CITY OF BEAVERTON

Beaverton
OREGON

Photo Red Light
Report to the Legislature
Process and Outcome Evaluation

February 2015

Photo Red Light Enforcement Project Evaluation

City of Beaverton
February 2015

Project Manager
Viola Valenzuela, Lieutenant

Program Coordinator
Peggy Porath

Table of Contents

I. Background – Legislative Report Requirements 1

II. Public Information Campaign 2
ORS 810.434 (3)(a)

III. Effect of the Use of Cameras on Traffic Safety 3
ORS 810.434 (3)(b)(A)

- **A. Reductions in Red Light Running Violations 3**
- **B. Reductions in Red Light Running Accidents and Injuries 4**
- **C. Residence of Beaverton Red Light Runners..... 5**

IV. Degree of Public Acceptance of the Use of Cameras 6
ORS 810.434 (3)(b)(B)

V. Process of Administration of the Use of Cameras..... 6
ORS 810.434(3)(b)(C)

- **A. Violation Detection..... 6**
- **B. Violation Processing..... 7**
- **C. Municipal Court Processing..... 8**

I. Background - Legislative Report Requirements

Oregon Revised Statute (ORS) 810.434 requires cities using photo red light equipment to provide a public information campaign to inform local drivers about the use of cameras before citations are issued and to produce a report to the legislature once each biennium. The law reads as follows:

(3) A city that chooses to operate a camera shall:

(a) Provide a public information campaign to inform local drivers about the use of cameras before citations are actually issued; and

(b) Once each biennium, conduct a process and outcome evaluation for the purposes of subsection (4) of this section that includes:

(A) The effect of the use of cameras on traffic safety;

(B) The degree of public acceptance of the use of cameras; and

(C) The process of administration of the use of cameras.

(4) By March 1 of each odd-numbered year, each city that operates a camera under this section shall present to the Legislative Assembly the process and outcome evaluation conducted by the city under subsection (3) of this section. [1999 c.851 §1; 1999 c.1051 §327; 2001 c.474 §1; subsection (5) of 2001 Edition enacted as 2001 c.474 §3; 2003 c.14 §491; 2003 c.339 §1; 2005 c.686 §1; 2007 c.640 §1; 2011 c.545 §65]

II. Public Information Campaign

ORS 810.434 (3)(a)

The City of Beaverton is the first city in the state of Oregon to use photo red light technology. While the technology was installed in January 2001, the program really credits its roots back to citizen efforts in the late 1990s. The City of Beaverton initiated an aggressive Red Light Running Campaign in December 1998. The purpose of the campaign was to educate Beaverton residents about the dangers of red light running. The campaign received a grant funded by the Federal Highway Administration, in conjunction with the Chrysler Corporation, and administered by the Oregon Department of Transportation (ODOT) for $124,003, with the City of Beaverton contributing an additional $20,107 in fiscal year 1999.

In addition to the public safety campaign, the City of Beaverton targeted specific public information materials to warn drivers that cameras would be used to enforce red light violations prior to the installation of cameras. The City mailed informational post cards to every household in Beaverton. The post cards gave specific details about the upcoming installation of red light camera equipment including: program description, criteria for receiving a citation, signal timing information, fine amounts, and ticket processing information. Beaverton also published articles in its *Your City* newsletter, mailed to every Beaverton household, prior to the installation of camera equipment. The City's elected officials and chief of staff participated in numerous media interviews to help spread the word to the community that red light cameras were coming to Beaverton. Below is a detailed list of actions taken to conduct a public information campaign about the use of red light cameras prior to issuing citations.

City of Beaverton Public Information Campaign Actions Prior to Issuing Red Light Citations

- Public Service Announcements
- Post Cards / Direct Mail
- Hand Outs at Public Events
- Street Signs
- Radio Messages
- Your City Newsletter
- Media Interviews
- Public Information Phone Line

The City of Beaverton's public information campaign efforts were enormously successful. In March 2001, **99% of Beaverton Residents were Aware of the City's Red Light Campaign**, according to a citizen survey.

III. Effect of the Use of Cameras on Traffic Safety

ORS 810.434 (3)(b)(A)

A. Reductions in Red Light Running Violations

Beaverton has analyzed the red light violation data from each of the photo-enforced intersections. ***The analysis shows that the City's photo red light intersections have realized a 36% reduction in red light running violations,*** comparing the first year of the program (2001) to the following years (2002-2010). The overall effect of the program has been a dramatic reduction in the number of red light signal violations. This is a tremendous success for Beaverton – and goes a long way to remind drivers "Red Means Stop" in Beaverton.

Addition of Right Turn on Red Enforcement

In November 2010, Beaverton City Council approved the Traffic Safety Proposal, which included the enforcement of Right Turn on Red violations. The goal of the Traffic Safety Proposal is to improve traffic safety through enforcement and education, two of the three E's to keeping a community safe. Benefits to enforcing right turn on red violations are pedestrian and bicycle safety.

Right turn on red enforcement began in January 1, 2011 with a 31 day warning period. During the January warning period, 362 warning letters were sent. Effective February 1, 2011, citations were issued for right turn on red violations.

It is typical to see an increase in the number of violations during the initial implementation of red light enforcement, but the numbers are expected to decrease over time as drivers become aware of the right turn on red enforcement and are reminded that "Red Means Stop" in Beaverton.

Red Light Running Violations at Beaverton Photo Red Light Intersections

	2011	2012*	2013	2014*
Red Light Violations	9,369	13,526	12,870	10,600

***2012 Increase in Violations** - In 2011 it was discovered that one red light intersection did not have detection loops to enforce the right turn on red violations, this was corrected in July 2012.

***2014 Decrease in Violations** - In 2014 a decrease in violations is due to equipment down time from storm damage and a separate third party software glitch.

On average red light running violations have decreased since right turn on red enforcement began.

Overall Reductions in Red Light Running Violations at Beaverton Photo Red Light Intersections

	2012	Average of 2013-2014	Average Change in Violations
Red Light Violations	13,526	11,735	**-13%**

B. Reductions in Red Light Running Crashes and Injuries

The City of Beaverton has achieved positive results from the photo red light program. ***Injury crashes at Beaverton photo red light intersections have decreased 41%,*** comparing the first year of the program (2001) to the following years (2001 – 2010). Overall crashes have decreased 6%, but more importantly the severity of these crashes has been significantly reduced.

For clarification analysis of the crash data showed that the data used from 2001 – 2010 appears to have included all crashes where the location was coded to the intersection and included crashes where red light running was not a contributing factor. The 2011 – 2014 data only includes crashes that occurred in the intersection and where red light running was a contributing factor.

Crashes (C) and Injury Crashes (I) at Beaverton Photo Red Light Intersections – 2011 through 2014

Red Light Intersection	Cedar Hills/ Walker		SR 10/ Griffith		Allen/ Lombard		Scholl's/ Hall	
	C	I	C	I	C	I	C	I
2011	0	1	0	0	0	0	0	2
2012	2	0	0	1	0	0	1	0
2013	4	0	0	0	1	1	8	0
2014	2	0	0	0	1	1	8	0

Although overall crashes have slightly increased, the number of injury crashes have continued to decrease showing consistent evidence that the severity of crashes at these intersections is reduced.

C. Residence of Beaverton Red Light Runners

The majority of red light runners at Beaverton photo enforced intersections do not live in Beaverton. The City has tracked this number over the years and it remains consistent. On Average, ***72% of red light runners at Beaverton's photo enforced intersections do not live in Beaverton.*** As previously reported, the city faces continual challenges of modifying driving behavior when such a high percentage of red light violators do not live in Beaverton. The city attributes gradual increases in violations to the fact that so many drivers are traveling though the city and do not reside in Beaverton.

IV. Degree of Public Acceptance of the Use of Cameras

ORS 810.434 (3)(b)(B)

The City of Beaverton has conducted several different public opinion surveys over the years. The results have been very consistent and demonstrate that Beaverton residents strongly favor the use of cameras for red light enforcement.

Survey Results

When asked "Are you aware of the City's photo red light enforcement program?" the majority of Beaverton residents surveyed said yes.

November 2011 (442 responses)	97%
November 2012 (666 responses)	94%
November 2014 (894 responses)	89%

In 2014 half of the Beaverton residents surveyed (806 responses) said it was their opinion that photo red light enforcement worked fairly well or very well and that photo enforcement improved their driving behavior

The opportunity for public comment is available via the city website, city council meetings, police traffic hotline phone number and directly to the photo enforcement program coordinator. Feedback remains mostly positive.

V. Process of Administration of the Use of Cameras

ORS 810.434 (3)(b)(C)

The administrative process for the use of photo red light cameras encompasses many components. The steps for issuing a citation consist of: violation detection, violation processing, quality control checks, review and approval by a police officer, and finally citation creation and mailing. Intertwined in these steps are the city's compliance with legislative requirements dictated in ORS 810.434 and 810.436. After citations are issued they fall under the jurisdiction of Beaverton's Municipal Court.

A. Violation Detection

The City of Beaverton uses automated enforcement systems to issue citations for red light running violations. The red light camera system is connected to the traffic signal and the camera is only activated when the driver enters the intersection AFTER the light has turned red. The only drivers photographed are those who run the red light.

Each violator receives four photographs in the mail. The first photograph shows the vehicle before the crosswalk and clearly shows the red light. The second picture is a close up of the driver's face to confirm who was driving the vehicle. The third photograph is a close up of the vehicle's license plate. The final photograph shows the vehicle exiting the intersection.

B. Violation Processing

Once a red light running violation has been detected the city's vendor uses encryption technology to safeguard the images against alteration. A search is performed with the Oregon Department of Motor Vehicles (DMV) to determine the registered owner of the vehicle. The vendor also performs a quality control review of each violation. There are several common reasons for why a potential violation is rejected.

Common Reasons for Not Issuing Citations

- Emergency vehicle with flashing lights
- Driver's gender does not match registered owner
- Driver is unidentifiable
- Can't identify or read license plate
- Wrong or No DMV info available
- Driver or plate obstruction
- Sun glare
- Equipment Issue
- Photograph alignment
- Funeral procession

Photo red light citations are issued following a multi-step process that ensures the digital photographs; violation data and owner information are accurate. If any of the evidence and information does not meet stringent quality control standards, citations are not issued.

A Beaverton police officer reviews each violation, after it has been through the quality control process, and determines whether or not a citation should be issued. After the police officer affirms the citation, their electronic signature is printed on the citation. The City's vendor then prints and mails the citations to the registered owner. The defendant receives a copy of the citation in the mail, along with the four photographs of the violation incident, an explanation letter, the advice of rights information normally found on the back of traffic citations, and a Certificate of Innocence form or Certificate of Non-Liability form (to complete if they were not the driver of the vehicle at the time of the violation).

An important component of Oregon's photo red light statute is that the citation is issued to the *registered owner* of the vehicle. The registration information is determined though the DMV's records. Oregon law requires drivers to maintain their updated address information with the DMV. The presumption in Oregon on photo red light citations, as with parking tickets, is that the registered

owner of the vehicle is the driver at the time of the violation. The onus is on the registered owner to provide evidence if they were not the driver at the time of the violation, through the process of completing a Certificate of Innocence or Certificate of Non-Liability form.

C. Municipal Court Processing of Photo Red Light Citations

The City of Beaverton has the first paperless Municipal Court in the nation. This accomplishment has streamlined the City's citation processing and increased the court's overall efficiency. A violator receiving a photo red light citation has all of the same rights and options as anyone with a traffic violation issued from an officer stop, with the inclusion of the Certificate of Innocence/Certificate of Non-Liability form. If the registered owner of the violating vehicle completes the form, along with providing the court with a photo copy of their driver's license, the citation against the registered owner will be dismissed.

The majority of people who receive photo red light citations plead no contest and are convicted. Less than one quarter of the violations resulted in a dismissal due to the completion of a Certificate of Innocence/Non-Liability form. The following chart highlights the outcomes of photo red light citations issued in Beaverton since the inception of the program.

Outcomes of Beaverton Photo Red Light Citations Issued for Years 2001-2014

Outcome of Citation	Number	Percent of Total
Convicted	33,297	64.8%
Dismissed – Certificate of Innocence	10,231	19.9%
Dismissed – Certificate of Non Liability	1,778	3.5%
Dismiss – Includes Traffic School Diversion	5,521	10.8%
Pending	424	0.8%
Other	123	0.2%
TOTAL	51,377	100.0%