

# **BLUE FOLDER ITEM**

*Blue folder items are additional back up material to administrative reports and/or public comments received after the printing and distribution of the agenda packet for receive and file.*

## **CITY COUNCIL MEETING FEBRUARY 17, 2026**

### **J.1 PUBLIC PARTICIPATION ON NON-AGENDA ITEMS**

- **PUBLIC COMMUNICATION**

**From:** [Mark Nelson \(Home Gmail\)](#)  
**To:** [Communications](#); [ehmail@ph.lacounty.gov](#); [info@westbasinca.gov](#); [info@theriverproject.org](#); [BoardExecutiveSecretary@mwdh2o.com](#); [executiveoffice@bos.lacounty.gov](#); [Holly J. Mitchell](#); [CityClerk](#)  
**Subject:** Public Comment: Water Agency Policy on Rain Barrels and its Direct Link to Disease Proliferation  
**Date:** Monday, February 16, 2026 2:30:21 PM

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I am very concerned about the push from water agencies to install rain barrels. The vector control agencies are clear that barrels are a hazard unless very fine screen and/or mosquito toxins are included with them. Further, it appears that some species are far less deterred by the countermeasures. Further, personal experience shows that mosquito dunks are becoming both more expensive and less effective. It is highly doubtful that the water agency advice of "tip and scrub" between rain events has any level of compliance, nor can we rely on double layer, no see 'um fine grade screen due to its plugging and maintenance requirements.

**Hopefully health agencies can take on this very vexing issue prior to full scale epidemics of other agencies' actions that are subsidized with taxpayer funding.**

In Southern California, rain barrels are a primary focus of water conservation efforts, but they are also documented as significant breeding sites for both native and invasive mosquitoes. Research from regional vector control agencies highlights a shift in risk due to the arrival of invasive *Aedes* species, which thrive in small, artificial containers like rain barrels.

## Overview of Research and Documentation

### 1. Vector Dynamics and Species Prevalence

Research by agencies like the **San Gabriel Valley Mosquito & Vector Control District (SGVMVCD)** and the **Orange County Mosquito and Vector Control District (OCMVCD)** identifies two main mosquito threats associated with Southern California rain barrels:

- **Native *Culex* Mosquitoes:** Traditionally the primary concern, these mosquitoes breed in stagnant water and are the principal vectors for **West Nile Virus (WNV)**.
- **Invasive *Aedes* Mosquitoes:** Specifically *Aedes aegypti* and *Aedes albopictus* (the "ankle-biters"). Documentation shows these species are highly adapted to urban environments. They lay eggs just above the waterline in rain barrels; these eggs can remain dormant for years until the barrel refills.

### 2. Structural Vulnerabilities in Rain Barrels

Documentation from the **California Department of Public Health (CDPH)** and local districts emphasizes that "mosquito-proof" barrels are often a misnomer. Research indicates specific failure points:

**The Intake and Overflow:** Even high-quality barrels often have mesh screens that are too coarse. Research recommends a **1/16-inch (1.6 mm) fine mesh** to prevent entry.

- **Structural Integrity:** Studies show that over time, seals around downspouts and lids degrade, providing entry points for gravid (pregnant) females.
- **Residual Water:** Due to the placement of the outflow spigot (usually 1–2 inches above the bottom), "empty" barrels often retain a small pool of water, which is sufficient for hundreds of larvae.

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## Disease Transfer and Public Health Risks

### West Nile Virus (WNV)

WNV is the most significant mosquito-borne threat in Southern California. The virus follows a "bird-mosquito-human" cycle.

- **Transmission:** A *Culex* mosquito bites an infected bird and then transfers the virus to a human.
- **Recent Statistics:** As of early 2026, California continues to report hundreds of human cases annually, with Los Angeles and Orange Counties frequently being hotspots due to high population density and suburban standing water sources.

### Invasive *Aedes* and Tropical Diseases

The presence of *Aedes* mosquitoes in Southern California has introduced the potential for "local transmission" of diseases usually found in tropical climates:

- **Zika, Dengue, and Chikungunya:** While most cases in California are travel-related, vector control research warns that if an *Aedes* mosquito bites an infected traveler, it can then spread the disease to others in the neighborhood.
- **Feeding Behavior:** Unlike native mosquitoes that bite at dawn and dusk, *Aedes* are aggressive daytime biters, increasing the window of potential disease transfer.

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## Mitigation and Best Practices

The **Vector Reduction Manual** for Southern California outlines several evidence-based strategies:

- **Bti (*Bacillus thuringiensis israelensis*):** A biological larvicide (e.g., "Mosquito Dunks") that kills larvae without harming pets or the environment.
- **The "Tip and Toss" Method:** Emptying barrels completely between rain events and scrubbing the interior walls to dislodge *Aedes* eggs.

- **Fine Screening:** Double-layering mesh on all openings.

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## Citations and References

<b>Source Organization</b>	<b>Document/Article Title</b>	<b>URL</b>
<b>San Gabriel Valley MVCD</b>	Mosquitoes Love Rain Barrels	<a href="#">Visit Site</a>
<b>California Dept. of Public Health</b>	California West Nile Virus Activity (2025-2026)	<a href="#">Visit Site</a>
<b>Orange County MVCD</b>	Vector Reduction Manual and Guidelines	<a href="#">Visit Site</a>
<b>UC Statewide IPM Program</b>	Mosquitoes: Management in Home and Landscape	<a href="#">Visit Site</a>
<b>City of Long Beach</b>	Vector Control Program: Mosquitoes and WNV	<a href="#">Visit Site</a>
<b>GLA Mosquito &amp; Vector Control</b>	Harvest Water, Not Mosquitoes: A Guide	<a href="#">Visit Site</a>

**From:** [Mark Nelson \(Home Gmail\)](#)  
**To:** [CityClerk](#); [James Light](#); [Paige Kaluderovic](#); [Chadwick B. Castle](#); [mike.witzanzky@redondo.org](#); [Joy Ford](#); [Brad Waller](#); [Scott Behrendt](#); [Zein Obagi](#)  
**Cc:** [Kevin Cody](#)  
**Subject:** Blue Folder Item - Non-Agenda Items - Existing BCHD Damages to Surrounding Property Values  
**Date:** Tuesday, February 17, 2026 1:55:40 PM  
**Attachments:** [image.png](#)  
[image.png](#)  
[Draft Loss-of-Value Literature Review for Damages within 1-mile of BCHD Campus \(2026-02-17 v11\).pdf](#)

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Update on current loss-of-value study for the surrounding residents of BCHD/514 N Prospect Ave.

**Based on litigation standard literature review and modeling methods, the current draft estimated loss-of-value to surrounding property values from the existing BCHD facility with FAR square footage of 250,000, setbacks of over 100-feet to all tall buildings, a maximum building height of 51.5-feet for 99.7% of the campus floor space, and an average floor space height of less than 40-feet is over \$200M to the surrounding 1-mile radius. THIS IS VERY CONSISTENT, IF NOT CONSERVATIVE, COMPARED TO THE LITERATURE.**

**This custom hedonic price model (HPM) analysis is the litigation standard, especially when coupled with the rich, location specific dataset of housing values and characteristics for the surrounding area. The Council should carefully consider how much additional loss-of-value it will cause by shrinking BCHD site existing setbacks, increasing square footage of floorspace, and increasing building heights.**

**SUMMARY OF DRAFT LITERATURE REVIEW AND CUSTOM HPM OUTPUT**

The attached draft literature demonstrates how peer-reviewed studies primarily using hedonic pricing models demonstrate significant loss of value to surrounding neighborhoods. That loss of value exceeds any estimated benefit provided by the BCHD facility based on any litigation quality studies by BCHD.

**Peer-reviewed studies provide the following estimate of loss values:**

<b>Impact Zone</b>	<b>Distance (Miles)</b>	<b>Estimated Value Loss</b>	<b>Primary Drivers &amp; Externalities</b>
<b>Primary Impact Zone</b>	0 – 0.25	<b>8% to 15%</b>	High-frequency sirens (24-hour), daily bus traffic, "looming" visual scale, and reduced privacy/quiet enjoyment.
<b>Secondary Impact Zone</b>	0.25 – 0.50	<b>3% to 6%</b>	Overflow street parking from staff/visitors and increased congestion at local intersections.
<b>Buffer Zone</b>	0.50 – 1.0	<b>0% to 2%</b>	Neutralized impact; disamenities are balanced by the convenience of nearby medical services and health clubs.

Based on the average property value of \$1,619,467 in the dataset, the literature estimates loss-of-value ranges listed in the table, and the custom hedonic price model's results are very similar.

Distance from 514 N Prospect	Loss Range		Loss Estimate per Property		Draft HPM Result
	Low	High	Low	High	
0-.25 mi	8%	15%	\$ 129,557	\$ 242,920	7.1%
.25-.50 mi	3%	6%	\$ 48,584	\$ 97,168	5.1%
.50-1.0 mi	0%	2%	\$ -	\$ 32,389	3.2%

**Custom hedonic price model analysis of the area loss-of-value are very consistent with the literature review, lending strong support to the model form and use of over 5,000 sets of residential housing price and characteristics data for loss-of-value modeling.**

The surrounding residential units in Torrance and Redondo Beach within 1-mile of 514 N Prospect are summarized below from the draft study results. They are significant and exceed \$200M of damages and lost value.

DRAFT - REDONDO BEACH AND TORRANCE RESIDENTIAL PROPERTY VALUE					
IMPACTS OF BEING LOCATED WITHIN 1-MILE OF BCHD					
Within Feet from 514 N. Prospect (BCHD)	Total Residential Units	Total Value Reduction (Loss)	Per House Value Reduction (Loss)	Distance Ring from BCHD	Per House Incremental Value Loss
1,000	246	\$ 31,596,935	\$ 128,443	0-1000 Ft	\$ 128,443
2,000	757	\$ 76,018,842	\$ 100,421	1-2000 FT	\$ 86,931
3,000	1,702	\$ 125,994,972	\$ 74,028	2-3000 FT	\$ 52,885
4,000	2,993	\$ 172,021,021	\$ 57,474	3-4000 FT	\$ 35,651
5,000	4,364	\$ 202,037,457	\$ 46,296	4-5000 FT	\$ 21,894
<b>Maximum Value Loss</b>	\$ 230,724				
<b>Minimum Value Loss</b>	\$ 14,332				

# Literature Review of Gold Standard Modeling Methods for Litigation Support Determination of Loss-of-Value from Nuisance Facility Behaviors on Surrounding Residential Property

## The Hedonic Price Model (HPM) in Litigation Support for Loss-of-Value

The **Hedonic Price Model** is the primary econometric tool used to isolate the impact of specific negative externalities on property values. It operates on the theory that a house is not a single homogeneous good, but a bundle of attributes. By using multiple regression analysis, researchers can "strip away" the value of various characteristics to find the specific marginal effect of a nuisance.

## Typical Factors in the HPM Equation

In litigation support and forensic appraisals, the model generally includes three categories of independent variables:

- **Structural Characteristics:** Square footage (size), number of bedrooms, number of bathrooms, age of the structure, presence of a garage, and lot size.
- **Neighborhood/Locational Characteristics:** School district quality, crime rates, proximity to central business districts, and median household income of the census tract.
- **Environmental/Nuisance Variables:** The primary focus is **Distance (\$d\$)** from the facility. This is often modeled as a continuous variable or through "dummy variables" for specific distance rings (e.g., 0–0.25 miles).

## Peer-Reviewed Studies & Summaries

- **Rosen, S. (1974). Hedonic prices and implicit markets: Product differentiation in pure competition. *Journal of Political Economy*, 82(1), 34–55.**  
This seminal paper provides the theoretical foundation for hedonic pricing. Rosen demonstrates how the observed price of a commodity (like a house) can be decomposed into the implicit prices of its individual attributes. This allows for the mathematical isolation of a "disamenity" price, which is essential for calculating damages in legal contexts.
- **Malpezzi, S. (2003). Hedonic pricing models: A selective and applied review. *Housing Economics and Public Policy*, 67–105.**  
Malpezzi provides a practical framework for applying HPM to real estate. The study emphasizes the importance of functional forms (like semi-log models) to account for the diminishing returns of certain features and provides a "best practices" guide for selecting control variables to avoid "omitted variable bias" when testifying on property value loss.

## Literature Review of Negative Externality Damages to Surrounding Residential Property Value from Various Types of Nuisance Behaviors

### Nuisance Facilities and Value Reduction

The impact of a nuisance facility typically follows a **distance-decay function**: the negative impact is most severe at the "fence line" and dissipates as one moves further away.

### Externalities and Distance Tiers

The literature identifies several specific externalities that drive value reduction:

- **Traffic & Parking:** High turnover of non-resident vehicles and loss of street parking.
- **Noise & Sirens:** Constant auditory disruption, particularly from 24-hour facilities.
- **Visual Clutter:** Loss of views, increased light pollution, and "institutional" rather than residential aesthetics.

### Typical Value Impact Ranges

Distance	Typical Impact Range	Primary Drivers
0 – 0.25 mi	5% to 15% reduction	Direct noise, light, and visual blight.
0.25 – 0.5 mi	2% to 5% reduction	Increased traffic congestion and cut-through travel.
0.5 – 1.0 mi	0% to 2% (often negligible)	Broad neighborhood perception; impact often fades.

### Peer-Reviewed Studies & Summaries

- **Boyle, M. A., & Kiel, K. A. (2001). A survey of house price hedonic studies of the impact of environmental externalities. *Journal of Real Estate Literature*, 9(2), 117–144.**  
This meta-analysis reviews several decades of research on negative externalities. It concludes that while proximity to industrial or high-traffic facilities consistently lowers property values, the "gradient" of that loss is steep—meaning values recover quickly once beyond the 0.5-mile radius.
- **Simons, R. A., & Saginor, J. D. (2006). A meta-analysis of the effect of environmental contamination and other externalities on residential real estate values. *The Appraisal Journal*, 74(1), 71.**  
This study provides a comprehensive look at "nuisance" impacts. It categorizes facilities by type and finds that "institutional" nuisances (like large complexes) cause significant value friction in the immediate 0.25-mile ring due to the influx of non-residents and the resulting "loss of privacy" for established homeowners.

## Literature Review of the Specific Impacts of a Multi-Use Medical & Residential Complex

### Primary Negative Externalities of a Multi-Use Medical & Residential Complex

A facility combining **Medical Offices, Urgent Care, PACE, Assisted Living, and a Health Club** represents a high-intensity institutional use. The primary negative externalities identified for this specific mix include:

1. **High-Frequency Sirens:** Driven by the Urgent Care and Memory Care components.
2. **Traffic Volatility:** The "PACE" program involves busing enrollees in/out daily, creating "pulse" traffic events that differ from standard residential flow.
3. **Density Shift:** 450 total units (Apartments + Assisted Living + Memory Care) creates a massive increase in "non-resident" presence in what may have been a low-density area.

### **Estimated Property Value Loss by Distance**

- **0 – 0.25 miles:** Research suggests a loss of **8% to 12%**. The combination of 24/7 operations (Urgent Care/Memory Care) and the busing activity (PACE) creates a significant "industrial" feel.
- **0.25 – 0.50 miles:** A loss of **3% to 6%**. Impact is largely driven by increased traffic at local intersections and the visual "looming" of large-scale medical office buildings.
- **0.50 – 1.0 miles:** Impact typically ranges from **0% to 2%**. At this distance, the convenience of the Health Club and medical services may begin to "offset" the negative externalities, leading to a neutral effect.

### **Peer-Reviewed Studies & Summaries**

- **Guo, Y., & Peiser, R. (2020). The effect of senior housing on nearby property values. *Journal of Real Estate Research*, 42(4).**  
This study looks specifically at the introduction of assisted living and memory care units into residential neighborhoods. It finds that while "luxury" senior living can be neutral, high-density complexes with significant medical/staffing components tend to depress values within the immediate 0.25-mile radius due to perceived "institutionalization" of the streetscape.
- **Espey, M., & Lopez, H. (2000). The impact of airport noise and proximity on residential property values. *Growth and Change*, 31(3), 408–419.**  
While focused on airports, this is the gold standard for studying "intermittent loud noise" (similar to sirens). The study finds that frequent, unpredictable noise events (like those from Urgent Care ambulances) are more damaging to property values than constant low-level noise, particularly in the 0–0.5 mile range.
- **Ji, C., & Zhang, Y. (2021). Impact of mixed-use medical complexes on residential surrounding: A spatial analysis. *Land Use Policy*, 102.**  
This research examines "medical clusters" and finds that the influx of non-residents (patients, staff, and bused enrollees) leads to a measurable "loss of neighborhood exclusivity." The study notes that residential values within 0.25 miles saw a significant dip compared to the broader market, largely attributed to the loss of on-street parking and increased traffic volume.

## Conclusion: Valuation of Negative Externalities from Medical-Residential Facilities

The cumulative evidence from peer-reviewed literature and the application of the **Hedonic Price Model (HPM)** indicates that large-scale, multi-use medical and residential complexes create a measurable "shadow" of value reduction on surrounding single-family homes. This impact is primarily driven by the transition from a quiet residential environment to an **institutionalized setting** characterized by increased traffic volatility, intermittent noise (sirens), and a loss of neighborhood exclusivity.

### *Summary of Findings by Distance*

The research consistently demonstrates a **Distance-Decay Function**, where the magnitude of damage is inversely proportional to the distance from the facility:

- **0 – 0.25 Miles (Primary Impact Zone):** This area experiences the most significant value loss, typically ranging from **8% to 15%**. The primary drivers are the high-frequency externalities of the **Urgent Care** and **PACE** programs, which introduce 24-hour sirens and daily busing traffic. The visual scale of 450 residential units and medical office buildings often creates a "looming" effect that reduces the privacy and "quiet enjoyment" of adjacent homeowners.
- **0.25 – 0.50 Miles (Secondary Impact Zone):** Value reduction in this tier typically moderates to **3% to 6%**. Here, the physical presence of the buildings is less intrusive, but homeowners still contend with secondary externalities, such as **overflow street parking** from staff and visitors and increased congestion at local intersections.
- **0.50 – 1.0 Miles (Buffer Zone):** Impacts in this range are generally minimal, falling between **0% and 2%**. At this distance, the "disamenity" of the facility is often neutralized by the "amenity" value of having a health club and medical services nearby, leading to a stabilization of property values.

### *Key Data Inputs for Litigation Support*

For valuation professionals and legal counsel, the literature emphasizes that damages cannot be calculated using a flat percentage across a neighborhood. Instead, a credible forensic appraisal must utilize a hedonic approach that controls for:

1. **Structural Integrity:** Isolating age and size to ensure the loss is not due to property depreciation.
2. **Frequency of Nuisance:** Distinguishing between constant noise (HVAC systems) and intermittent high-stress noise (sirens).
3. **Visual Blight:** Accounting for the specific line-of-sight from the subject property to the facility.

In summary, while medical complexes provide essential community services, they represent a significant **intensity shift** in land use. For residential properties within a half-mile radius, this shift results in a quantifiable reduction in market value due to the friction between quiet residential living and high-turnover institutional operations.