



**CITY OF LODI
COUNCIL COMMUNICATION**

AGENDA TITLE: Receive Report On Drinking Water Chlorination

MEETING DATE: February 17, 2010

PREPARED BY: Public Works Director

RECOMMENDED ACTION: Receive report on drinking water chlorination.

BACKGROUND INFORMATION: The Public Works Department is bringing this matter to the City Council to highlight regulatory and operational changes in the water utility. Although no City Council action is sought, this item is intended to inform the public of these changes.

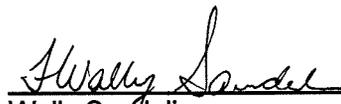
Lodi has a long history of providing groundwater free of chlorination to the public. For the last two years, however, the Public Works Department has added small amounts of chlorine to the City's drinking water supply at a handful of well sites to minimize bacteria detections and meet state drinking water standards.

In late November, a sample tested positive for bacteria. Further sampling was negative, and no additional action was needed. Public Works staff noted, however, that no residual chlorine had been detected in the City's water supply since August, despite its application at five to six well sites. This lack of residual chlorine may have allowed the bacteria to survive in the water system.

Although health regulators are not requiring the City to regularly chlorinate the water supply, this positive bacteria test in November coincided with the onset of a new federal groundwater regulation. Beginning December 1, 2009, a positive bacteria test in the water supply requires additional tests from all 26 of the City's wells within 24 hours, according to the U.S. Environmental Protection Agency's Ground Water Rule. Previously, only the immediate upstream and downstream sampling points required testing, in addition to the original sampling site.

As a result of the new regulation and recent sample results, Public Works is increasing the amount of chlorine to the system and the number of wells where the treatment is being applied. This new regulation places an operational and cost burden on the water utility that reduces the benefit of trying to operate without chlorination. Adding low levels of chlorine to the drinking water is a cost-effective way to limit the amount of follow-up testing that would otherwise be required when samples test positive for bacteria. The amount of additional chlorine is the minimum needed to keep the water system bacteria-free.

FISCAL IMPACT: It costs a minimum of \$950 to test all of the City's wells within 24 hours, requiring 18 staff hours. This assumes staff availability and no overtime.



Wally Sandelin
Public Works Director

APPROVED: 

Blair King, City Manager

Receive Report Drinking Water Chlorination

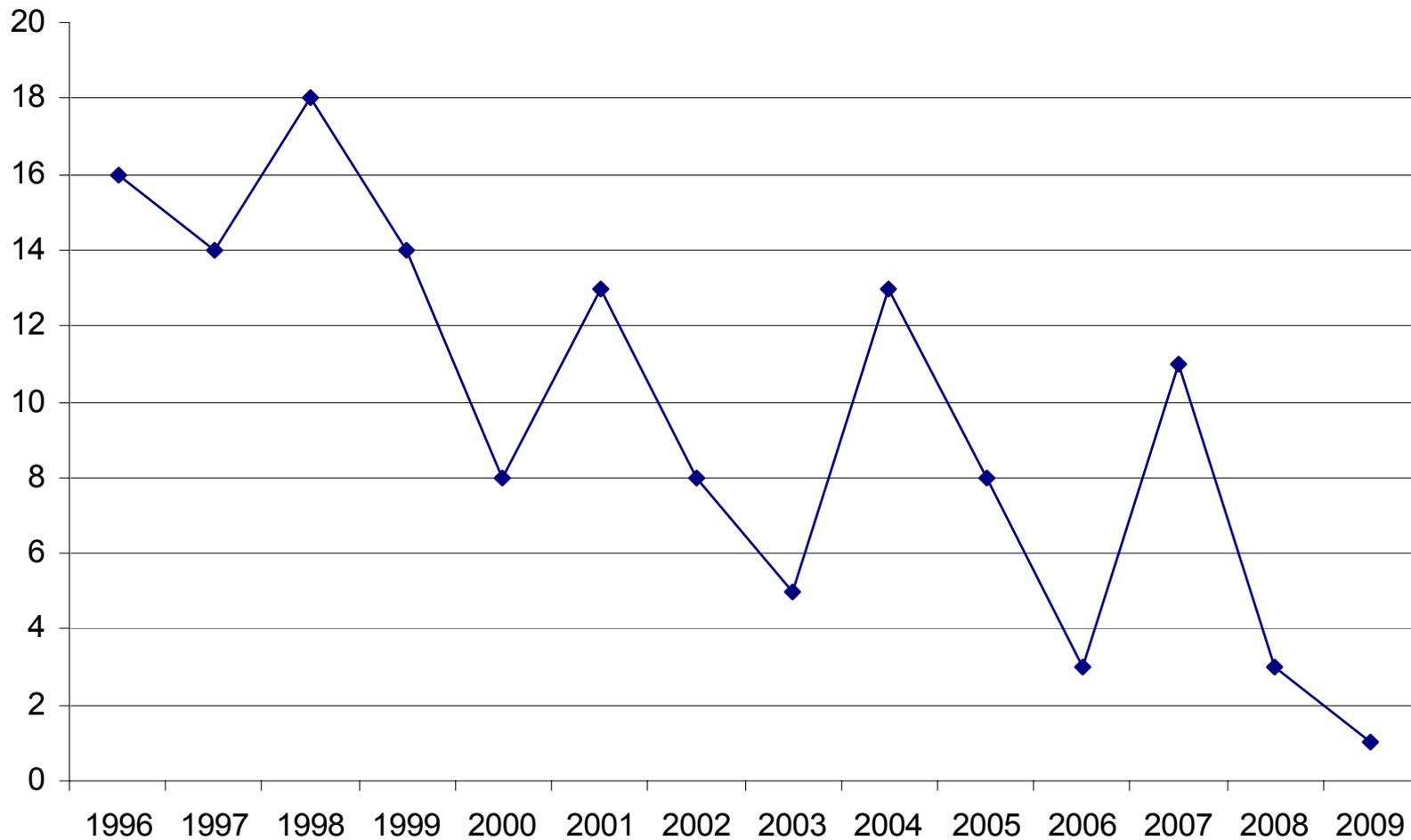
Lodi City Council
Regular Meeting
February 17, 2010

The background of the slide is a solid blue color. In the lower right quadrant, there are several decorative elements consisting of concentric circles, resembling ripples in water. These ripples are rendered in a lighter shade of blue, creating a subtle, textured effect against the main background.

Background

- Historically, Lodi's drinking water has been relatively free of chlorine
- Intermittent chlorine dosing has occurred
 - Taste and odor control
 - Positive coliform results
- Typical chlorine dosage has been 1.0 ppm with a system residual goal of .4 ppm

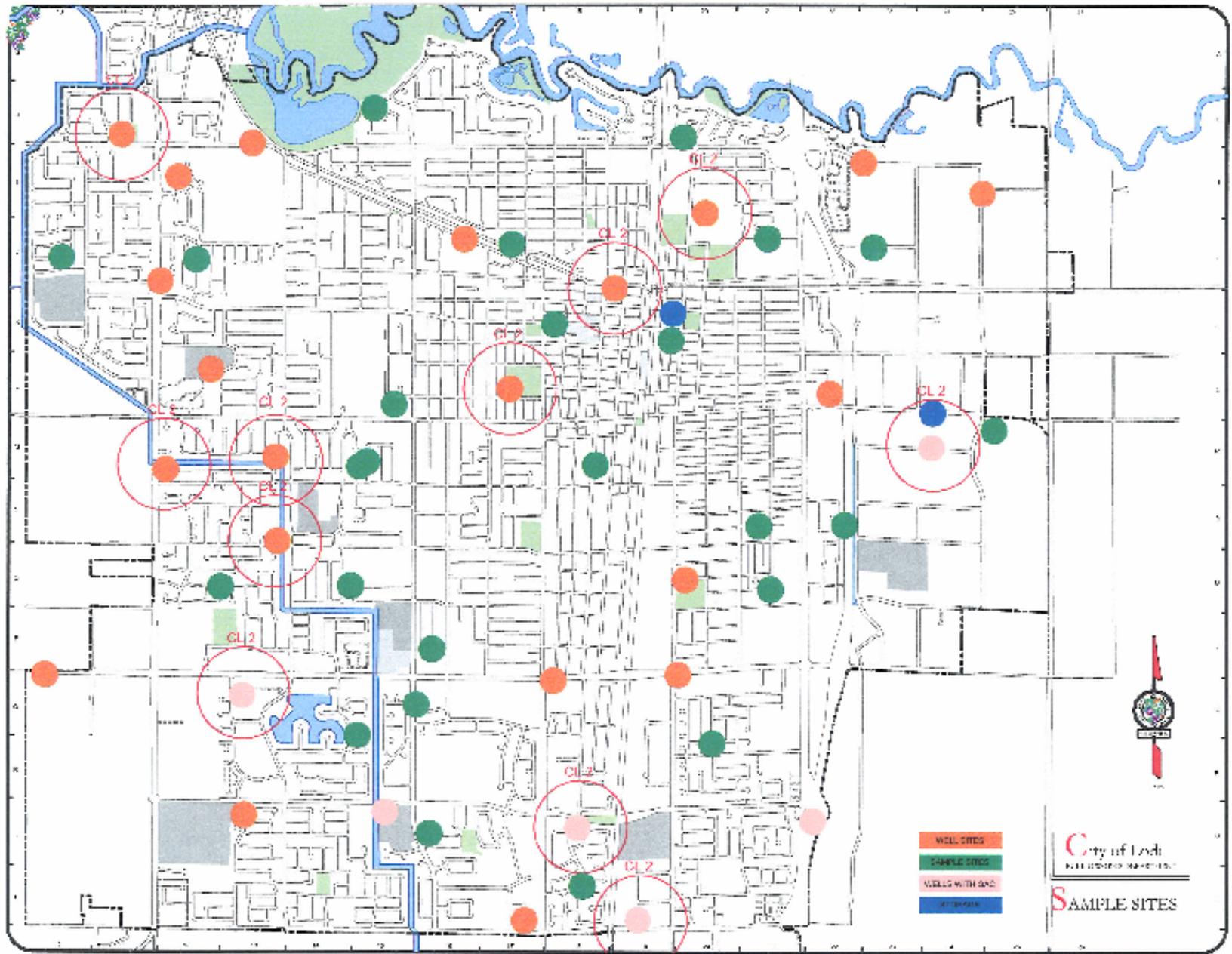
Annual Positive Total Coliform Samples



New Drinking Water Regulation

➤ Groundwater Rule

- Objective – Provide enhanced protection against microbial pathogens in public water systems
- Effective - December 2009
- Directive - Increase source monitoring



City of Lockport
 1111 CEDAR STREET

SAMPLE SITES

Chlorination Plan

➤ Goals

- Minimize / eliminate positive coliform results
 - Minimize source monitoring sampling
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- ## ➤ Establish a minimum chlorine residual of 0.05 to 0.10 ppm