**Frequently Asked Questions**

**What is the San Diego I-15 Integrated Corridor Management (ICM) project?**

The ICM project is a multi-agency and multimodal system that allows us to make best use of our existing transportation networks. The project uses cutting-edge technology to operate and manage individual transportation systems as a unified network. It allows freeway, surface street, and transit networks to be managed together to improve mobility and maximize system efficiency.

The ICM project covers a 20-mile section of Interstate 15 (I-15) from just north of State Route 52 in the City of San Diego to State Route 78 in the City of Escondido, including the state-of-the-art I-15 Express Lanes and major arterial routes on either side of I-15 within several miles of the freeway.

The ICM project leverages the region’s extensive Intelligent Transportation System (ITS) modal networks to measure and manage performance from a corridor perspective. Existing assets include the Intermodal Transportation Management System (IMTMS), Regional Arterial Management System (RAMS), Advanced Freeway Traffic Management System (ATMS), Regional Transit Management System (RTMS), 511 advanced traveler information system, and National Earthquake Early Warning System (NEEW).

**Why was the I-15 ICM project implemented?**

The ICM project places emphasis on how we can best manage and operate our freeway, arterial, and transit management technologies to improve travel times and throughput, particularly when we know that we cannot build our way out of congestion due to cost, environmental, or diminishing federal or state funding resources.

The ICM system helps transportation operators to work together to rapidly respond to conditions on the ground at any given time, and provides a cost-effective traffic management tool that leverages existing transportation systems to work together to better manage congestion, maximizing efficiency of the surface transportation network by smoothing the flow of traffic on streets and highways and enhancing public transit information, thus reducing stop and go traffic, reducing travel times, and enhancing travel modal and routing options. Our commitment to the ICM strategy is a fundamental and core component of the SANDAG Regional Transportation Plan’s Transportation System Management vision.

**In short, Integrated Corridor Management:**

- Is the next logical step in congestion management
- Optimizes existing transportation infrastructure along a corridor, making transportation investments go farther
- Enables travelers to make informed travel decisions and dynamically shift modes during a trip
- Reduces travel time, delays, fuel consumption, emissions, and incidents
- Increases travel time reliability and predictability
How was the I-15 ICM project funded?

In 2010, the San Diego region’s I-15 corridor was selected as one of two sites in the nation (the other is Dallas, Texas) by the U.S. Department of Transportation (USDOT) to receive a grant for $8.7 million to implement an Integrated Corridor Management (ICM) system. Since then, SANDAG has been working together with our partners (Caltrans, Metropolitan Transit System, North County Transit District, and the cities of San Diego, Escondido, and Poway) to design and implement the innovative ICM traffic management system.

How does the I-15 ICM system work?

The ICM project leverages the region’s extensive Intelligent Transportation System (ITS) modal networks to measure and manage performance from a corridor perspective. Existing assets include the Intermodal Transportation Management System (IMTMS), Regional Arterial Management System (RAMS), Advanced Freeway Traffic Management System (ATMS), Regional Transit Management System (RTMS), 511 advanced traveler information system, and FasTrak®. ICM enables multiple systems to “talk” to each other to coordinate operations and maximize efficiency regardless of who owns or operates the individual system; monitors changing conditions and congestion based on real-time information; generates automated response plans; and reevaluates and generates new response plans as traffic conditions change.

Operations in the corridor are managed using a Decision Support System (DSS), the first of its kind developed in the nation, to assist operators with prediction and evaluation of complex traffic interactions and coordinate selection of appropriate multi-network response strategies to manage congestion during commute times or major incidents.

Similar to earthquake or tsunami prediction systems, the DSS uses predictive algorithms and modeling tools to forecast corridor performance problems and recommend response plans. Predictions and recommendations are generated in 15-, 30-, and 60-minute horizons based on real-time and historical performance data. As a result, local transportation managers are able to carry out a coordinated response. For example:

- The ICM system provides the ability to coordinate the use of the I-15 Express Lanes system in with Caltrans’ changeable message signs, 511 traveler information, ramp meters, and arterial signal systems to bypass major incidents or during day-to-day traffic conditions to manage congestion.
- During an incident on I-15, timing of traffic signals and ramp meters can be adjusted to improve overall corridor throughput for better management of traffic entering or exiting the freeway system.
- With ICM, roadway traffic signals are set up to be coordinated automatically across jurisdictional boundaries to improve the flow of traffic as needed during traffic incidents.
- With ICM, ramp meters are used to better manage the flow of traffic during morning and evening commute times or as needed during freeway incidents by flushing or managing traffic through or around a freeway incident.
- With ICM, traveler information is enhanced to provide advance notifications on travel conditions based on reported events (i.e., lane closures due to accidents or stalled vehicles) or traffic delays due to excessive congestion and enhance transit route information based on real time data.
- With ICM, freeway changeable message signs and detour signs on arterial streets will be used to communicate congestion events, traffic conditions, and alternate roadway diversion routes. A total of 49 signs were installed on arterial streets in the cities of Escondido, Poway, and San Diego in fall 2015 to assist with this effort.
How will the I-15 ICM project improve my commute?

The ICM system assesses real-time conditions and quickly makes recommendations about what strategies are best suited to manage congestion and minimize impacts to travel times and overall efficiency of travel. Should a major incident occur, existing overhead changeable message signs on I-15 will direct motorists off the freeway to avoid traffic, and new detour signs will guide drivers through surface streets and back onto the freeway. The ICM project serves as an example of how agencies can make best use of technology assets to improve regional mobility. The ICM system will help:

- Save travel time and fuel consumption, cut greenhouse gas emissions, and reduce travel delays and accidents.
- Improve travel time reliability and predictability.
- Enable travelers to make more informed decisions by informing drivers where accidents are located, when to exit, and when to get back on the freeway.