After reviewing your Rally Mapper specification and App.jsx code, I can see you've built a solid foundation for a rally route mapping application. Here's my comprehensive analysis:

**Areas for Improvement**

**Critical Bug Fixes**

1. **GPS Coordinate Storage Inconsistency**: Your waypoints store GPS as lat/lon properties directly, but the map rendering expects gps.lat/gps.lon. This will cause map markers to not display.
2. **Distance Calculation Logic**: Currently calculating distance between consecutive waypoints, but should calculate cumulative distance from section start.
3. **Export Function Issues**: The exportAsKML function is called but not defined in the code.

**UX/UI Improvements**

1. **Better Visual Feedback**
   * Add loading states during GPS acquisition
   * Show GPS accuracy indicators
   * Implement better error messaging for GPS failures
   * Add visual confirmation when waypoints are saved
2. **Enhanced Map Experience**
   * Add polyline connecting waypoints to show route path
   * Implement map clustering for dense waypoint areas
   * Add different map types (satellite, terrain, hybrid)
   * Show current location with a distinct marker
3. **Improved Navigation Flow**
   * Disable irrelevant buttons based on app state
   * Add confirmation dialogs for destructive actions
   * Implement undo functionality for accidentally added waypoints
   * Better section management with edit/delete capabilities
4. **Data Management**
   * Add waypoint editing capabilities
   * Implement bulk operations (delete multiple waypoints)
   * Add search/filter functionality for waypoints
   * Better data validation and error handling

**New Feature Extensions**

**Advanced Rally Features**

1. **Pace Notes Integration**
   * Add standardized pace note symbols and terminology
   * Implement audio playback of pace notes
   * Support for custom pace note libraries
   * Integration with co-driver timing systems
2. **Stage Timing & Analysis**
   * Split timing at waypoints
   * Speed calculations between points
   * Performance analytics and heat maps
   * Comparison with reference times
3. **Advanced Navigation**
   * Heading/bearing calculations
   * Distance to next waypoint display
   * Route deviation alerts
   * Breadcrumb trail with configurable density

**Collaboration & Sharing**

1. **Real-time Collaboration**
   * Multiple device sync during events
   * Live sharing with service crews
   * Team communication integration
   * Event coordination features
2. **Enhanced Export Options**
   * PDF route books with embedded maps
   * Custom format exports for specific GPS devices
   * Integration with popular rally apps
   * Cloud backup and sync

**Professional Features**

1. **Event Management**
   * Multi-stage event support
   * Competitor tracking and timing
   * Results integration
   * Event documentation and reporting
2. **Advanced Mapping**
   * Offline map caching for remote areas
   * Custom map overlays (elevation, surface type)
   * Integration with surveying equipment
   * Historical route comparison
3. **Data Analytics**
   * Route optimization suggestions
   * Safety analysis and recommendations
   * Performance metrics and trends
   * Predictive modeling for stage times

**Technical Architecture Suggestions**

**Performance Optimizations**

* Implement virtual scrolling for large waypoint lists
* Add GPS data throttling to prevent excessive updates
* Optimize map rendering with marker clustering
* Implement efficient data structures for large datasets

**Mobile-First Enhancements**

* Add haptic feedback for all interactions
* Implement gesture controls for map navigation
* Add voice command integration
* Optimize for landscape orientation during driving

**Offline Capabilities**

* Enhanced offline map caching
* Local data encryption for sensitive route information
* Robust sync conflict resolution
* Progressive web app features for app-like experience

**Implementation Priority**

**High Priority (Core UX)**:

1. Fix GPS coordinate storage bug
2. Add polyline route visualization
3. Implement proper distance calculation
4. Add loading states and error handling

**Medium Priority (Enhanced Features)**:

1. Waypoint editing capabilities
2. Advanced export formats
3. Offline map caching
4. Performance optimizations

**Future Roadmap**:

1. Real-time collaboration features
2. Advanced analytics and reporting
3. Integration with existing rally ecosystems
4. AI-powered route optimization

Your app has excellent potential for the rally community. The core functionality is solid, but focusing on the UX polish and fixing the critical bugs will significantly improve user adoption. The modular architecture you've established makes it well-positioned for the advanced features that could differentiate it in the market.

Would you like me to elaborate on any of these suggestions or help implement specific improvements?