

Development Permits for GHG Reduction and Energy Conservation



LAKE COUNTRY

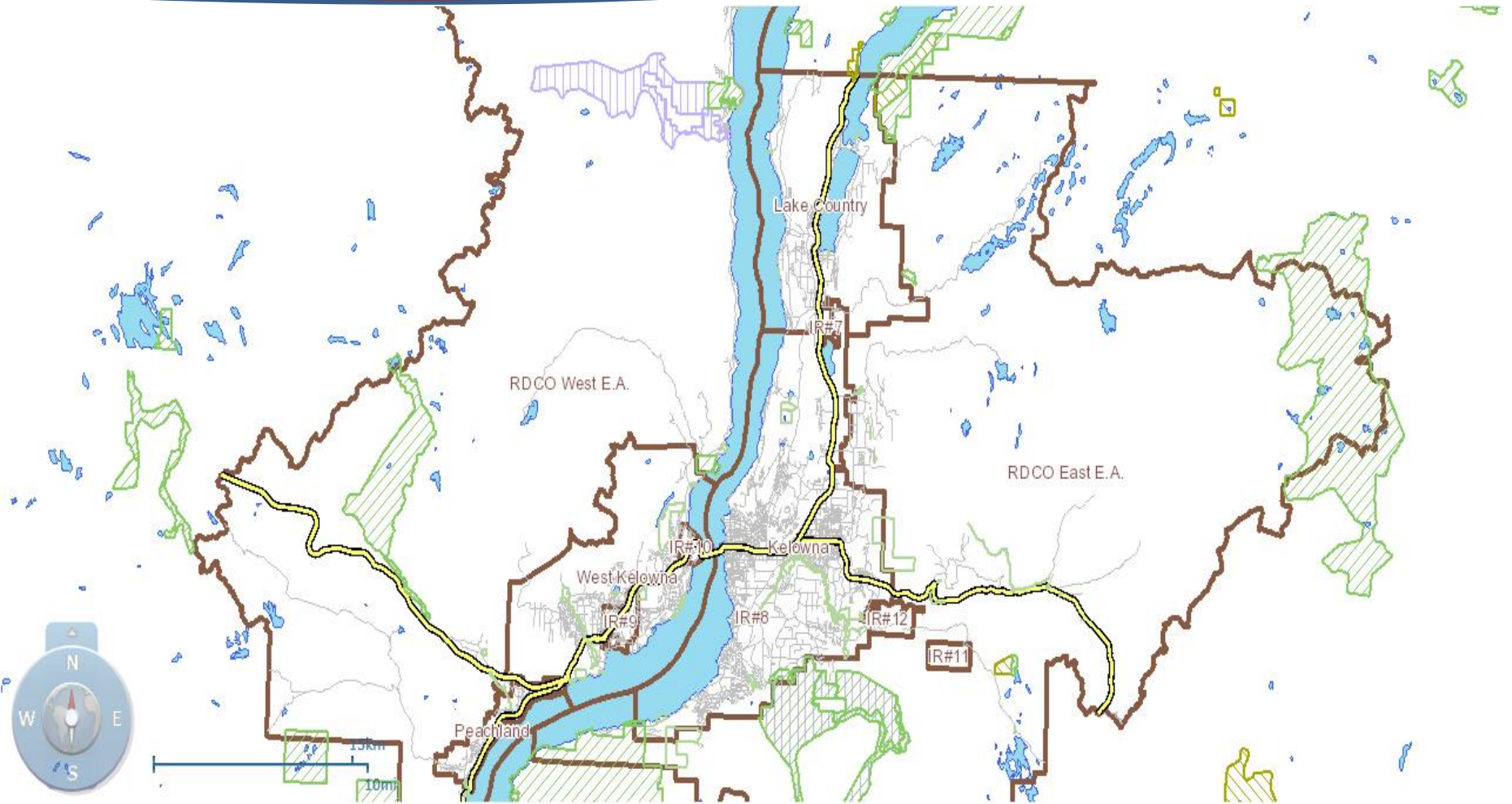


Outline

- Lake Country – Location and Wards
- Community Profile
- Provincial legislation
- Development Permit Area and Regulations
- Landscape Plan – Xeriscaping
- Solar Gain – example
- Lake Country experience



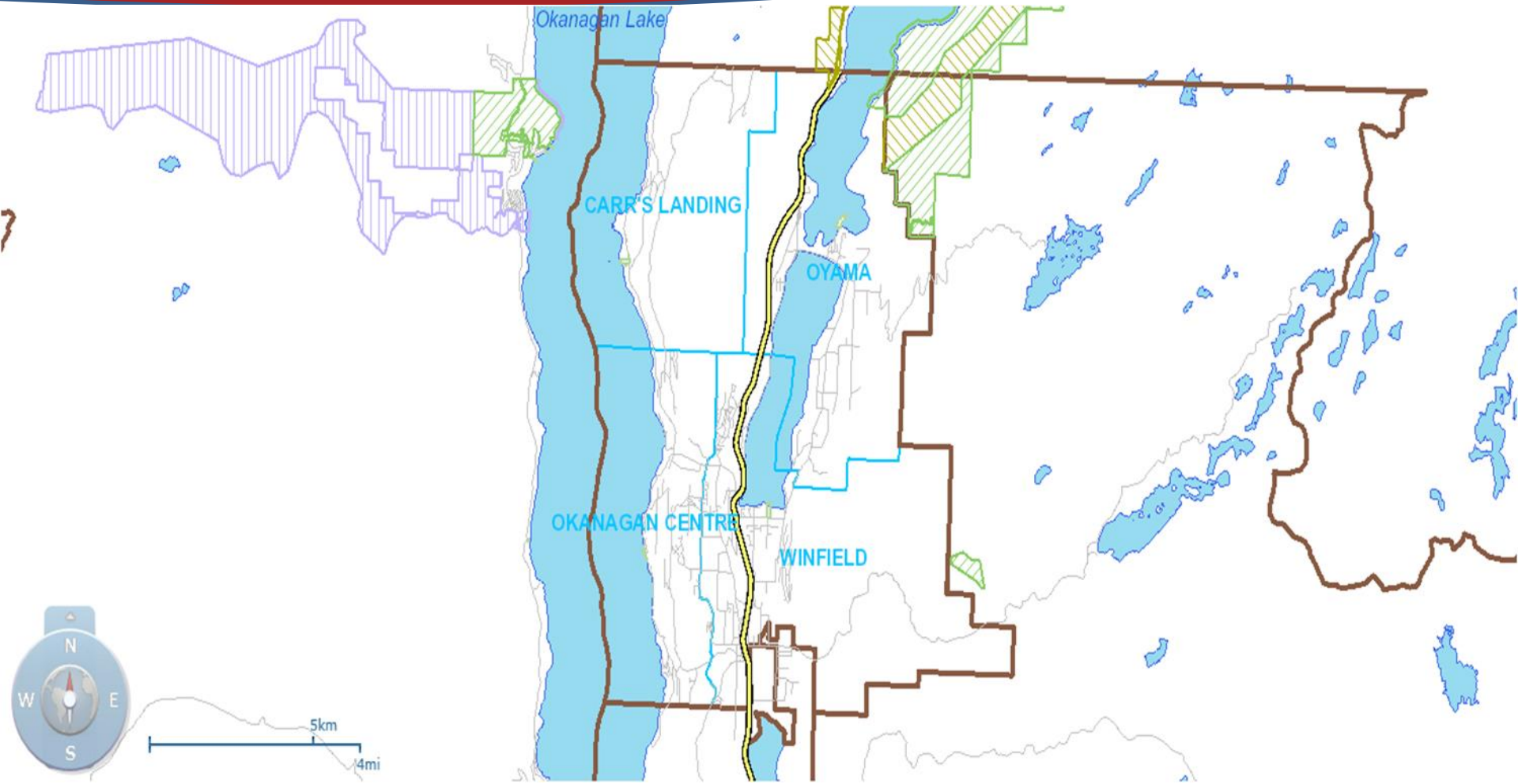
Location



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Wards



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Community Profile

- Only community in B.C. that has a ward system.
 - 1 Councillor for each of the wards
 - 2 Councillors at large
 - Mayor at large
- Population 13,789 in 2014
- Highest growth rate in 2014 5.6%
- Aging Population
 - 14% of the population is 65 or older
 - Within 5 years that will increase by 7% (total 21% by 2016)



The Choice



“Head in the Sand”

or



“Face the Challenge!”

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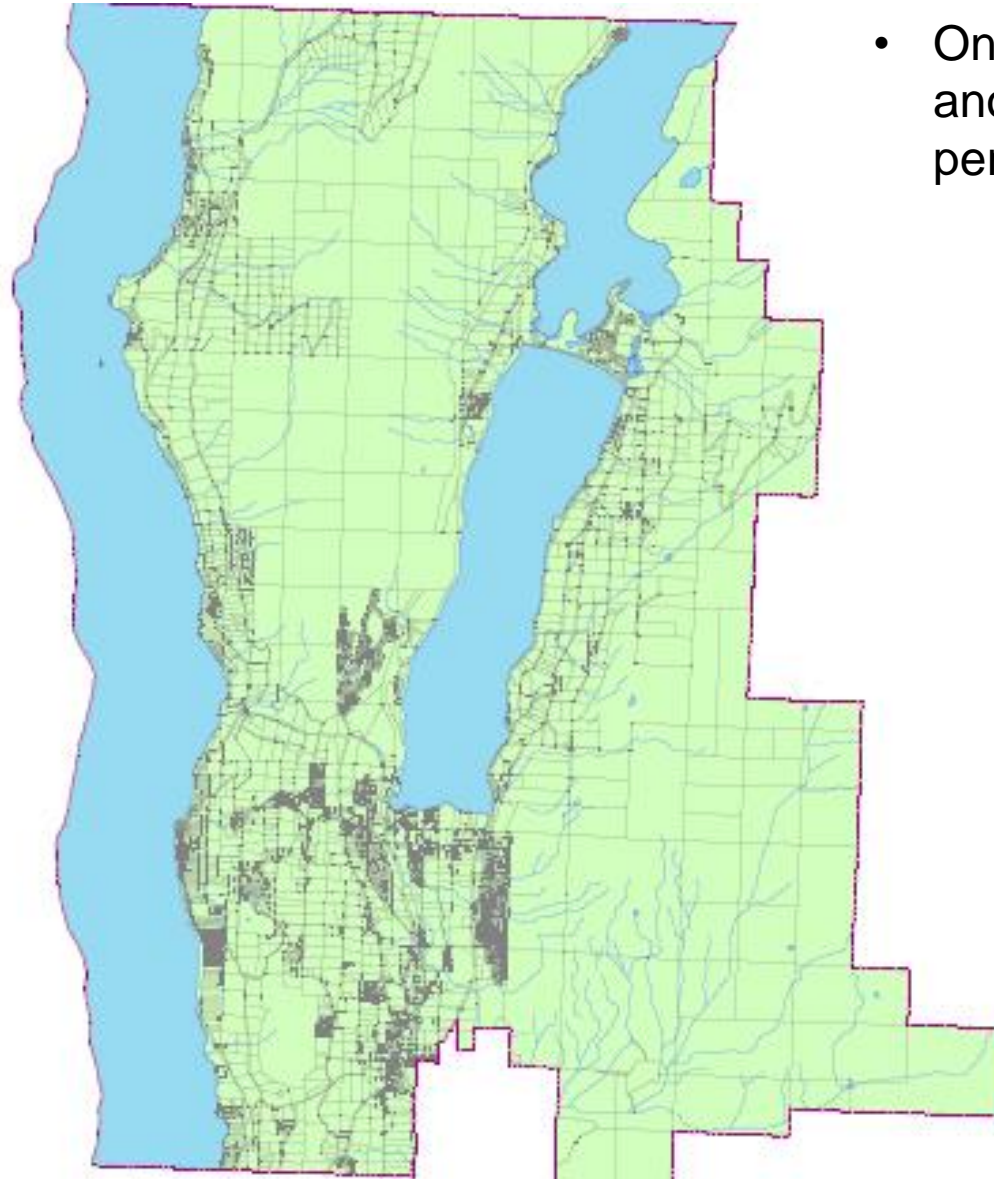


Legislation

- Bill 27 Local Government (Green Communities) Statutes Amendment Act, 2008
- Amendments to “Section 920 Development Permits” to allow for DP’s to address GHG’s and Energy reduction.
- Power to regulate through requirements:
 - landscaping,
 - Siting of building and other structures
 - Form and exterior design of building and other structures
 - Specific features in the development, and
 - Machinery, equipment and systems external to buildings and other structures
 - May establish restrictions on the type and placement of trees and other vegetation in proximity to buildings and other structures.



Development Permit Area



- Only required if another development permit is triggered.

Development Permit – Site Guidelines

- Site density for subdivision should be maximized.
- Building footprint should be minimized in order to allow for maximum green space.
- Lots should be oriented to maximize solar orientation of building envelopes. Buildings should be oriented to maximize solar gain.
- Subdivisions should be laid out to minimize the length and amount of infrastructure such as sewer lines, water lines and roads.
- Subdivision layout should allow for alternative transportation options and transit.
- Subdivisions should be laid out to maximize site connectivity to nearby amenities and services.



Development Permit – Buildings and Structure Guidelines

- Materials and colors used in building construction should minimize heat absorption. Roofs should not be of dark color.
- Should incorporate large windows sheltered by overhangs to maximize solar input during winter months.
- Buildings should incorporate green roofs, living walls or other measures to reduce heat gains caused by hard surfaces.
- Whenever possible, alternative energy sources should be used in large scale structures.
- Buildings should have a south oriented roof to allow for future use of solar panels.



Development Permit – Buildings and Structure Guidelines

- Opportunities for natural ventilation and airflow should be incorporated into the building.
- Building materials should encourage thermal massing and seasonal thermal energy storage.
- Building envelopes should be well sealed and energy efficient.



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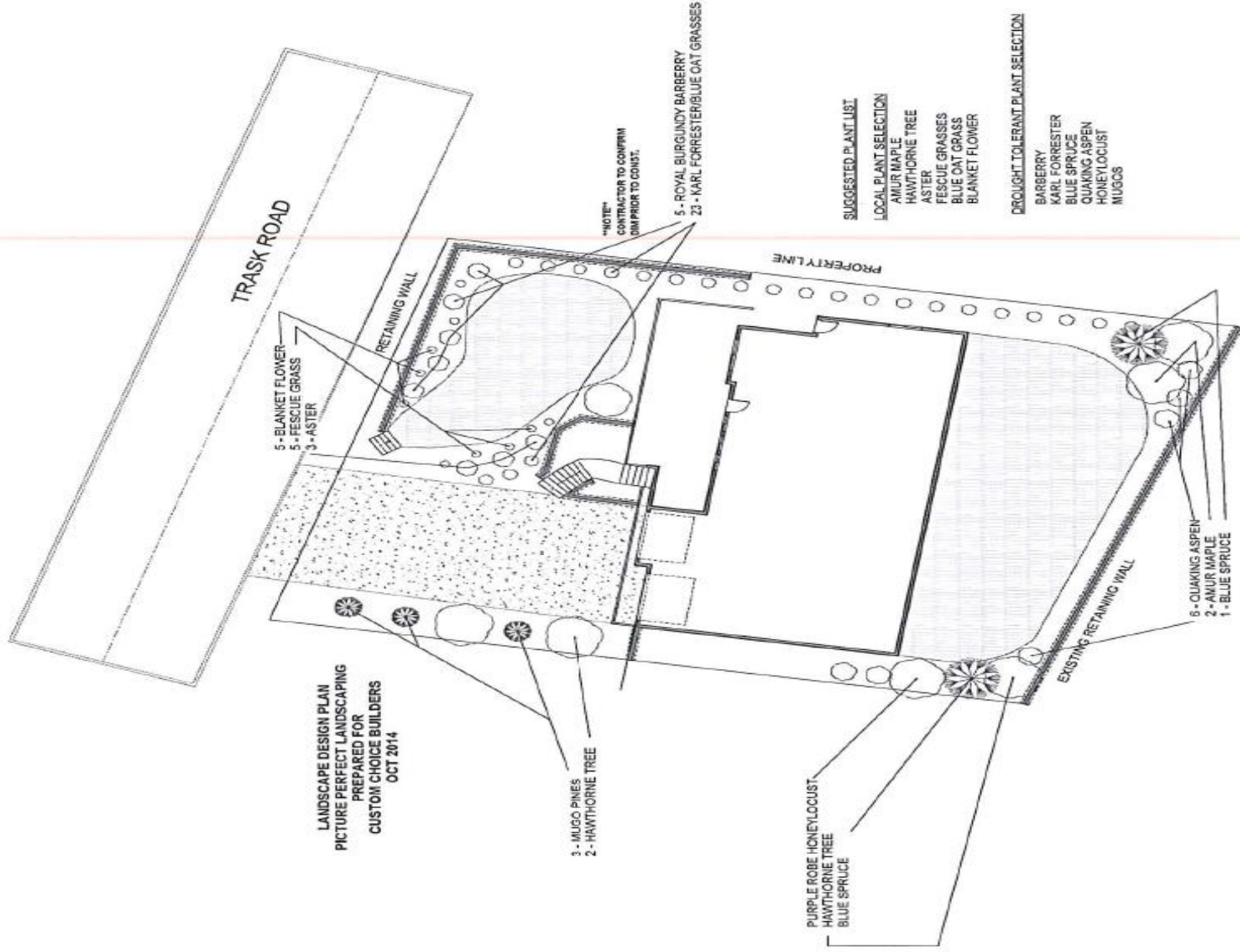


Development Permit – Landscape Guidelines

- Vegetation should be low maintenance and require minimal irrigation
- Enhanced landscaping should be located along the south and west facing parcel boundaries to create shade.
- If possible, opportunities for rainwater recycling should be included in landscape design.
- Maximize the use of porous materials throughout landscaping.
- Large scale developments and subdivisions should incorporate opportunities for local food production and public food gardens into developments.



Landscape Plan - Xeriscaping



Solar Gain



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The Lake Country Experience

- Orientation of lots may be difficult due to topographic constraints.
- Developers wishing to maximize lake views – market driven.
- Landscaping important for water conservation – xeriscaping.
- Discussion begins at the beginning of the development process.
- Continued education and discussion – making positive change and forging new ways forward.

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THE END

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