



# WESTSIDE FOREST STREAM PROTECTION DIAGRAMS

Oregon Forest Practices Act riparian management area prescriptions

Standard Practice: July 2023

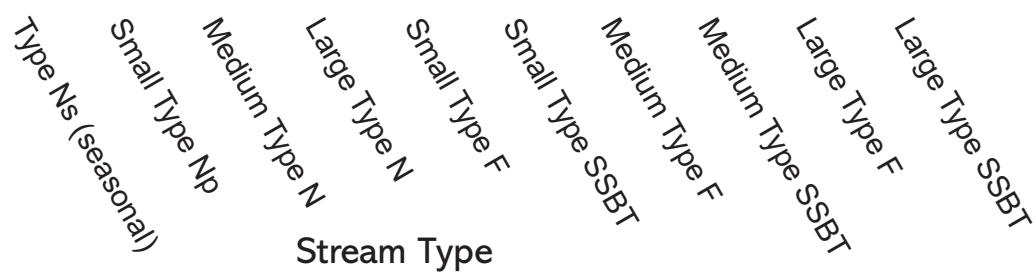
This booklet includes a set of diagrams intended to help forest landowners planning a timber harvest to interpret current riparian management area prescriptions required under the Oregon Forest Practices Act. Identify the smallest stream type on your property in the left-hand column. Then, choose which kind of stream type it merges with from the bottom row. Go to the indicated page.

## Stream Type

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flows into...



# **WATER PROTECTION RULES FOR PRIVATE FORESTS HAVE CHANGED**

As a result of the Private Forest Accord, a compromise agreement signed in 2021 by 13 conservation and fisheries groups, 11 timber companies, and the Oregon Small Woodlands Association, the Oregon Forest Practices Act has changed. The changes are intended to minimize and mitigate the effects logging and other forest management activities on private forestlands may have on water quality and aquatic habitats.

Required no-cut tree retention areas are now 10% to 100% larger, depending on the stream type and its location, including new protections for non-fish-bearing streams.

The following diagrams detail the riparian management area (RMA) widths and prescriptions for western Oregon under the “standard practice” for large private forest landowners.

**The new forest practice rules for expanded riparian protections for forest landowners who own 5,000 or more acres went into effect on July 1, 2023. All private forest landowners will be required to follow the new rules starting January 1, 2024.**

## **WESTERN vs. EASTERN REGULATIONS**

The updated forest practice rules for stream vegetation retention are based on two distinct geographic regions: eastern Oregon and western Oregon. The diagrams and information in this book only represent western Oregon RMA prescriptions. Western RMAs generally have wider no-cut tree retention areas for fish-bearing streams, and large and medium non-fish streams.

## **LARGE vs. SMALL FORESTLAND OWNERS**

An estimated 3.6 million acres of Oregon forestland is owned by landowners with fewer than 5,000 acres. For the new forest practice rules, a small forest landowner is defined specifically as someone who owns fewer than 5,000 acres of forestland and harvests no more than 2 million board feet per year, on average.

Under the new forest practice rules, a “small forest landowner minimum option” allows qualified small forest landowners to leave narrower no-cut tree retention areas on their property than the standard practice width required for large forest landowners. Another special consideration for small forest landowners is a new tax credit program to compensate for lost revenue if they agree to exclude timber harvest in the expanded stream-buffer zones required for large forest landowners. To qualify for the tax credit, small forest landowners would have to use the new standard practice required for large forest landowners for riparian areas instead of the small forest landowner minimum option for the next 50 years. See pages 54-55 for more information.

All forest landowners can still submit alternative vegetation retention plans to the Oregon Department of Forestry.

## **OREGON DEPARTMENT OF FORESTRY RESOURCES**

The Oregon Department of Forestry has established a Small Forestland Owner Assistance Office to help small forest landowners understand and follow the state’s new forest practice regulations.

Online resources:

<https://www.oregon.gov/odf/working/documents/faqs-fpa-rules-all-combined.pdf>

<https://geo.maps.arcgis.com/apps/webappviewer/index.html?id=dde877f74cf84fdb453bd4b57204c2fe>

# DEFINITIONS

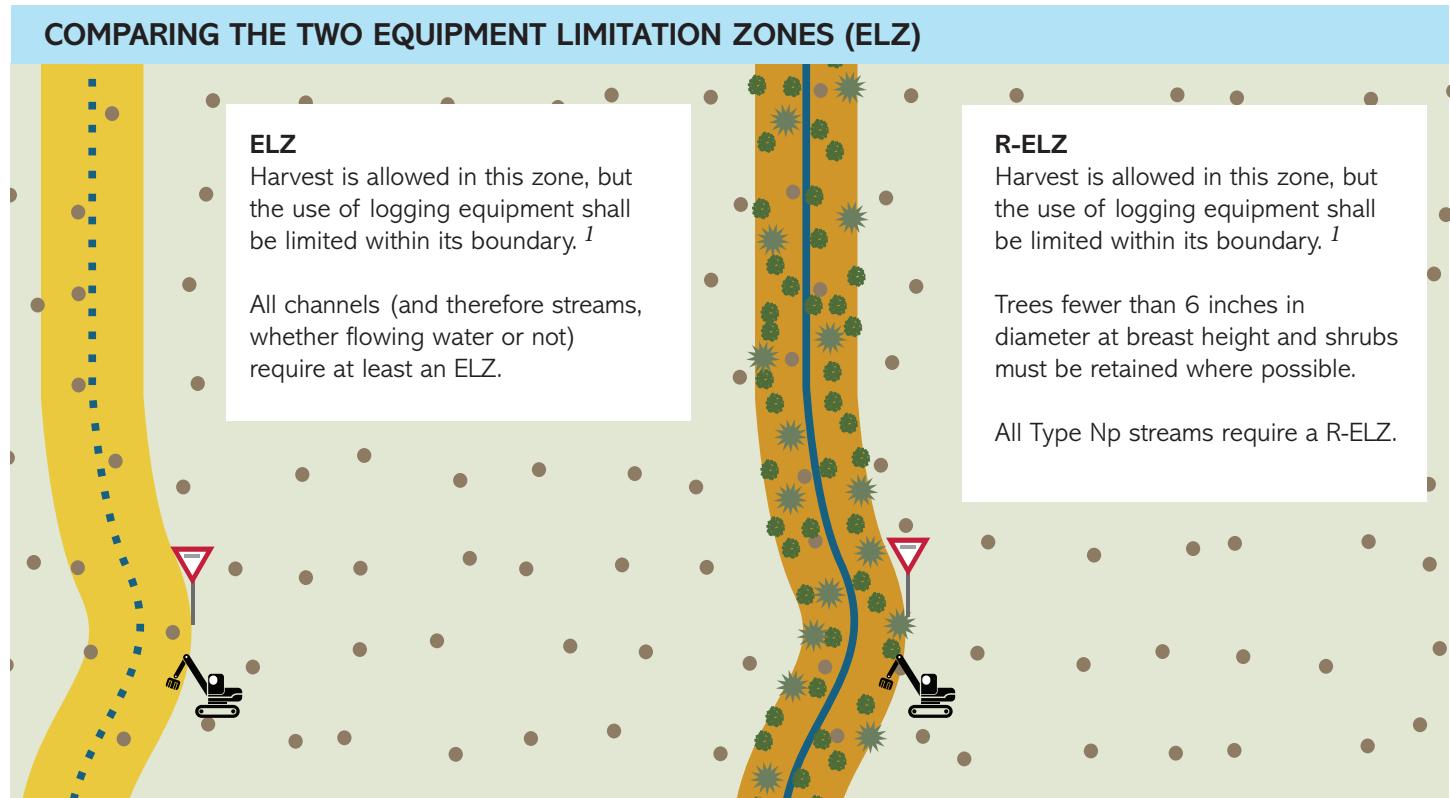
**Buffer:** a common term for a no-cut tree retention area

**Channel:** a distinct bed or bank scoured by water, which serves to confine water and that periodically or continually contains flowing water.

**ELZ:** an equipment limitation zone where disturbance from heavy equipment activity shall be minimized; currently 35 feet wide on either side of the stream in western Oregon

**Flow feature:** flowing water (surface water within a channel) for 25 continuous feet or more

**Large stream:** a stream with an average annual flow of 10 cubic feet per second or more

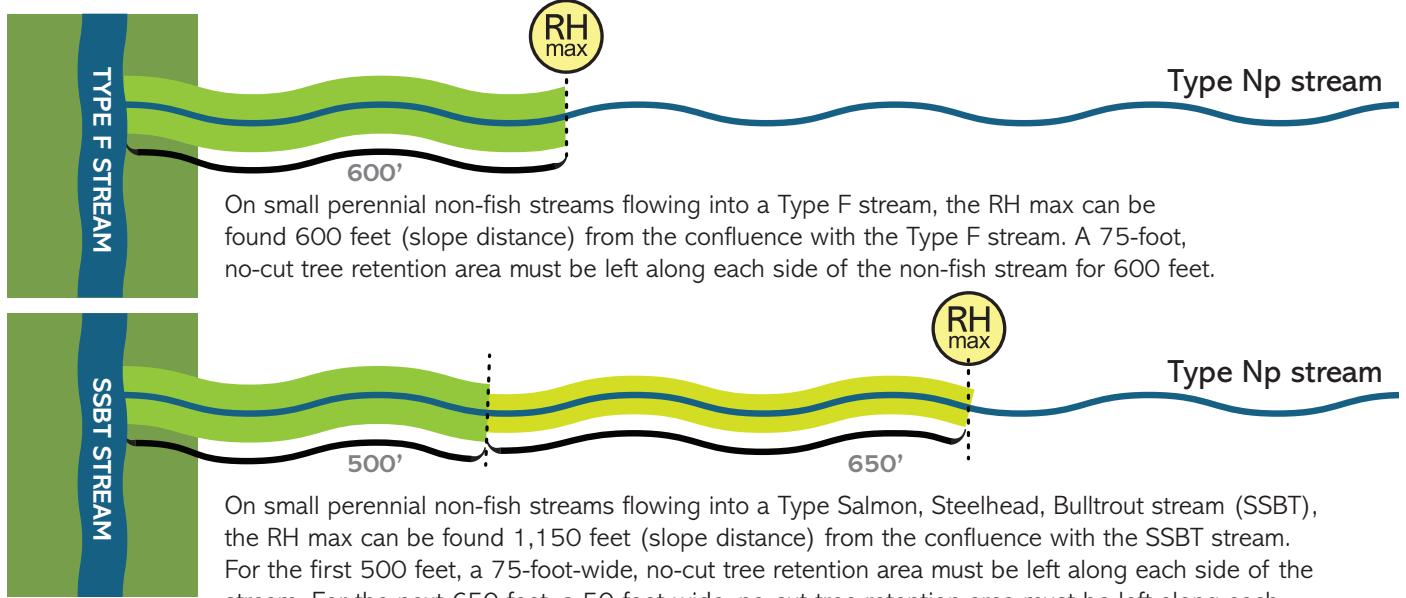


<sup>1</sup>. Operators must take corrective action(s) when soil disturbance from ground-based equipment exceeds 10 %, or cable-based equipment exceeds 20 % of the total area within any ELZ or R-ELZ within a logging operation unit. (OAR 629-630-0700, 629-630-0800)

**Medium stream:** a stream with an average annual flow of greater than 2 cubic feet per second, but less than 10 cubic feet per second

**R-ELZ:** an equipment limitation zone where disturbance from heavy equipment activity shall be minimized, and all trees fewer than 6 inches in diameter at breast height and shrubs must be retained where possible; these zones are currently 35 feet wide on either side of the stream in western Oregon, and 30 feet wide in eastern Oregon.

## HOW DO YOU DETERMINE YOUR RH MAX DISTANCE?



**RH max:** starting at the confluence of a non-fish-bearing stream (Type Np) and a fish-bearing stream (Type F), or salmon, steelhead or bull trout (SSBT) stream, the RH max is the maximum upstream distance along the Np stream that will require a protective tree retention area; Np streams terminating in an SSBT stream will have a greater RH max distance (up to 1,150 feet) than those terminating in a Type F stream (up to 600 feet).

**Riparian management area (RMA):** an area along each side of specified waters of the state where vegetation retention, and special management practices, are required for the protection of water quality, hydrologic functions, and fish and wildlife habitat; many RMAs are “no-cut,” meaning trees must be left standing within their boundaries; no-cut tree retention areas are commonly referred to as stream buffers.

**Small stream:** a stream with an average annual flow of 2 cubic feet per second or less

**Type F stream:** a fish-bearing stream

**Type N stream:** a non-fish-bearing stream

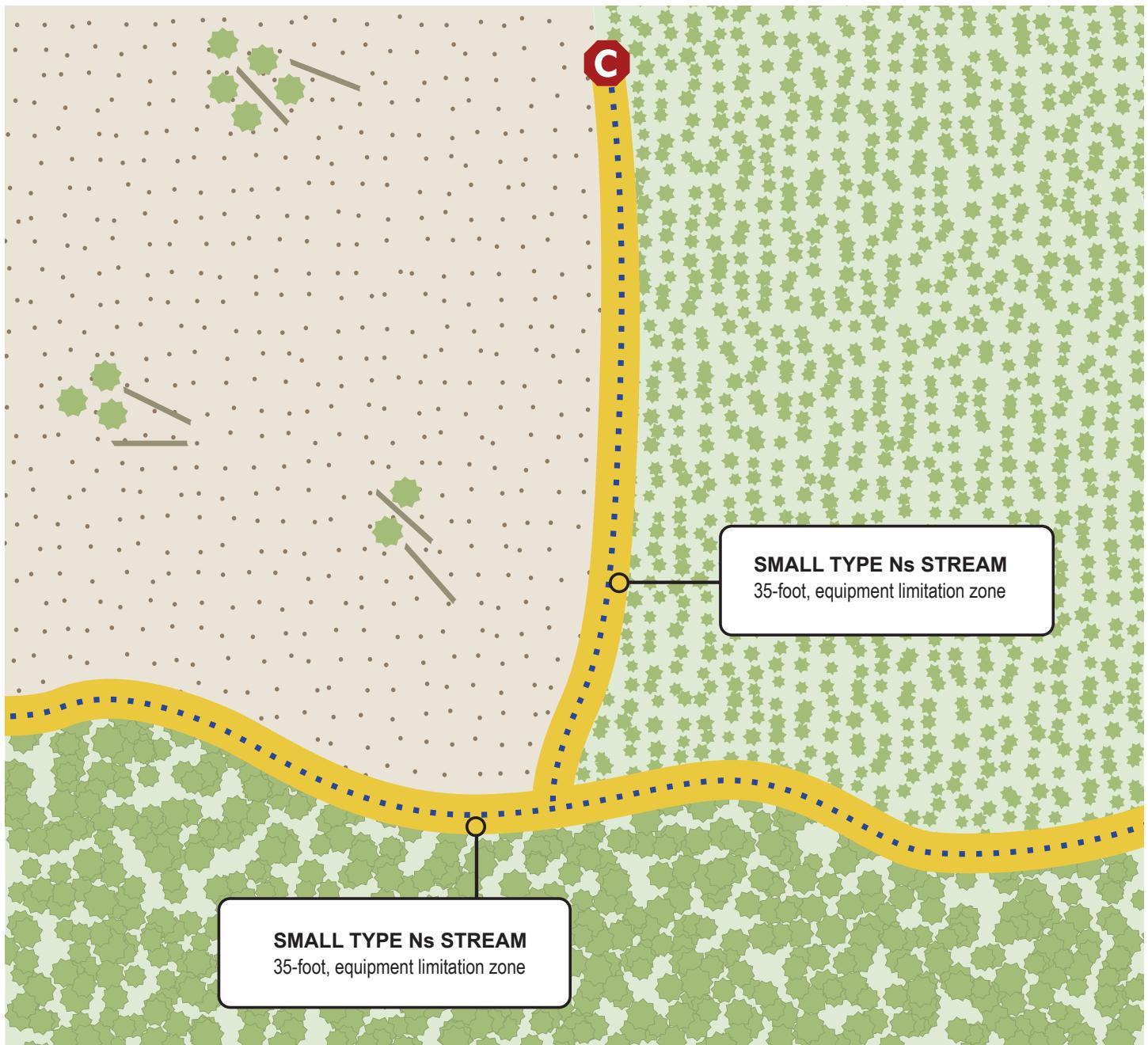
**Type Np stream:** a non-fish-bearing stream that contains water throughout the year, including all **perennial** streams that are not Type SSBT, Type F or domestic water use streams (Type D)

**Type Ns stream:** non-fish-bearing stream that only contains water **seasonally**, including all seasonal stream reaches that are not Type SSBT, Type F, Type D or Type Np.

**Type D stream:** a stream that has domestic water use but is not fish-bearing

**Type SSBT stream:** a stream inhabited by salmon, steelhead or bull trout

Small Type Ns  Small Type Ns



LEGEND



End of stream channel



Dry channel



Flowing water



RH max

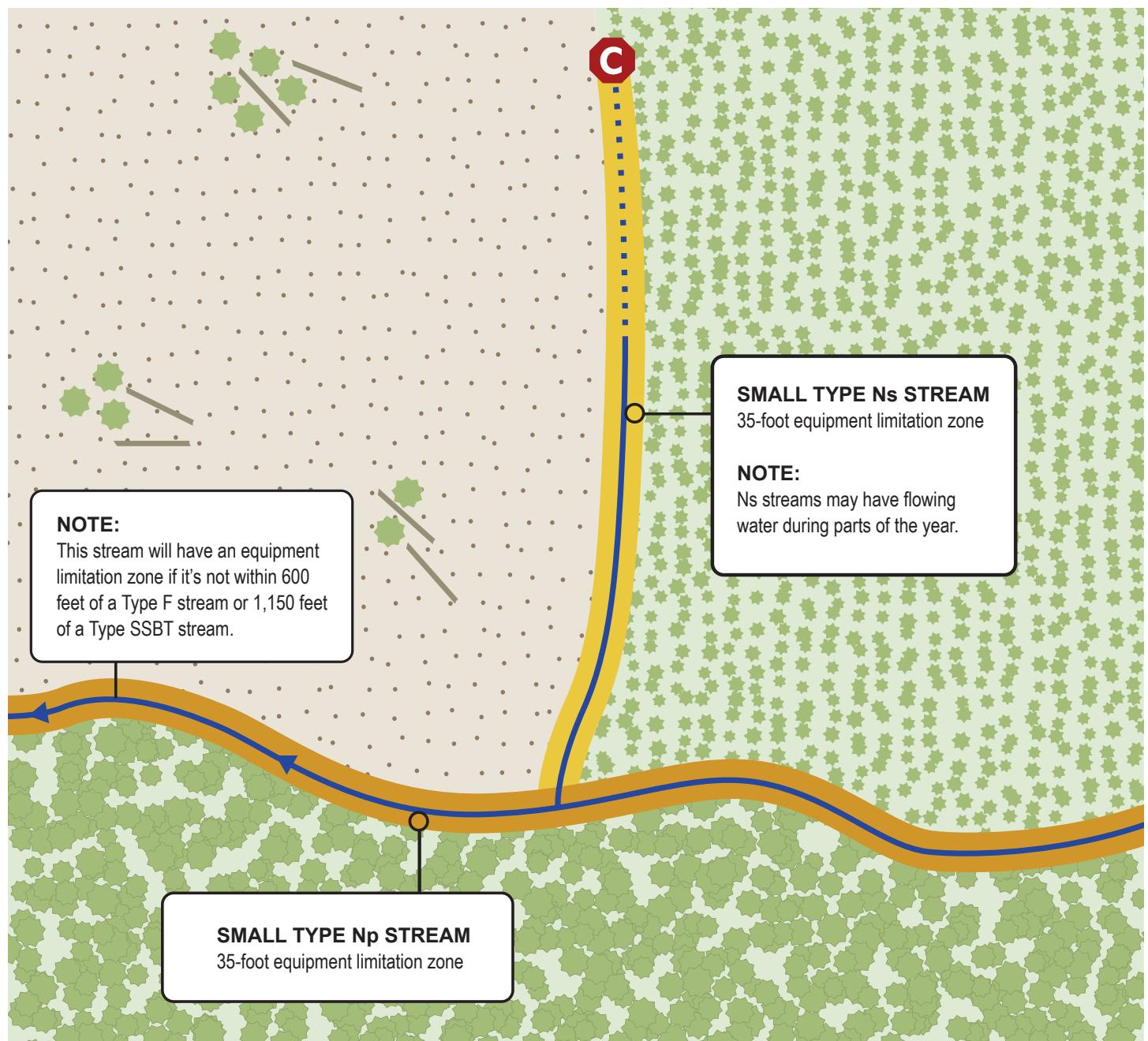


ELZ



R-ELZ

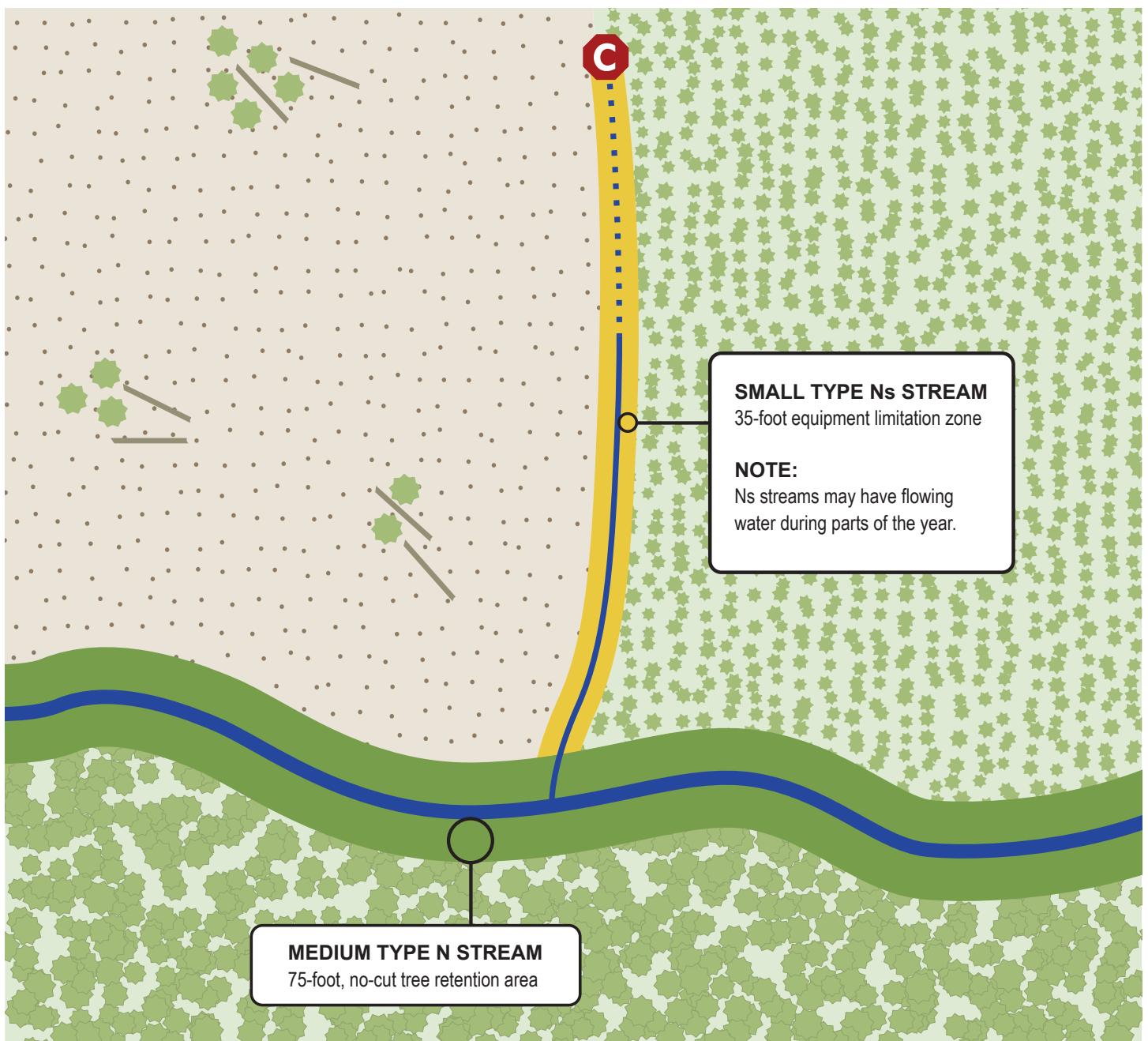
## Small Type Ns flows into Small Type Np



### LEGEND

- C** End of stream channel
- Dashed line** Dry channel
- Solid blue line** Flowing water
- RH max**
- Green** Tree retention
- Yellow** ELZ
- Brown** R-ELZ

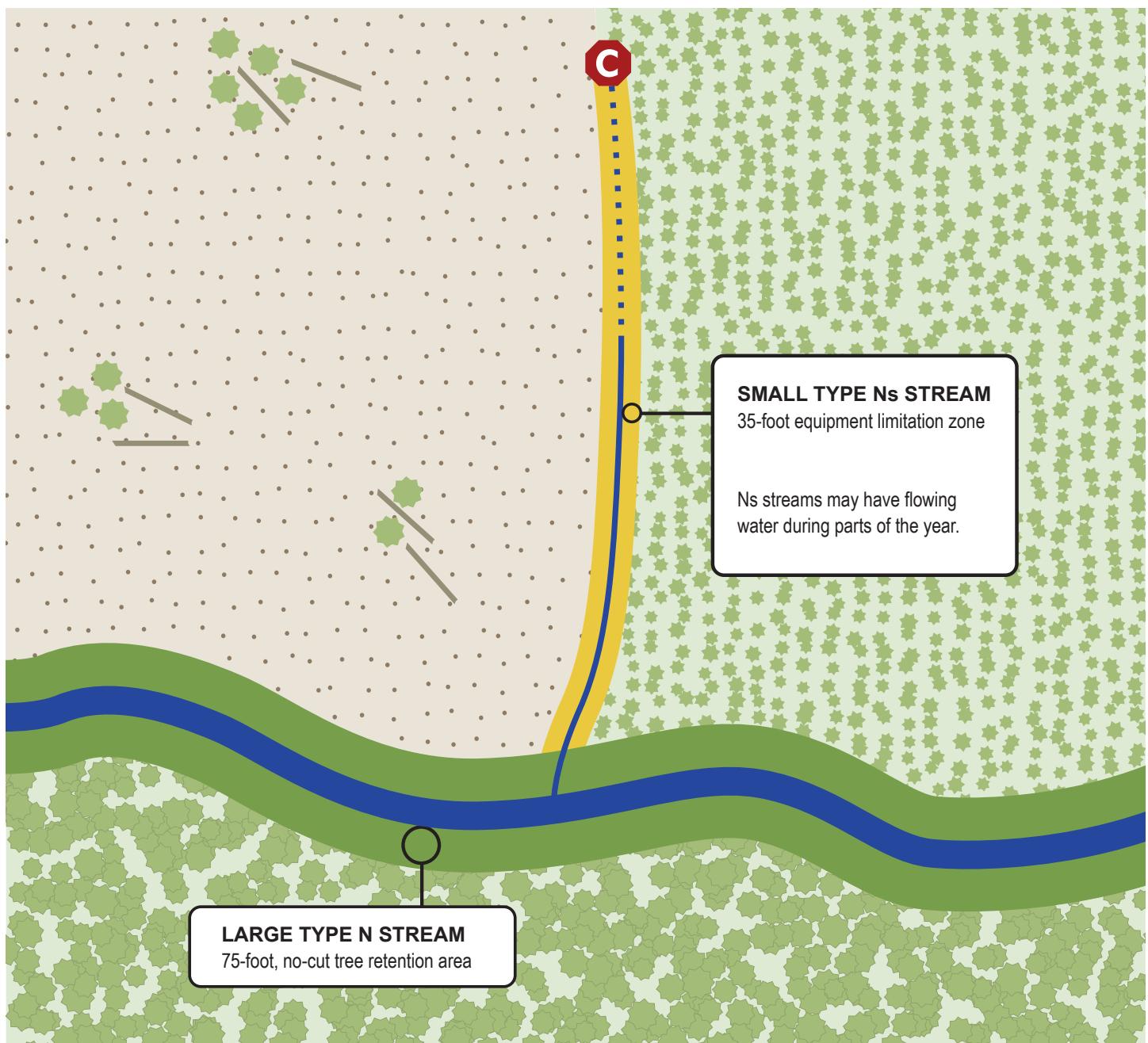
Small Type Ns *flows into* Medium Type N



#### LEGEND

- End of stream channel
- Dry channel
- Flowing water
- RH max
- Tree retention
- ELZ
- R-ELZ

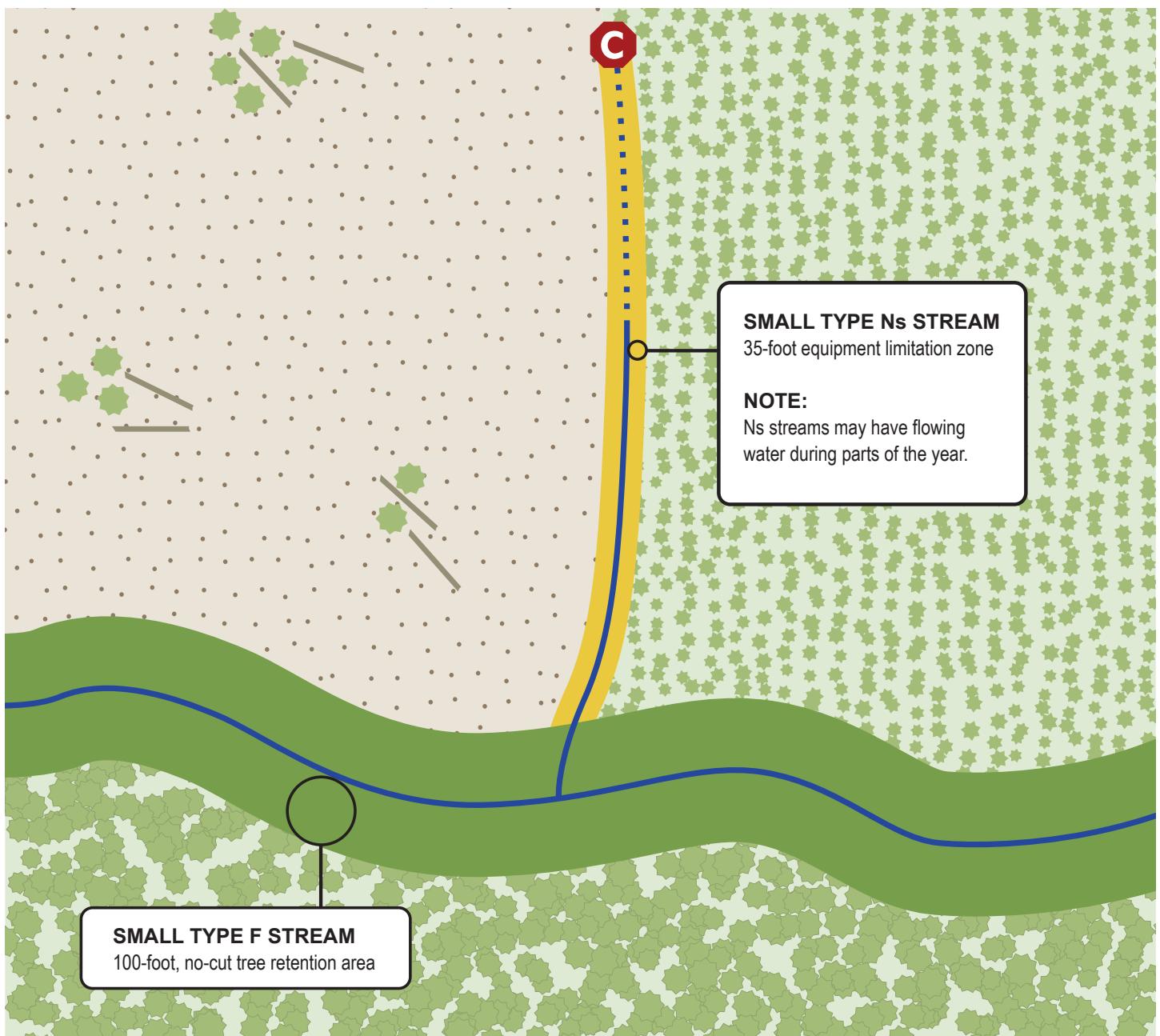
**Small Type Ns** *flows into* **Large Type N**



**LEGEND**

- C End of stream channel
- · — Dry channel
- Flowing water
- RH max
- Tree retention
- ELZ
- R-ELZ

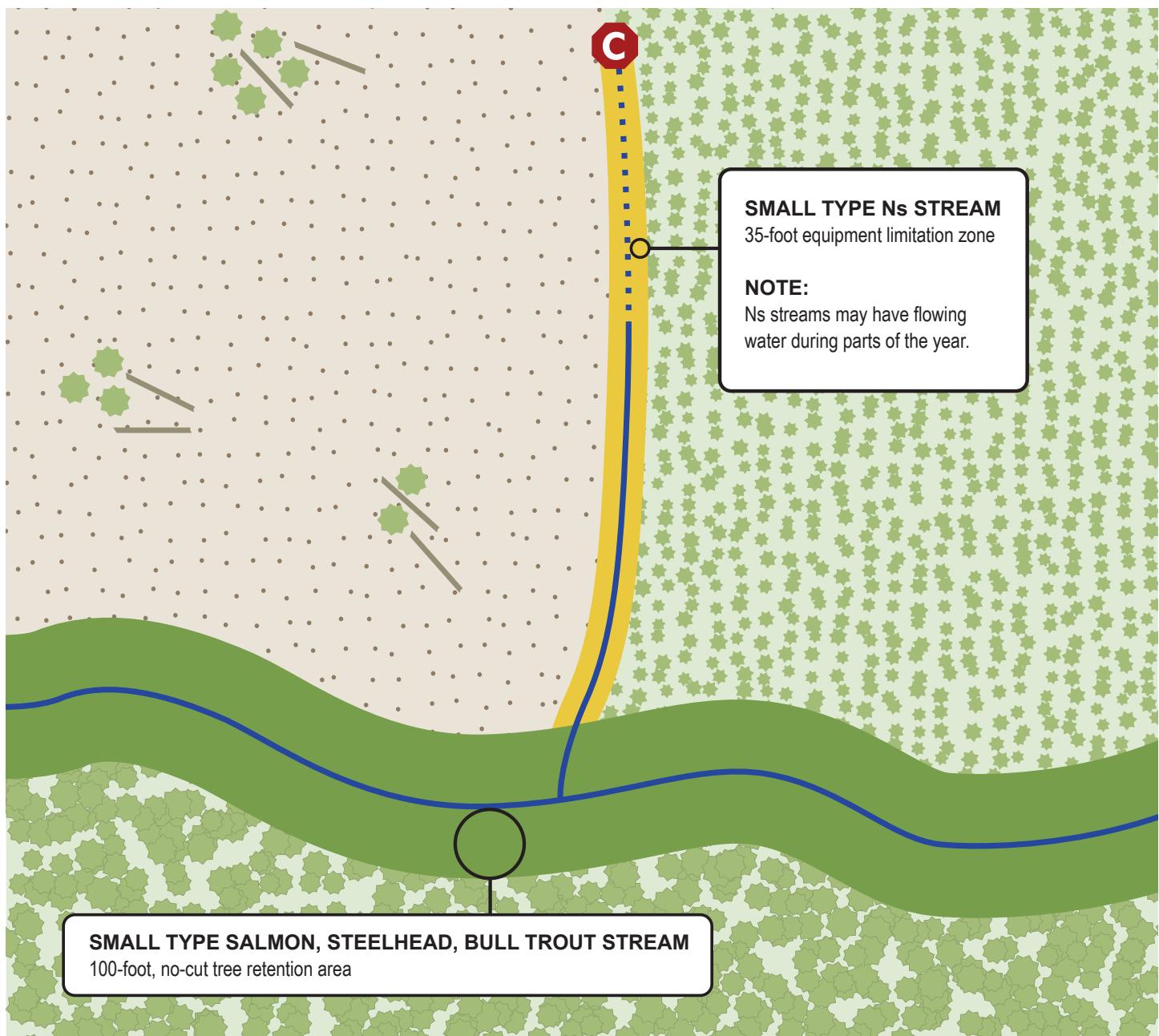
**Small Type Ns** *flows into* **Small Type F**



**LEGEND**

- C** End of stream channel
- Dashed blue line** Dry channel
- Solid blue line** Flowing water
- RH max**
- Green** Tree retention
- Yellow** ELZ
- Brown** R-ELZ

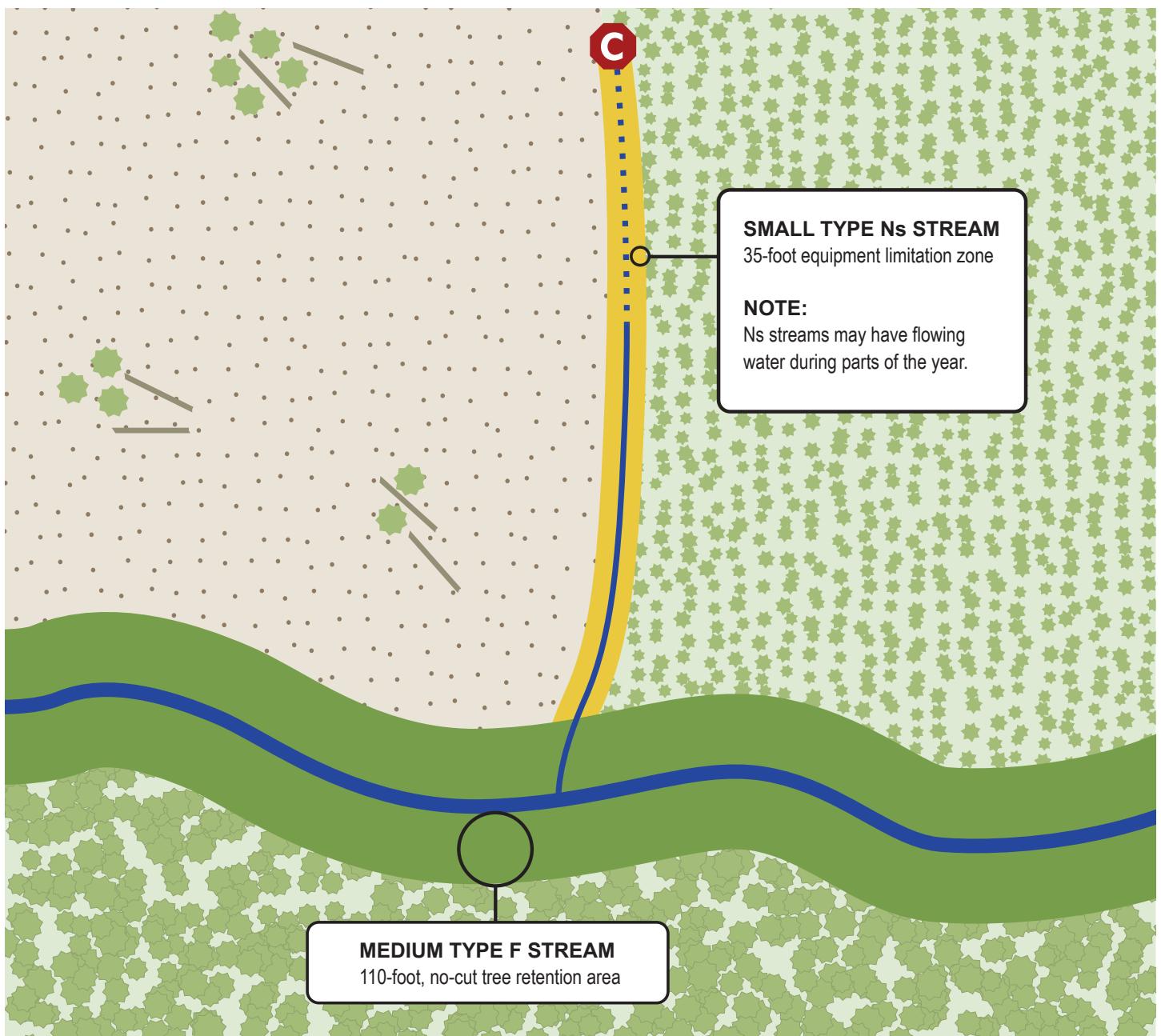
**Small Type Ns** *flows into* **Small Type SSBT**



**LEGEND**

- C End of stream channel
- · · — Dry channel
- Flowing water
- RH<sub>max</sub> RH max
- Tree retention
- ELZ
- R-ELZ

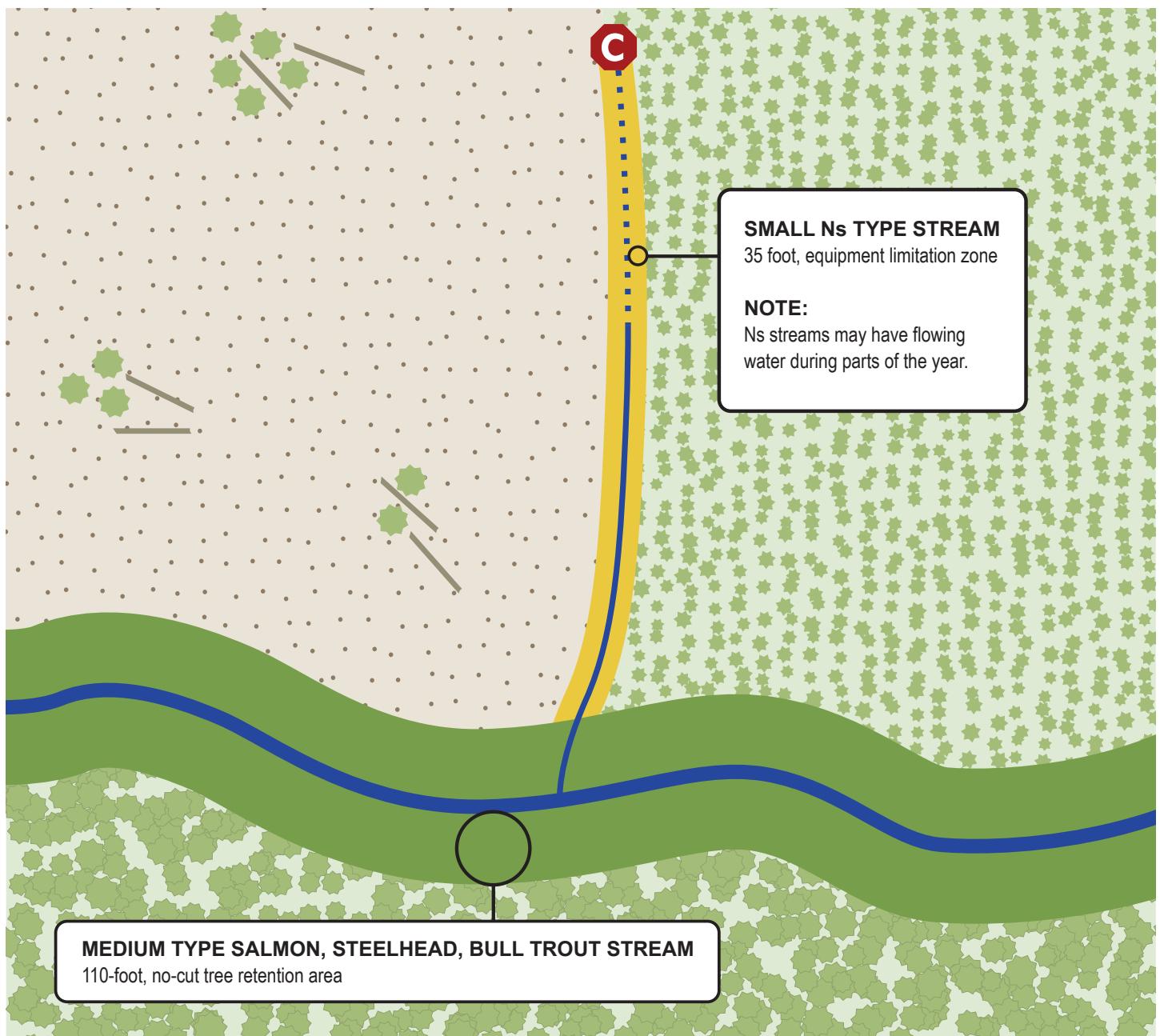
**Small Type Ns** *flows into* **Medium Type F**



**LEGEND**

- End of stream channel
- Dry channel
- Flowing water
- RH max
- Tree retention
- ELZ
- R-ELZ

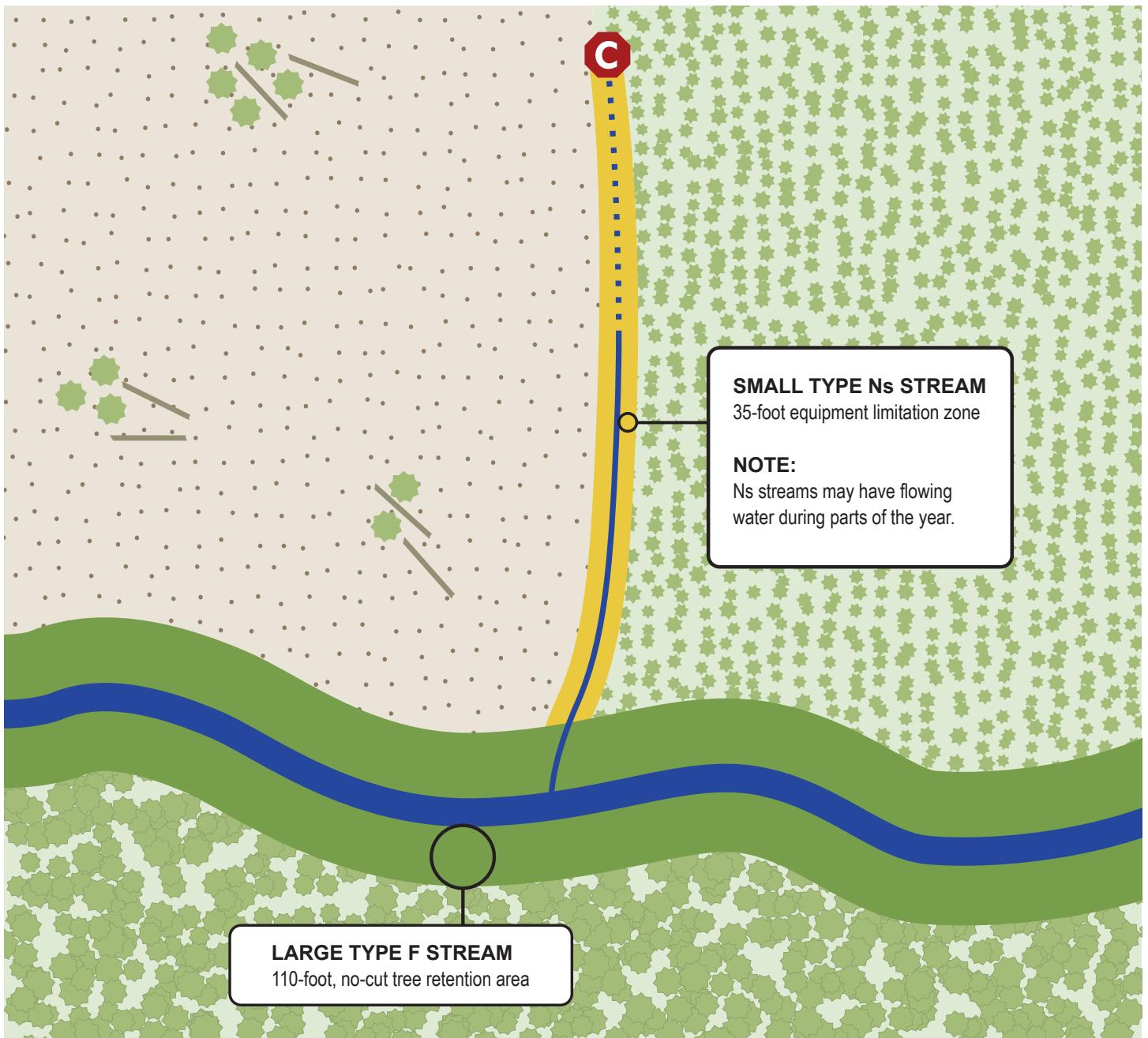
Small Type Ns *flows into* Medium Type SSBT



LEGEND

- C End of stream channel
- Dry channel
- Flowing water
- RH<sub>max</sub>
- Tree retention
- ELZ
- R-ELZ

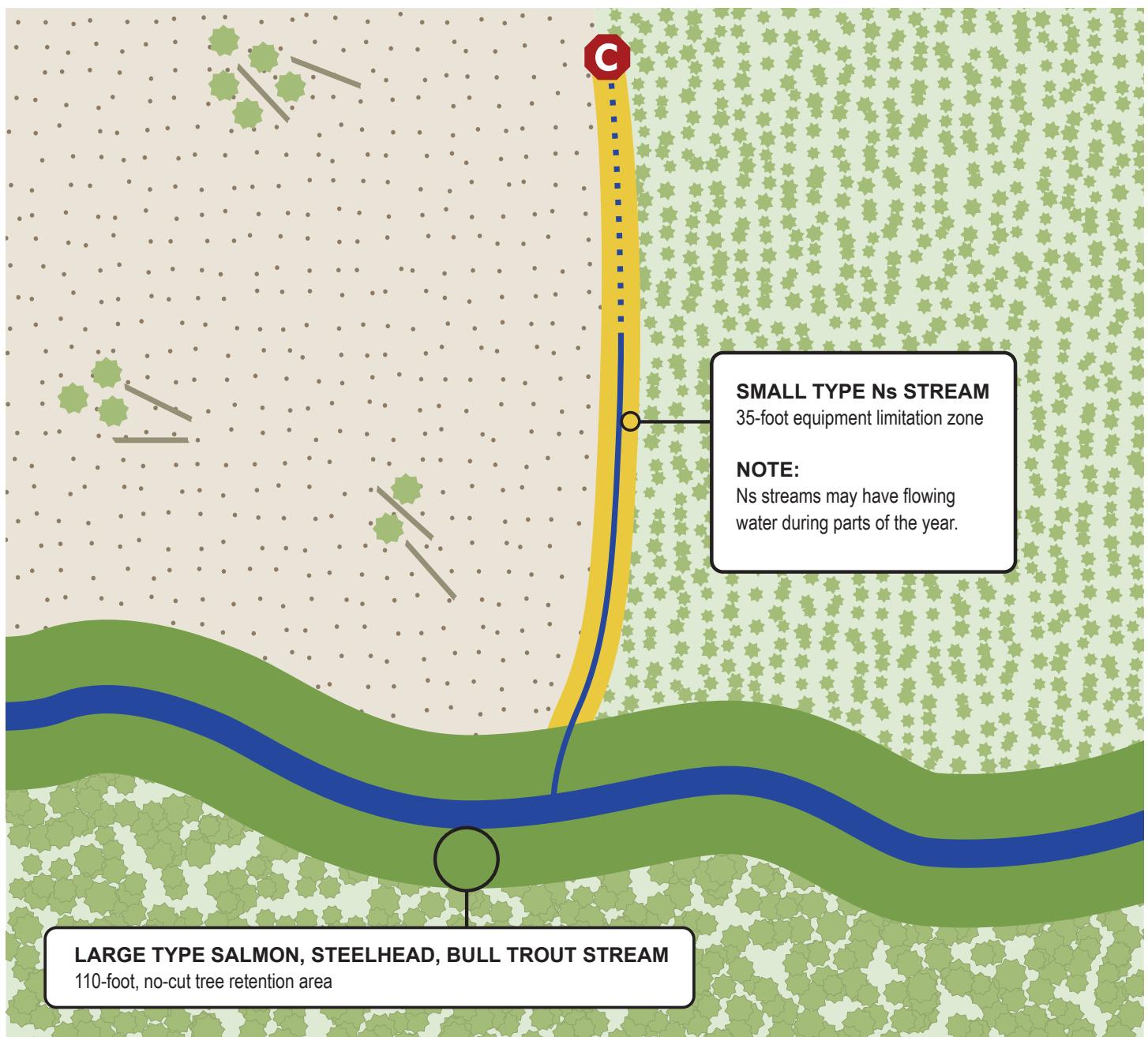
Small Type Ns *flows into* Large Type F



LEGEND

- End of stream channel
- Dry channel
- Flowing water
- RH max
- Tree retention
- ELZ
- R-ELZ

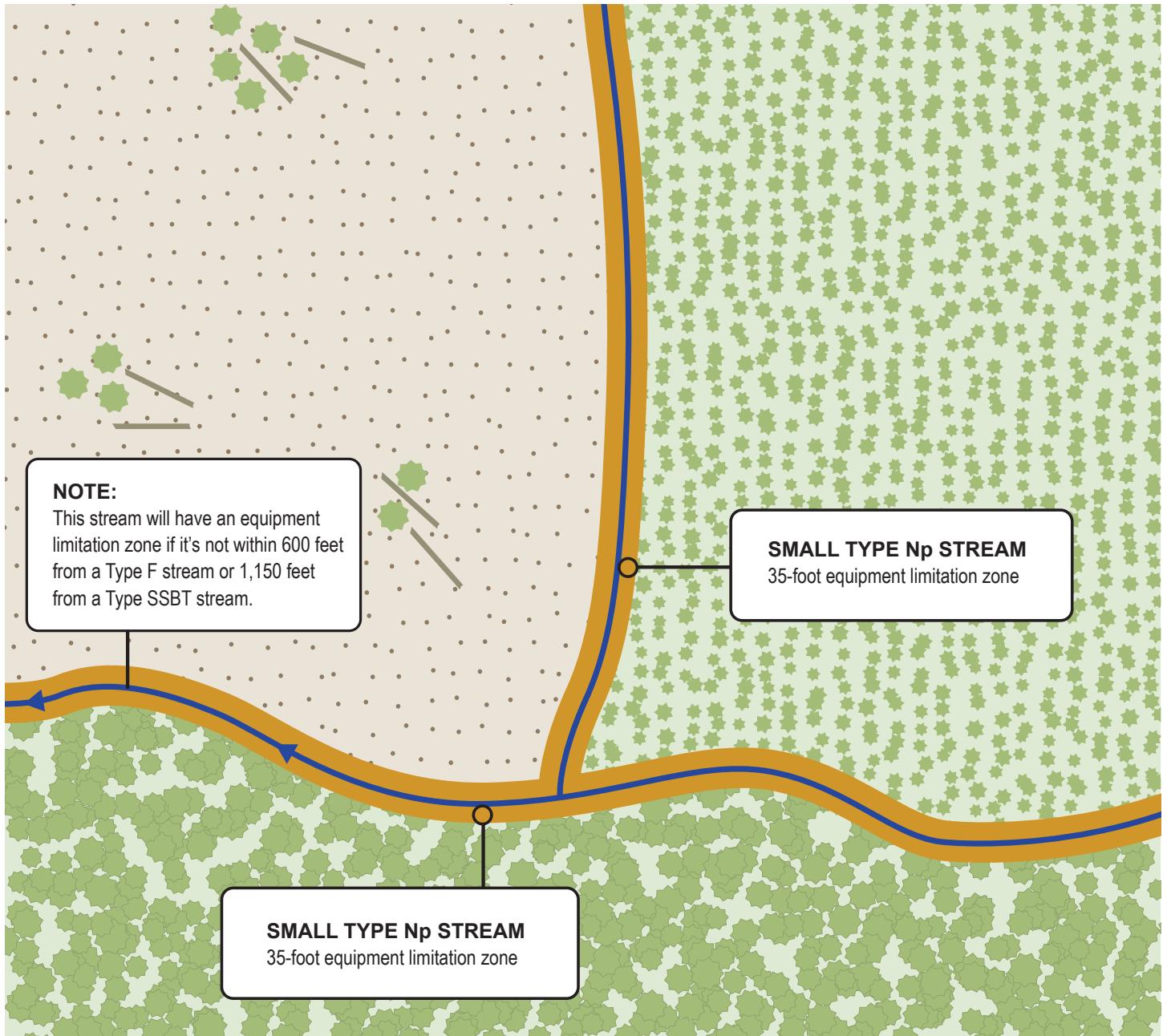
**Small Type Ns** *flows into* **Large Type SSBT**



**LEGEND**

- End of stream channel
- Dry channel
- Flowing water
- RH max
- Tree retention
- ELZ
- R-ELZ

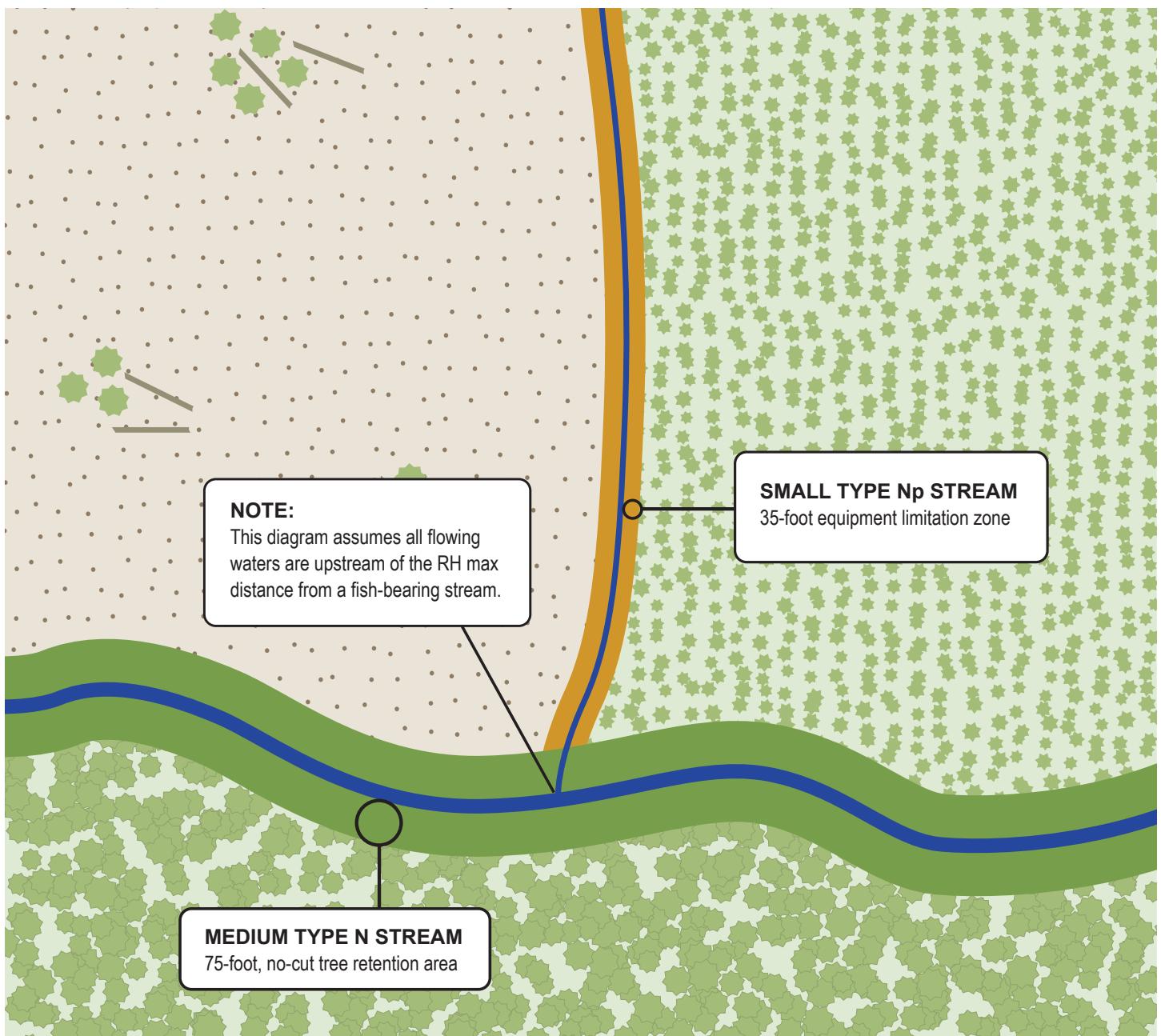
## Small Type Np flows into Small Type Np



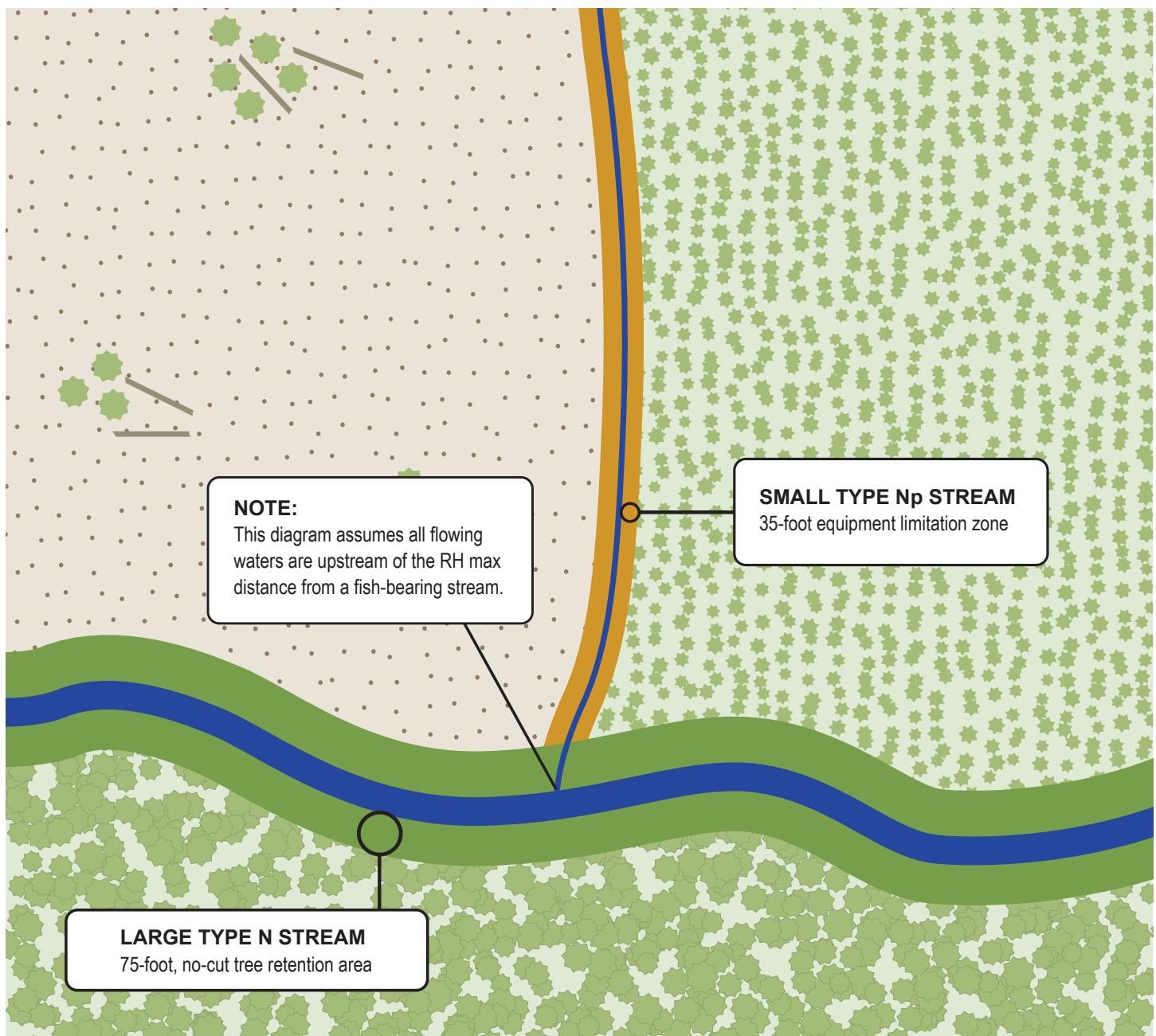
### LEGEND

- End of stream channel
- Dry channel
- Flowing water
- RH max
- Tree retention
- ELZ
- R-ELZ

**Small Type Np** *flows into* **Medium Type N**



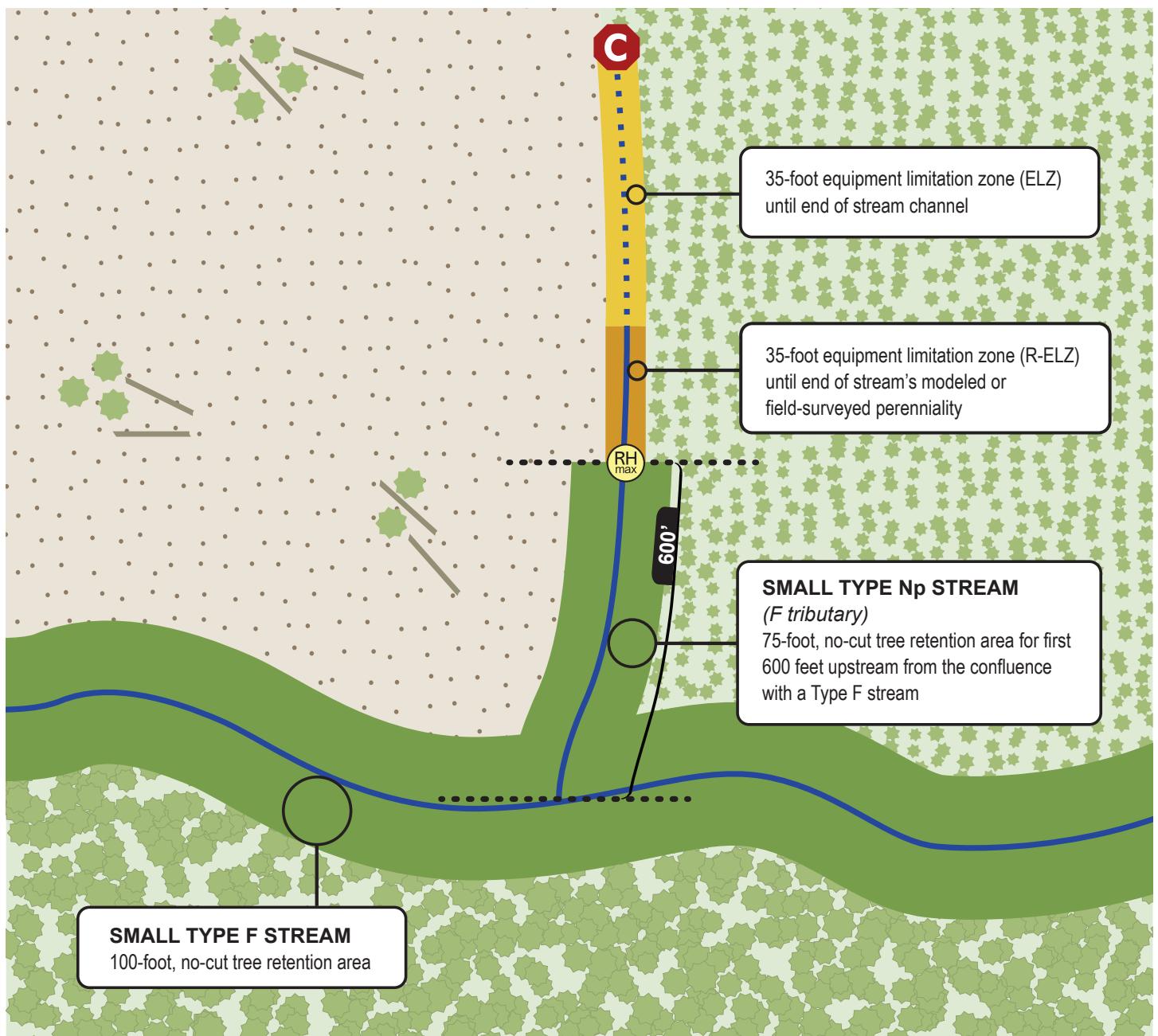
**Small Type Np** *flows into* **Large Type Np**



**LEGEND**

- C End of stream channel
- Dry channel
- Flowing water
- RH<sub>max</sub>
- Tree retention
- ELZ
- R-ELZ

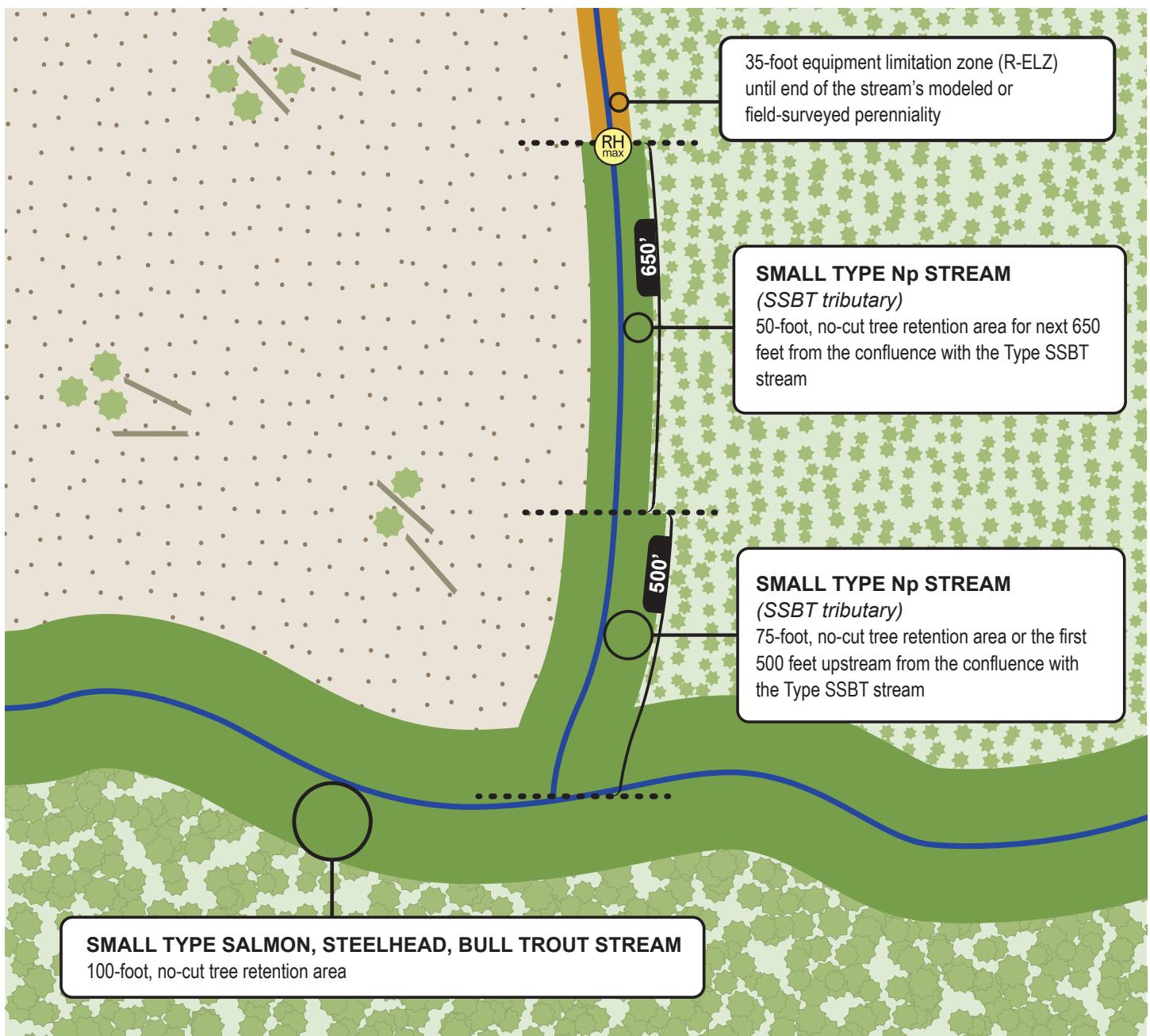
**Small Type Np** *flows into* **Small Type F**



**LEGEND**

- C End of stream channel
- Dry channel
- Flowing water
- RH max
- Tree retention
- ELZ
- R-ELZ

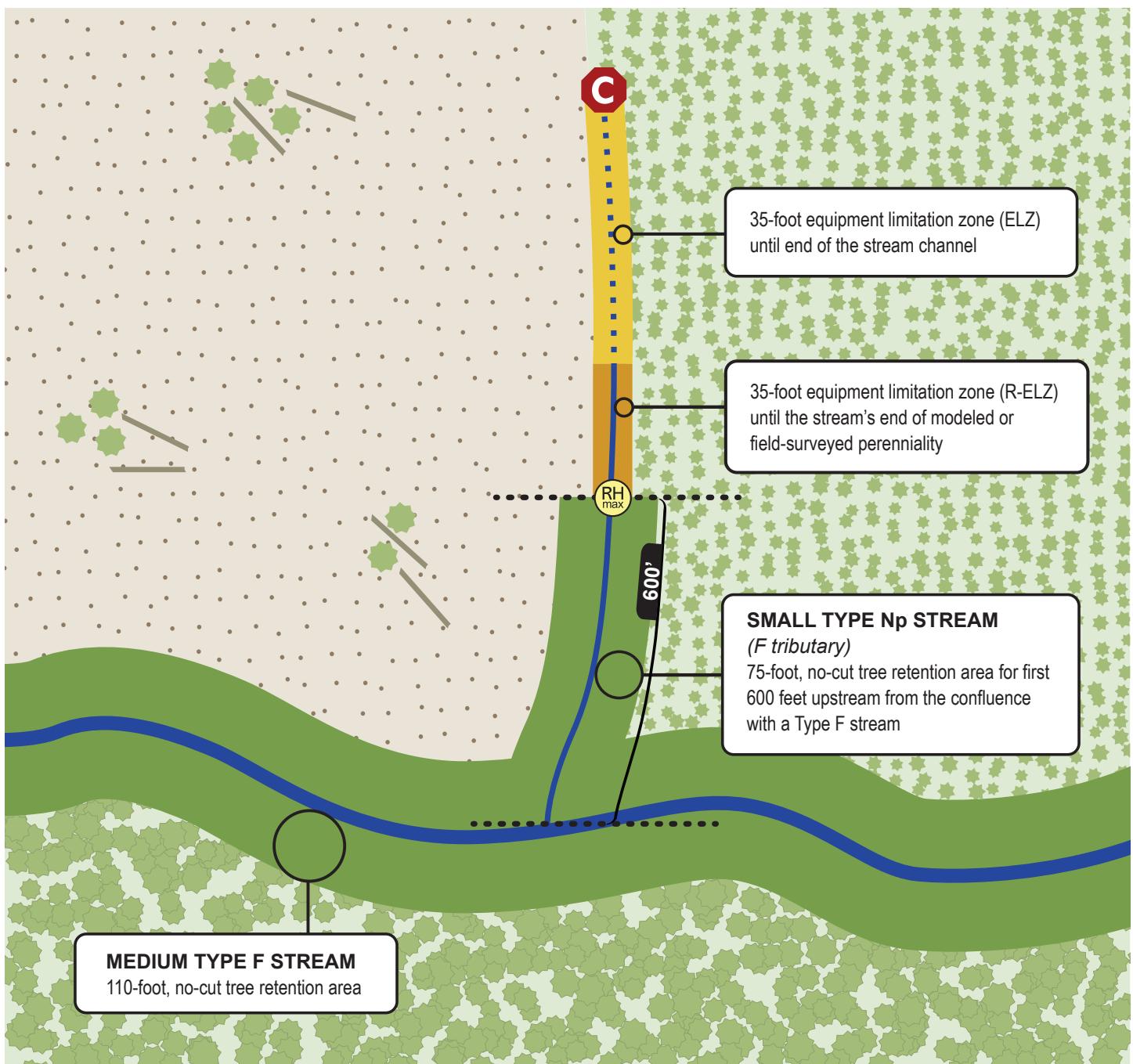
**Small Type Np** *flows into* **Small Type SSBT**



**LEGEND**

- End of stream channel
- Dashed line Dry channel
- Solid line Flowing water
- RH max
- Tree retention
- ELZ
- R-ELZ

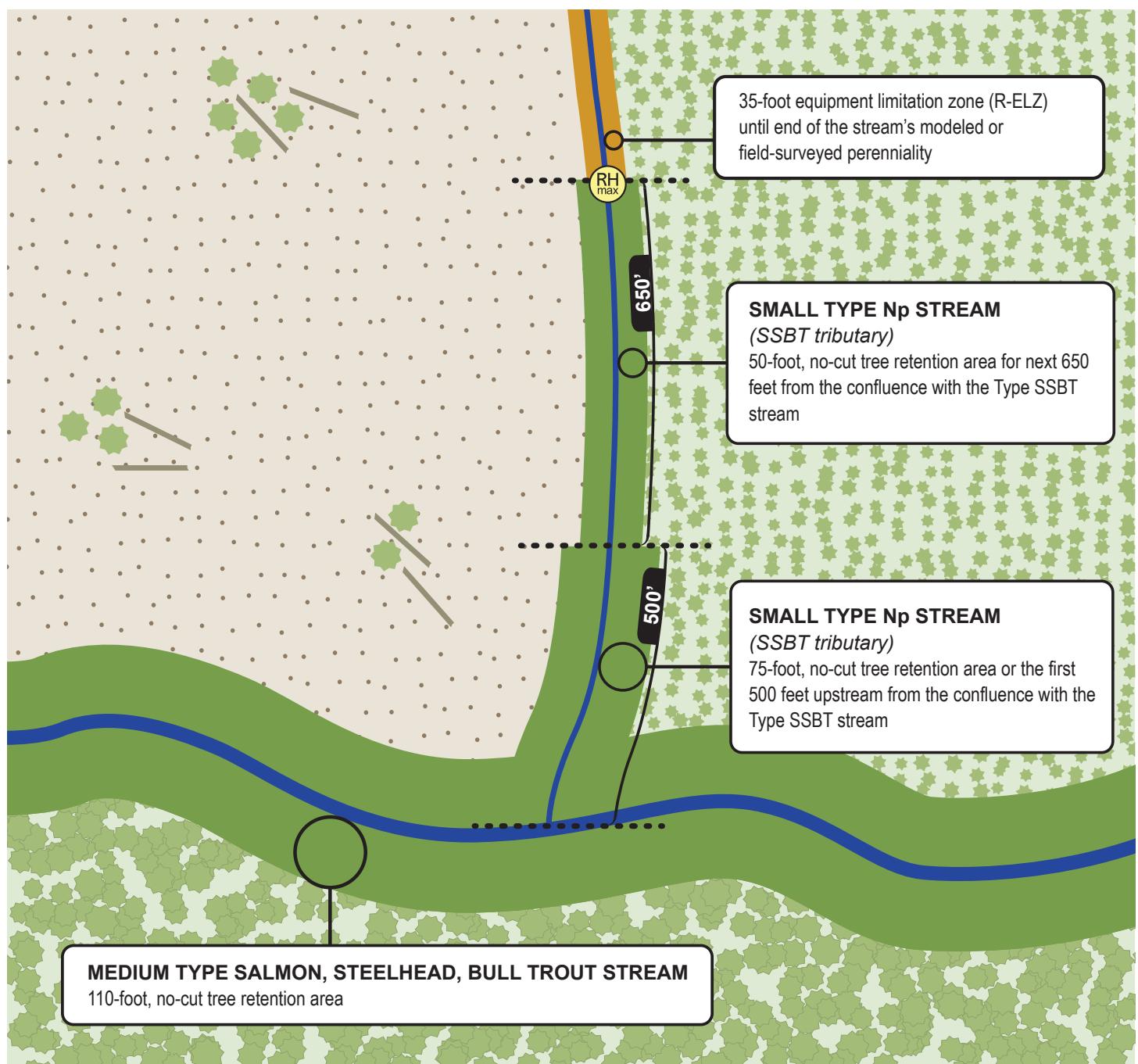
**Small Type Np** *flows into* **Medium Type F**



**LEGEND**

- C** End of stream channel
- Dashed blue line Dry channel
- Solid blue line Flowing water
- RH max**
- Tree retention
- ELZ
- R-ELZ

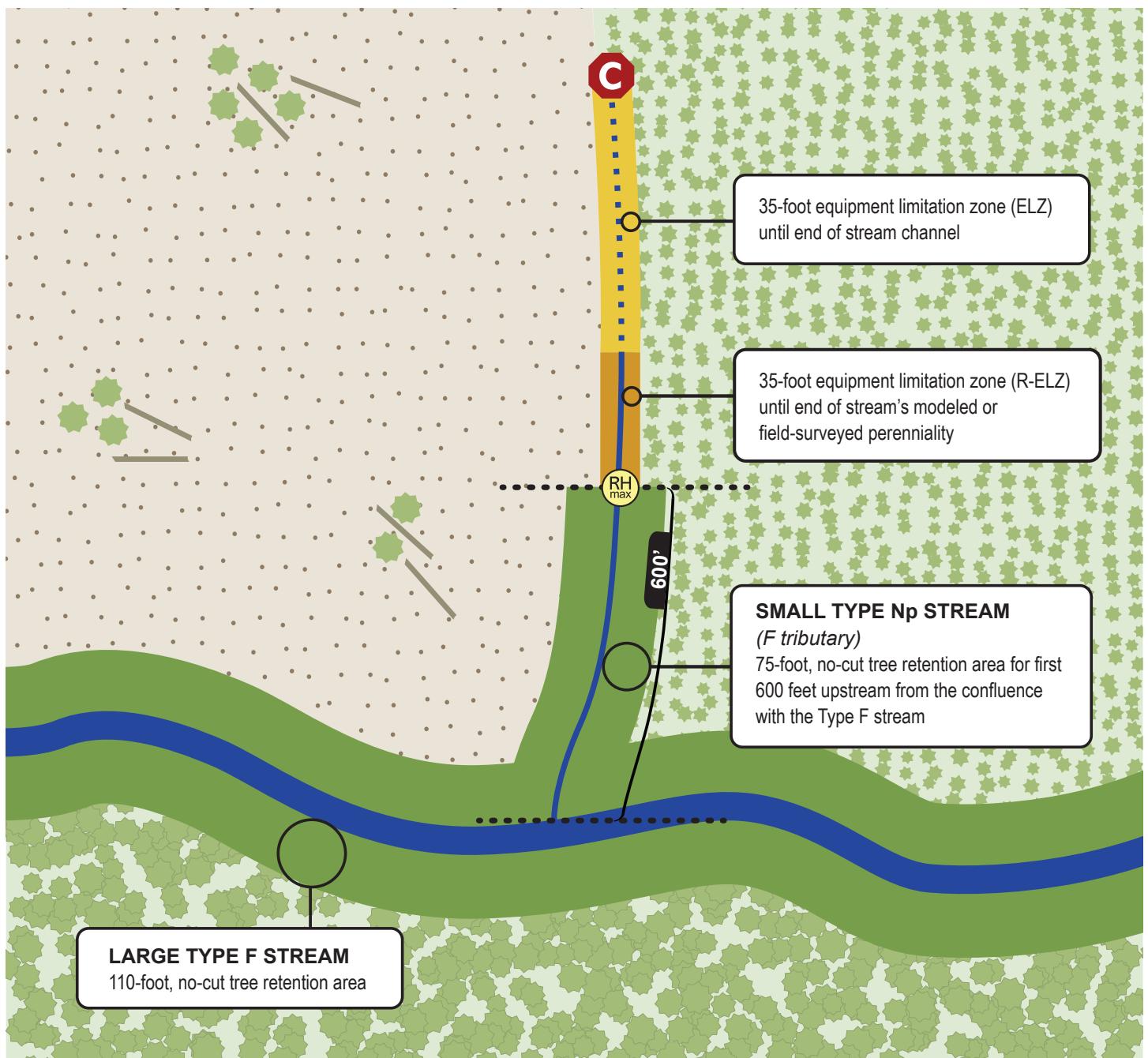
**Small Type Np** *flows into* **Medium Type SSBT**



**LEGEND**

- |  |                       |  |                |
|--|-----------------------|--|----------------|
|  | End of stream channel |  | Tree retention |
|  | Dry channel           |  | ELZ            |
|  | Flowing water         |  | R-ELZ          |
|  | RH max                |  |                |

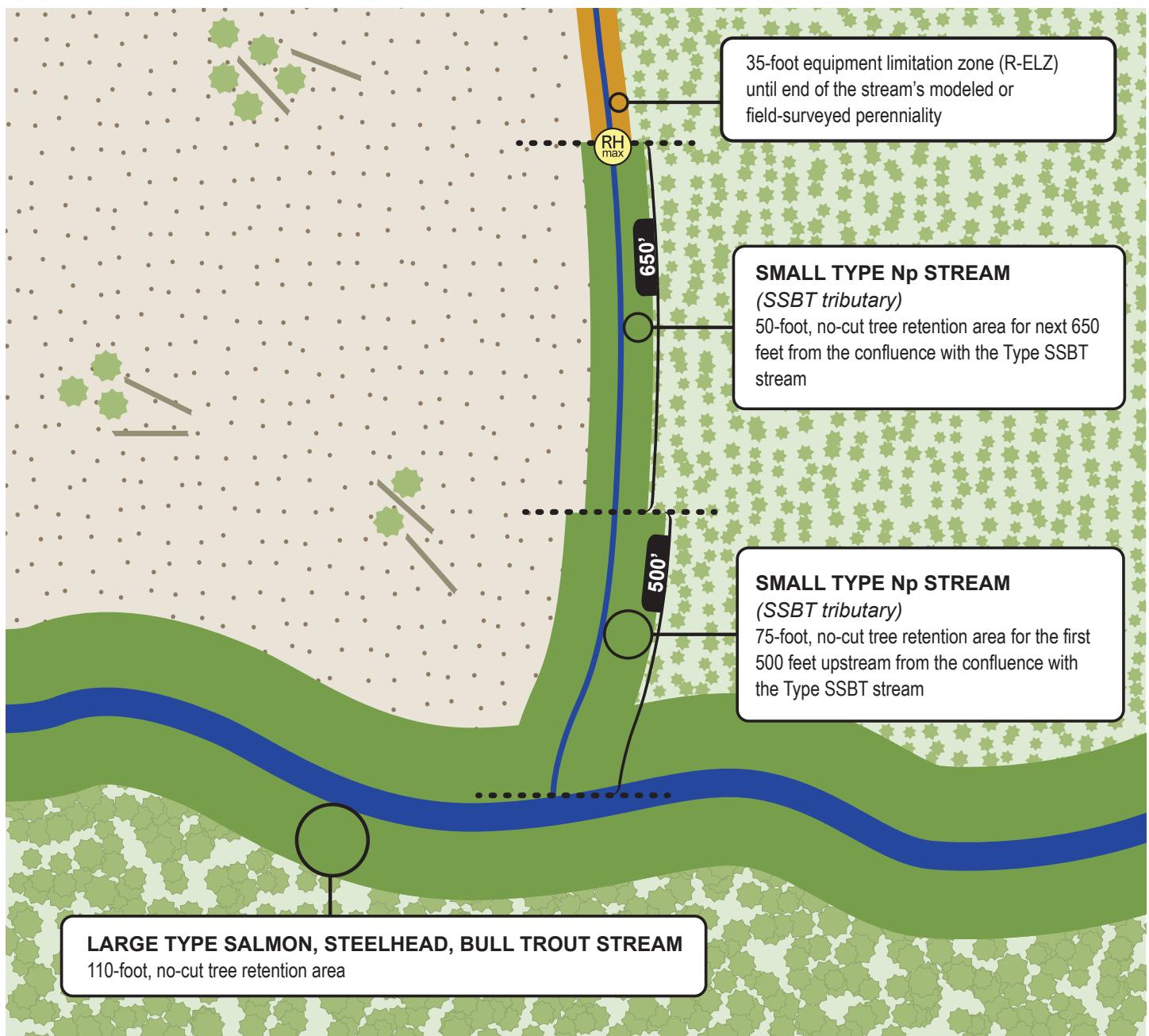
**Small Type Np** *flows into* **Large Type F**



**LEGEND**

- C** End of stream channel
- ■ ■ Dry channel
- Flowing water
- (RH max)
- Tree retention
- ELZ
- R-ELZ

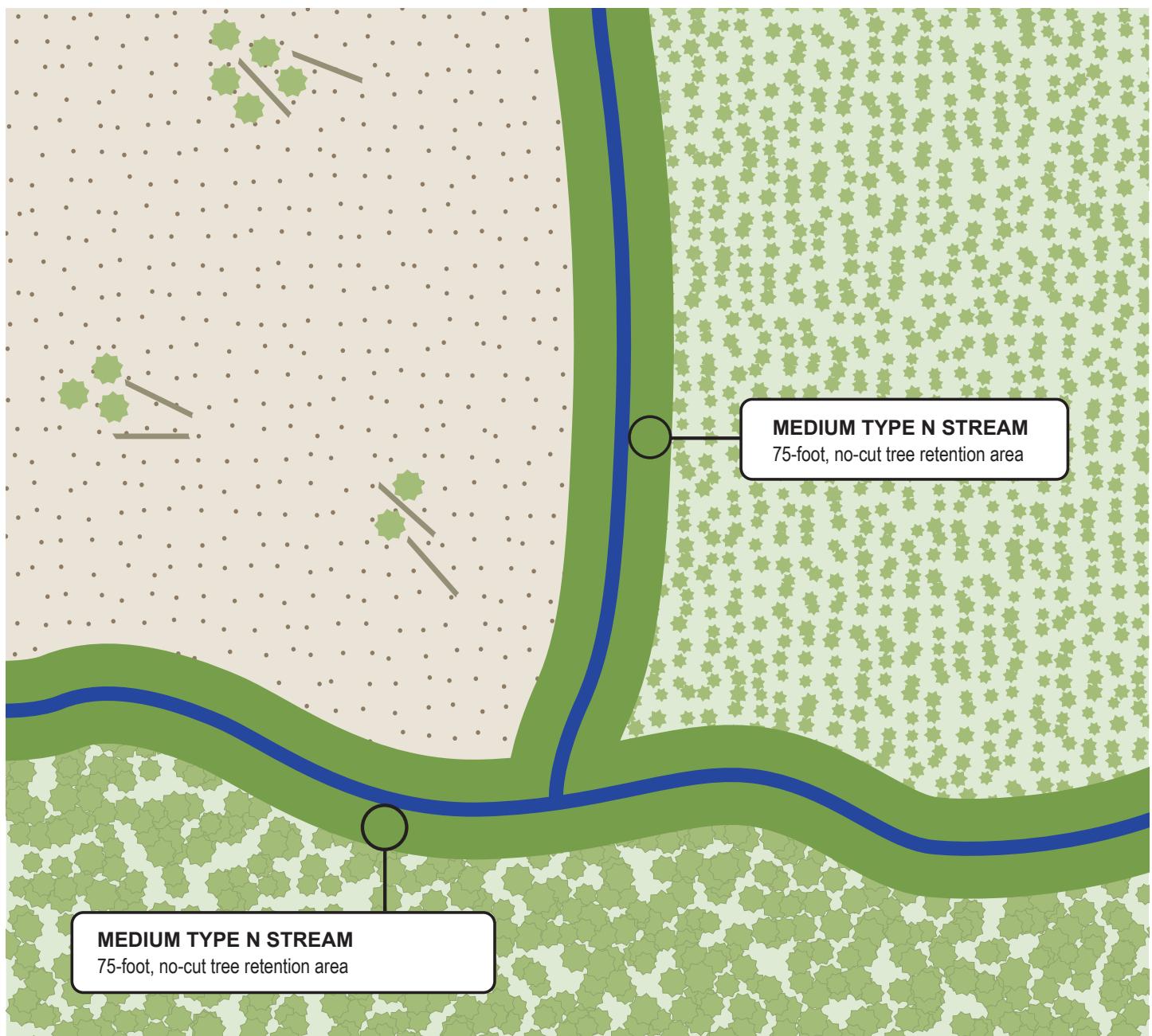
**Small Type Np** *flows into* **Large Type SSBT**



**LEGEND**

- End of stream channel
- Dry channel
- Flowing water
- RH max
- Tree retention
- ELZ
- R-ELZ

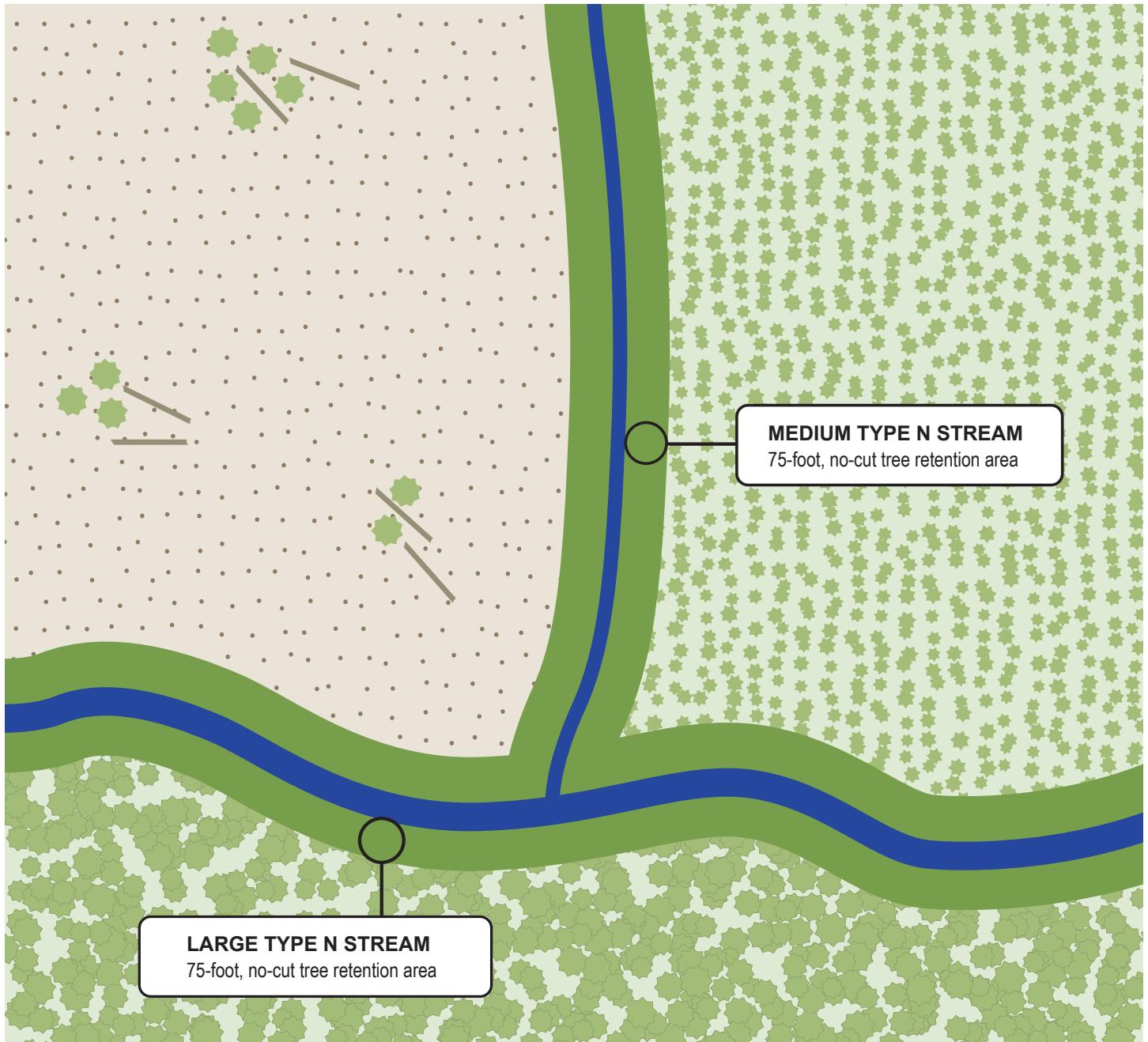
Medium Type N  Medium Type N



LEGEND

-  End of stream channel
-  Dry channel
-  Flowing water
-  RH max
-  Tree retention
-  ELZ
-  R-ELZ

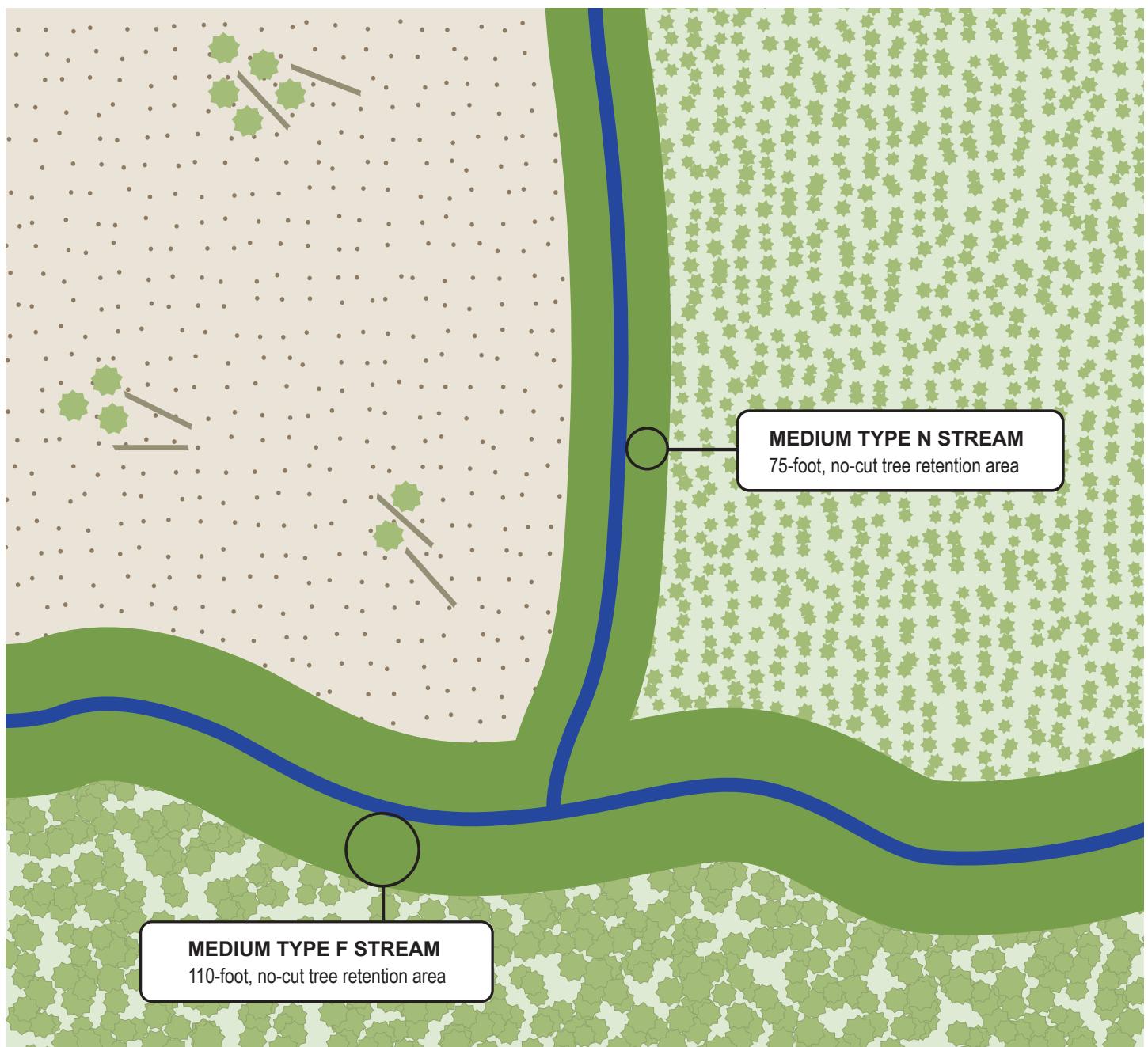
Medium Type N *flows into* Large Type N



#### LEGEND

- C End of stream channel
- Dry channel
- Flowing water
- RH<sub>max</sub>
- Tree retention
- ELZ
- R-ELZ

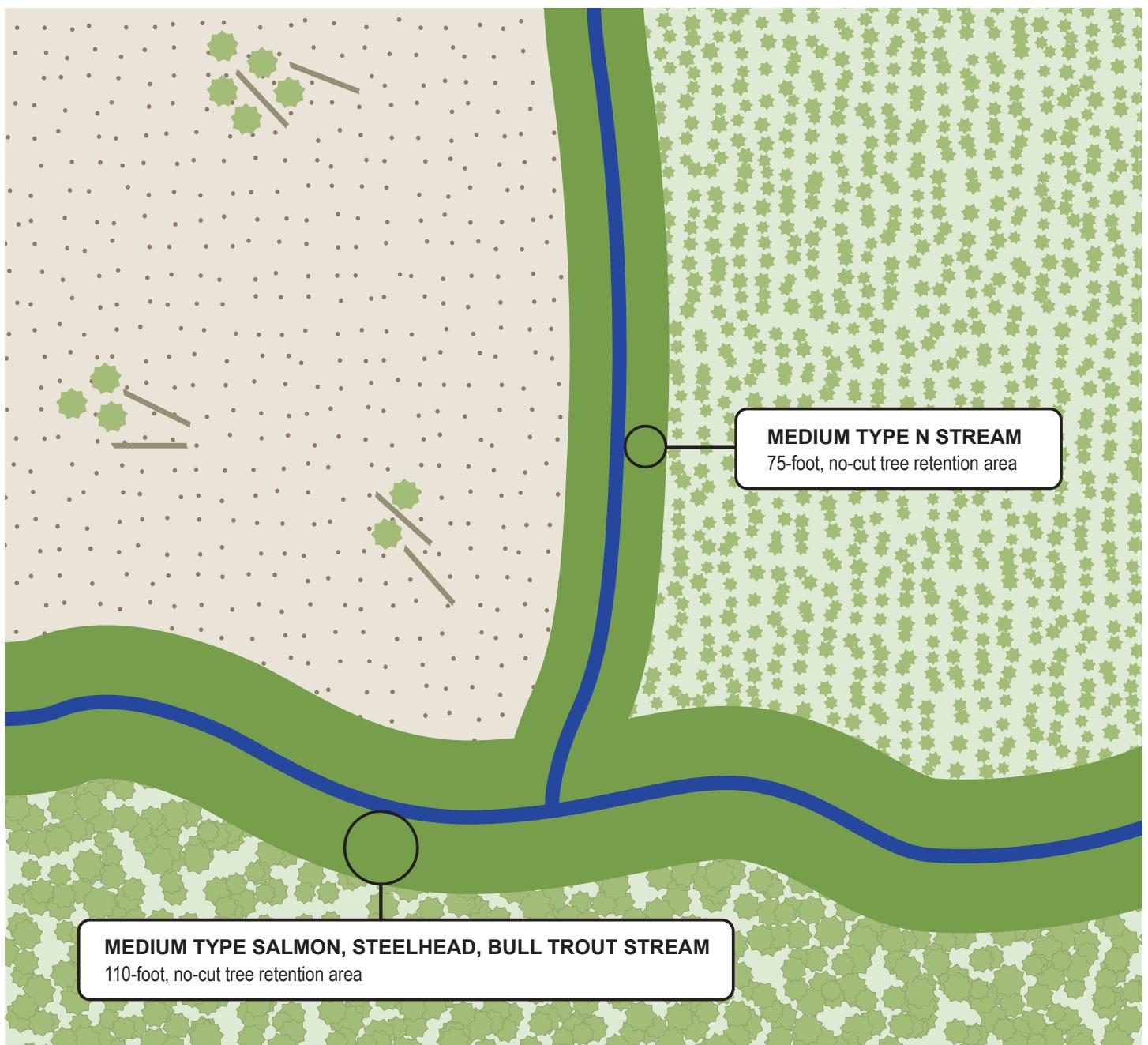
Medium Type N *flows into* Medium Type F



#### LEGEND

- End of stream channel
- Dry channel
- Flowing water
- RH max
- Tree retention
- ELZ
- R-ELZ

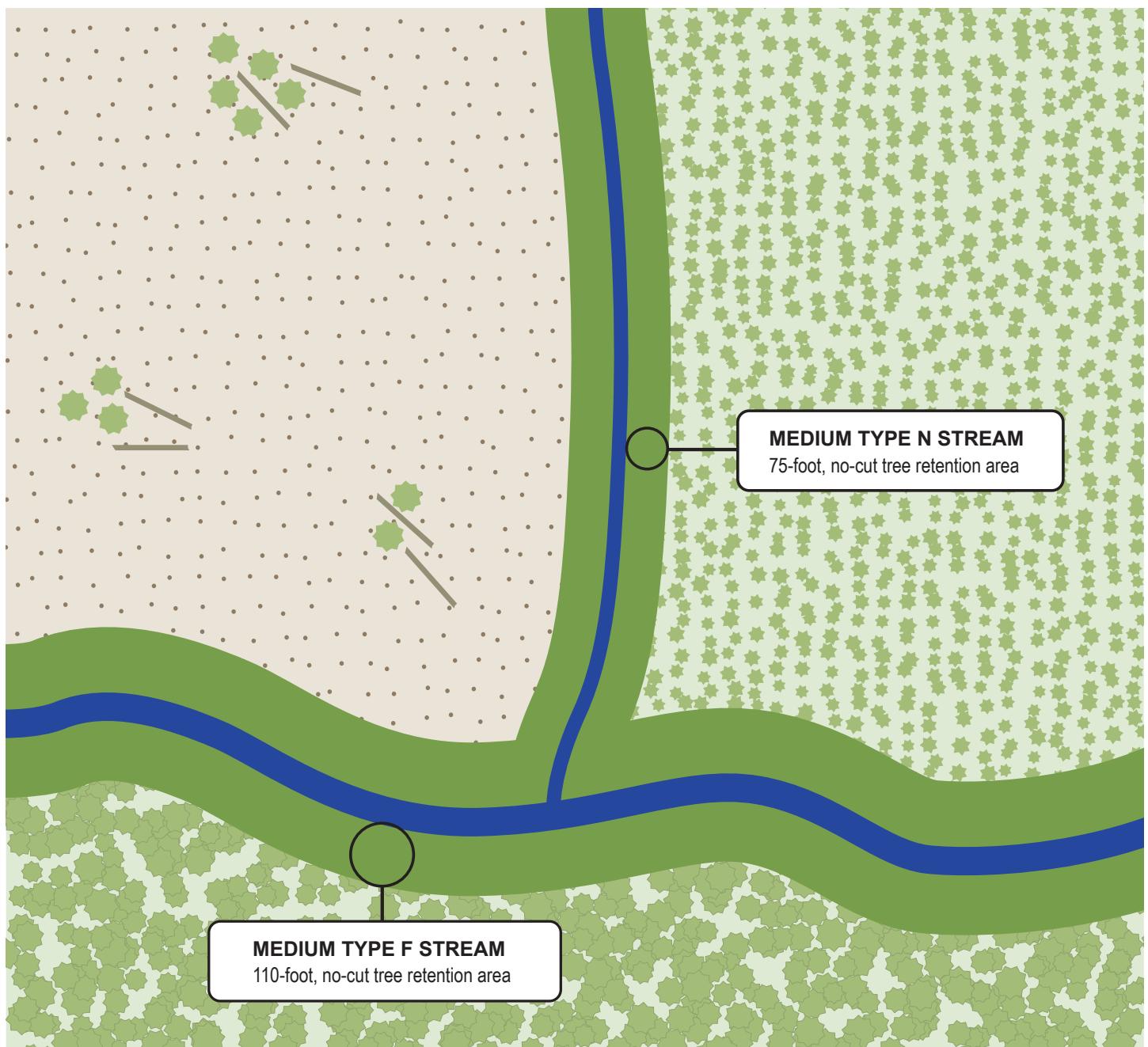
Medium Type N *flows into* Medium Type SSBT



LEGEND

- C End of stream channel
- Dry channel
- Flowing water
- RH<sub>max</sub> RH max
- Tree retention
- ELZ
- R-ELZ

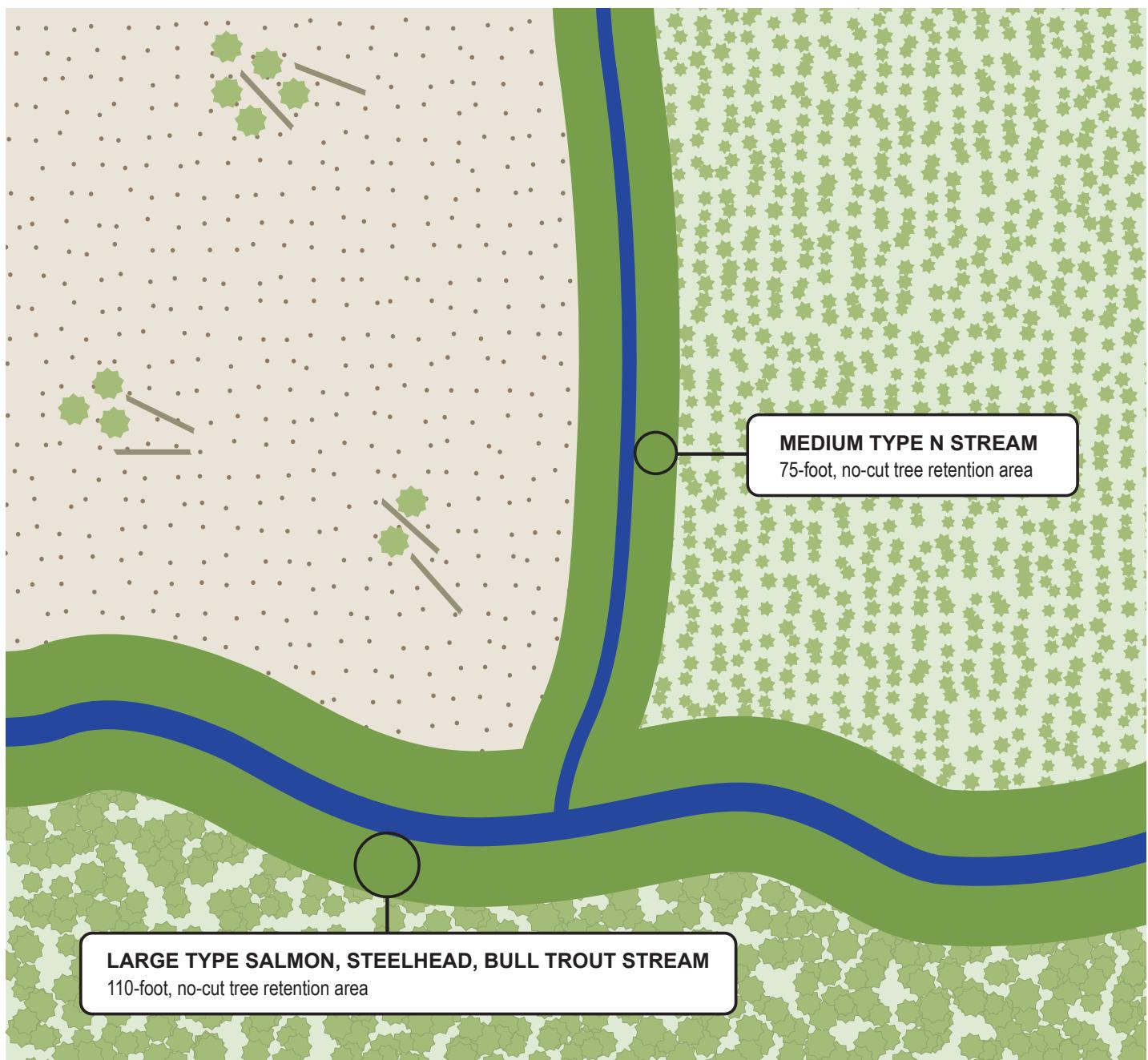
Medium Type N  flows into Large Type F



#### LEGEND

-  End of stream channel
-  Dry channel
-  Flowing water
-  RH max
-  Tree retention
-  ELZ
-  R-ELZ

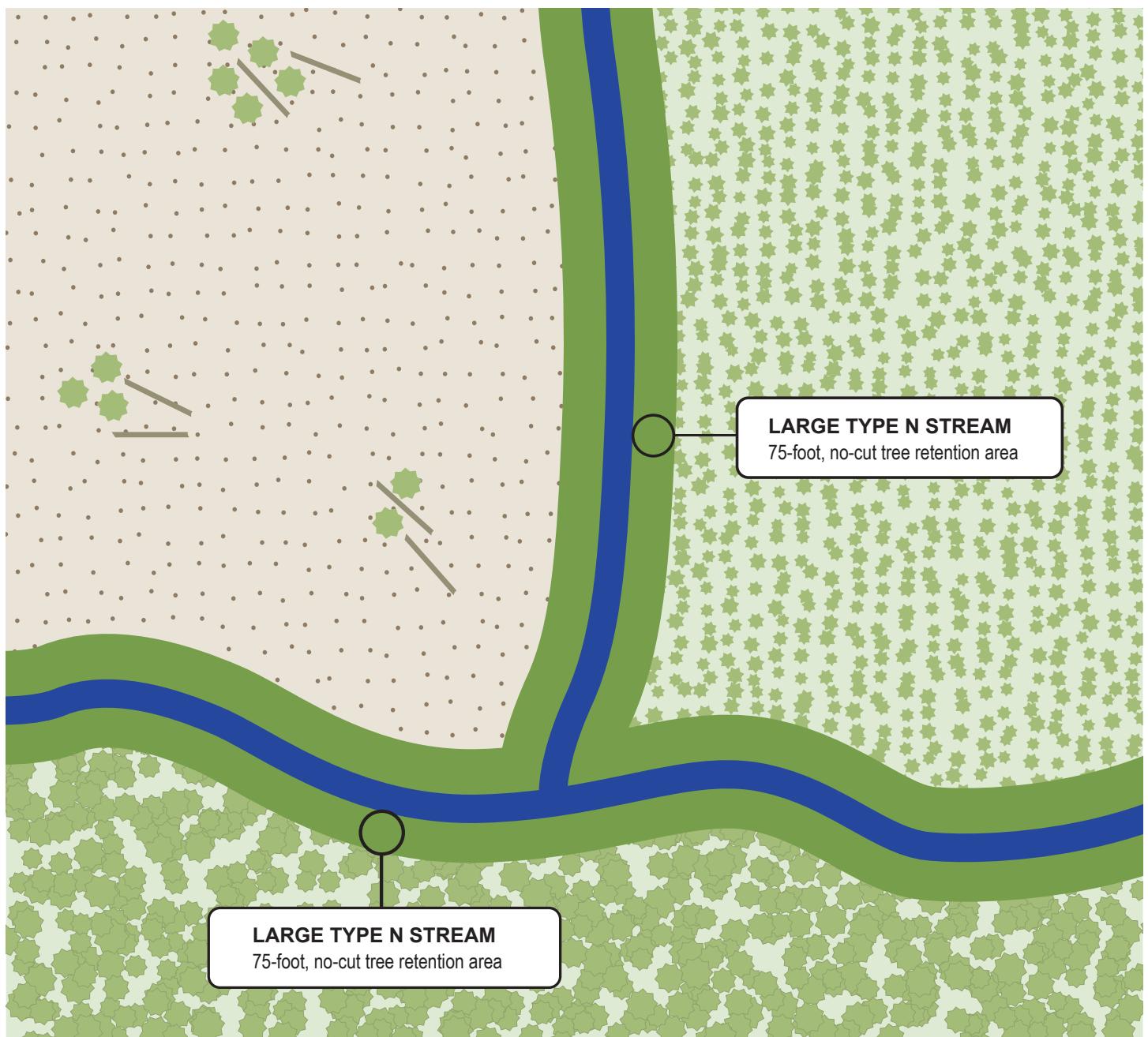
Medium Type N *flows into* Large Type SSBT



#### LEGEND

- End of stream channel
- Dashed line Dry channel
- Flowing water
- RH max
- Tree retention
- ELZ
- R-ELZ

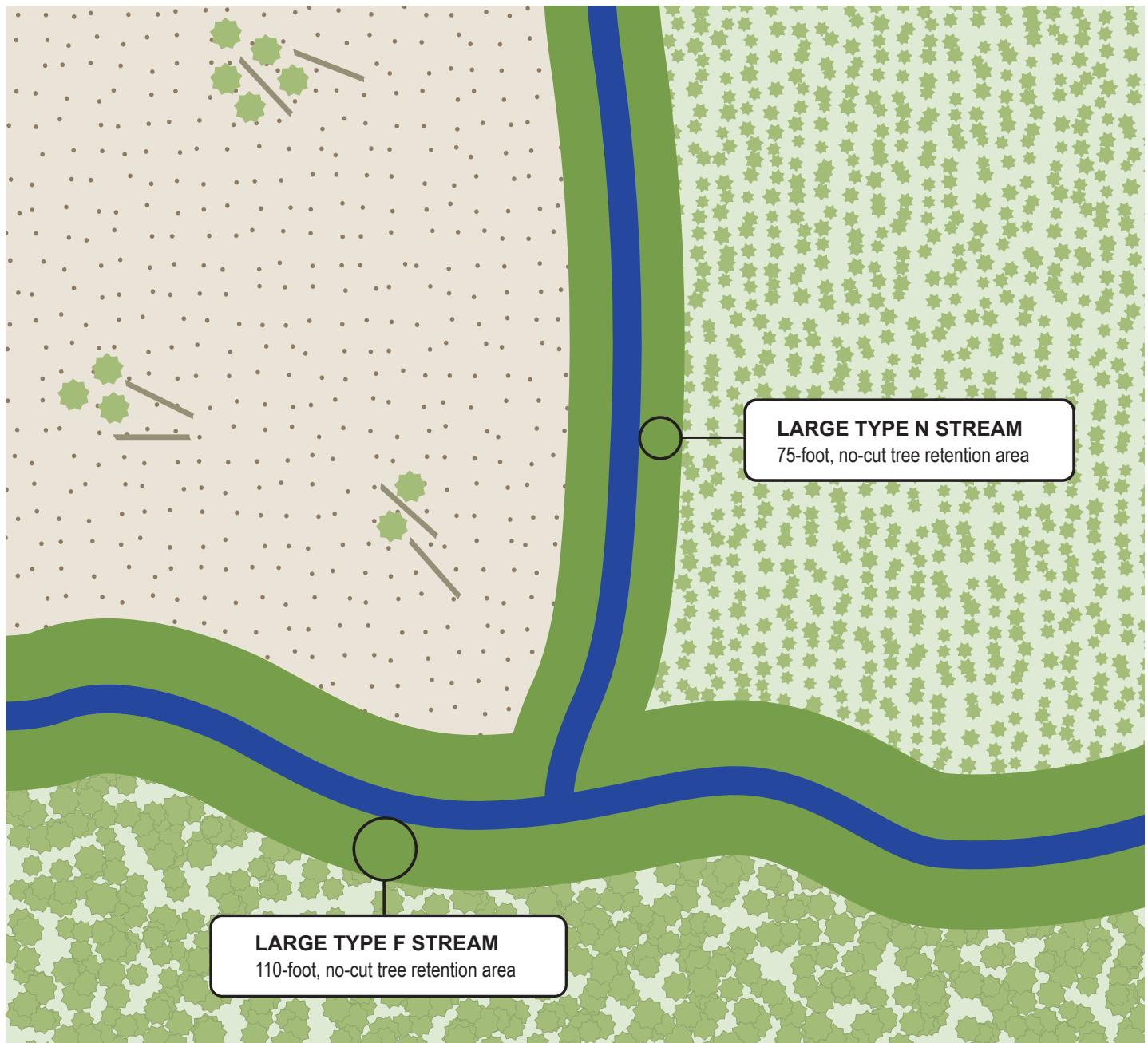
Large Type N *flows into* Large Type N



#### LEGEND

- C End of stream channel
- · · — Dry channel
- Flowing water
- RH<sub>max</sub> RH max
- Tree retention
- ELZ
- R-ELZ

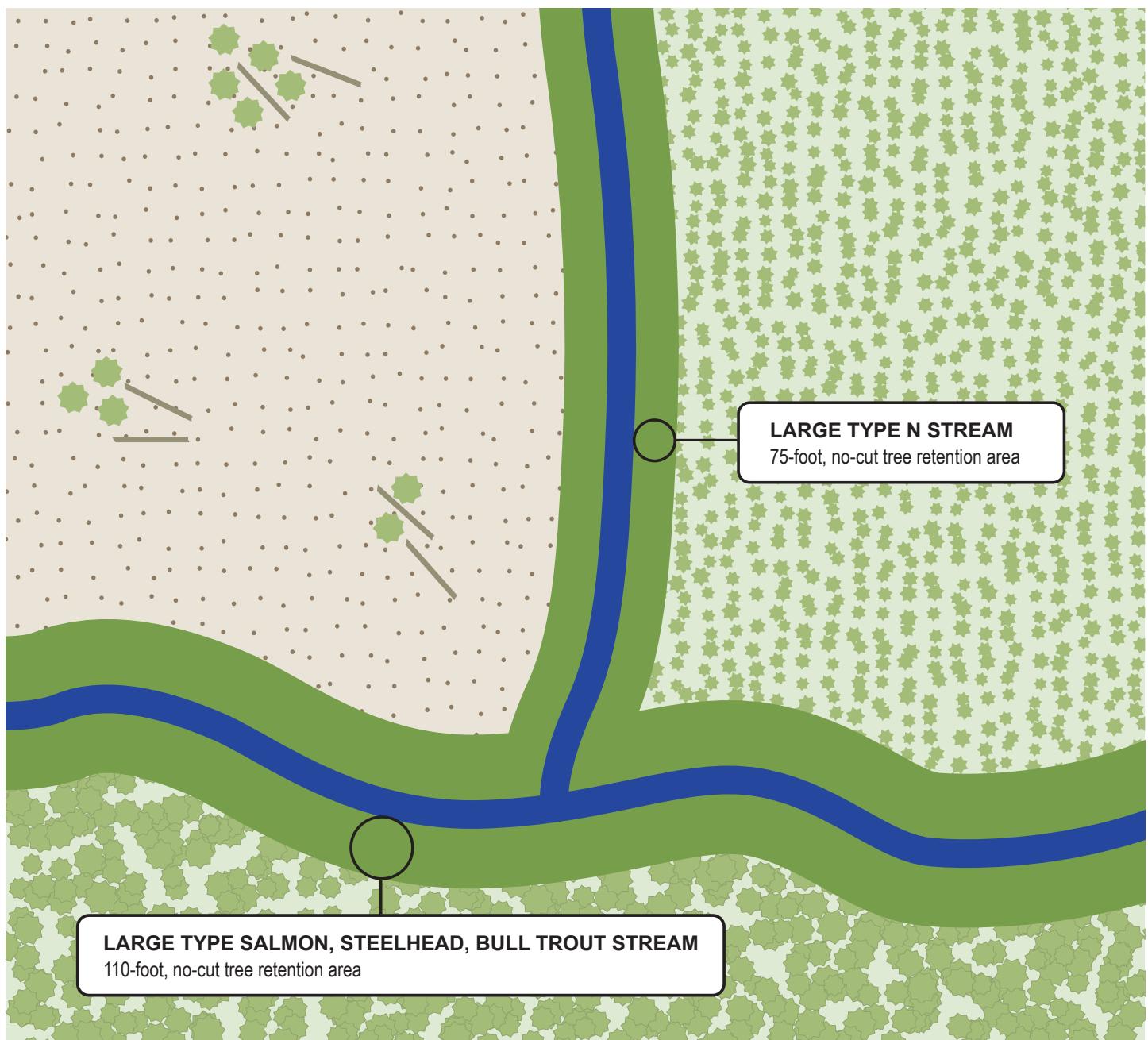
## Large Type N flows into Large Type F



### LEGEND

- C End of stream channel
- Dry channel
- Flowing water
- RH<sub>max</sub>
- Tree retention
- ELZ
- R-ELZ

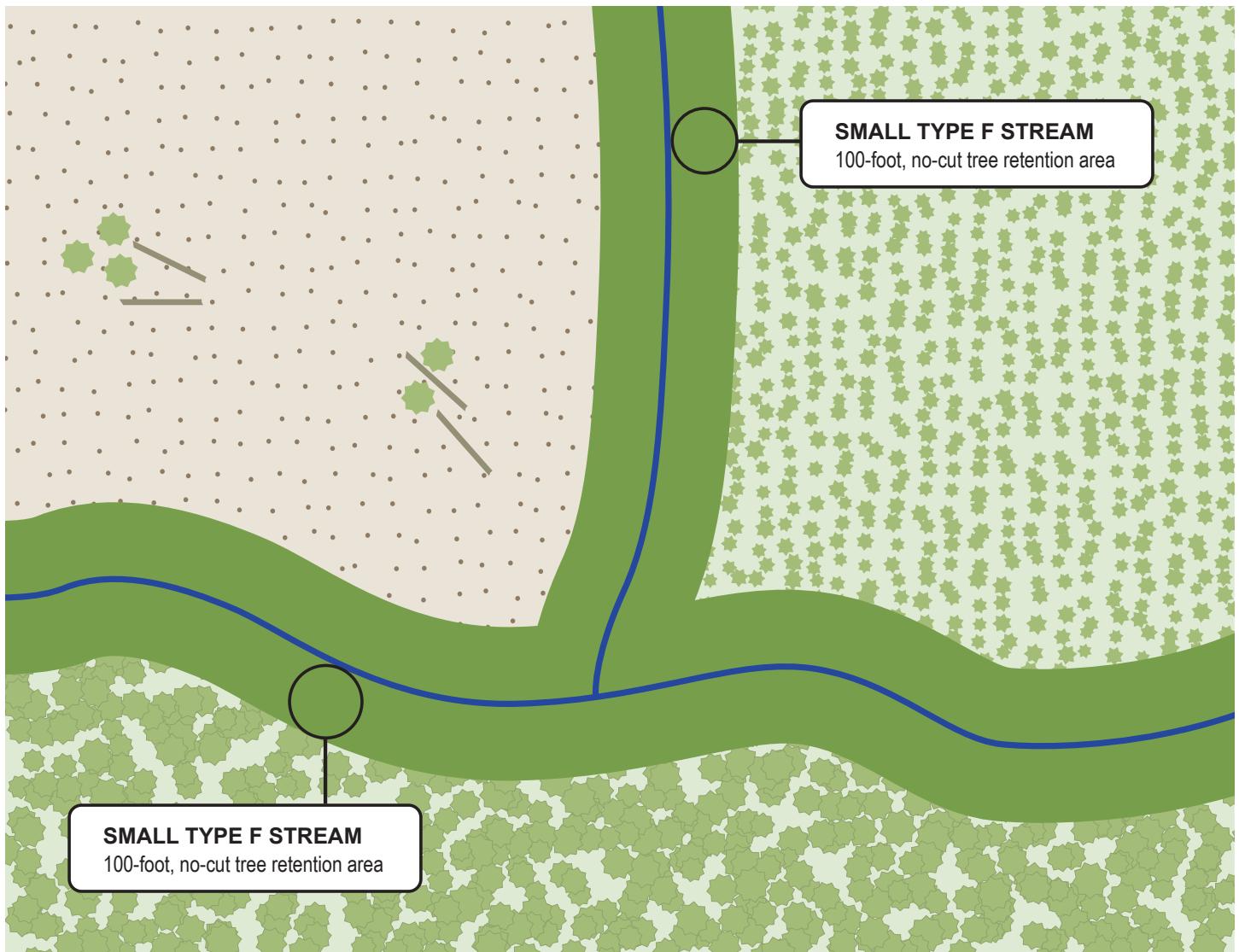
Large Type N flows into Large Type SSBT



#### LEGEND

- End of stream channel
- Dry channel
- Flowing water
- RH max
- Tree retention
- ELZ
- R-ELZ

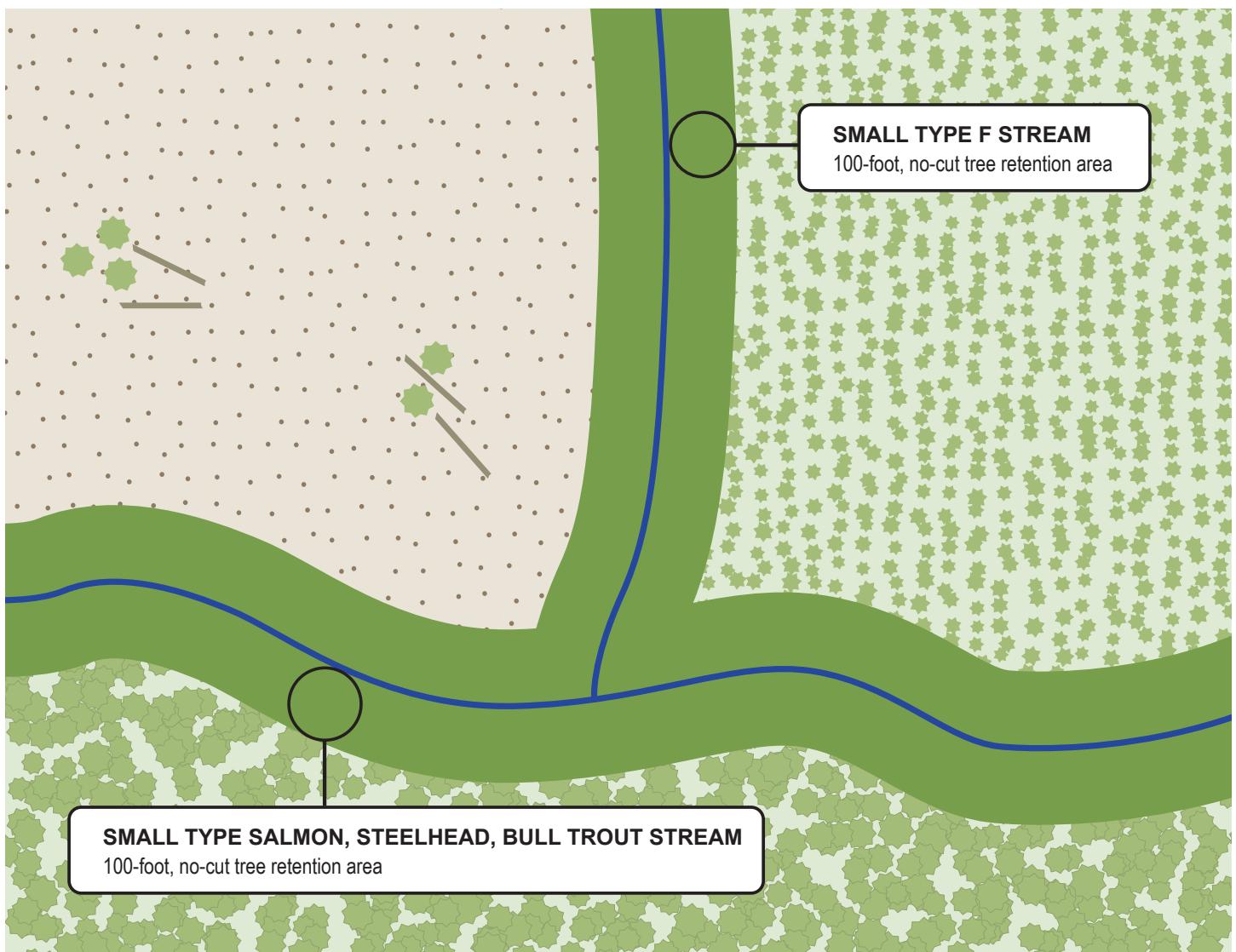
## Small Type F flows into Small Type F



### LEGEND

- C End of stream channel
- Dry channel
- Flowing water
- RH<sub>max</sub>
- Tree retention
- ELZ
- R-ELZ

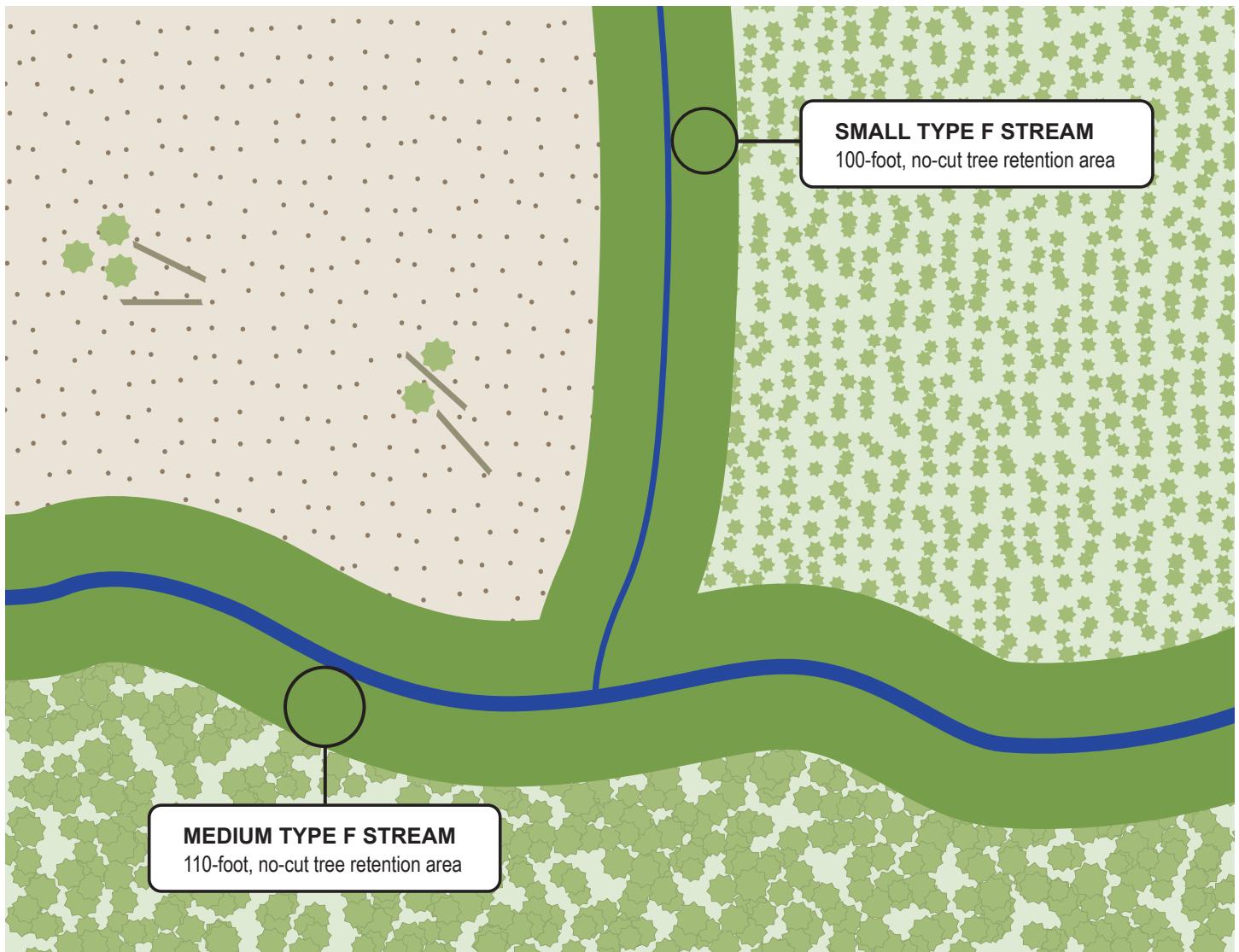
**Small Type F** *flows into* **Small Type SSBT**



**LEGEND**

- End of stream channel
- Dry channel
- Flowing water
- RH max
- Tree retention
- ELZ
- R-ELZ

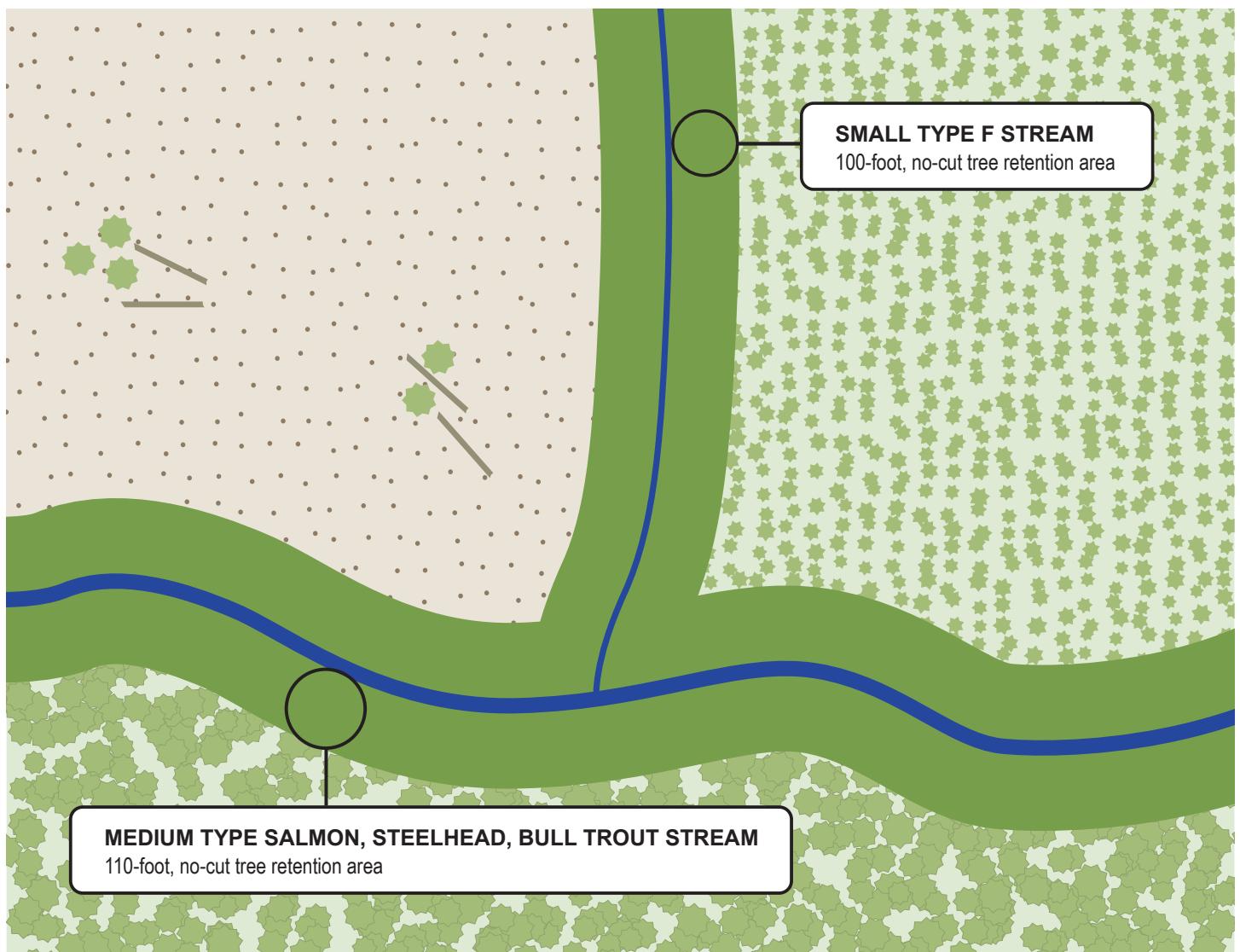
Small Type F *flows into* Medium Type F



#### LEGEND

- End of stream channel
- Dashed line Dry channel
- Flowing water
- RH max
- Tree retention
- ELZ
- R-ELZ

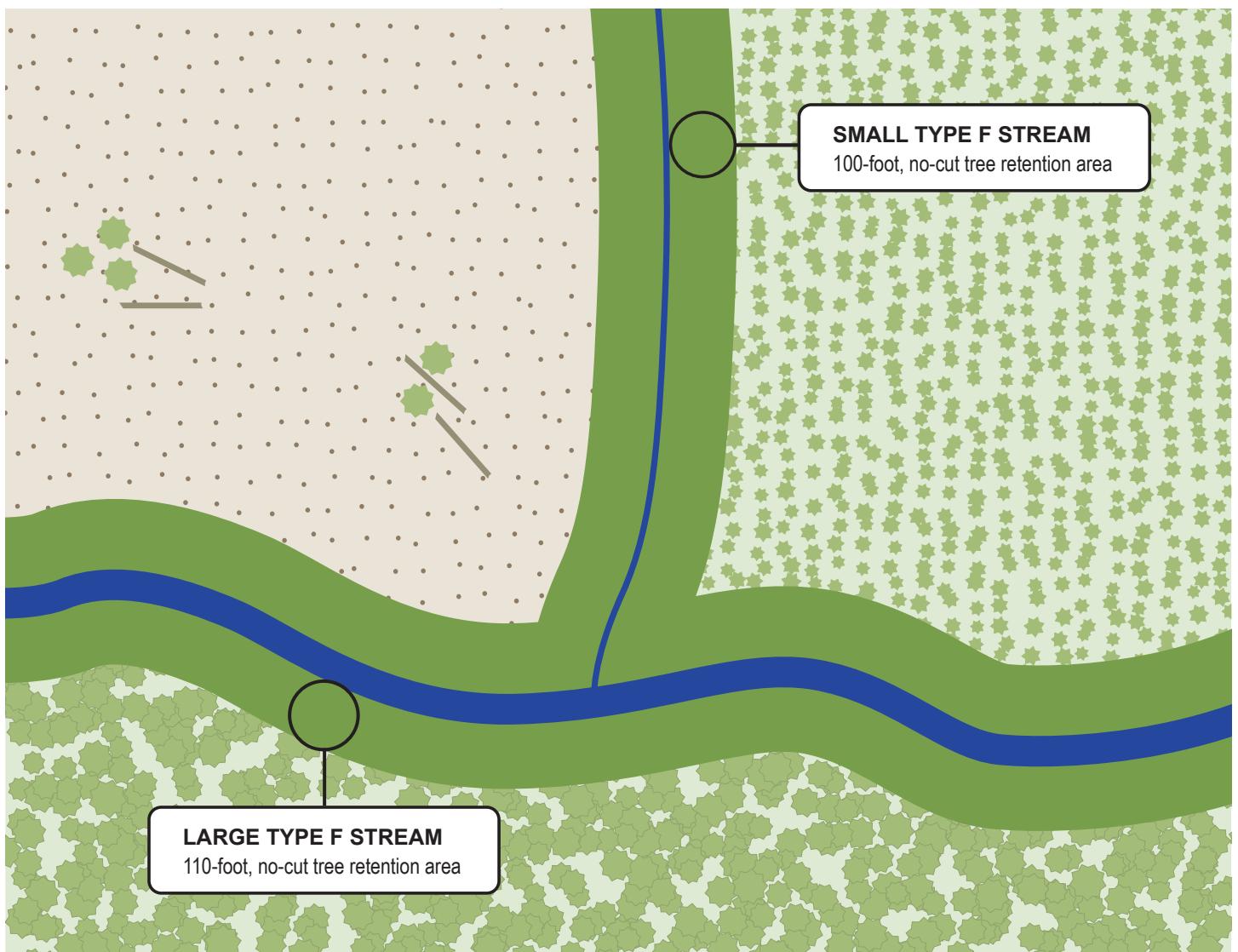
Small Type F *flows into* Medium Type SSBT



#### LEGEND

- C End of stream channel
- · · — Dry channel
- Flowing water
- RH<sub>max</sub> RH max
- Tree retention
- ELZ
- R-ELZ

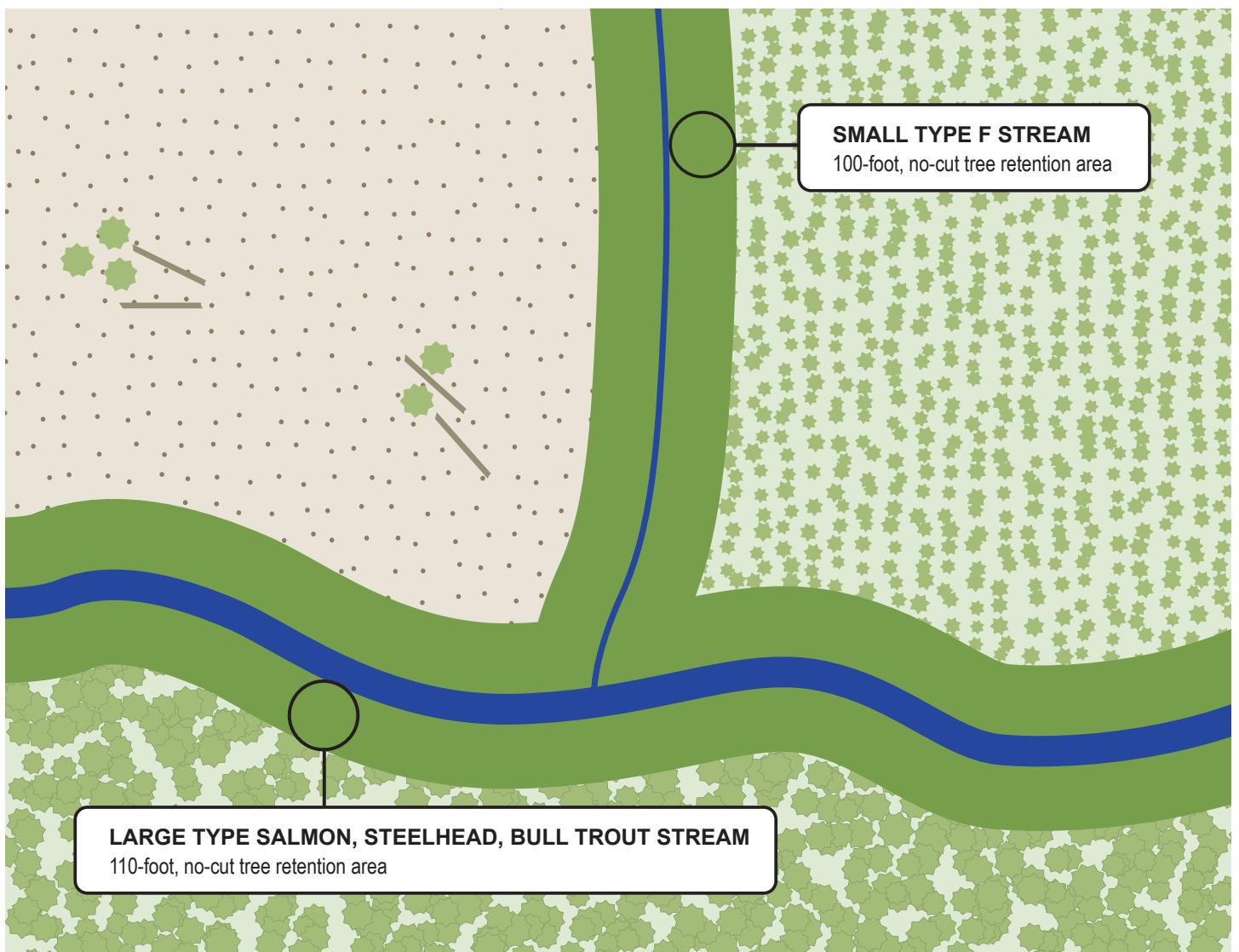
Small Type F *flows into* Large Type F



#### LEGEND

- C End of stream channel
- Dry channel
- Flowing water
- RH<sub>max</sub>
- Tree retention
- ELZ
- R-ELZ

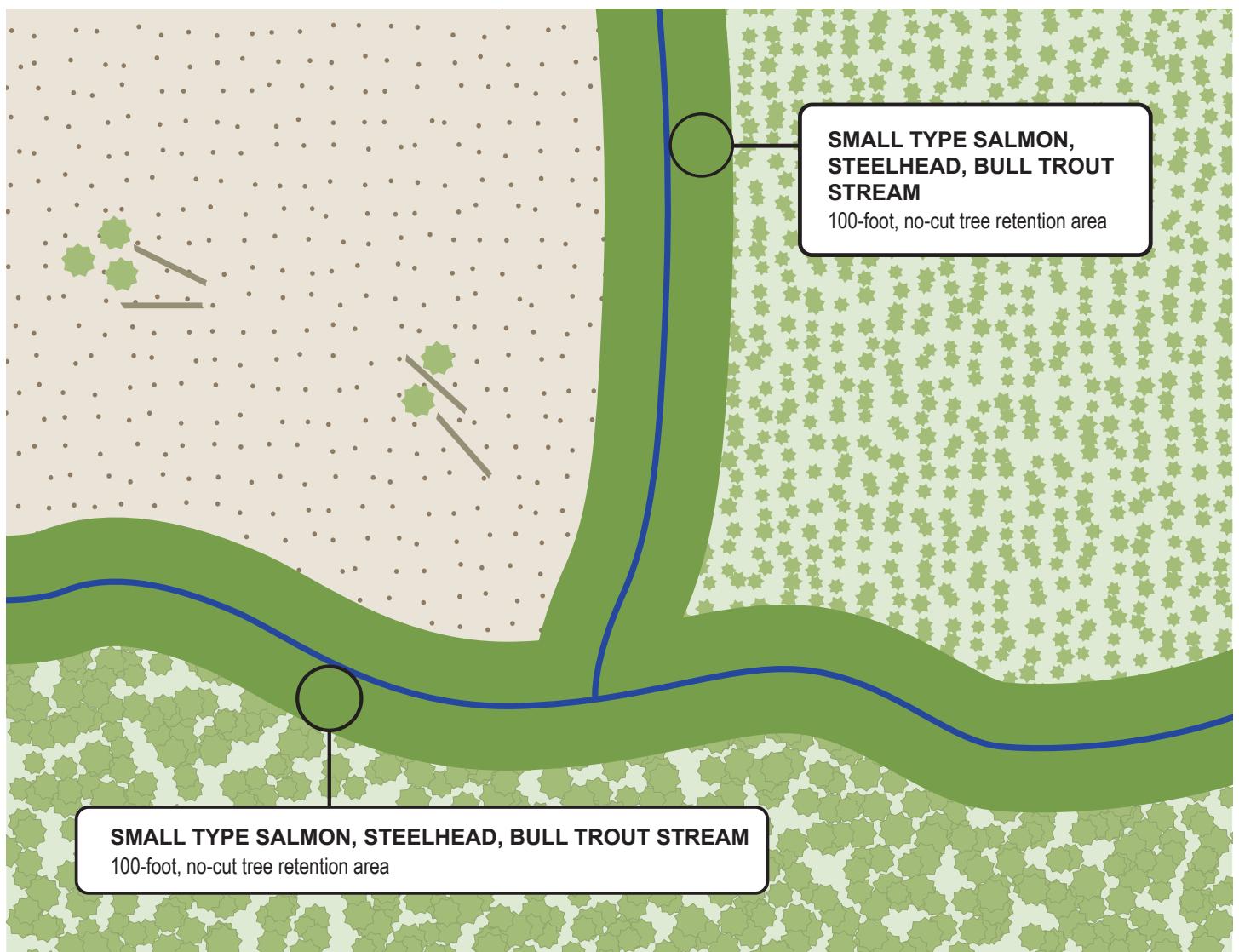
Small Type F *flows into* Large Type SSBT



#### LEGEND

- End of stream channel
- Dry channel
- Flowing water
- RH max
- Tree retention
- ELZ
- R-ELZ

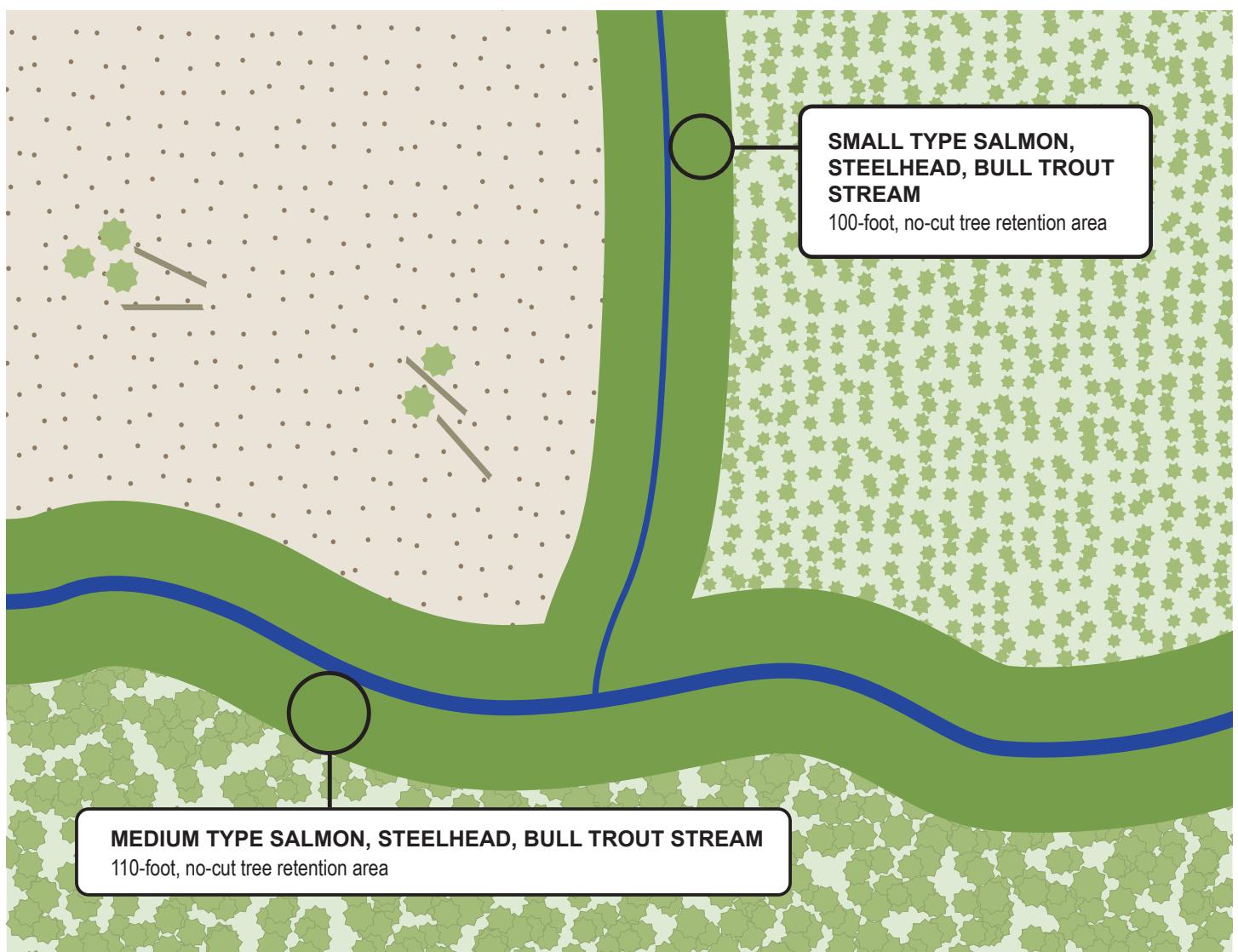
Small Type SSBT *flows into* Small Type SSBT



LEGEND

- C End of stream channel
- Dry channel
- Flowing water
- RH<sub>max</sub>
- Tree retention
- ELZ
- R-ELZ

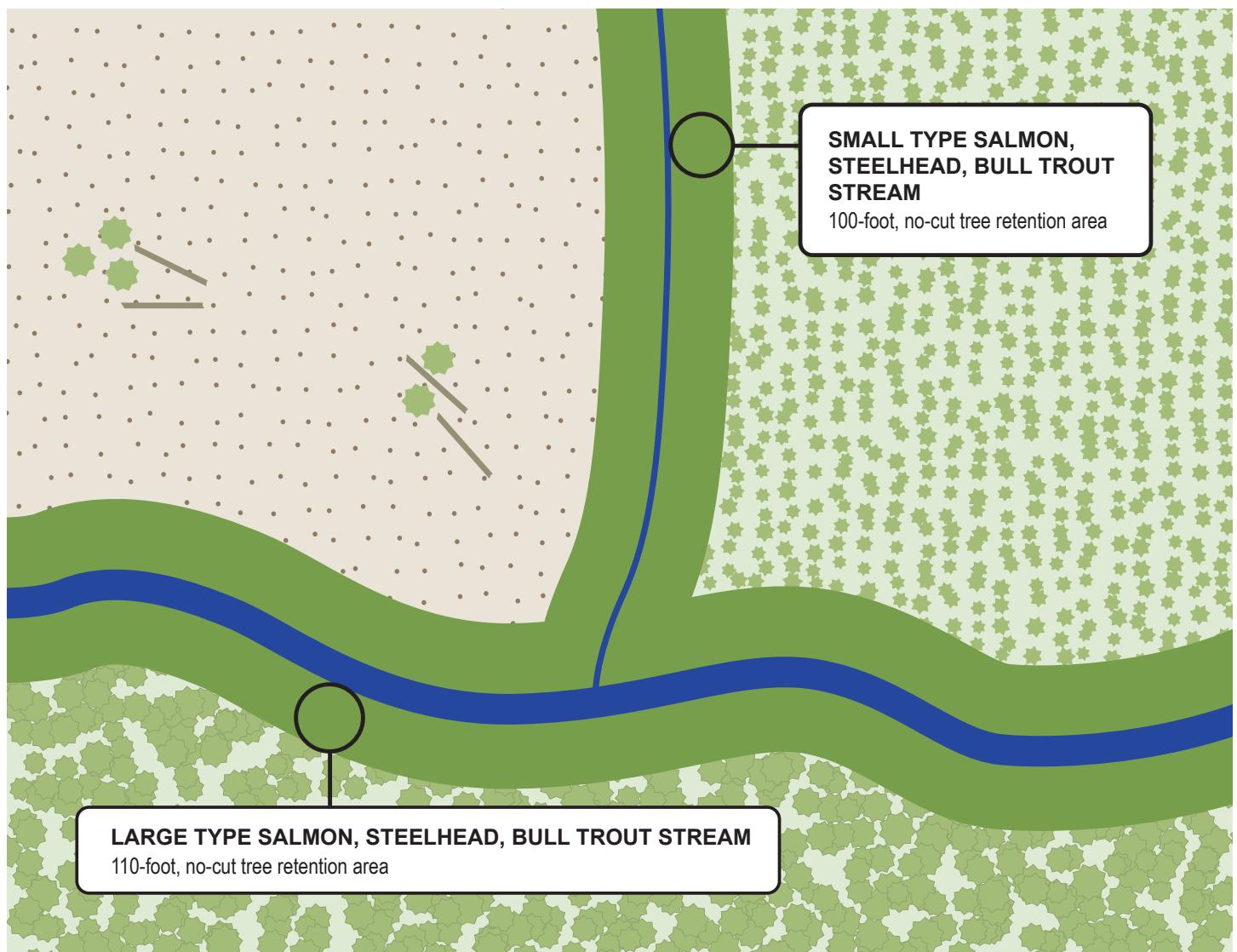
**Small Type SSBT** *flows into* **Medium Type SSBT**



**LEGEND**

- C End of stream channel
- Dry channel
- Flowing water
- RH<sub>max</sub> RH max
- Tree retention
- ELZ
- R-ELZ

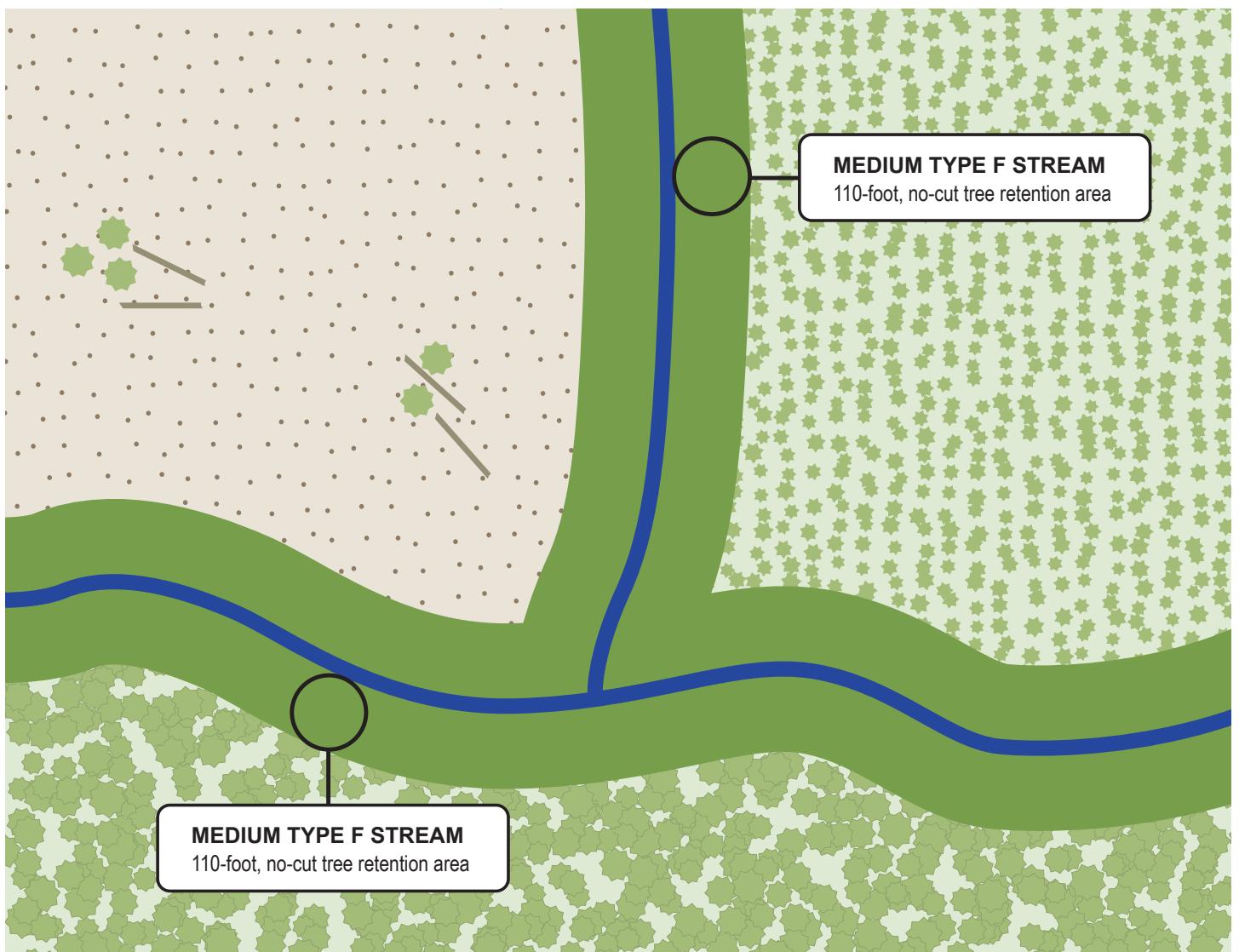
**Small Type SSBT** *flows into* **Large Type SSBT**



**LEGEND**

- C** End of stream channel
- Dashed blue line** Dry channel
- Solid blue line** Flowing water
- RH max**
- Green** Tree retention
- Yellow** ELZ
- Orange** R-ELZ

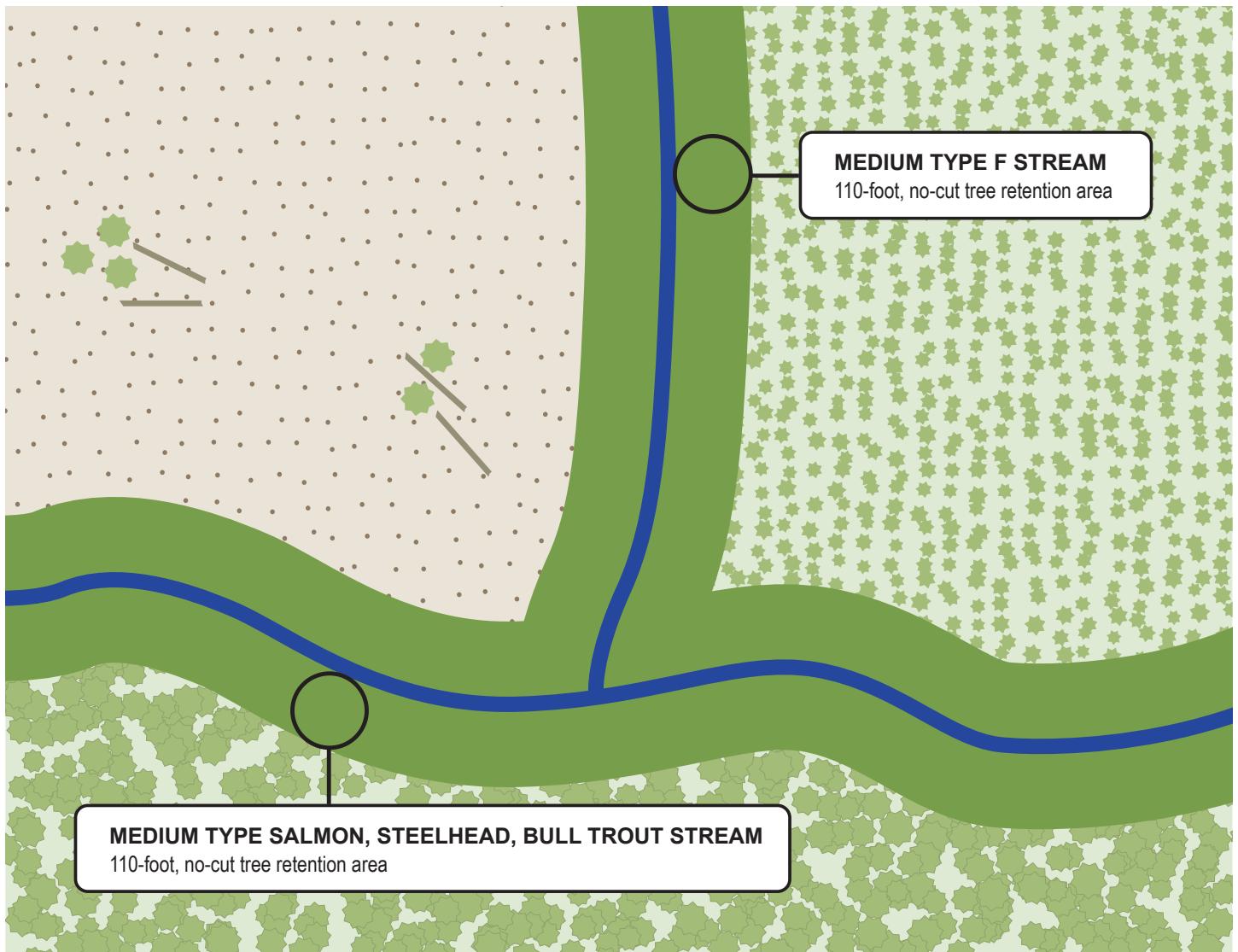
Medium Type F flows into Medium Type F



#### LEGEND

- C End of stream channel
- Dry channel
- Flowing water
- RH<sub>max</sub> RH max
- Tree retention
- ELZ
- R-ELZ

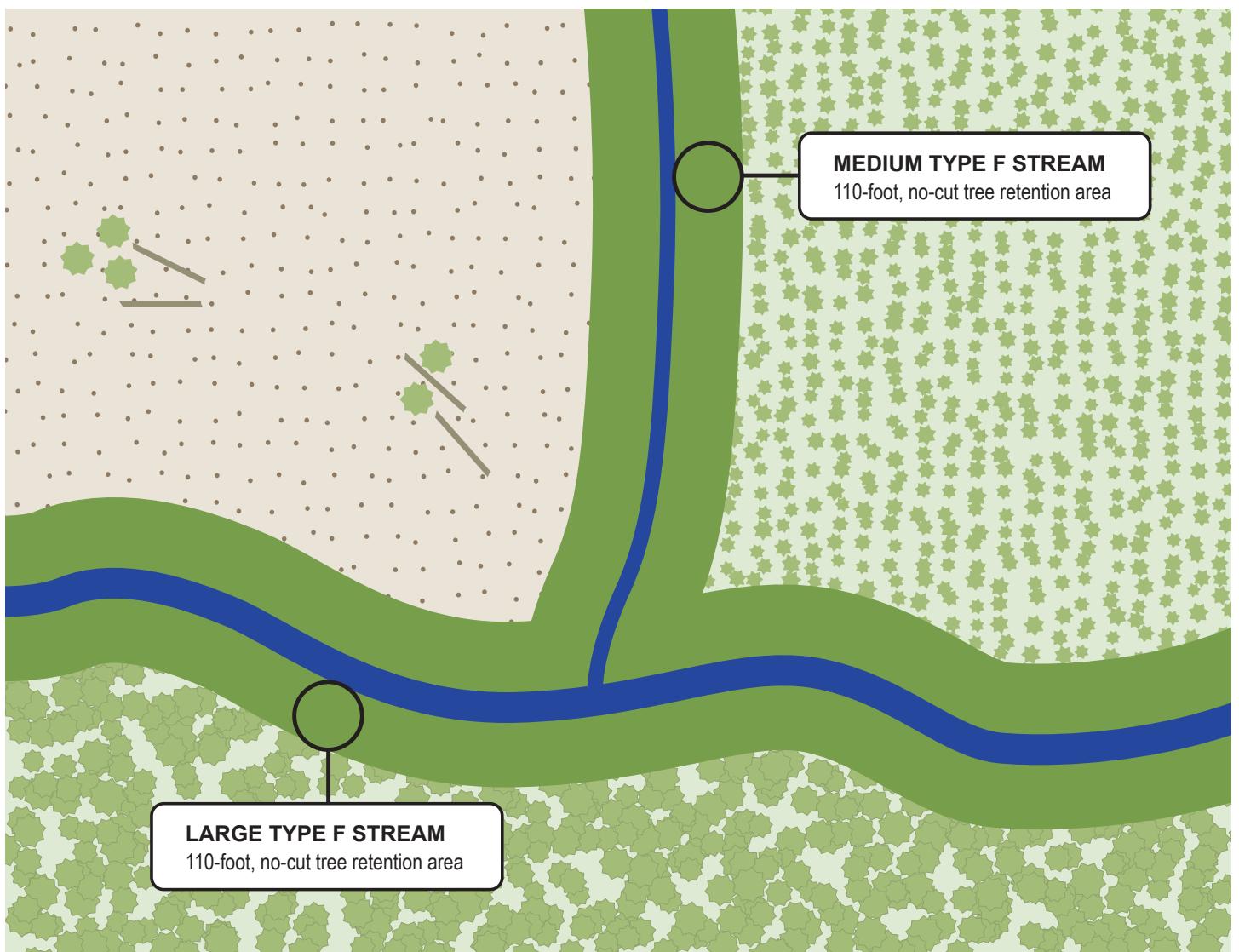
Medium Type F *flows into* Medium Type SSBT



LEGEND

- C End of stream channel
- Dry channel
- Flowing water
- RH max
- Tree retention
- ELZ
- R-ELZ

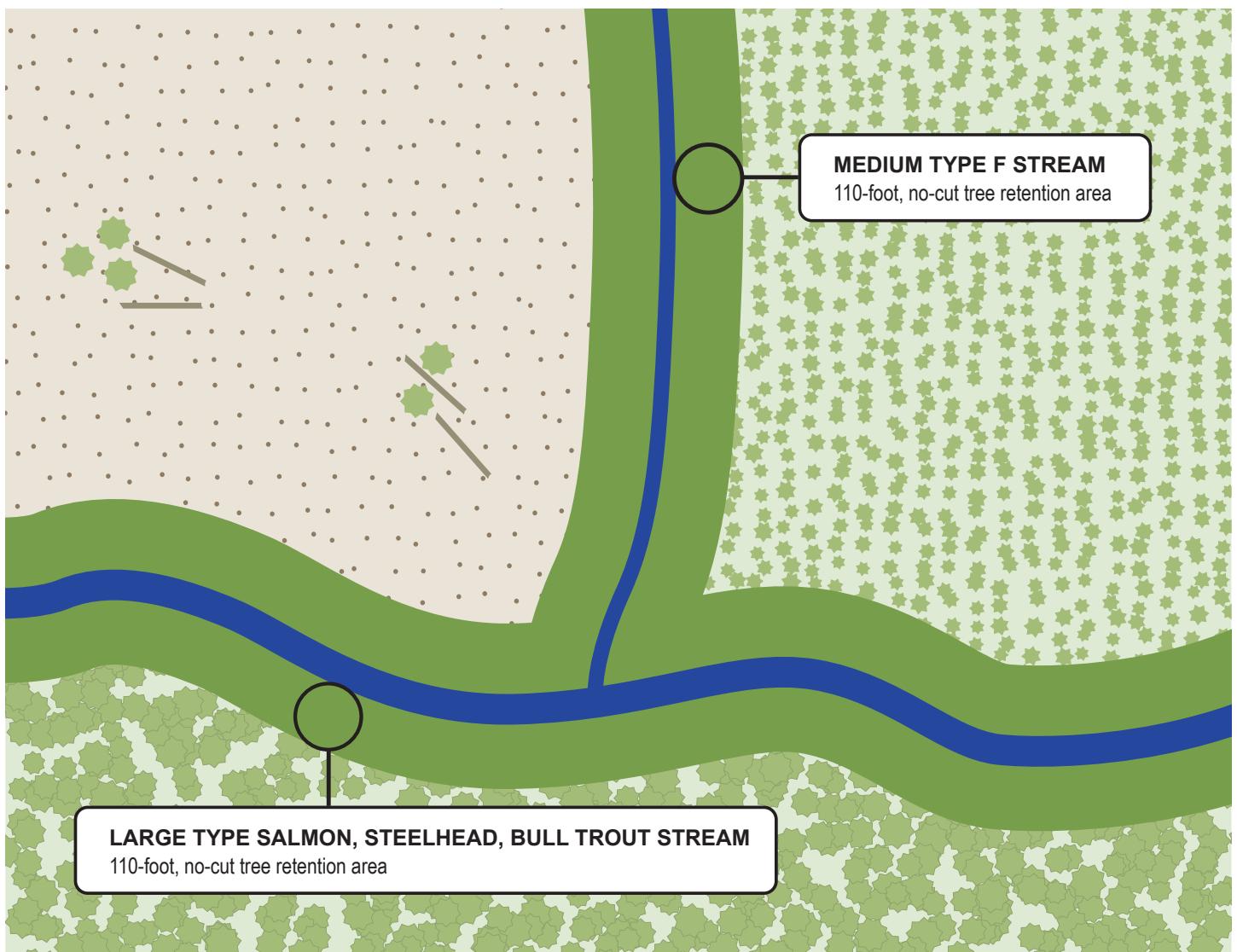
Medium Type F *flows into* Large Type F



#### LEGEND

- C End of stream channel
- · · — Dry channel
- Flowing water
- RH<sub>max</sub> RH max
- Tree retention
- ELZ
- R-ELZ

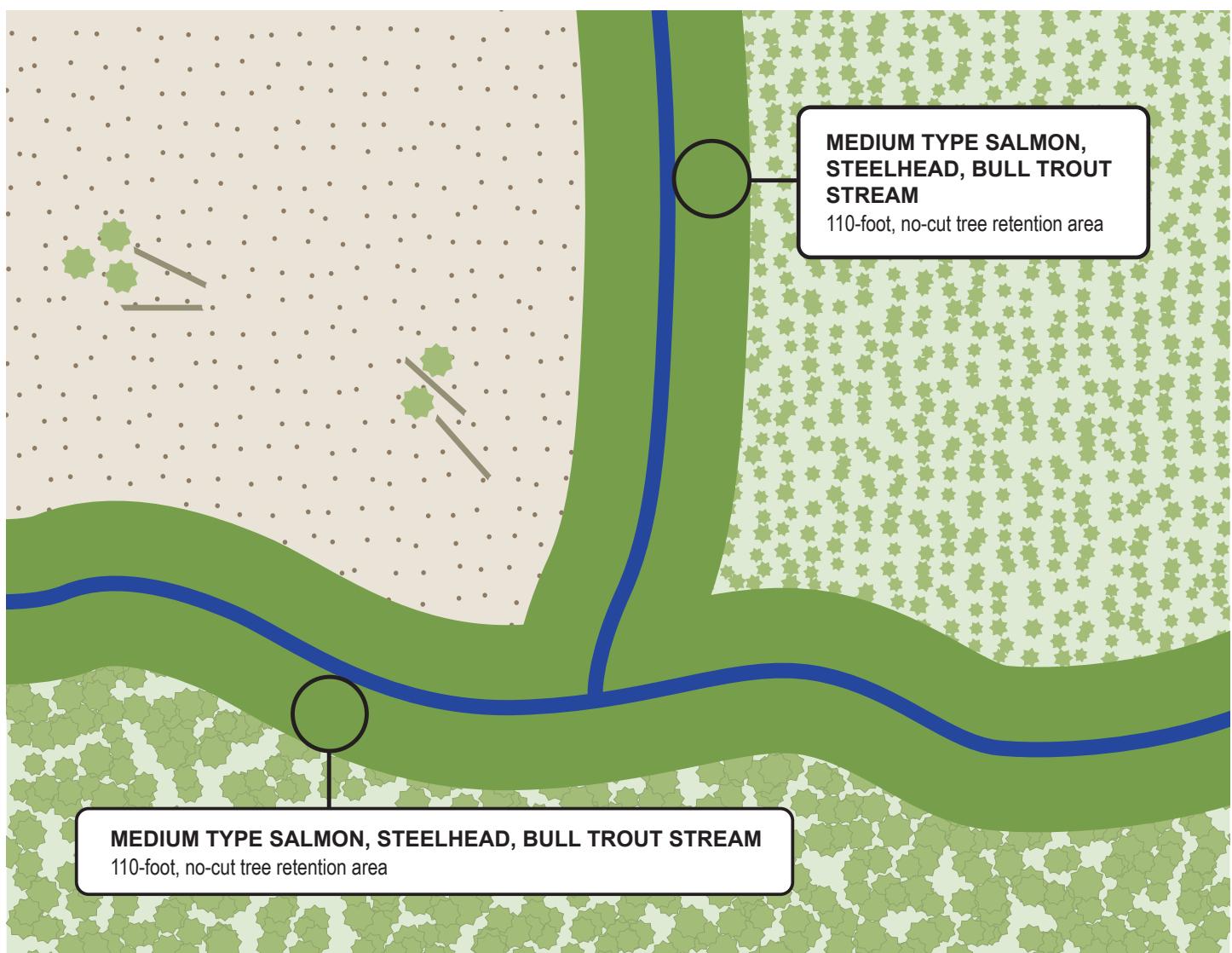
Medium Type F  flows into Large Type SSBT



LEGEND

-  End of stream channel
-  Dry channel
-  Flowing water
-  RH max
-  Tree retention
-  ELZ
-  R-ELZ

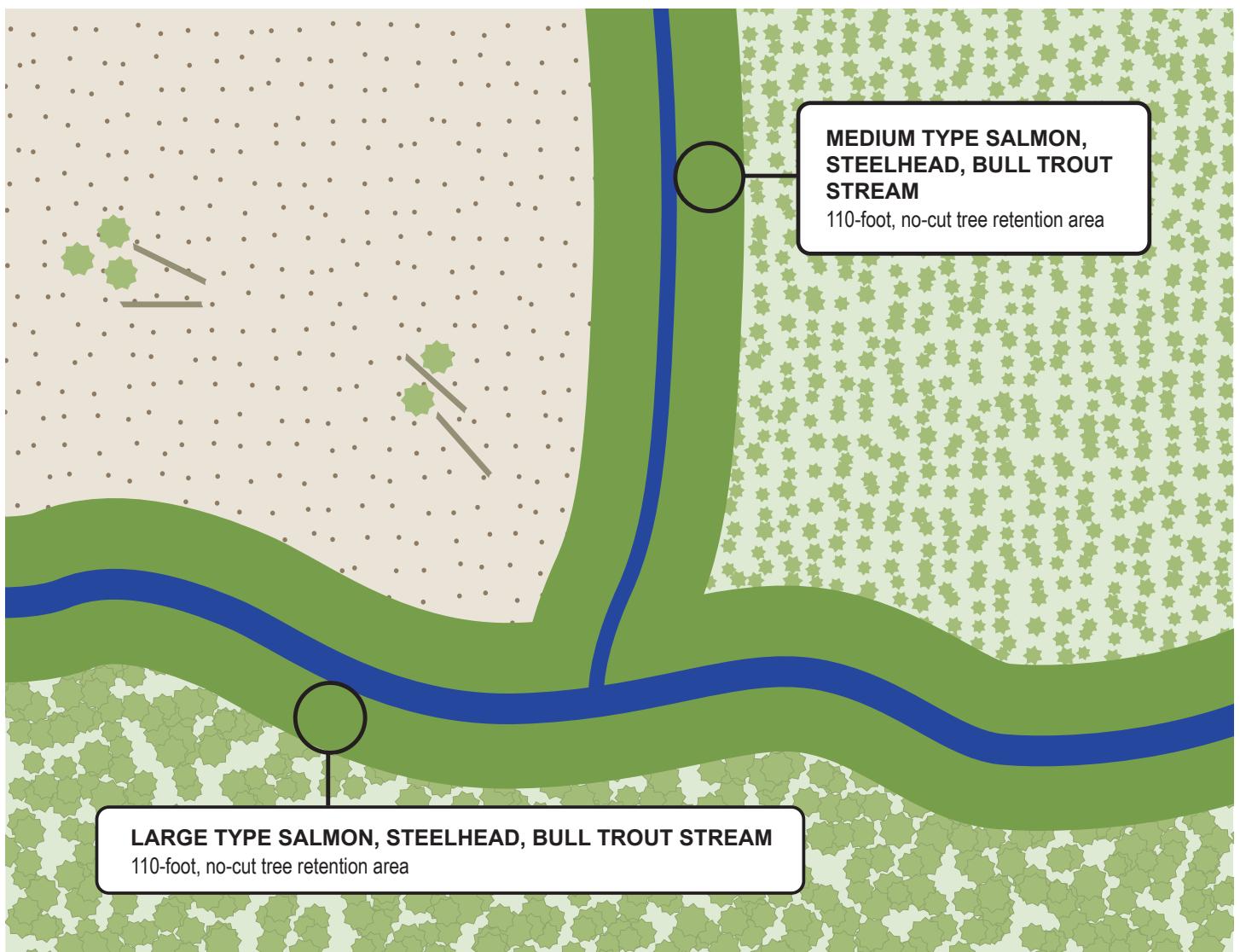
## Medium Type SSBT flows into Medium Type SSBT



### LEGEND

- C End of stream channel
- Dry channel
- Flowing water
- RH<sub>max</sub> RH max
- Tree retention
- ELZ
- R-ELZ

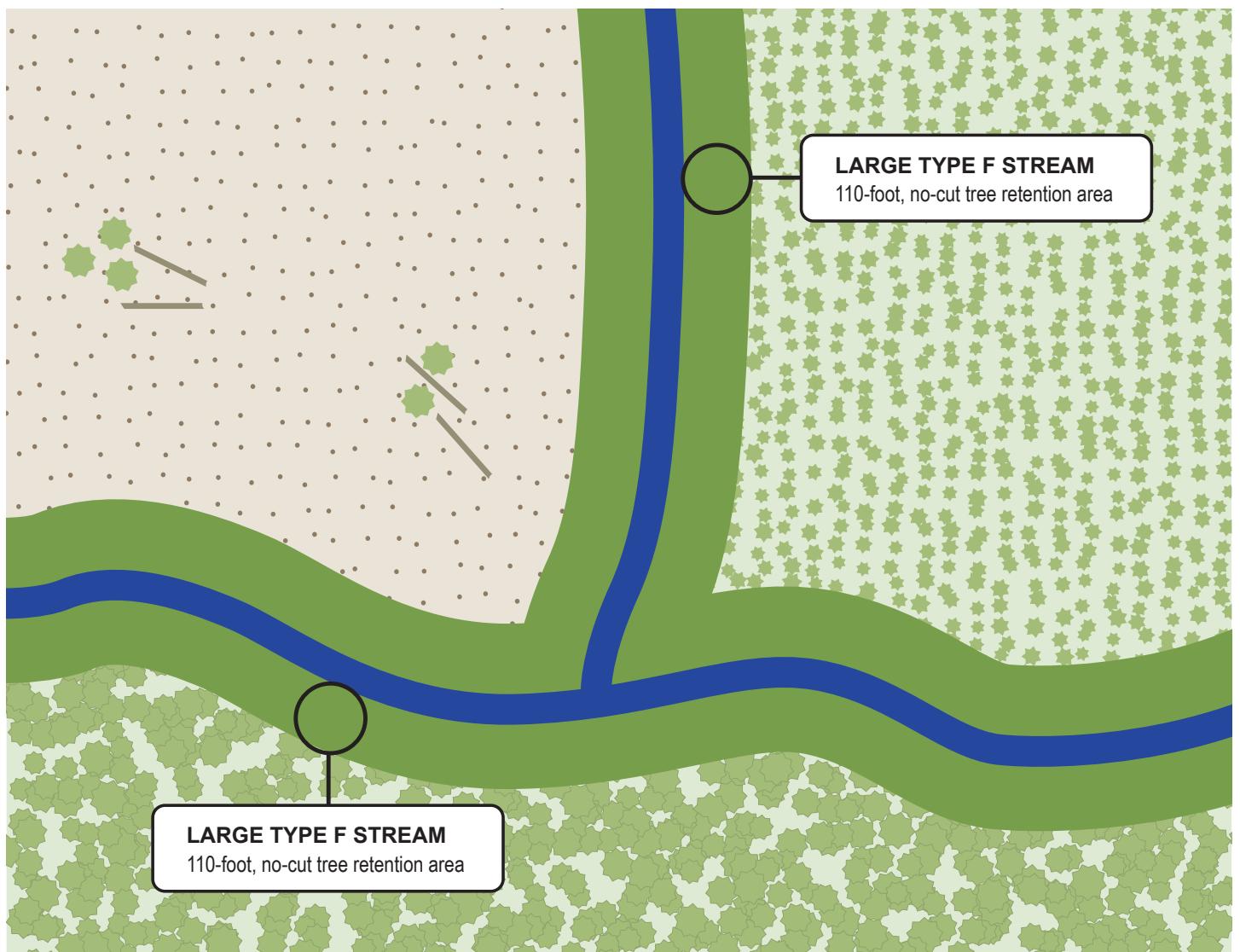
Medium Type SSBT *flows into* Large Type SSBT



LEGEND

-  End of stream channel
-  Dry channel
-  Flowing water
-  RH max
-  Tree retention
-  ELZ
-  R-ELZ

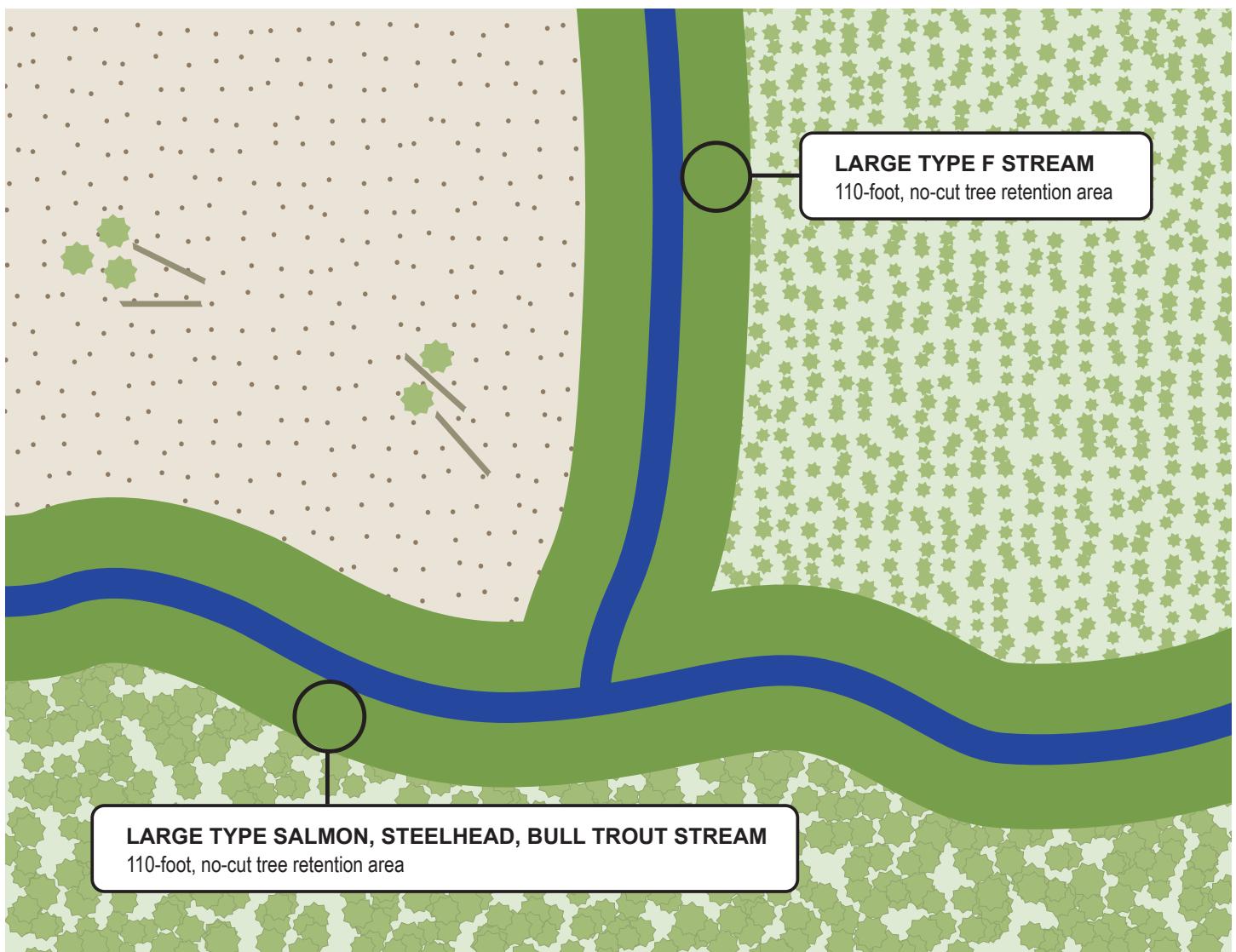
Large Type F *flows into* Large Type F



#### LEGEND

- C End of stream channel
- Dry channel
- Flowing water
- RH<sub>max</sub>
- Tree retention
- ELZ
- R-ELZ

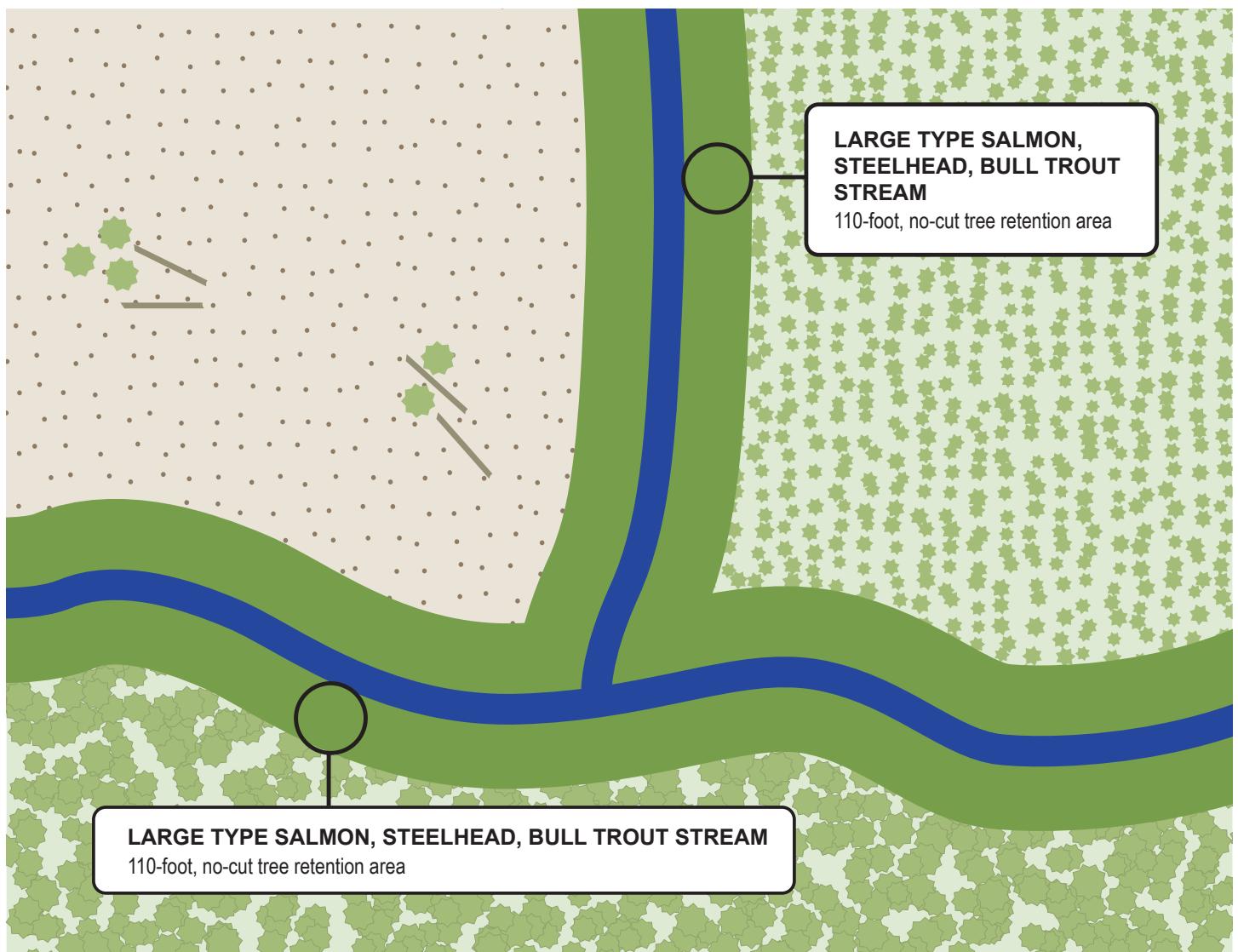
**Large Type F** *flows into* **Large Type SSBT**



**LEGEND**

- C End of stream channel
- Dry channel
- Flowing water
- RH<sub>max</sub> RH max
- Tree retention
- ELZ
- R-ELZ

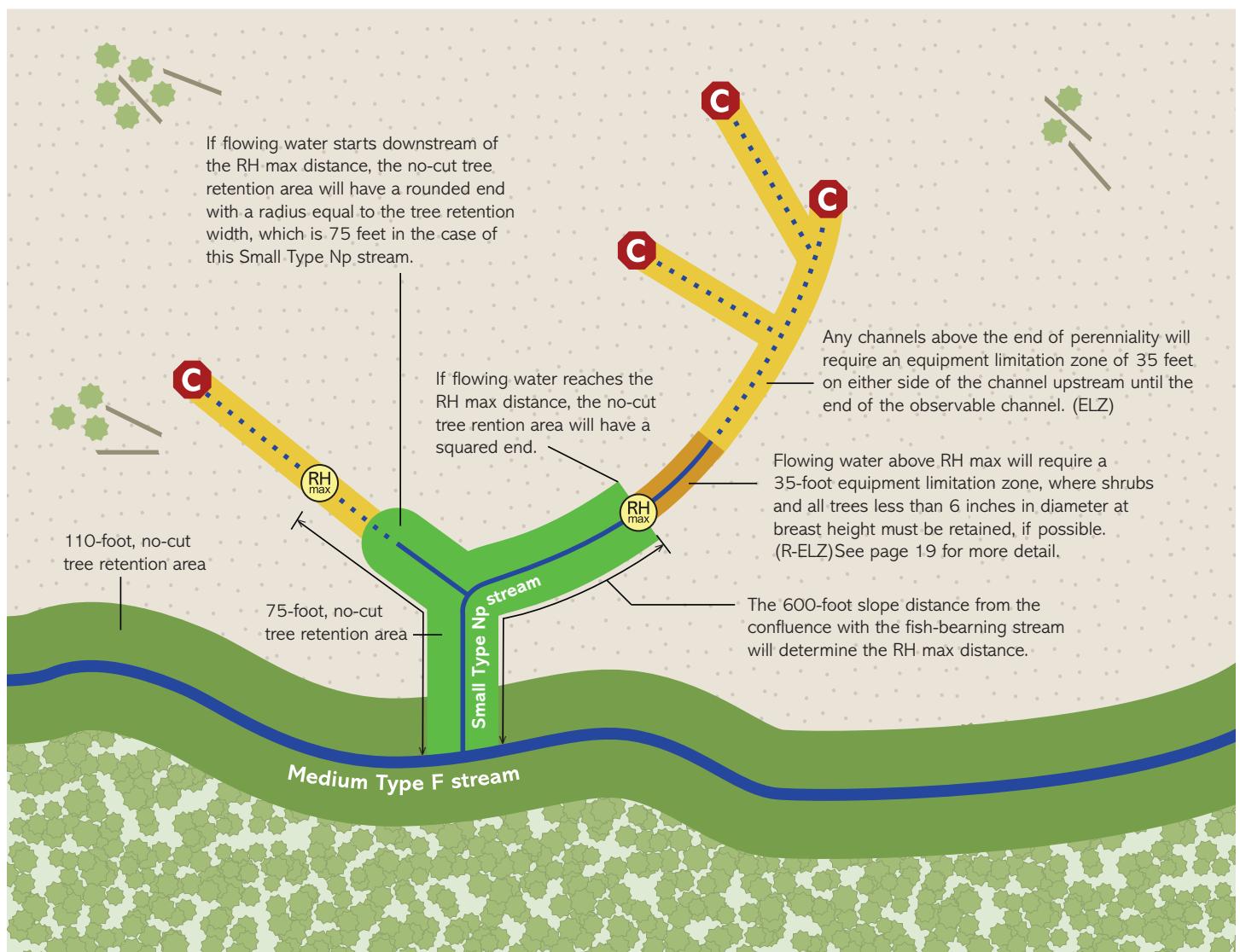
## Large Type SSBT flows into Large Type SSBT



### LEGEND

- C End of stream channel
- Dry channel
- Flowing water
- Tree retention
- ELZ
- R-ELZ
- RH<sub>max</sub>

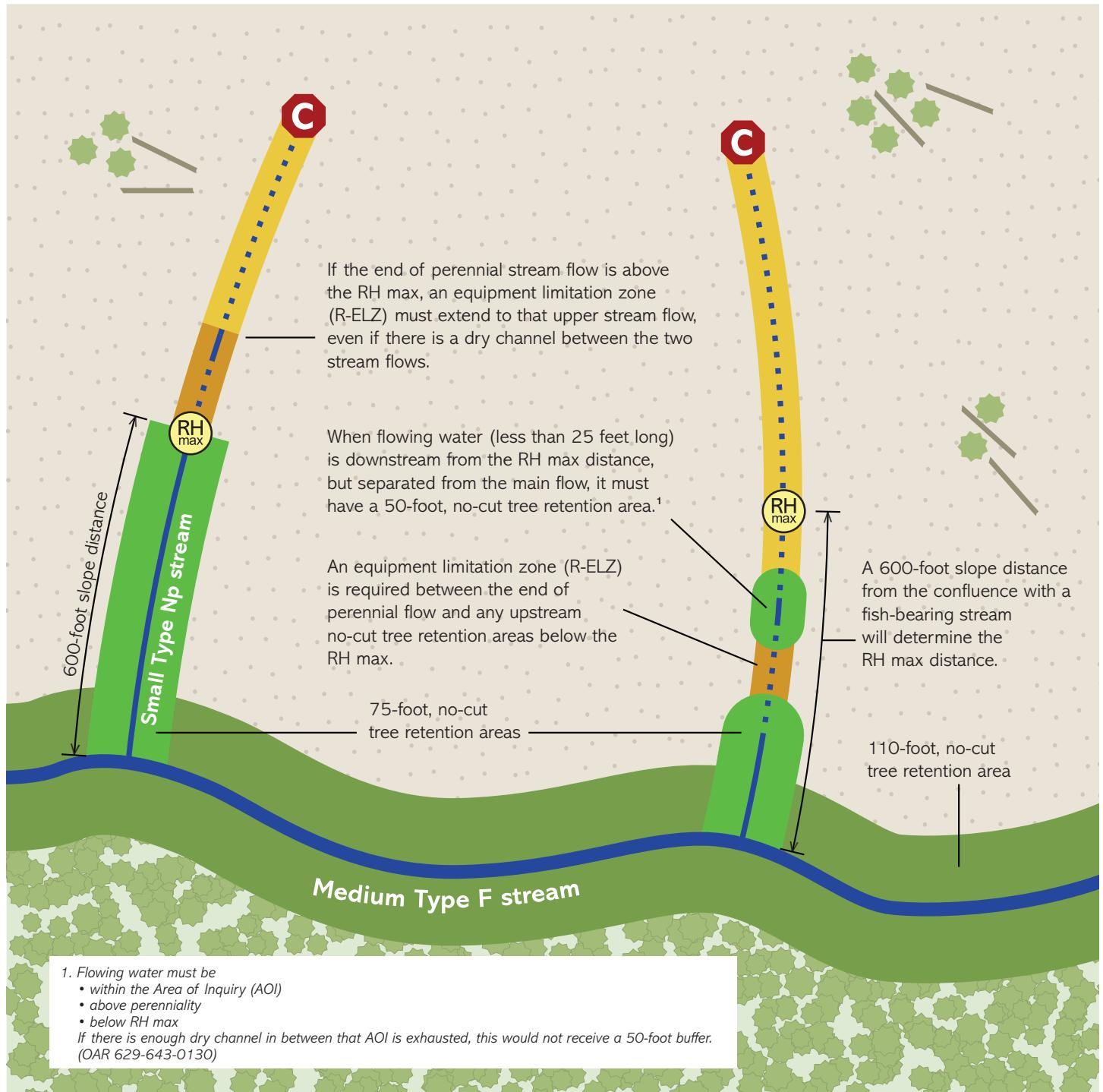
## Special consideration: Small Type Np stream fork within RH max



### LEGEND

- |  |                       |  |        |
|--|-----------------------|--|--------|
|  | End of stream channel |  | RH MAX |
|  | Dry channel           |  | ELZ    |
|  | Flowing water         |  | R-ELZ  |

## Special consideration: Small Type Np stream with intermittent flow



### LEGEND

- |  |                       |  |        |
|--|-----------------------|--|--------|
|  | End of stream channel |  | RH MAX |
|  | Dry channel           |  | ELZ    |
|  | Flowing water         |  | R-ELZ  |

## **Alternatives for Small Forest Landowners (SFOs)**

New rules and regulations reflect the inherent differences in small forest landowners' needs and requirements while meeting the overall objectives of the Private Forest Accord agreement. The new rules provide several alternative options for small forest landowners regarding riparian area management, including the minimum option riparian area prescription specifically for small forest landowners; the standard practice prescription; or a combination of the minimum option and the standard practice, with the ability to apply for the Forest Conservation Tax Credit.

The minimum option prescription allows for harvesting timber in the riparian area closer to the stream and leaving a narrower no-cut tree retention area than the wider standard practice no-cut stream buffer required for large forest landowners. The availability of the minimum option is limited by a 5% cap, based on the total stream miles owned by all small forest landowners inside the watershed where their property is located.

### **FOREST CONSERVATION TAX CREDIT**

When harvesting timber, small forest landowners who choose to leave the standard stream buffer required for large forest landowners (instead of the small forest landowner minimum option buffer) can claim a tax credit based on the value of the timber they have left standing for habitat conservation purposes.

The Forest Conservation Tax Credit will be calculated based on the stumpage value of the additional unharvested merchantable timber in the “forest conservation area,” a strip of land between the wider buffer required for large forest landowners, and the narrower buffer required for small forest landowners.

To claim the tax credit, small forest landowners must file the forest conservation area as a deed restriction on their property with the county. Once the tax credit is issued, the current owner of the property, as well as any future owner, is restricted from logging in that stream buffer for a 50-year period.

If the landowner or their heirs decides to log in the stream buffer before the 50-year logging restriction expires, they would have to pay the portion of the tax credit they've already claimed back to the state. If the property changes ownership and the new owner decides to log that area, they would have to repay the original credit amount in full.

Information and application procedures are required by the Oregon Department of Forestry to claim the tax credit. For more information on this process, please go to:

<https://www.oregon.gov/odf/working/documents/faqs-fpa-rules-all-combined.pdf>

## Small Forest Landowner RMA<sup>1</sup> alternatives (western Oregon)

Stream Type	Standard Practice Width	SFO Minimum Option Width	Forest Conservation Area <sup>2</sup>
Large Type SSBT	110-foot, no-harvest	100-foot, no-harvest	Area between 100 and 110 feet
Medium Type SSBT	110-foot, no-harvest	80-foot, no-harvest	Area between 80 and 110 feet
Small Type SSBT	100-foot, no-harvest	60-foot, no-harvest	Area between 60 and 100 feet
Large Type F	110-foot, no-harvest	100-foot, no-harvest	Area between 100 and 110 feet
Medium Type F	110-foot, no-harvest	70-foot, no-harvest	Area between 70 and 110 feet
Small Type F	100-foot, no-harvest	50-foot, no-harvest	Area between 50 and 100 feet
Large Type N	75-foot, no-harvest	70-foot, no-harvest	Area between 70 and 75 feet
Medium Type N	75-foot, no-harvest	50-foot, no-harvest	Area between 50 and 75 feet
Smally Type Np, Tributary to Type SSBT <sup>3</sup>	75-foot, no-harvest RMA from the confluence with the SSBT stream for the first 500 feet, then a 50-foot, no-harvest RMA on the next 650 feet, for a total of up to 1,150 feet, with a R-ELZ and/or ELZ as defined and further described on page 4.	35-foot, no-harvest RMA from the confluence with the SSBT stream for the first 500 feet, then a 35-foot, no-harvest RMA on the next 650 feet, for a total of up to 1,150 feet, with a R-ELZ and/or ELZ as defined and further described on page 4.	Width: Area between 35 feet and the outside edge of the Standard Option (either 50 or 75 feet)  Length: Will follow same lengths as the standard practice option
Smally Type Np, Tributary to Type F <sup>3</sup>	75-foot, no-harvest RMA from the confluence with the Type F stream for up to the first 600 feet, with a R-ELZ and/or ELZ as defined and further described on page 4.	35-foot, no-harvest RMA from the confluence with the Type F stream for up to the first 600 feet, with a R-ELZ and/or ELZ as defined and further described on page 4.	Width: Area between 35 feet and the outside edge of the standard practice option.  Length: Will follow same lengths as the standard practice option.
Type Ns	35-foot equipment limitation zone	35-foot equipment limitation zone	None

1. All measurements of RMA widths shall be made using slope distance and shall be measured from the edge of the active channel or channel migration zone (CMZ), if present. The RMA width prescriptions above refer to the width of the RMA on one side of the stream (from the edge of the active channel or CMZ upslope, if present).

2. The width of the FCC Area is the difference between the outermost edge of the Standard Practice Width and the outermost edge of the SFO Minimum Option Width. The FCC Area is the length of frontage of the harvest unit on that stream type segment.

3. The tree retention areas and 35-foot R-ELZ and ELZ apply to each side of the stream as follows:

- A. Equipment Limitation Zones with Retention (R-ELZ) are to extend from the end of RH max, upstream to the identified most upstream flow feature. Tree retention area is squared off at the end of the tree retention area (RH max) in this case.
- B. If the furthest upstream flow feature is determined to be within the RH max for the stream, the ELZ shall extend upstream to the end of the stream channel. Tree retention area should extend as a radius around the flow feature. The R-ELZ does not apply in this case.



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