

SHORELINE STABILIZATION

TRACKING AND MONITORING

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CITY OF KIRKLAND SHORELINE

- SMP adopted August 2010
- 10 Miles of shoreline along Lake Washington
- ½ of shoreline is designated Low Density Residential
- Majority of developed property have hard armoring/bulkheads
- 7 Years of tracking data

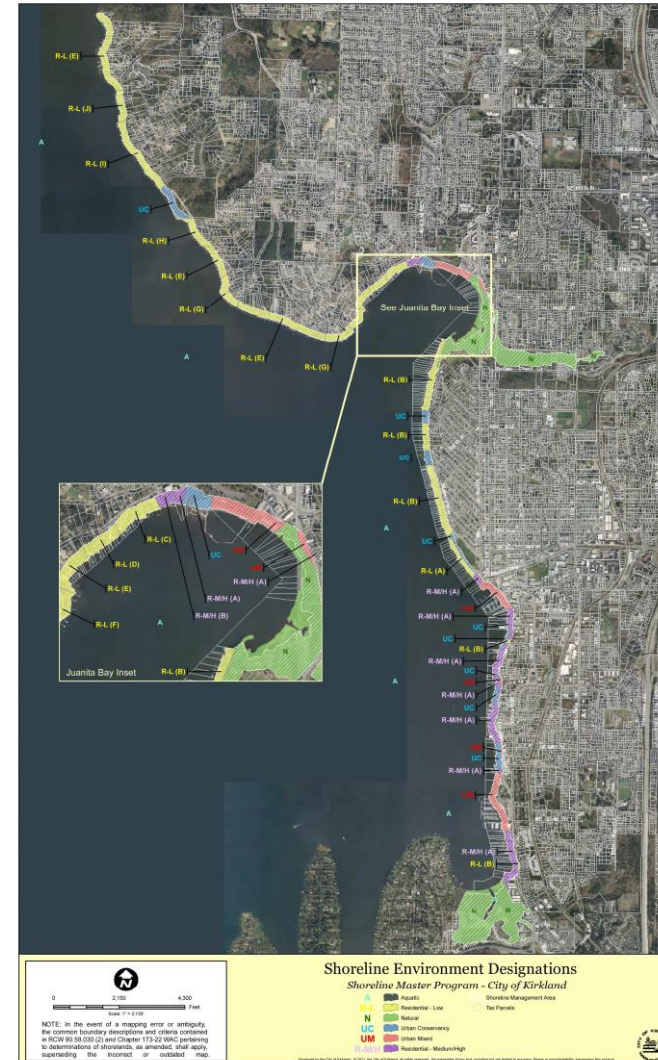


Figure SA-1: Shoreline Environment Designations Map

What do we track?

► DEVELOPMENT ACTIVITY

- Building Permits
- SDP Exemptions
- Enhancement Projects



► CATEGORIES

- Shoreline Setback
- Vegetation
- Stabilization
- Overwater Coverage
- Lighting
- In Water Structures
- Public Pathways

Is our data any good?

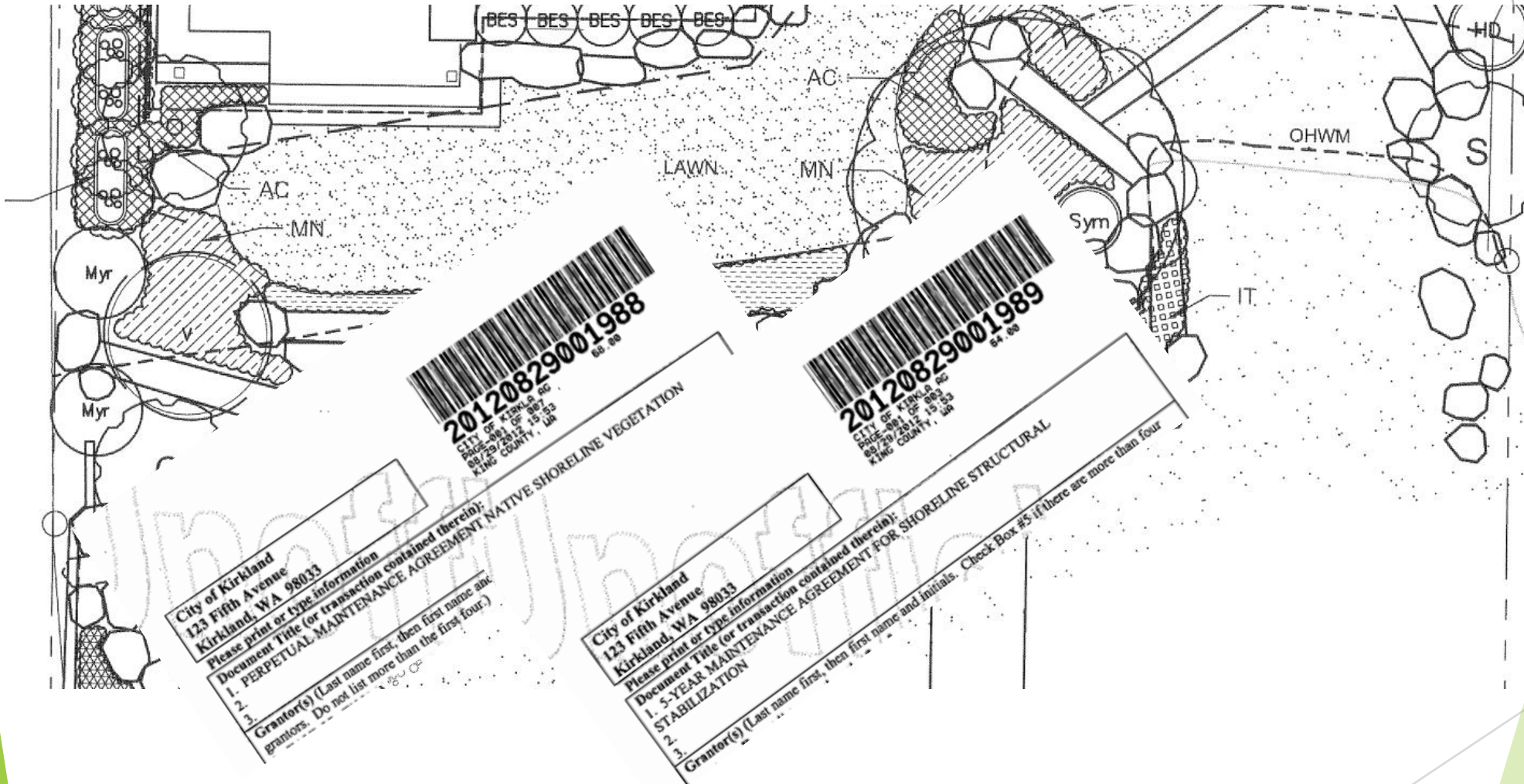
- ▶ Permit Review
- ▶ Tracking Data
- ▶ Confirmation at Final Inspection
- ▶ As-Built Plan
- ▶ Recorded Agreements on Title



Single Family Development Tracking Taylor NSFR







ENSURING THE NUMBERS ARE RIGHT

MEASURABLES

- ▶ 2100 SF structures removed from shoreline setback
- ▶ 62 Native Trees Planted (15 Permits)
- ▶ 4000 SF Lawn removed (6 Permits)
- ▶ 8600 SF of Native Vegetation Planted along shoreline (13 Permits)
- ▶ 103 LF of Bulkhead Removed (3 Permits)
- ▶ 14,835 SF of Solid Pier Decking Removed
- ▶ 16,672 SF Grated Pier surface installed
- ▶ 1472 SF of Overwater Structures Removed
- ▶ 200 SF of in water Structures Removed
- ▶ 33 Piles Removed (5 parcels)
- ▶ 6000 SF Spawning Gravel Installed (6 parcels)



QUESTIONS?

ER	IN WATER ENHANCEMENT (SQ FT)				OTHER DESCRIPTION
	SPAWNING GRAVEL ADDED	SHR HABITAT & NATURAL SYSTEM PRJ	REMOVAL OF STRUCTURES	REMOVAL OF PILES (QTY.)	

R	HARD SHORELINE STABILIZATION (LINEAR FT)						SOFT STABILIZATION (LINEAR FT)			
	ADDED	REMOVED	REPAIRED	ALTERED (STEP BACK)	GEOTECH REPORT (Y/N)	NEEDS ASSESSMENT (Y/N)	ADDED	REMOVED	REPLACED HARD	ALTERED

R	NATIVE VEGETATION (SQ FT) WITHIN SHORELINE SETBACK										MITIGATION FOR TREE REMOVAL	MITIGATION FOR 83.550.5.B.5 (10%) SQ FT
	# OF TREES REMOVED	# TREES RETAINED	# OF TREES PLANTED	SHRUBS	GROUND COVER	LAWN	REMOVAL OF LAWN	REMOVAL OF ORNAMENTAL	REMOVAL OF INVASIVE	AQUATIC VEGETATION		

ER	REMOVAL OF TOTAL IMPERVIOUS SURFACE (SQ FT +/-)	STRUCTURE SETBACK/AVERAGE FT. (DEPTH & WIDTH)							SETBACK REDUCTION			ACCESSORY STRUCTURE IN SETBACK (SQ FT)	DESCRIBE MITIGATION FOR 83.550.5.B.5
		OLD SHORELINE SETBACK	NEW SHORELINE SETBACK	PARCEL WIDTH (FT) LINEAR SHORELINE	NEW SHORELINE SETBACK AREA (SQ FT)	CHANGE FROM EXISTING (FT)	CHANGE IN SHORELINE SETBACK AREA (SQ FT)	USE OF 83.550.5.b.5 (10%) SQ FT OF AREA	Y/N	IF YES: HOW MUCH? (FT)	REDUCTION OPTION(S)		

R	OVERWATER COVERAGE: PIERS, DOCKS, BOATLIFTS, CANOPIES (SQ FT UNLESS OTHERWISE NOTED)											
	NEW	CHANGE IN SIZE OF REPLACEMENT	CHANGE IN HEIGHT (FT)	AMOUNT OF GRATING	AMOUNT OF SOLID BOARDS REMOVED	LENGTH (FT)	WIDTH IN FIRST 30' (FT)	SKIRTING REMOVED (LINEAR FT)	OVER WATER STRUCTURES REMOVED	ADMINISTRATIVE APPROVAL (Y/N)	BOAT LIFT (Y/N)	JOINT PIER (Y/N)

R	SHORELINE ENVIRONMENT					PUBLIC ACCESS TRAILS (LINEAR FT)	VIEW CORRIDORS (LINEAR WIDTH, FT)	OTHER DESCRIPTION
	R-L	R-M/H	UM	UR	N			