing for them is to assess the potential for disease causing organisms to be in the water. It is very difficult and costly to monitor for actual disease causing organisms, so indicator bacteria, such as Fecal Coliform Bacteria are used. According to the Federal Environmental Protection Agency: *"Due to fecal coliforms short life span in an aquatic system, they are also excellent indicators of recent and nearby contamination"* (EPA Website-2001).

The recommended recreational water standards are set as if the Fecal Coliform Bacteria found in the samples are of human origin. There are many diseases that can be transferred through feces from human to human. There are very few diseases that transfer from animals to humans. However, the Fecal Coliform Bacteria test does not distinguish the origin of the Fecal Coliform Bacteria, whether they come from humans or from other mammals (including dogs, cats, cows and goats) or birds (including geese and ducks). Therefore, one can have relatively high numbers of Fecal Coliform Bacteria present in the tests, yet there may be little, if any, elevated risk of contracting a disease from contact with those waters.

However, the recommended standards for Fecal Coliform Bacteria are what they are, and the levels of bacteria need to be managed.

The levels of Fecal Coliform Bacteria are measured at the beach once per week and more often when elevated levels of Fecal Coliform Bacteria are found. Fecal Coliform Bacteria have also been measured in the Mokelumne River and in other parts of Lodi Lake this summer and on various occasions in the past. These results show that the beach area in the Lake has the highest concentrations of Fecal Coliform Bacteria, and the Fecal Coliform Bacteria levels in the River are generally higher than elsewhere in the Lake. Given this data, circulating more river water into the Lake will probably not lower the Fecal Coliform Bacteria levels in the Lake.

- Oxygen: Some people have suggested that stagnant lake water is a problem and aeration will help alleviate the problem. The Lake has been monitored for oxygen levels routinely for several years. The oxygen levels measured in the Lake are always near or even above the dissolved oxygen saturation point (the maximum amount of oxygen well mixed water can hold at a given temperature). Therefore, aeration would not add any oxygen to the water.
- Clarity: The clarity of water in the River is somewhat better than in the Lake. However, clarity is a relatively meaningless measurement when considering Fecal Coliform Bacteria levels and the safety of the water as related to diseases. Some of the highest risk of contracting a disease from natural waters in the United States is from drinking from clear mountain streams (Giardia). Based on our observations, algae in the Lake is considered the main reason for increased turbidity in the Lake.
- Circulation in the Lake: It would take a detailed study to determine the amount of circulation and the circulation patterns of waters in the Lake. There have been measurements of temperature and turbidity that have shown that there is some amount of river water entering the Lake at the culvert pipe located in the north east part of the Lake. Knowing that Fecal Coliform Bacteria levels are generally higher in the River than in the Lake, circulating more river water into the Lake may not be beneficial.

Even if circulating more water was determined to be beneficial, doing so would likely require more than simply enlarging the existing culverts. The Lake is connected to the River at three locations – the natural opening at the west, a culvert at the northeast, and another culvert in-between. Thus the Lake is hydraulically connected to the River, and when the Woodbridge Dam is raised, the entire River and Lodi Lake become “Lake Lodi”¹ from the dam for some distance upstream and the average flow velocity is greatly reduced over what might be present in the River further upstream.

Improving circulation within Lodi Lake itself may help to move water from the beach area and reduce bacteria concentrations in the beach area (and possibly raise bacterial concentrations elsewhere in the Lake). One slight improvement might be made by closing the “middle” culvert to the River to reduce short-circuiting what minimal flow that exists. Extending the northeast culvert further south may help improve circulation, but further hydraulic studies would be necessary to evaluate effectiveness and determine the necessary pipe size. Construction of such a pipe could easily cost hundreds of thousands of dollars.

Mechanically improving the circulation would mean significantly more expense and increase operating costs. Fish screens may be necessary also. Again, a major study on the hydraulics of Lake Lodi would be necessary to evaluate effectiveness and costs.

1. “Lake Lodi” is the term often used by Federal and State agencies when referring to the entire impoundment behind the Woodbridge Dam as distinguished from the City’s “Lodi Lake”.

- Temperature: The temperature of the Lake is on the average about 5 degrees Fahrenheit higher than in the River. This temperature is generally not significant relative to Fecal Coliform Bacteria levels. Since Fecal Coliform Bacteria generally do not reproduce in nature and die off over time, the warmer water will not "incubate" more Fecal Coliform Bacteria. In studies, Fecal Coliform Bacteria actually die off faster in warmer water.

The Public Works Department's opinion is that the majority of the Fecal Coliform Bacteria detected at the beach area is caused by the geese and ducks that congregate in the area during the night. The feces from the geese have been very noticeable both on the sand and in the water. The personnel sampling for Fecal Coliform Bacteria have seen goose feces on the lake bottom at the beach. There may also be contributions of Fecal Coliform Bacteria from human activity, other animals, storm water and other background contributors as in the River. Eliminating or greatly reducing the numbers of geese in the beach area should have a noticeably positive effect on Fecal Coliform Bacteria levels. Also the diligent cleaning/removing of all fecal matter from the beach and water must be done every morning. Maintaining the "no diapers in the lake" in the beach area rule is also important.

Richard C. Prima, Jr.
Public Works Director

Frank Beeler
Assistant Water/Wastewater Superintendent

RCP/FB/frb

City Clerk's Note:

filed 8/9/05

August 8, 2005

The attached information is from **Mr. Ray (Jack) Loftus** regarding his suggestions and ideas for dealing with the goose problem at Lodi Lake. He originally presented this information to the City in 2000. In addition to the suggestions in his attached letter dated March 28, 2000, Mr. Loftus added the following ideas:

- Staff the lake with two lifeguards during the evening hours (until 9 or 10 p.m.) and use either guard dogs or noisemakers to keep the geese away.
- In regard to droppings on the beach area, use a high-pressure hose from a fire truck to wash the droppings out 300 to 400 feet so the water is clean in the swimming area and take out and replace 20 to 30 feet of the sand.
- Contact the city of Marysville to see what it did with the goose problem at its lake.

For questions, contact Mr. Loftus at **369-4520**.

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<input type="checkbox"/> FD	<input type="checkbox"/> COM

Ray Jack Loftus

To: Parks and Recreation Administration
From: Raymond Loftus
369-4520

Jack

March 28, 2000

Note Date

Subject: Ducks and Geese ruining Lodi Lake

Members of the Commission;

The ducks and geese are destroying the many wonderful areas of Lodi Lake. Their droppings are all over the beach, in the grass that surrounds the lake and by all the playground and picnic areas. The Health Dept. tests the water by going onto the lake and getting their water samples away from the shore. If they were to test the water that is in the swimming area right off the beach it would probably not pass. There are times that I have been on the beach in the swimming area and the water is green with visible droppings floating on the surface. I am sure that the number of visitors to Lodi Lake would increase 100% if people knew that they could put their blankets down on clean sand and grass.

My suggestions are:

1. Stop feeding of all water fowl anywhere at the lake. Put signs up around the lake. Picnic leftovers should be put in the many trash cans available throughout the lake, not given to the ducks and geese.
2. Install some type of noise system at the beach that could be used till the fowl are settled in for the night.
3. You could try putting some type of guard dog on the beach at night when the beach is locked up to chase the geese away.

Lodi Lake is a beautiful area that the people of Lodi and its visitors should be able to enjoy but do not use it for fear of being chased by an angry goose or getting sick because of the droppings. Geese like grass and sand to roost on. Ducks and geese are creatures of habit and they mate for life. They are not going to leave on their own. We have to make up our minds. Is Lodi Lake a place for people to enjoy? Or, Is Lodi Lake for the water fowl?

Oak Grove flight

Ray Jack Loftus

these birds dont migrate
man make grass

Clean the lake bottom out to 20 ft,
increase flow from River 100%

Sand

Park Oak Grove caters to the water fowl

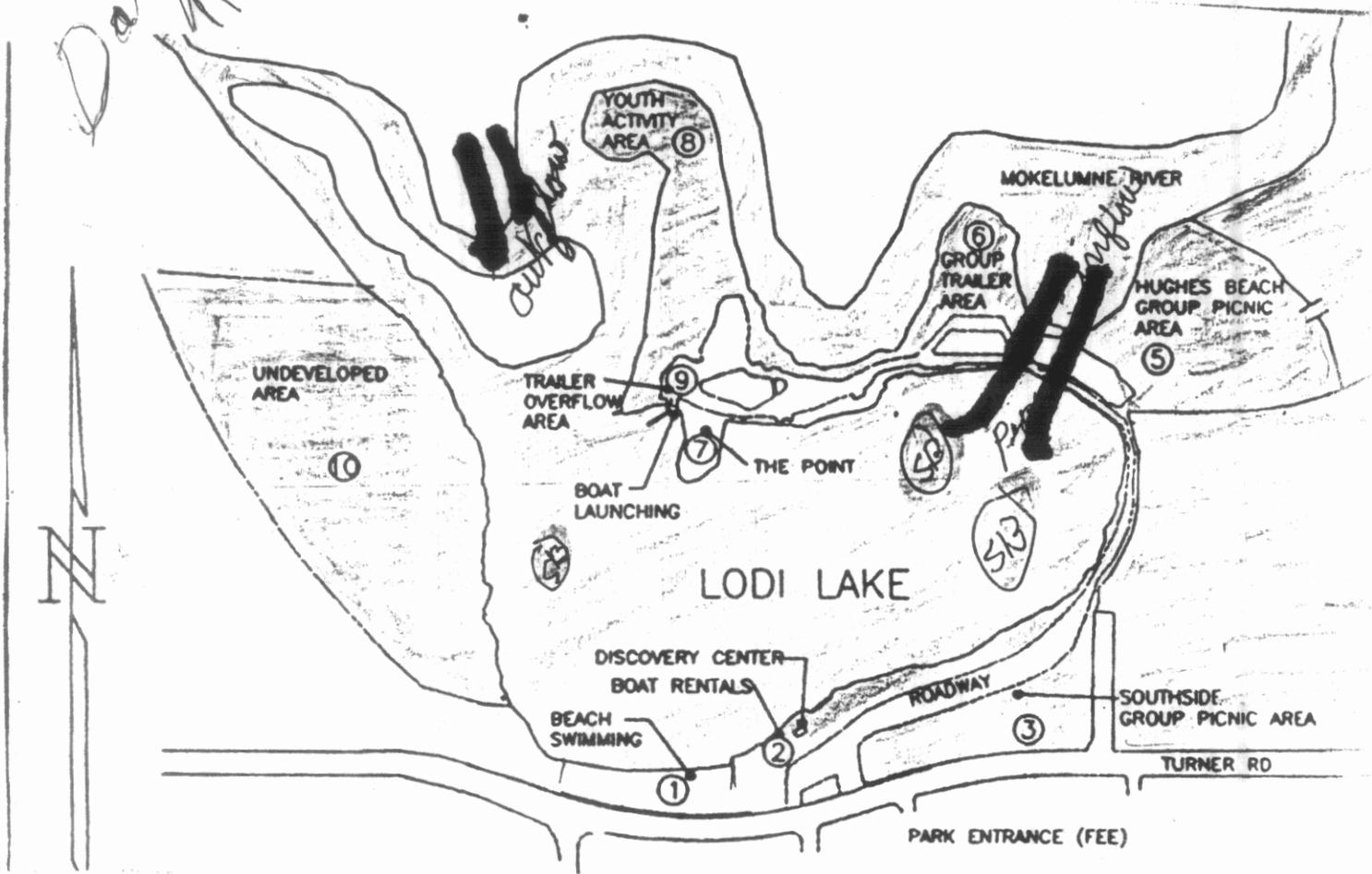
Phony 3694520

by

Mr. Raymond J. Loftus
609 Windsor Dr.
Lodi, CA 95240-5229

Jack Loftus

LODI LAKE PARK & NATURE AREA

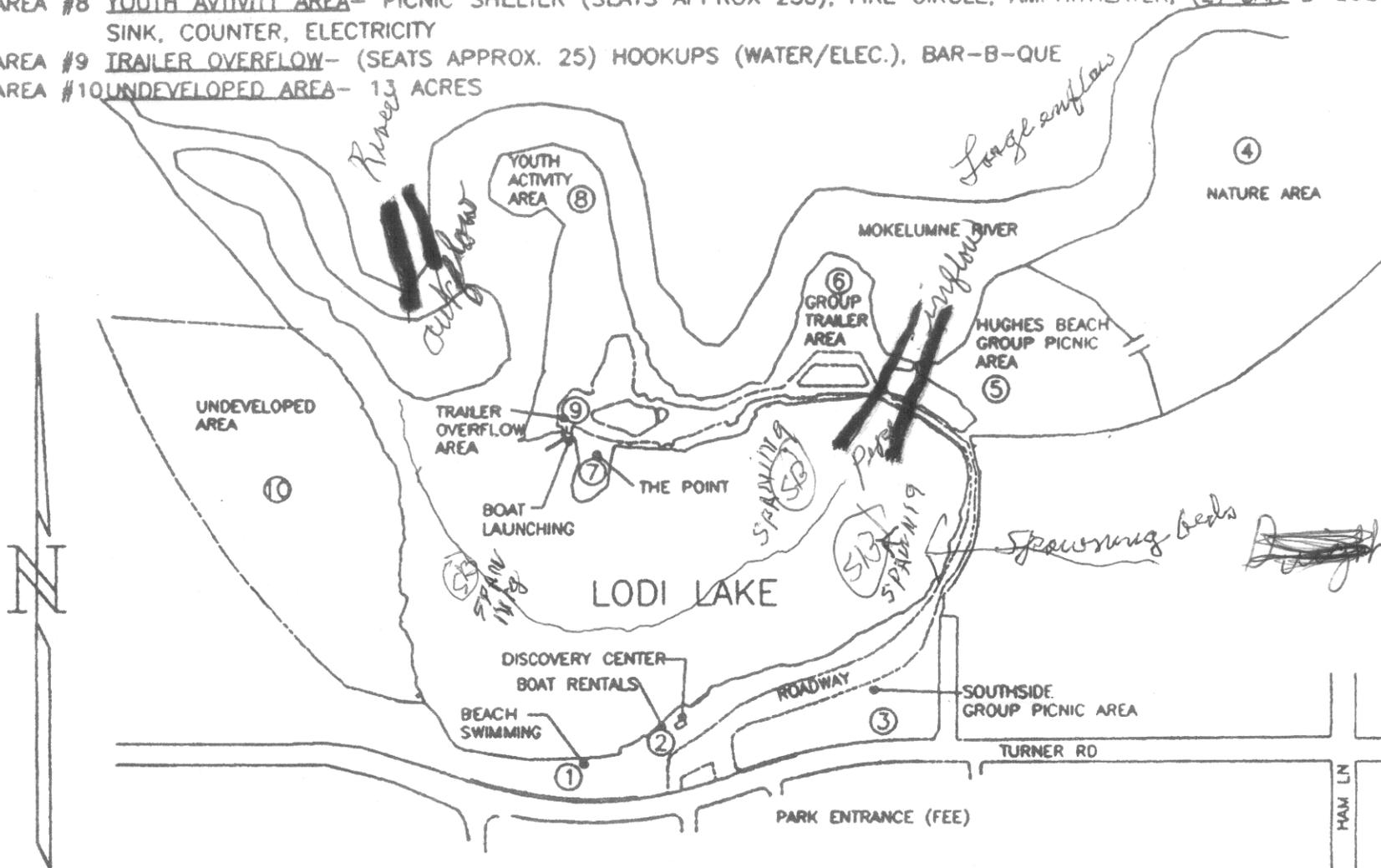


- AREA #1 BEACH - OPEN MEMORIAL DAY WEEKEND THRU LABOR DAY WEEKEND, ADMISSION CHARGED.
- AREA #2 BOAT RENTALS - PEDAL BOATS, KAYAKS, AND AQUA CYCLES.
- AREA #3 SOUTHSIDE GROUP PICNIC AREA - BAR-B-QUES, TABLES.
- AREA #4 NATURE AREA - 58 ACRES, GUIDED TOURS AVAILABLE THROUGH DISCOVERY CENTER.
- AREA #5 HUGHES BEACH - PICNIC SHELTER (SEATS APPROX. 65) BAR-B-QUES, HORSESHOES.
- AREA #6 MAIN TRAILER - PICNIC SHELTER (SEATS APPROX. 50) BAR-B-QUES, SHELTER, HORSESHOES, HOOKUPS (WATER/ELEC.), FIRE CIRCLE.
- AREA #7 PARSON'S POINT - PICNIC SHELTER (SEATS APPROX. 50) BAR-B-QUES
- AREA #8 YOUTH ACTIVITY AREA - PICNIC SHELTER (SEATS APPROX 250), FIRE CIRCLE, AMPHITHEATER, SINK, COUNTER, ELECTRICITY
- AREA #9 TRAILER OVERFLOW - (SEATS APPROX. 25) HOOKUPS (WATER/ELEC.), BAR-B-QUE
- AREA #10 UNDEVELOPED AREA - 13 ACRES

[Redacted] - INFLOW } OUTFLOW LEVEES - W/ ROCK JUREFAC
 - SALMON SPAWNING BEDS, (TWO FT. ELEV)

NOTES MILLENNIUM MUSINGS.
 (Wouldn't it be great for the grandkids??)

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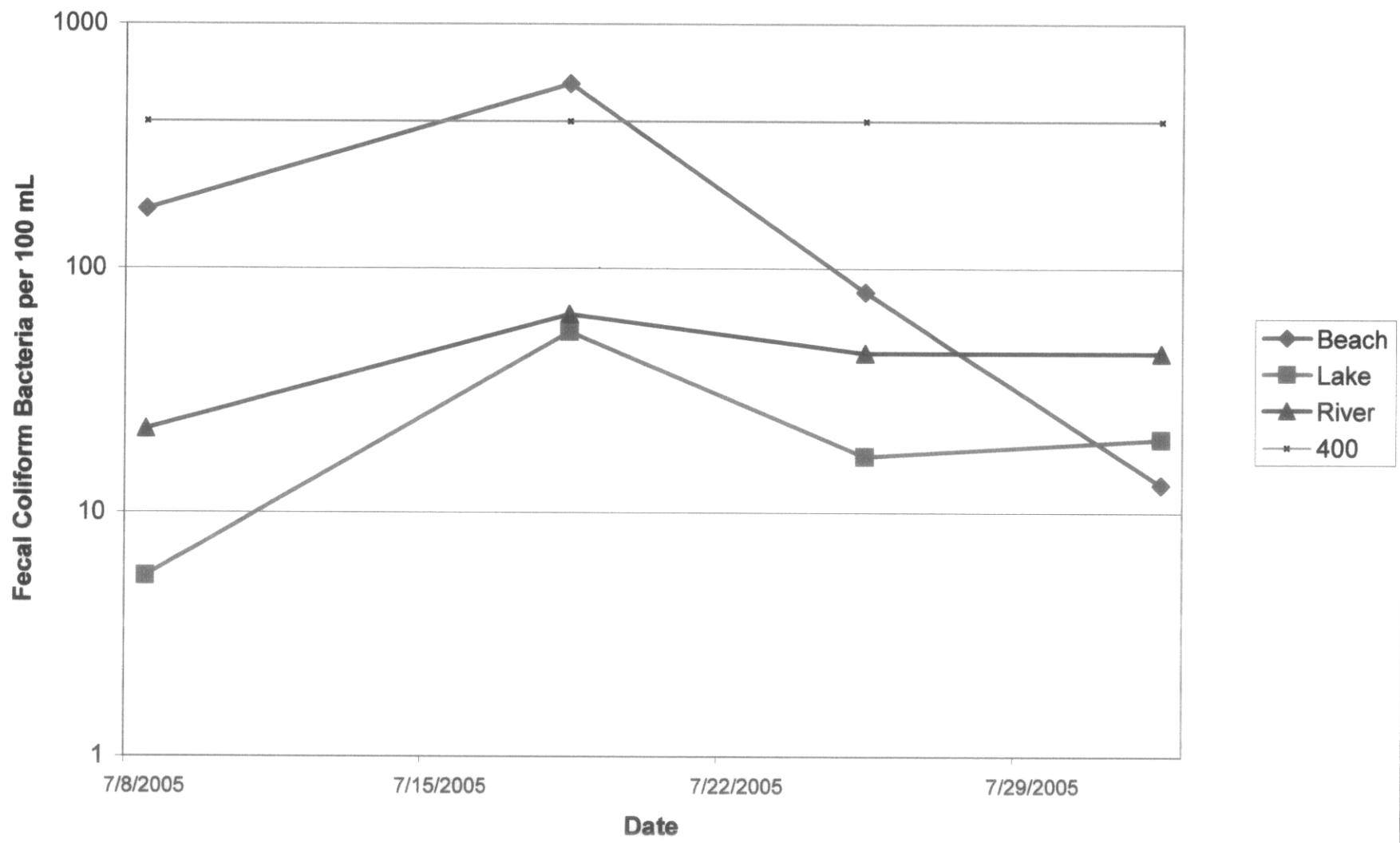
LODI LAKE PARK & NATURE AREA

Clean lake bed to 4-20 ft
 Cold water brings fish
 the cost should be collected for everyone in San Joaquin Co

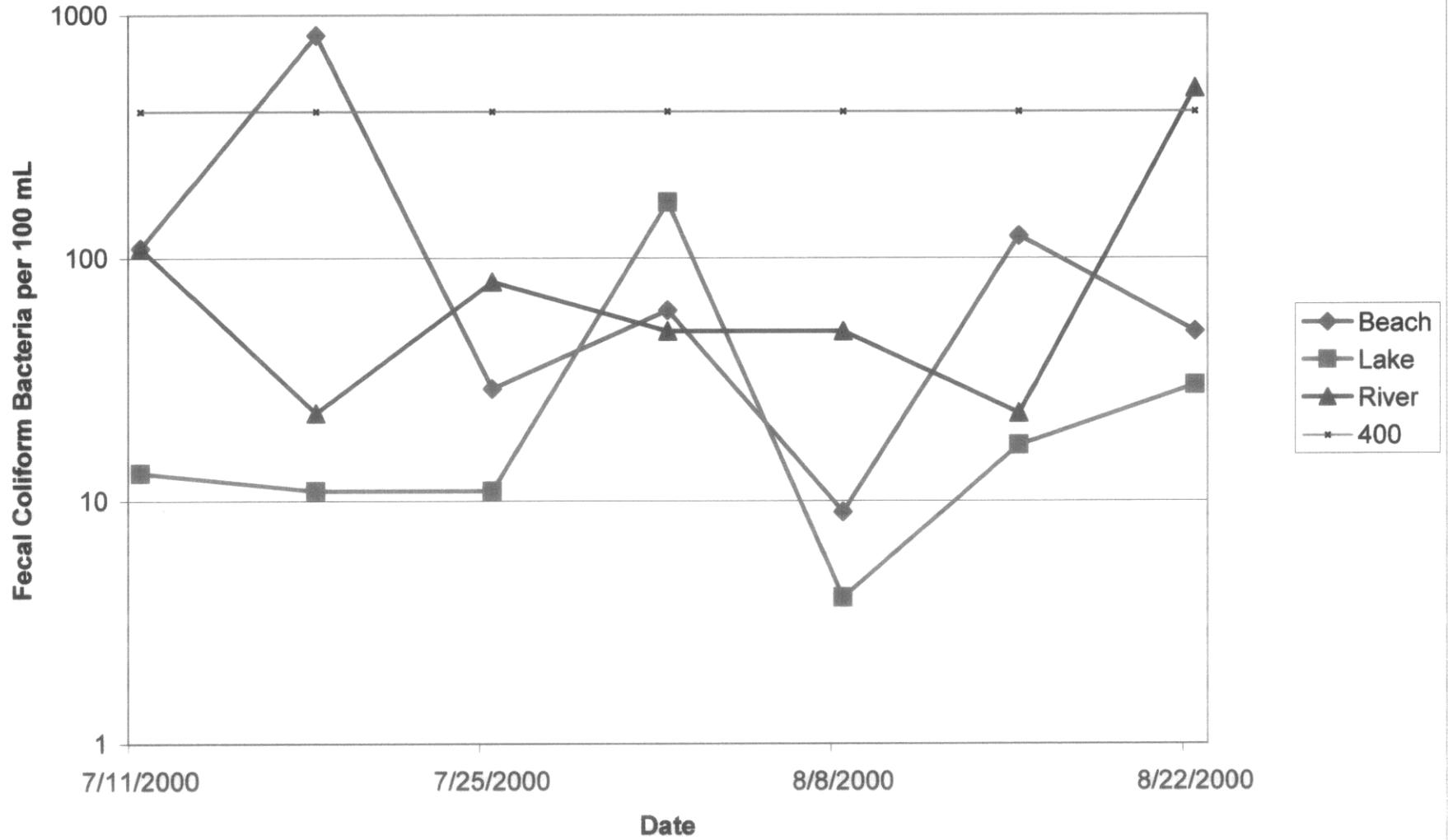
R J LaFleur 209-3694520

filed 8-9-05

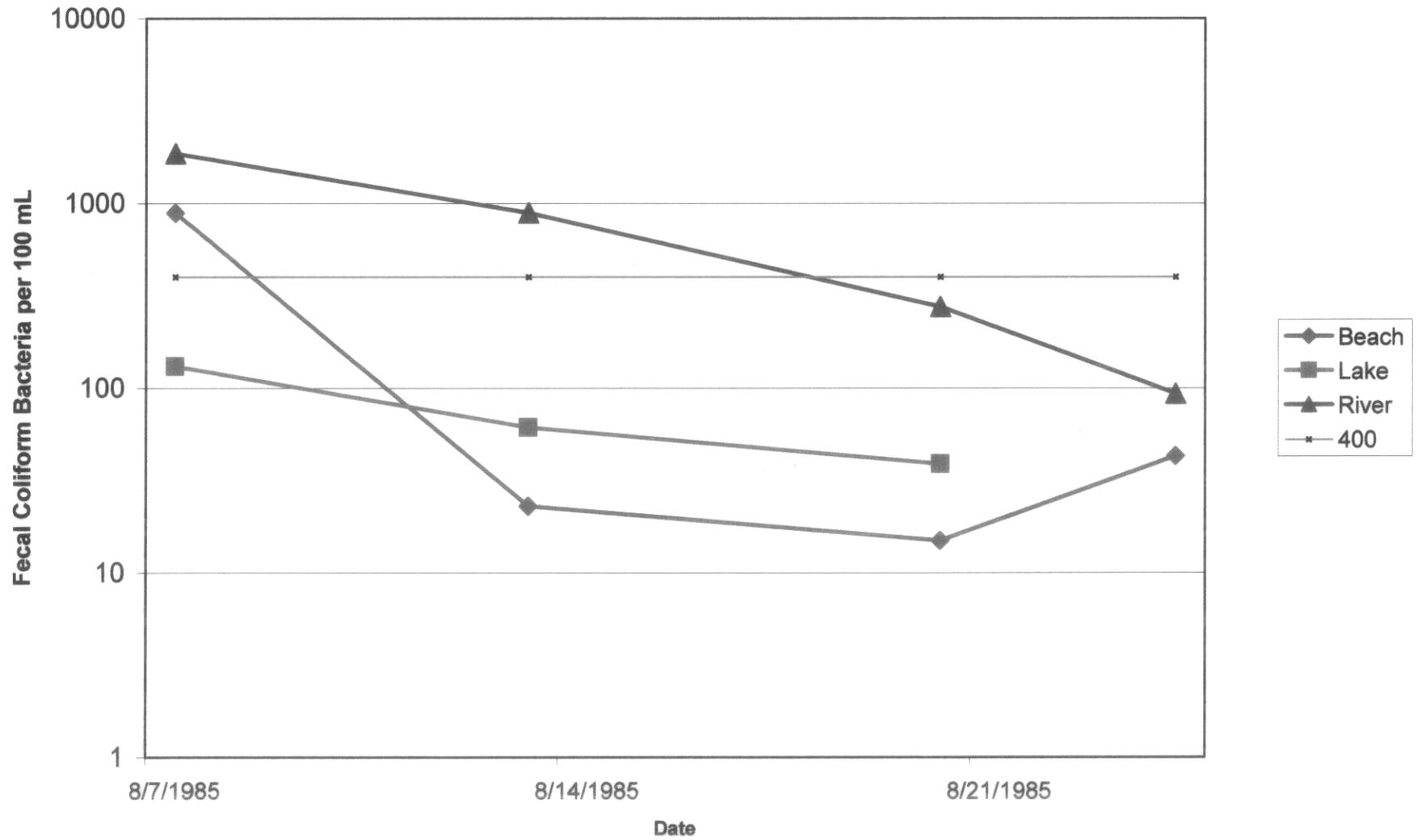
Fecal Coliform Bacteria Levels 2005



Fecal Coliform Bacteria Levels 2000



Fecal Coliform Bacteria Levels 1985



CITY OF LODI
 White Slough Water Pollution Control Facility

Lodi Lake Coliform Monitoring

	# Sample Events	# Failures	Avg. Tot. Coliform *	Avg. Fecal *
2005**	34	4	383	218
2004	21	0	165	91
2003	20	1	221	67
2002	25	2	287	78
2001	21	0	208	45
2000	32	3	281	161
1999	29	3	NA	
1998	14	0	NA	
1997	15	0	NA	
1996	15	0	NA	
1995	16	0	NA	
1994	16	0	NA	
1993	16	0	NA	
1992	17	1	NA	

* Sample Average for Compliance, (per 100 mL)

** 2005 through 7/25/05

