

# MAKROPHYTENKARTIERUNG ATTERSEE Kartenband

Untersuchung im Auftrag der  
Landesregierung Oberösterreich  
Naturschutzabteilung

## Projektleitung und -organisation:

Mag. Karin Pall

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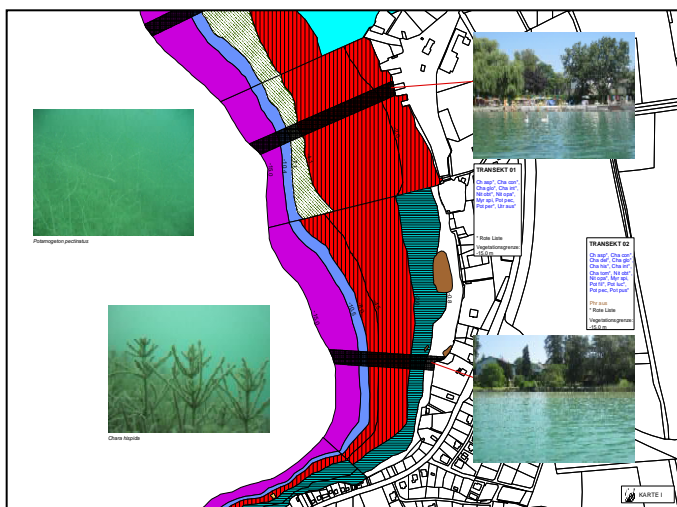
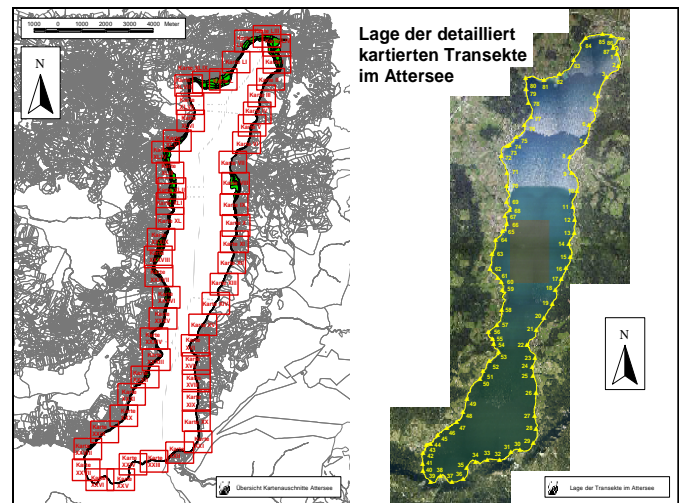
Mag. Stefan Mayerhofer

## Mitarbeiter:

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Sascha Pall

**Kartierungszeitraum:** August 2009

**Erstellungsdatum:** Februar 2011



## Grundlagen:

Echosondierung: Fa. ICRA, Salzburg

Orthofotos & Kartengrundlagen:

Landesregierung Oberösterreich

Systema Bio- und Management Consulting GmbH.

Bensasteig 8, 1140 Wien

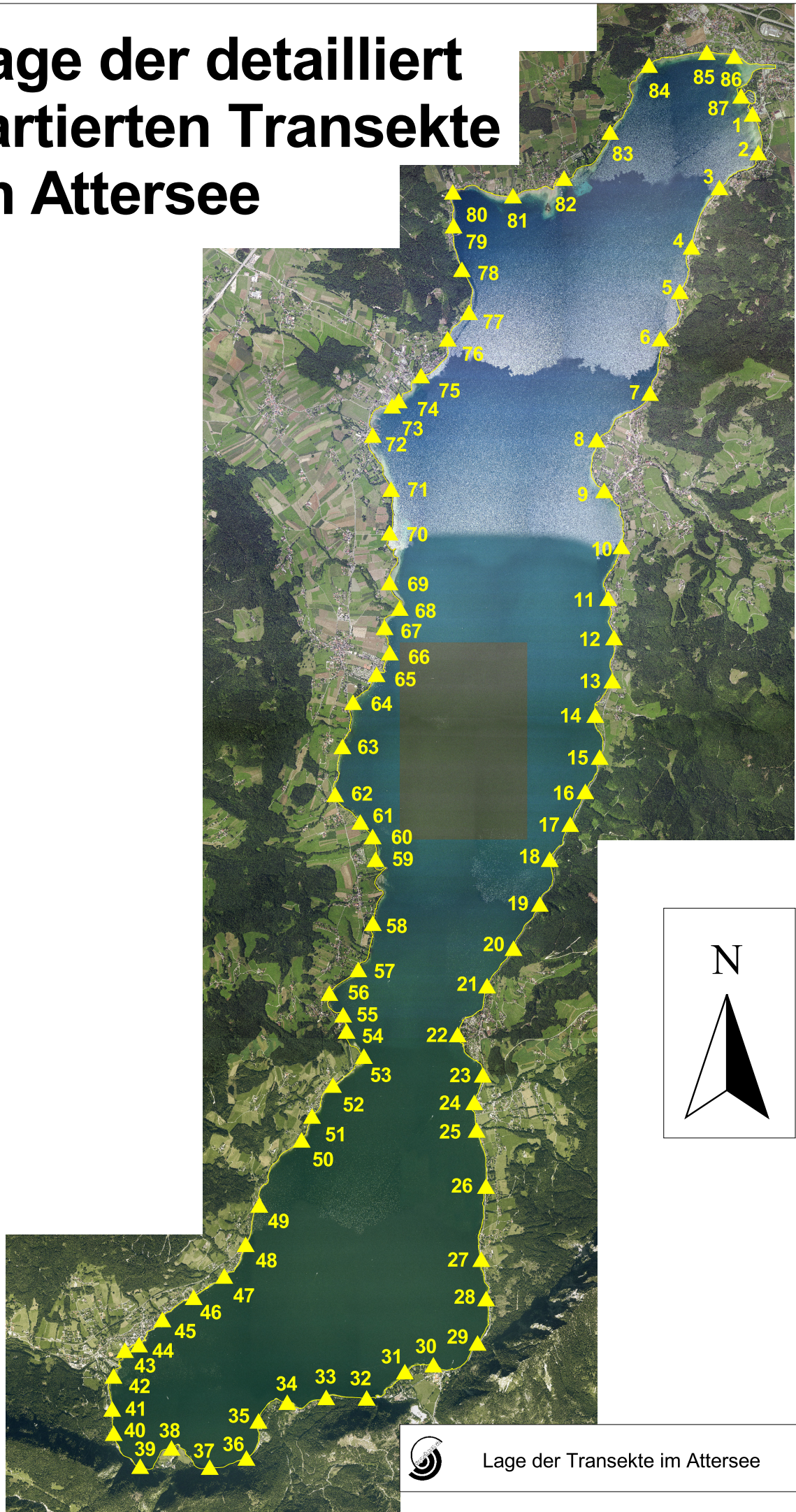
Tel.: 0043 - 1 - 419 90 90 Fax: DW 19

www.systema.at / e-mail: office@systema.at



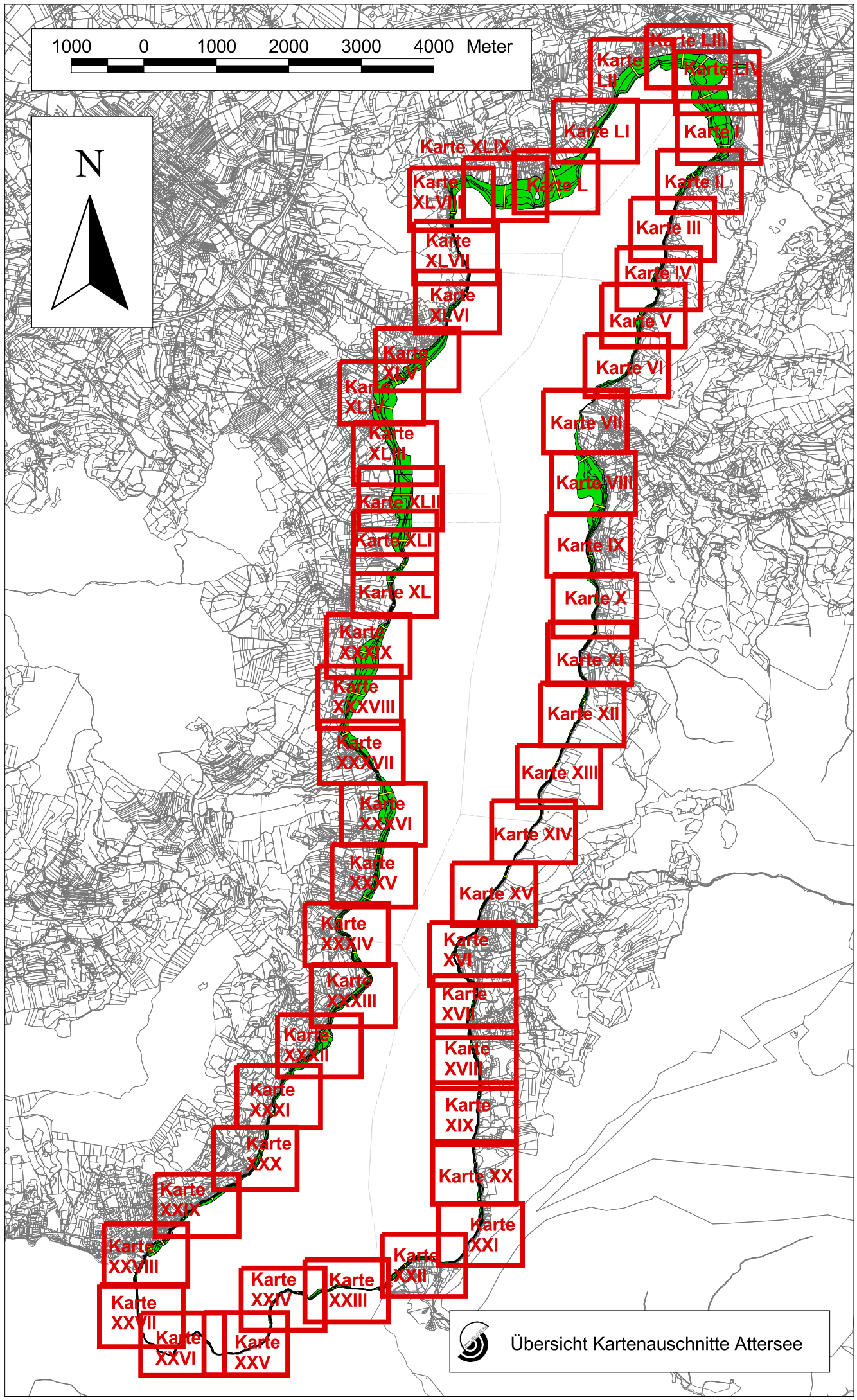
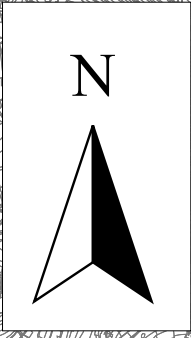


# Lage der detailliert kartierten Transekte im Attersee





1000 0 1000 2000 3000 4000 Meter







## LEGENDE:


### Vegetationstyp



dicht schütter

  Schilf

  Rohrkolben

  Binsen

  Schwimmblattpflanzen

  Characeen des Flachwassers, Strandlingsflur, Zwergbinsen

  Höhere Pflanzen, niederwüchsig

  Zone hochwüchsiger Arten (Laichkrautgürtel)

  Characeen des mittleren Tiefenbereiches

  Characeenwiesen der Tiefe

  Nitellafluren

 kein Makrophytenbewuchs

zusätzliche Schraffuren:

 mit niederwüchsigen Höheren Pflanzen

 mit hochwüchsigen Arten des Laichkrautgürtels

 mit Characeen

 mit Moosen

 Uferlinie

 betauchte Transekte

50 0 50 100 150 Meter



## MAKROPHYTENARTEN

### Untergetauchte Vegetation

#### Charophyta

Ch asp*	<i>Chara aspera</i>
Cha con*	<i>Chara contraria</i>
Cha con*	<i>Chara delicatula</i>
Cha glo*	<i>Chara globularis</i>
Cha his*	<i>Chara hispida</i>
Cha int*	<i>Chara intermedia</i>
Cha tom*	<i>Chara tomentosa</i>
Nit fle*	<i>Nitella flexilis</i>
Nit opa*	<i>Nitella opaca</i>
Nit obt*	<i>Nitellopsis obtusa</i>
Tol glo*	<i>Tolypella glomerata</i>

#### Bryophyta

Cai cus	<i>Calliergonella cf. cuspidata</i>
Eur spe*	<i>Eurhynchium hians</i>
Fis tax	<i>Fissidens taxifolius</i>
Fon ant	<i>Fontinalis antipyretica</i>
Rhy rip	<i>Rhynchostegium riparioides</i>

#### Spermatophyta

Elo can	<i>Elodea canadensis</i>
Elo nut	<i>Elodea nuttallii</i>
Gro den*	<i>Groenladia densa</i>
Myr spi	<i>Myriophyllum spicatum</i>
Naj int	<i>Najas intermedia</i>
Pot coo	<i>Potamogeton x cooperi</i>
Pot cri	<i>Potamogeton crispus</i>
Pot fil*	<i>Potamogeton filiformis</i>
Pot fri*	<i>Potamogeton friesii</i>
Pot luc*	<i>Potamogeton lucens</i>
Pot nit	<i>Potamogeton x nitens</i>
Pot pec	<i>Potamogeton pectinatus</i>
Pot per*	<i>Potamogeton perfoliatus</i>
Pot pus*	<i>Potamogeton pusillus</i>
Ran cir*	<i>Ranunculus circinatus</i>
Ran tri	<i>Ranunculus trichophyllus</i>
Utr aus*	<i>Utricularia australis</i>
Zan pal*	<i>Zannichellia palustris</i>

#### Schwimmblattarten

Nup lut*	<i>Nuphar lutea</i>
Nym alb*	<i>Nymphaea alba</i>

#### Röhrichtarten

Car sp.	<i>Carex sp.</i>
Lyt sal	<i>Lythrum salicaria</i>
Men aqu	<i>Mentha aquatica</i>
P'ha aru	<i>Phalaris arundinacea</i>
Phr aus	<i>Phragmites australis</i>
Sch lac*	<i>Schoenoplectus lacustris</i>
Sol dul	<i>Solanum dulcamara</i>

\* Arten der Roten Listen

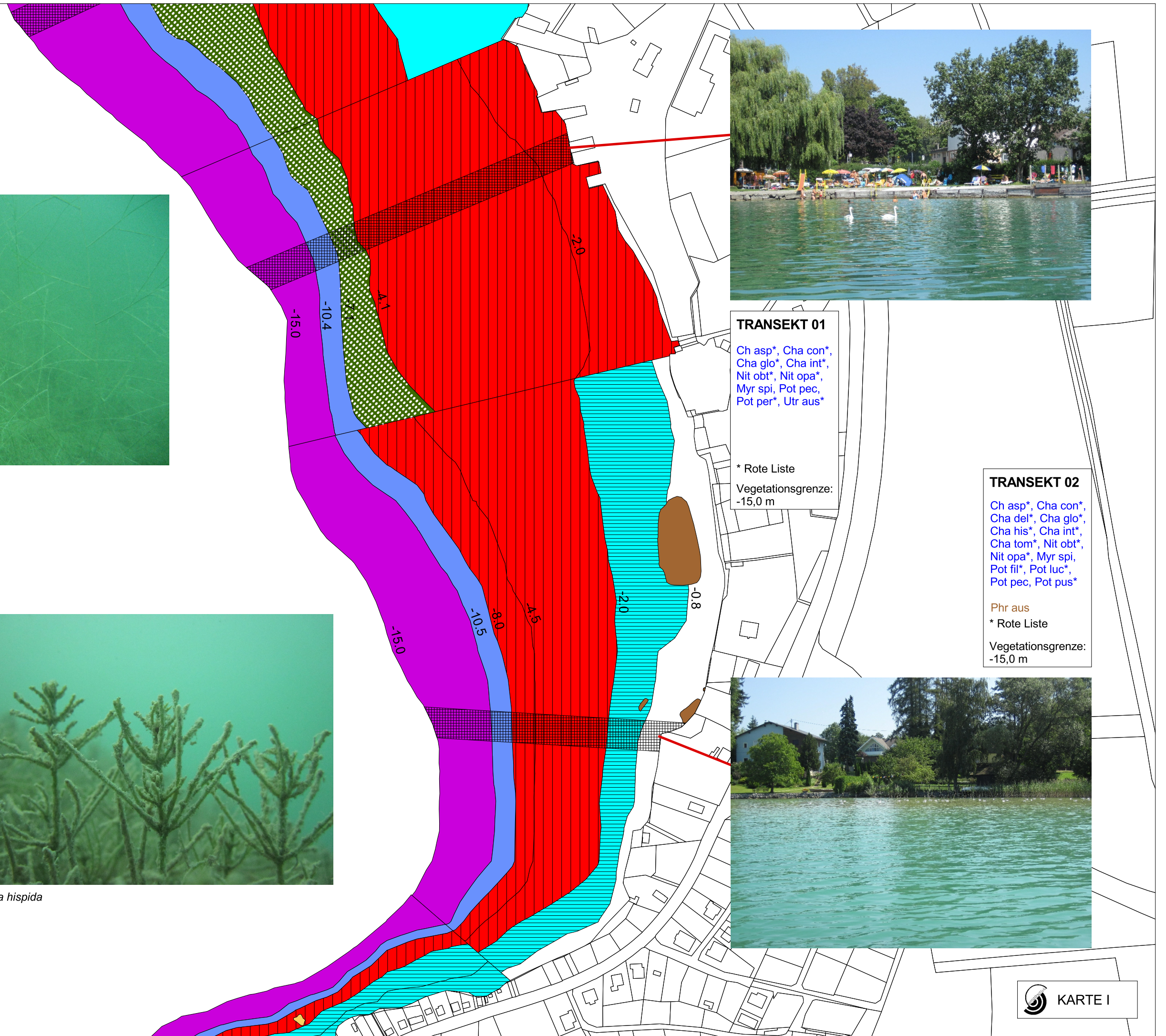




*Potamogeton pectinatus*



*Chara hispida*



**TRANSEKT 01**

Ch asp\*, Cha con\*,  
 Cha glo\*, Cha int\*,  
 Nit obt\*, Nit opa\*,  
 Myr spi, Pot pec,  
 Pot per\*, Utr aus\*

\* Rote Liste  
 Vegetationsgrenze:  
 -15,0 m

**TRANSEKT 02**

Ch asp\*, Cha con\*,  
 Cha del\*, Cha glo\*,  
 Cha his\*, Cha int\*,  
 Cha tom\*, Nit obt\*,  
 Nit opa\*, Myr spi,  
 Pot fil\*, Pot luc\*,  
 Pot pec, Pot pus\*

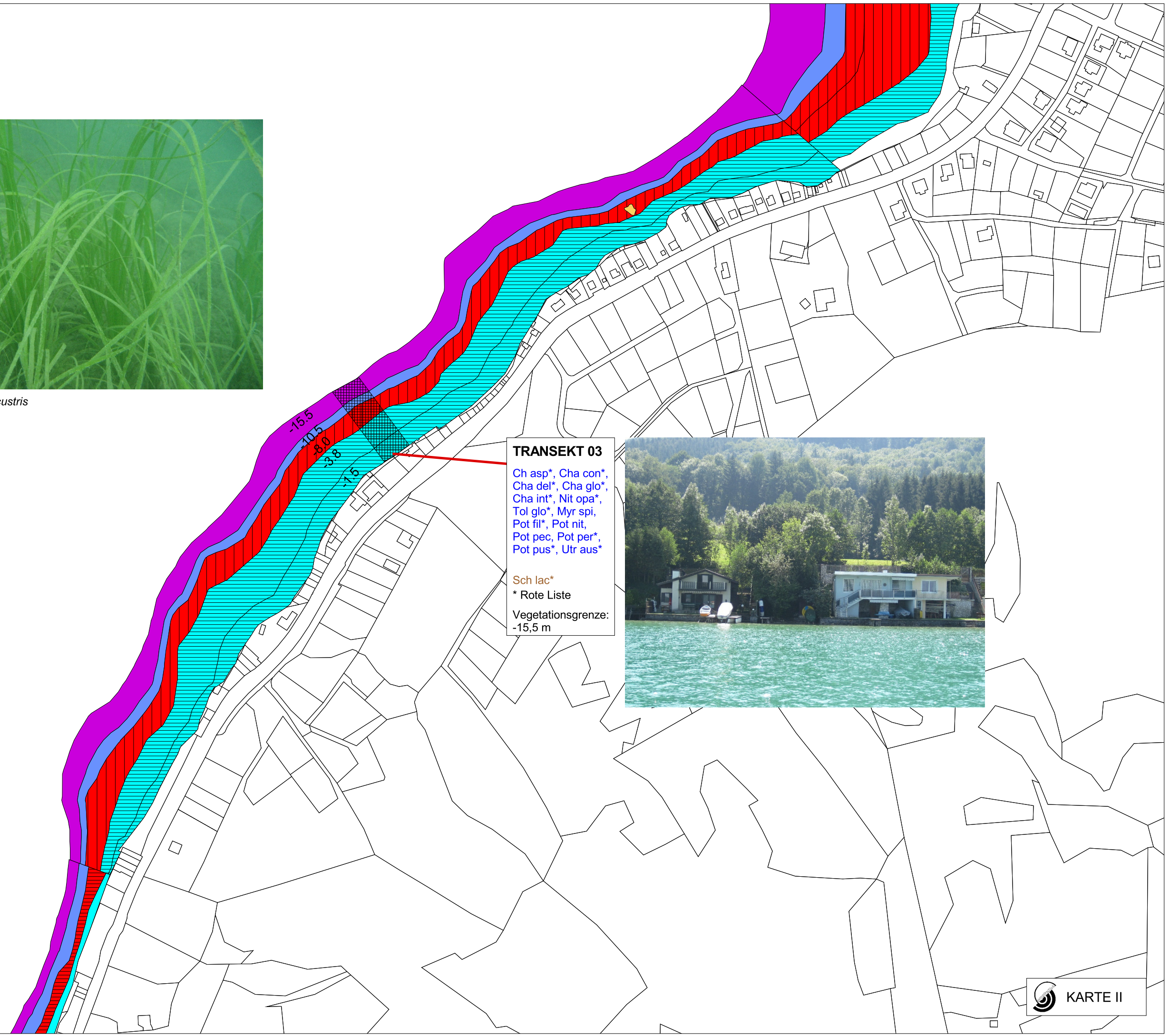
Phr aus  
 \* Rote Liste  
 Vegetationsgrenze:  
 -15,0 m







*Schoenoplectus lacustris*



**TRANSEKT 03**

- Ch asp\*, Cha con\*,
- Cha del\*, Cha glo\*,
- Cha int\*, Nit opa\*,
- Tol glo\*, Myr spi,
- Pot fil\*, Pot nit,
- Pot pec, Pot per\*,
- Pot pus\*, Utr aus\*

Sch lac\*

\* Rote Liste

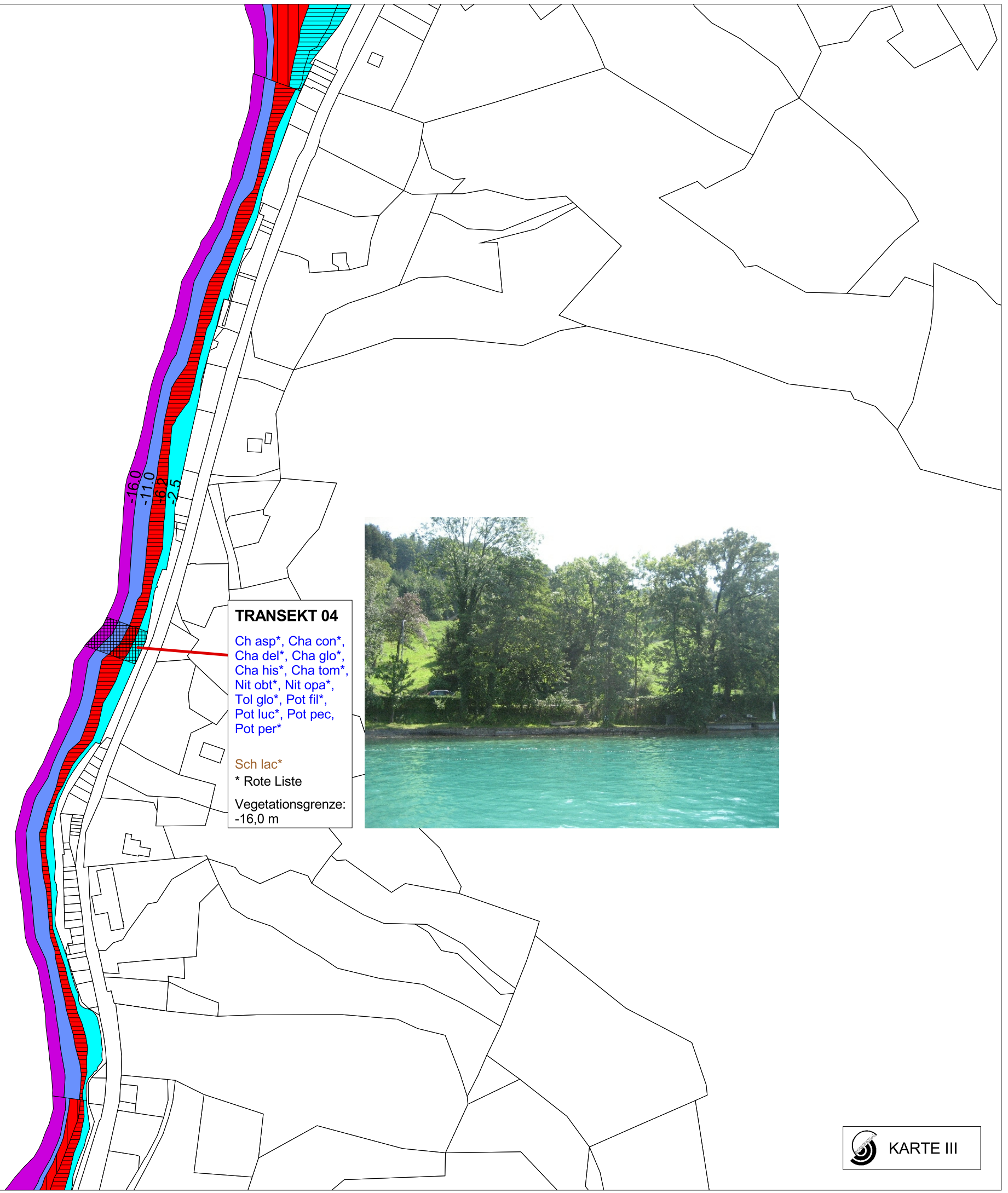
Vegetationsgrenze:  
-15,5 m







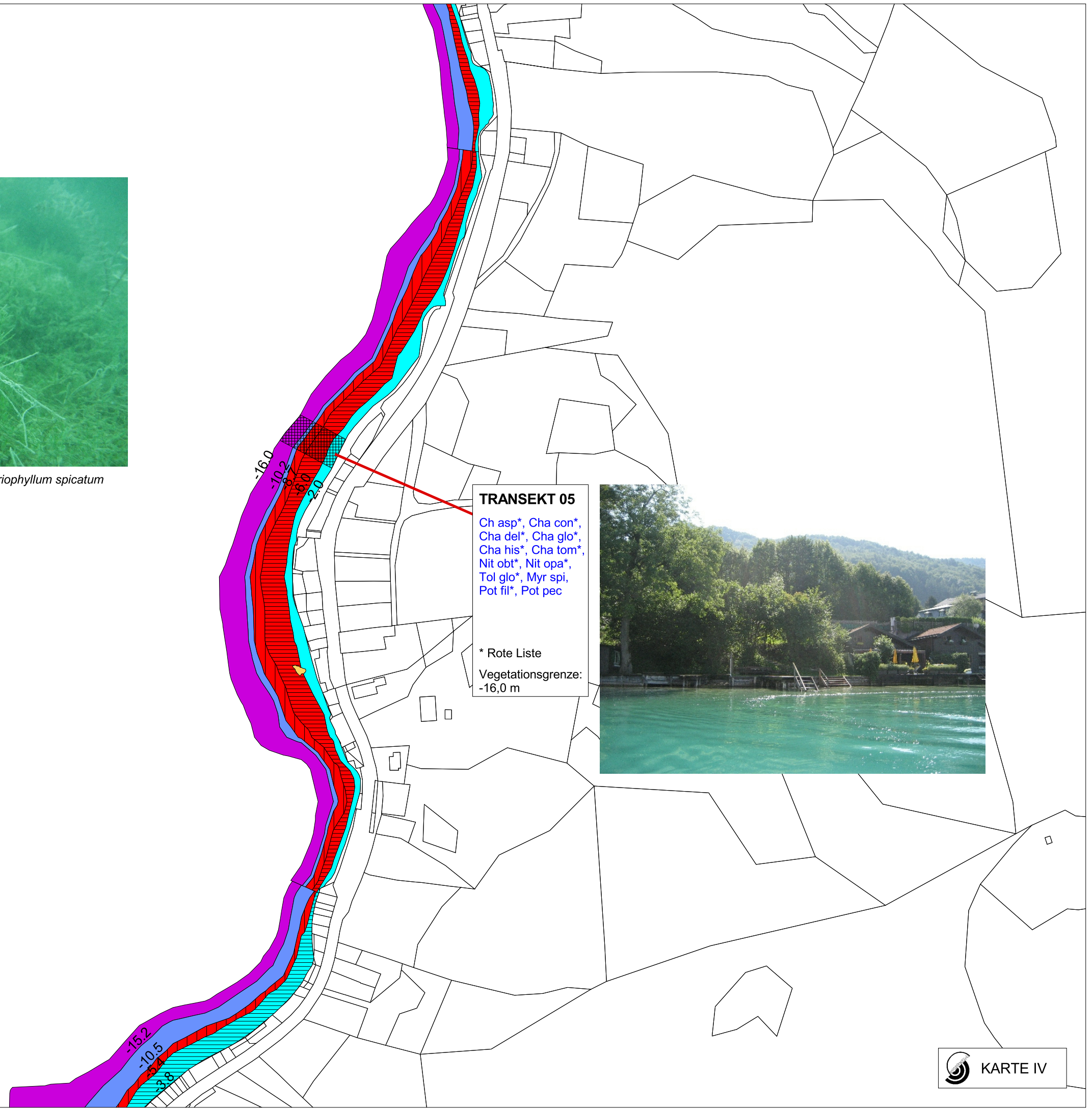
*Schoenoplectus lacustris* & Characeen







*Chara delicatula, Potamogeton pectinatus & Myriophyllum spicatum*



**TRANSEKT 05**  
Ch asp\*, Cha con\*,  
Cha del\*, Cha glo\*,  
Cha his\*, Cha tom\*,  
Nit obt\*, Nit opa\*,  
Tol glo\*, Myr spi,  
Pot fil\*, Pot pec

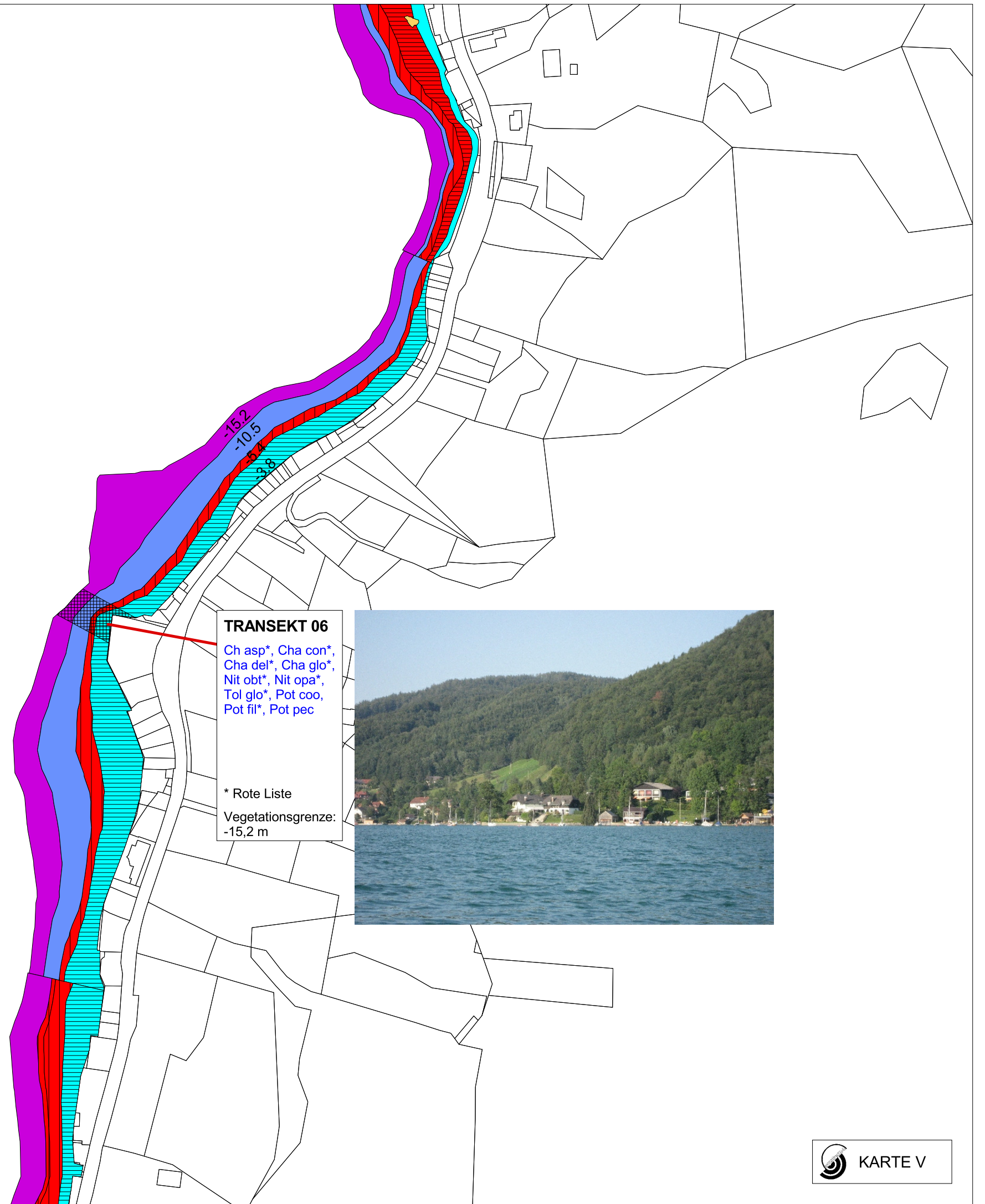
\* Rote Liste  
Vegetationsgrenze:  
-16,0 m







*Potamogeton x cooperi*







*Potamogeton pectinatus*

**TRANSEKT 07**

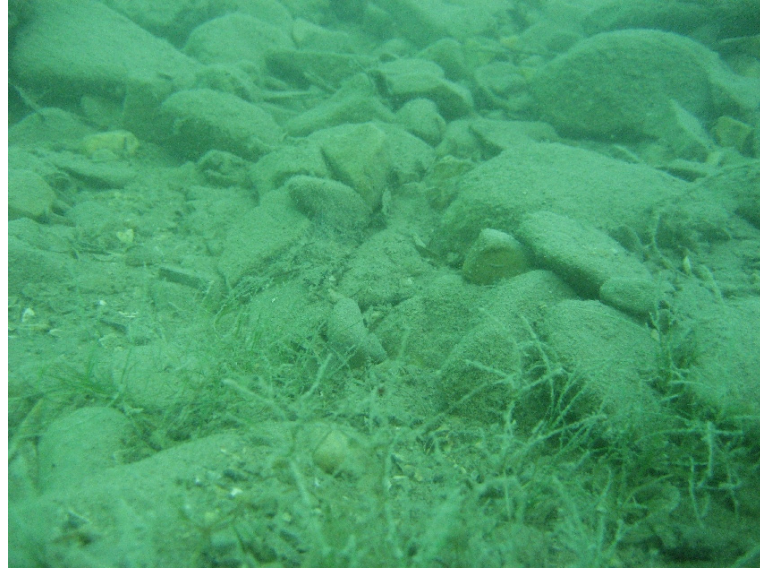
Ch asp\*, Cha con\*,  
Cha del\*, Cha glo\*,  
Cha his\*, Nit obt\*,  
Nit opa\*, Pot fil\*,  
Pot pec, Pot per\*

\* Rote Liste

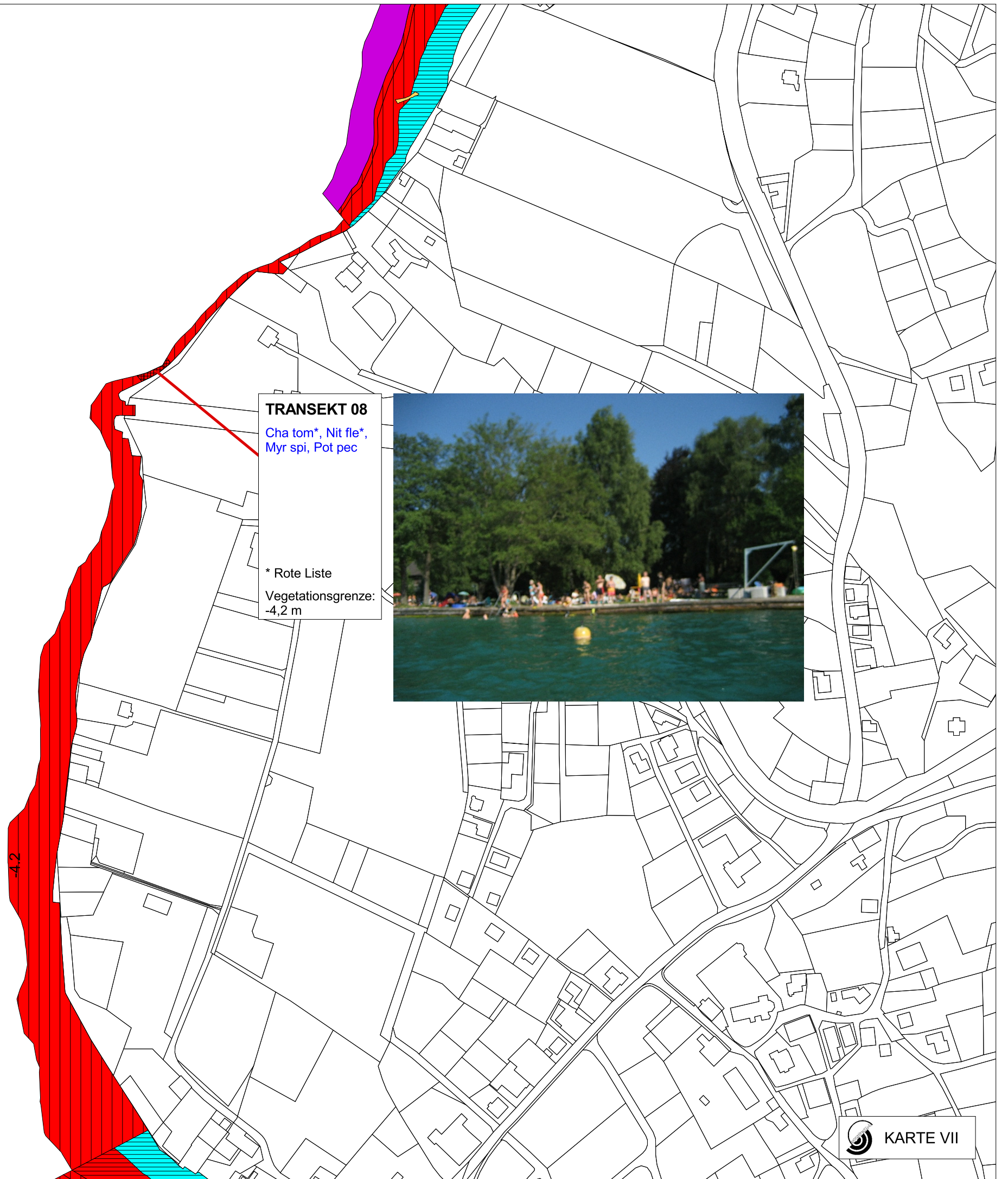
Vegetationsgrenze:  
-15,6 m







*Potamogeton pectinatus*



**TRANSEKT 08**  
Cha tom\*, Nit fle\*,  
Myr spi, Pot pec

\* Rote Liste  
Vegetationsgrenze:  
-4,2 m

-4,2



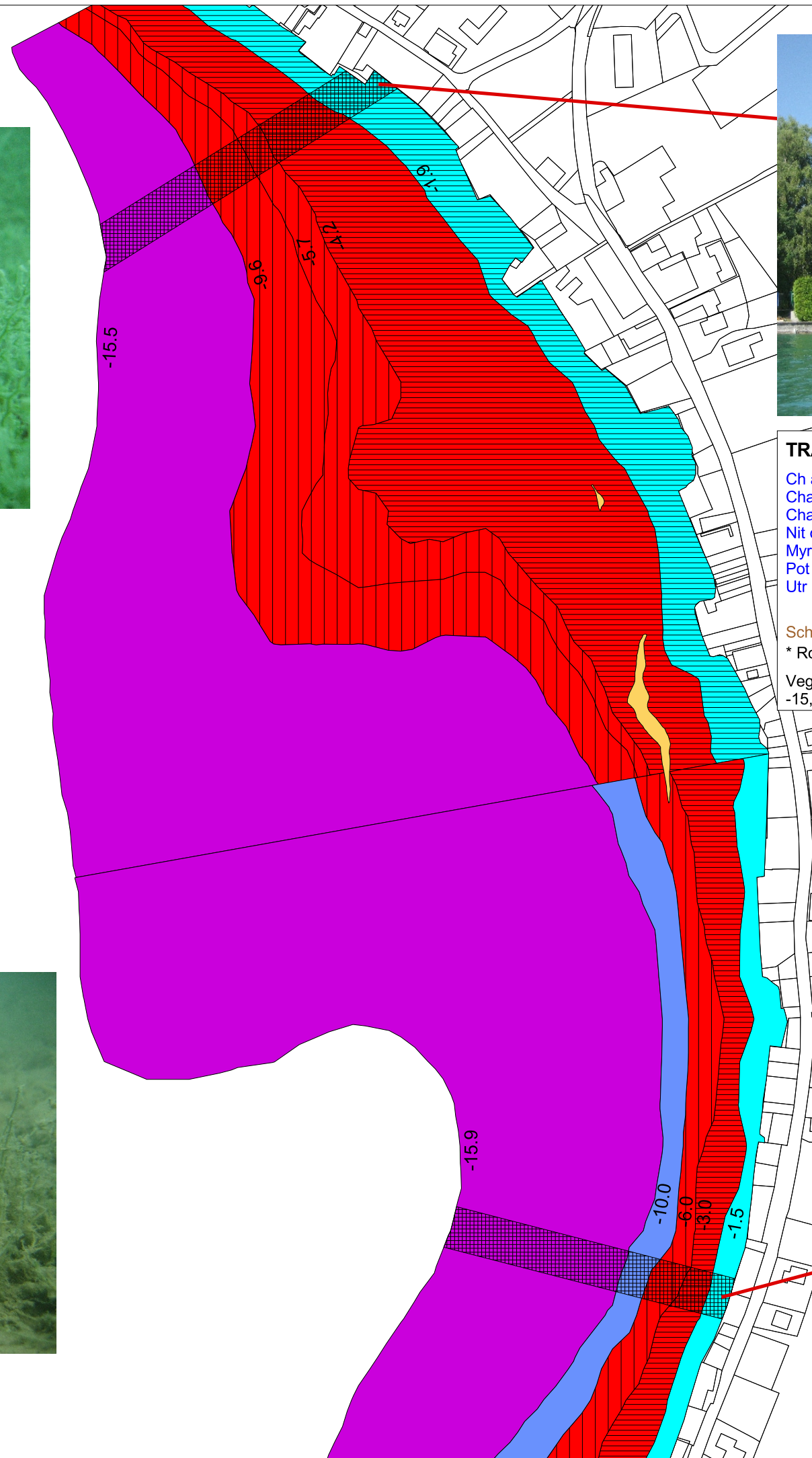




*Utricularia australis*



*Chara tomentosa*



**TRANSEKT 09**  
 Ch asp\*, Cha con\*,  
 Cha del\*, Cha int\*,  
 Cha tom\*, Nit fle\*,  
 Nit obt\*, Nit opa\*,  
 Myr spi, Pot fil\*,  
 Pot pec, Pot per\*,  
 Utr aus\*

Sch lac\*  
 \* Rote Liste  
 Vegetationsgrenze:  
 -15,5 m

**TRANSEKT 10**  
 Ch asp\*, Cha con\*,  
 Cha del\*, Cha his\*,  
 Cha tom\*, Nit fle\*,  
 Nit obt\*, Nit opa\*,  
 Myr spi, Pot fil\*,  
 Pot pec, Pot per\*,  
 Pot pus\*, Utr aus\*

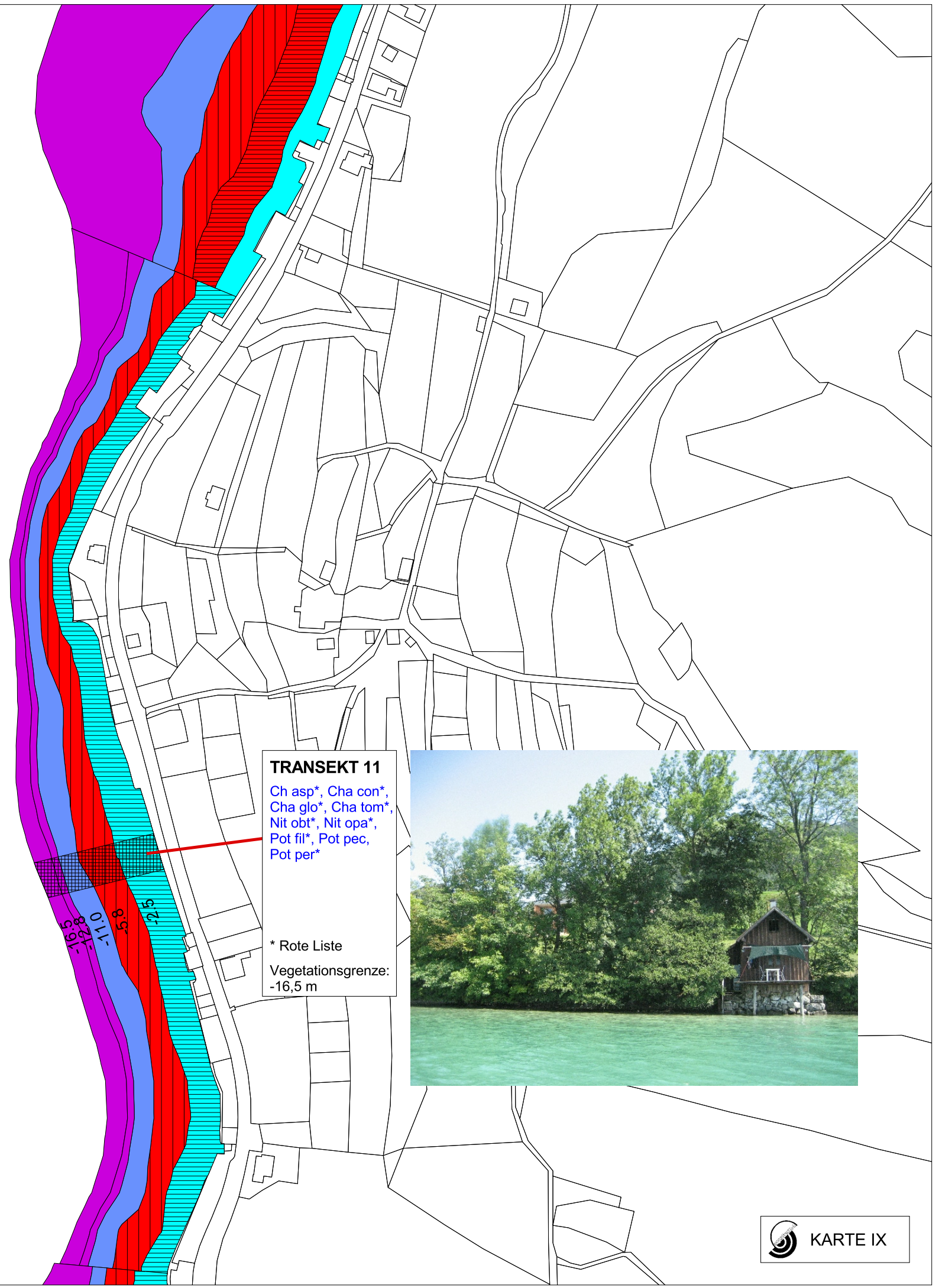
\* Rote Liste  
 Vegetationsgrenze:  
 -15,9 m







*Potamogeton pectinatus*



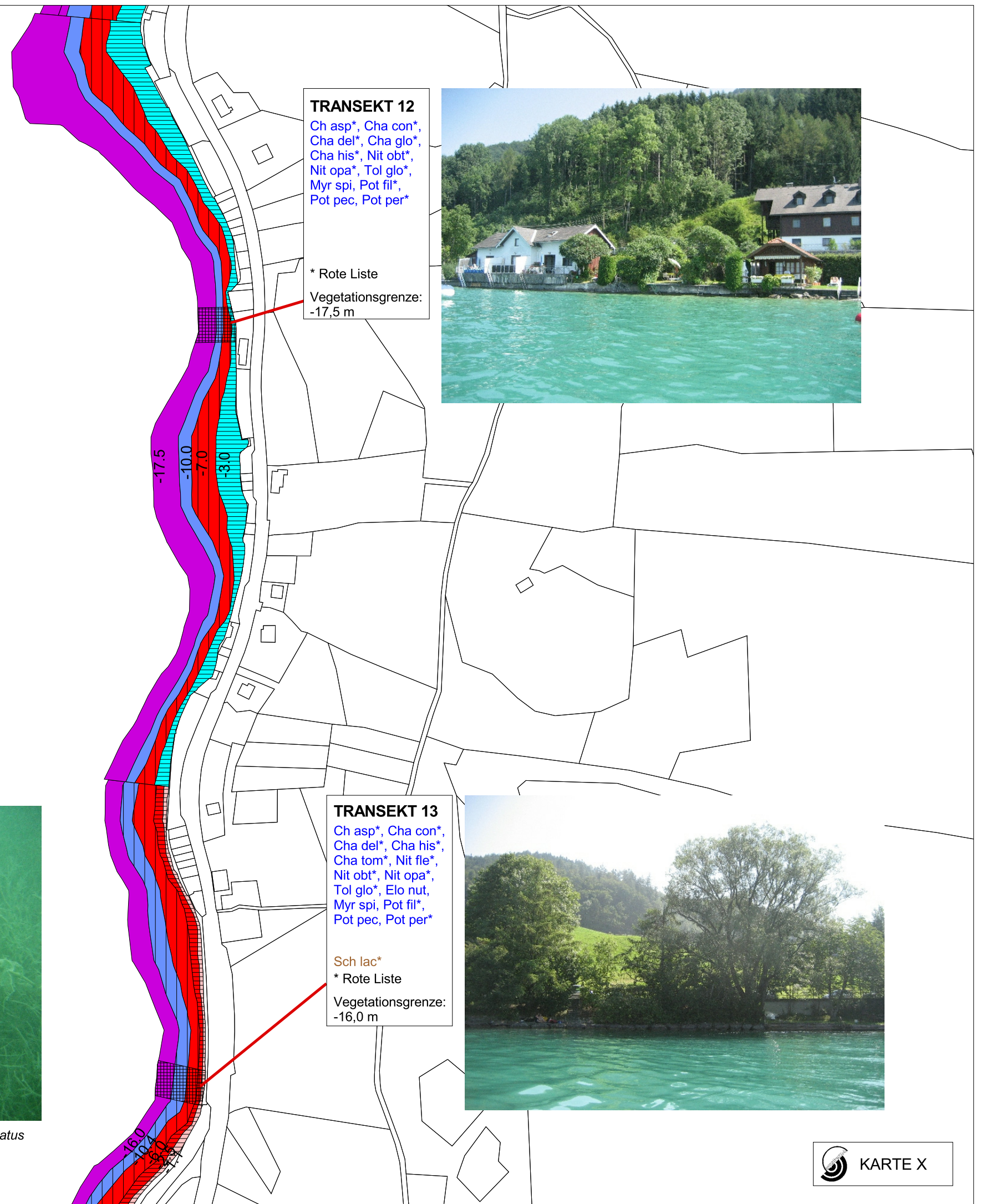




*Potamogeton filiformis*



*Nitellopsis obtusa, Myriophyllum spicatum & Potamogeton perfoliatus*



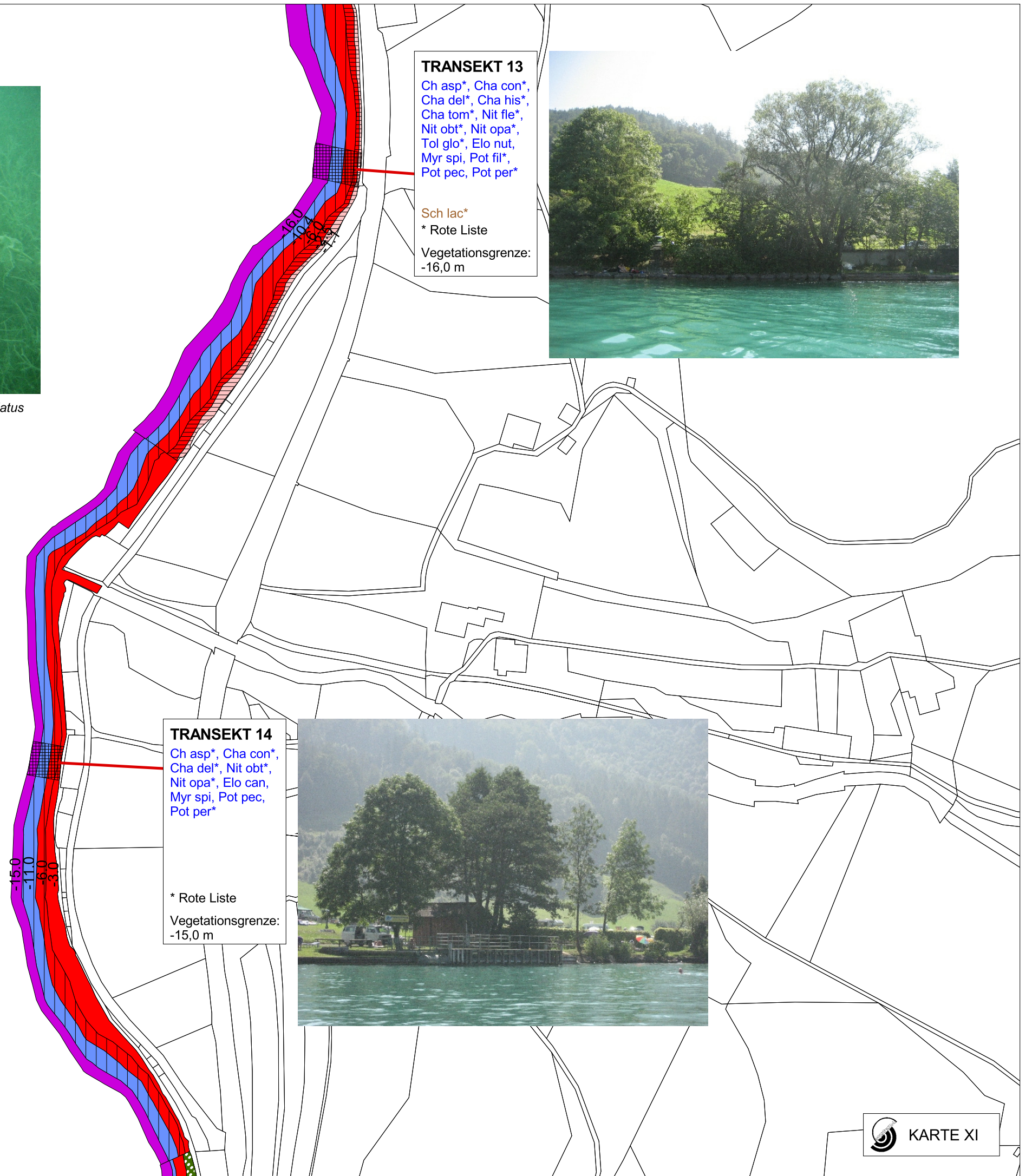




*Nitellopsis obtusa, Myriophyllum spicatum & Potamogeton perfoliatus*



*Potamogeton pectinatus*



**TRANSEKT 13**  
 Ch asp\*, Cha con\*,  
 Cha del\*, Cha his\*,  
 Cha tom\*, Nit fle\*,  
 Nit obt\*, Nit opa\*,  
 Tol glo\*, Elo nut,  
 Myr spi, Pot fil\*,  
 Pot pec, Pot per\*  
 Sch lac\*  
 \* Rote Liste  
 Vegetationsgrenze:  
 -16,0 m

**TRANSEKT 14**  
 Ch asp\*, Cha con\*,  
 Cha del\*, Nit obt\*,  
 Nit opa\*, Elo can,  
 Myr spi, Pot pec,  
 Pot per\*  
 \* Rote Liste  
 Vegetationsgrenze:  
 -15,0 m



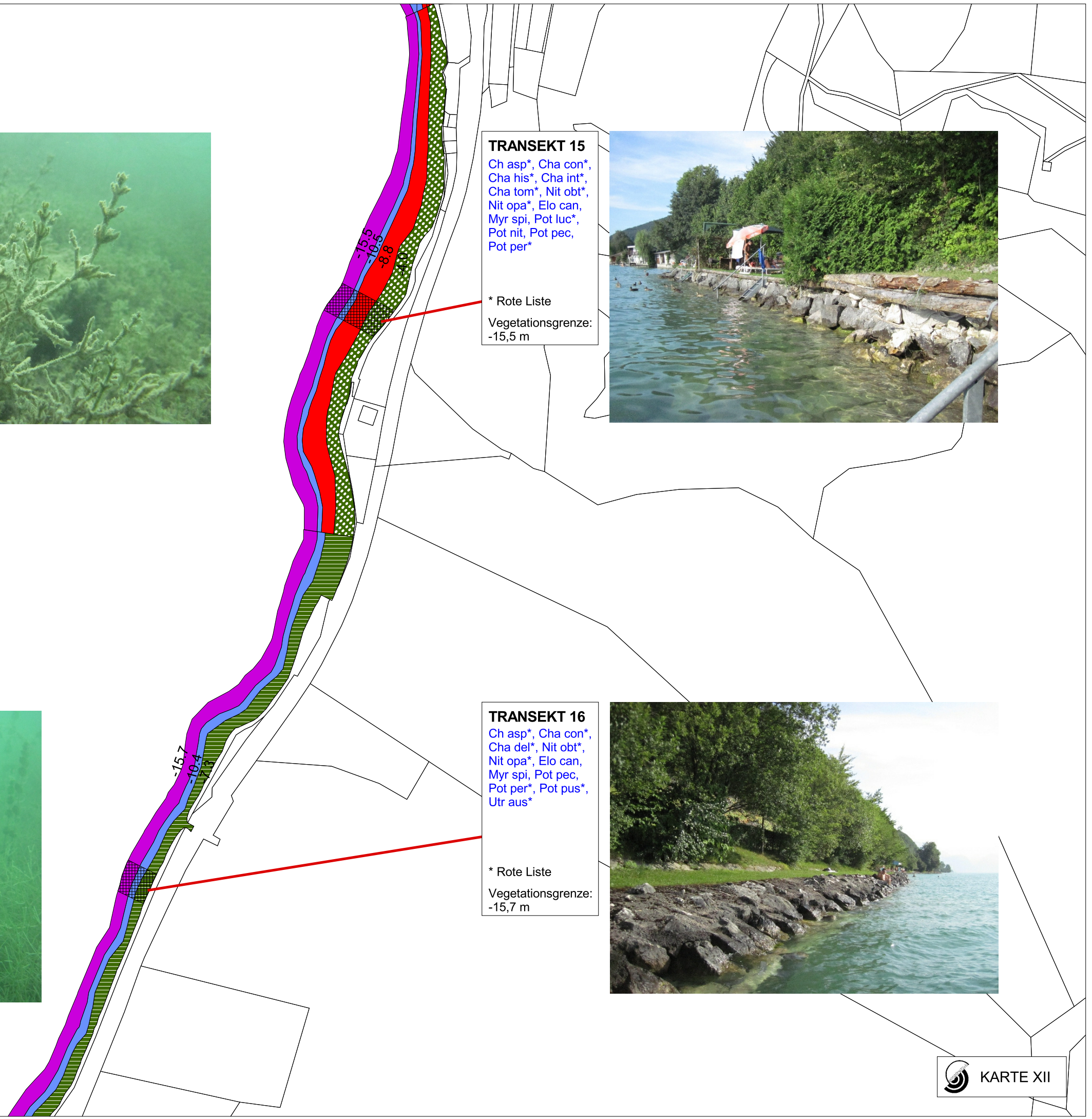




*Chara tomentosa*



*Potamogeton perfoliatus*



**TRANSEKT 15**

Ch asp\*, Cha con\*,  
 Cha his\*, Cha int\*,  
 Cha tom\*, Nit obt\*,  
 Nit opa\*, Elo can,  
 Myr spi, Pot luc\*,  
 Pot nit, Pot pec,  
 Pot per\*

\* Rote Liste

Vegetationsgrenze:  
 -15,5 m



**TRANSEKT 16**

Ch asp\*, Cha con\*,  
 Cha del\*, Nit obt\*,  
 Nit opa\*, Elo can,  
 Myr spi, Pot pec,  
 Pot per\*, Pot pus\*,  
 Utr aus\*

\* Rote Liste

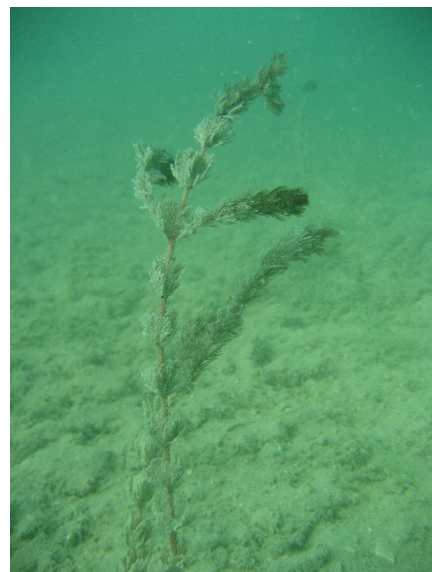
Vegetationsgrenze:  
 -15,7 m



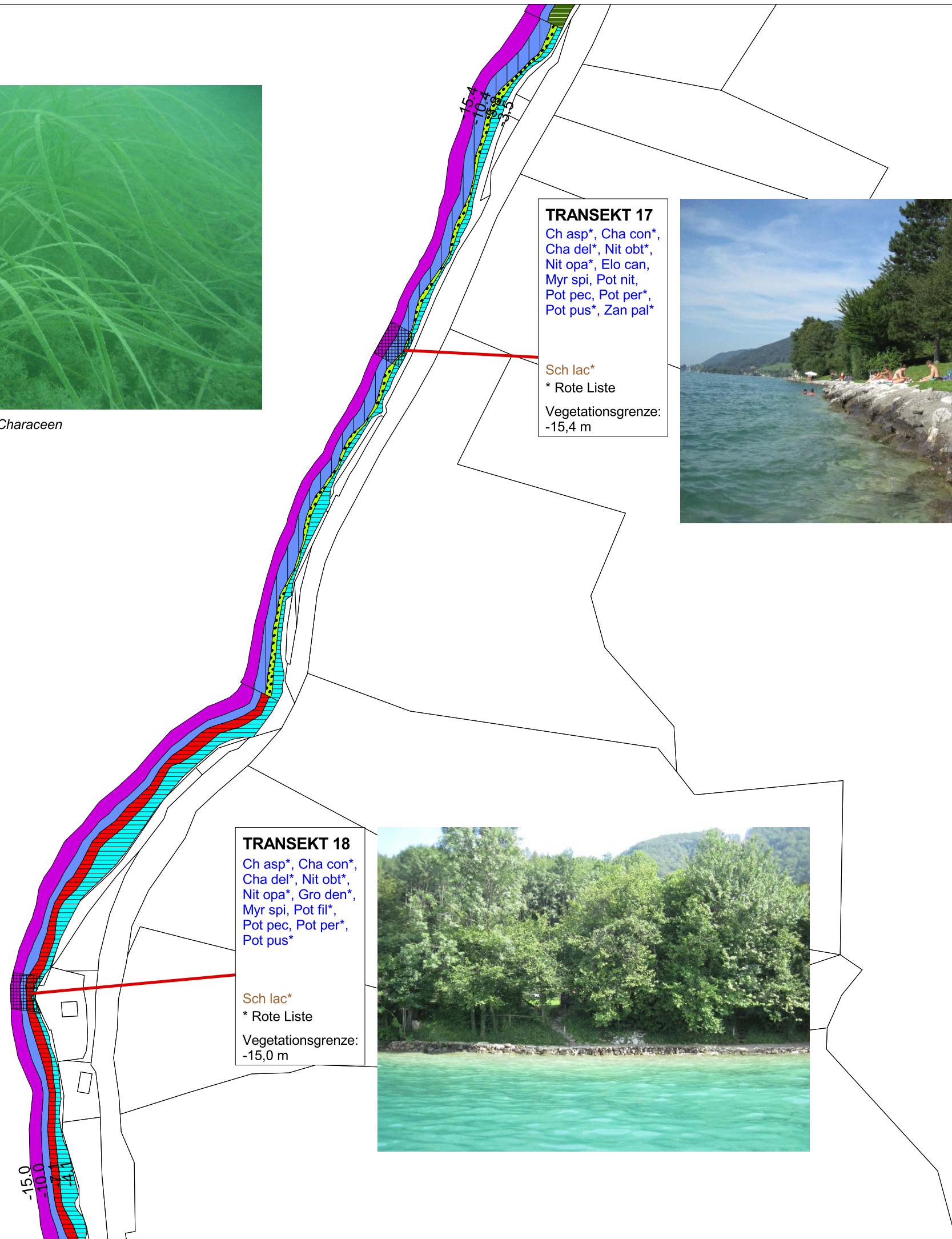




*Schoenoplectus lacustris & Characeen*



*Myriophyllum spicatum*



**TRANSEKT 17**  
 Ch asp\*, Cha con\*,  
 Cha del\*, Nit obt\*,  
 Nit opa\*, Elo can,  
 Myr spi, Pot nit,  
 Pot pec, Pot per\*,  
 Pot pus\*, Zan pal\*

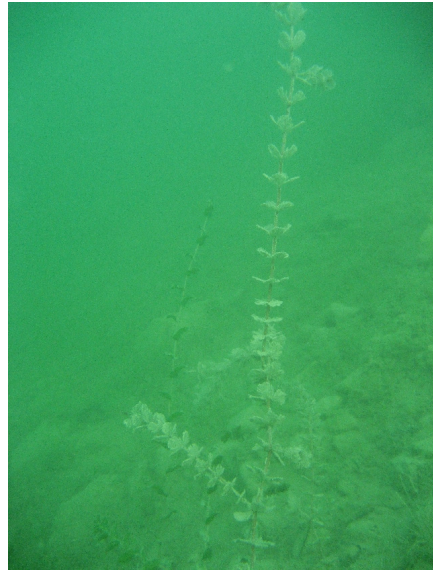
Sch lac\*  
 \* Rote Liste  
 Vegetationsgrenze:  
 -15,4 m

**TRANSEKT 18**  
 Ch asp\*, Cha con\*,  
 Cha del\*, Nit obt\*,  
 Nit opa\*, Gro den\*,  
 Myr spi, Pot fil\*,  
 Pot pec, Pot per\*,  
 Pot pus\*

Sch lac\*  
 \* Rote Liste  
 Vegetationsgrenze:  
 -15,0 m







*Myriophyllum spicatum*



**TRANSEKT 19**  
Cha con\*, Cha del\*,  
Nit fle\*, Nit obt\*,  
Nit opa\*, Elo nut,  
Myr spi, Pot fil\*,  
Pot nit, Pot pec,  
Pot per\*, Pot pus\*,  
Zan pal\*

\* Rote Liste  
Vegetationsgrenze:  
-18,0 m



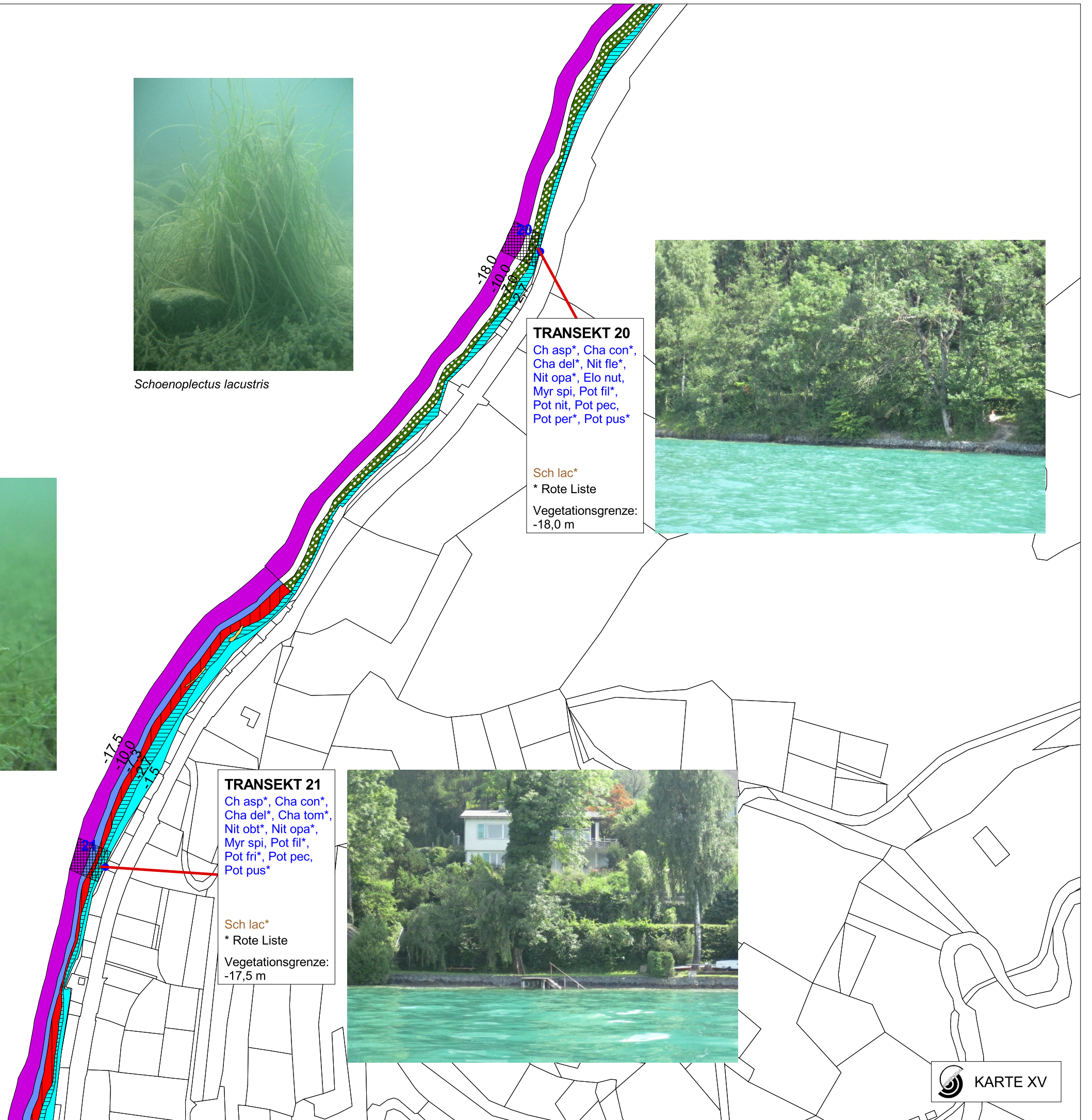




*Schoenoplectus lacustris*



*Chara tomentosa*



**TRANSEKT 20**

Ch asp\*, Cha con\*,  
Cha del\*, Nit fle\*,  
Nit opa\*, Elo nut,  
Myr spi, Pot fil\*,  
Pot nit, Pot pec,  
Pot per\*, Pot pus\*

Sch lac\*

\* Rote Liste

Vegetationsgrenze:  
-18,0 m

**TRANSEKT 21**

Ch asp\*, Cha con\*,  
Cha del\*, Cha tom\*,  
Nit obt\*, Nit opa\*,  
Myr spi, Pot fil\*,  
Pot fri\*, Pot pec,  
Pot pus\*

Sch lac\*

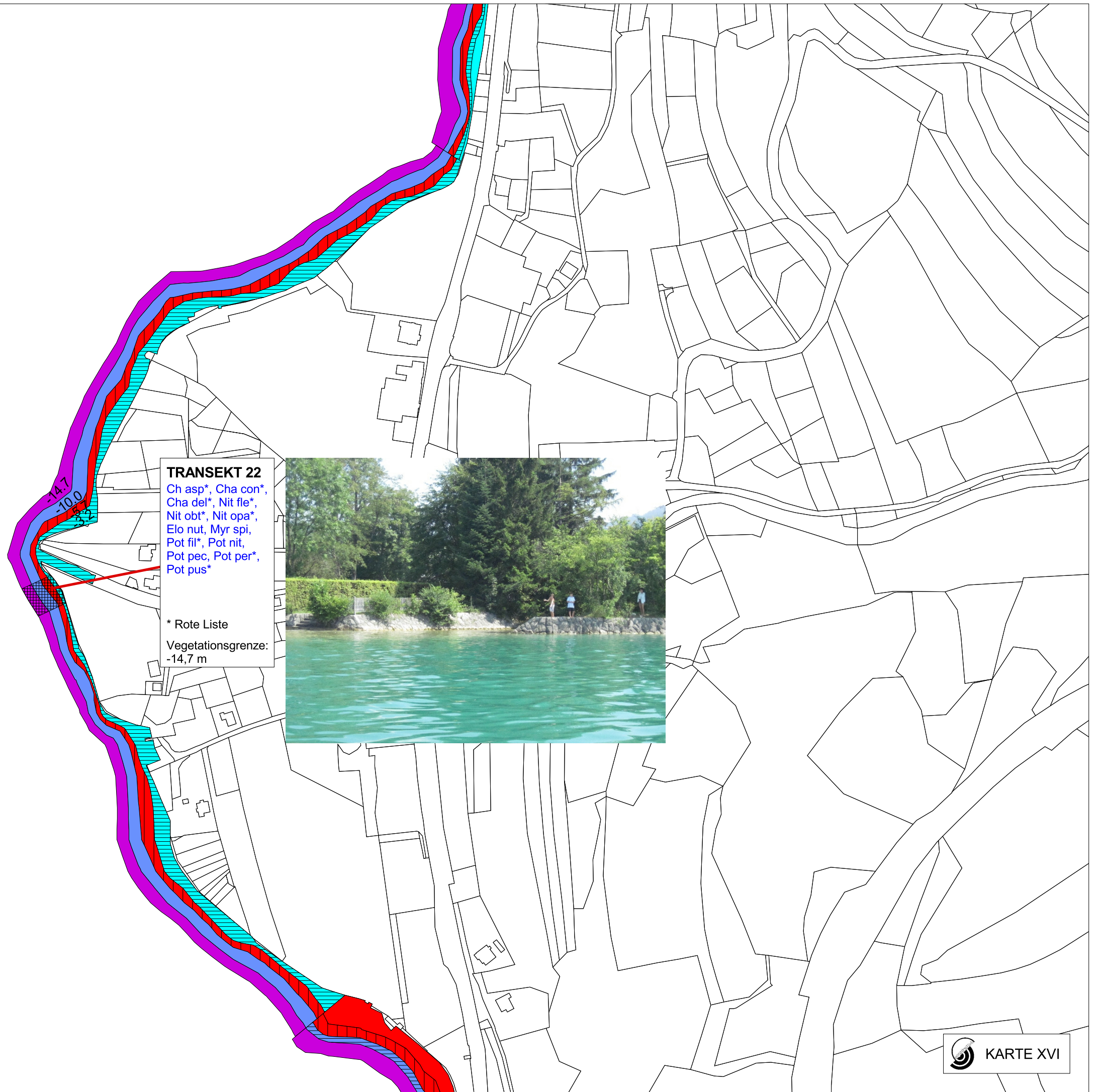
\* Rote Liste

Vegetationsgrenze:  
-17,5 m





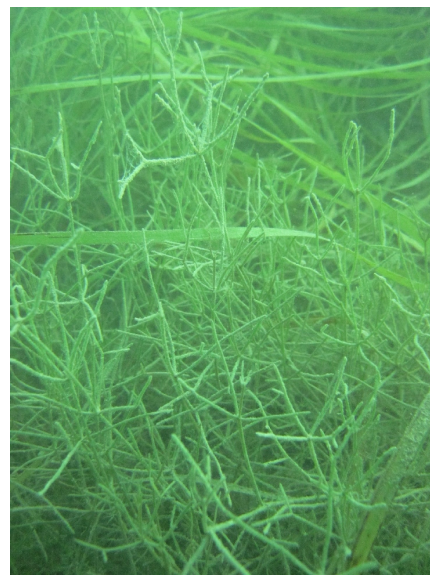
*Elodea nuttallii*



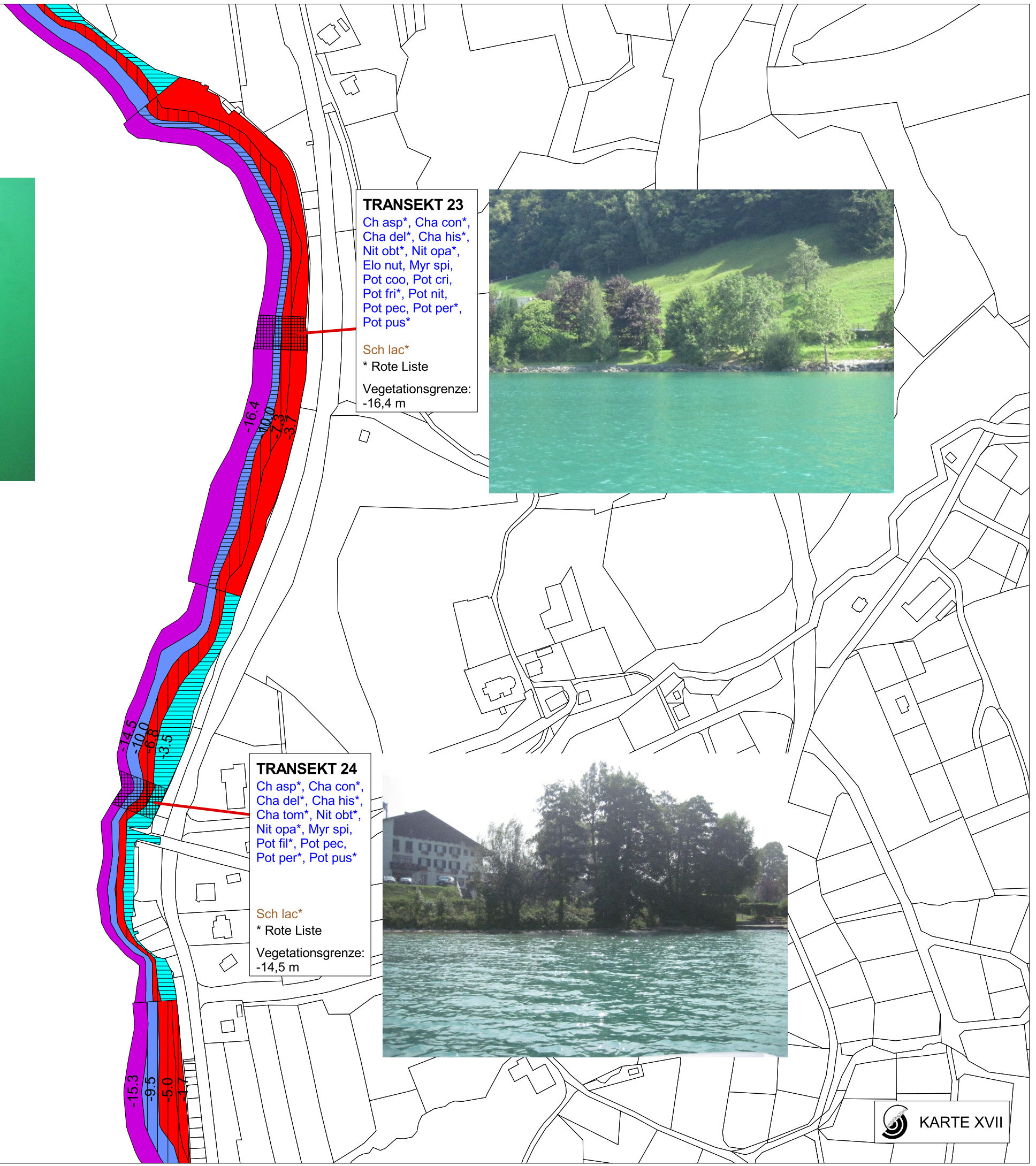




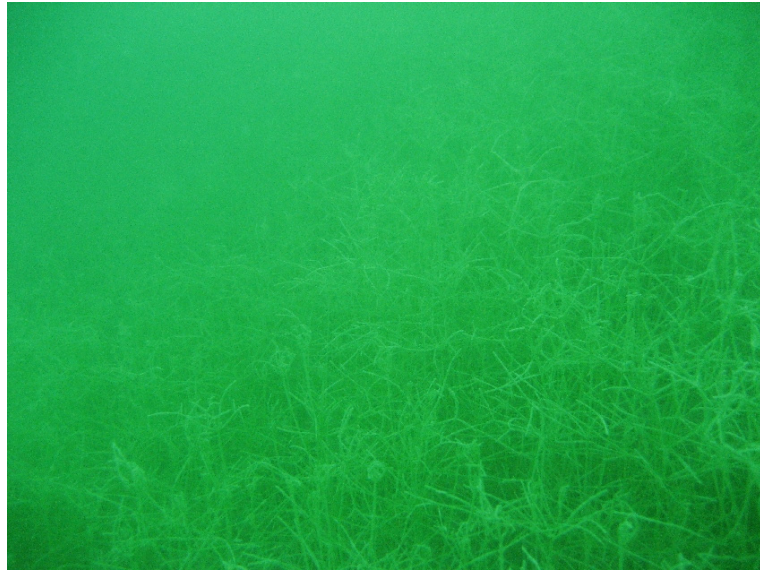
*Potamogeton perfoliatus*



*Nitellopsis obtusa & Schoenoplectus lacustris*







*Nitella opaca*



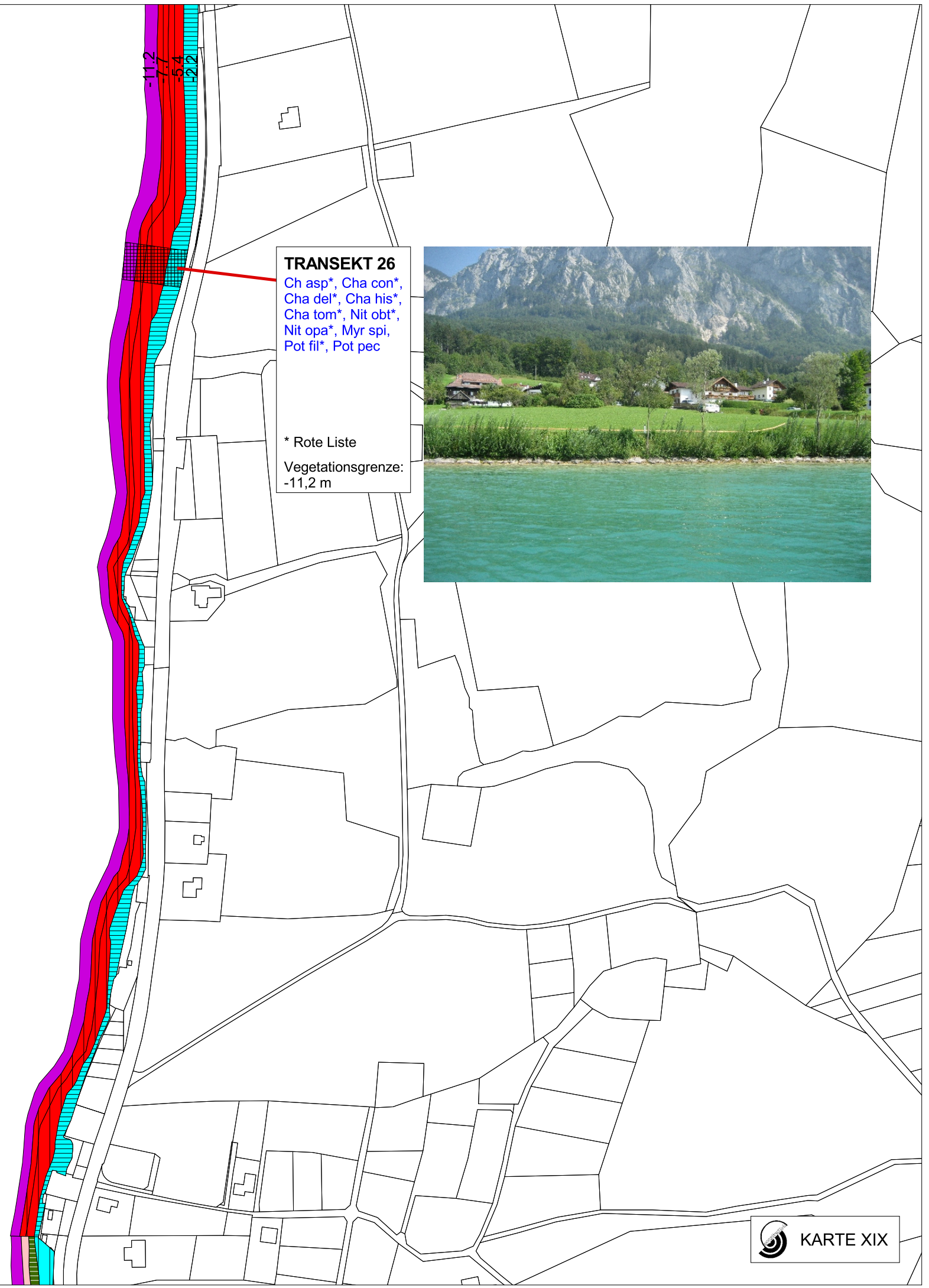
*Potamogeton pectinatus*







*Potamogeton pectinatus*



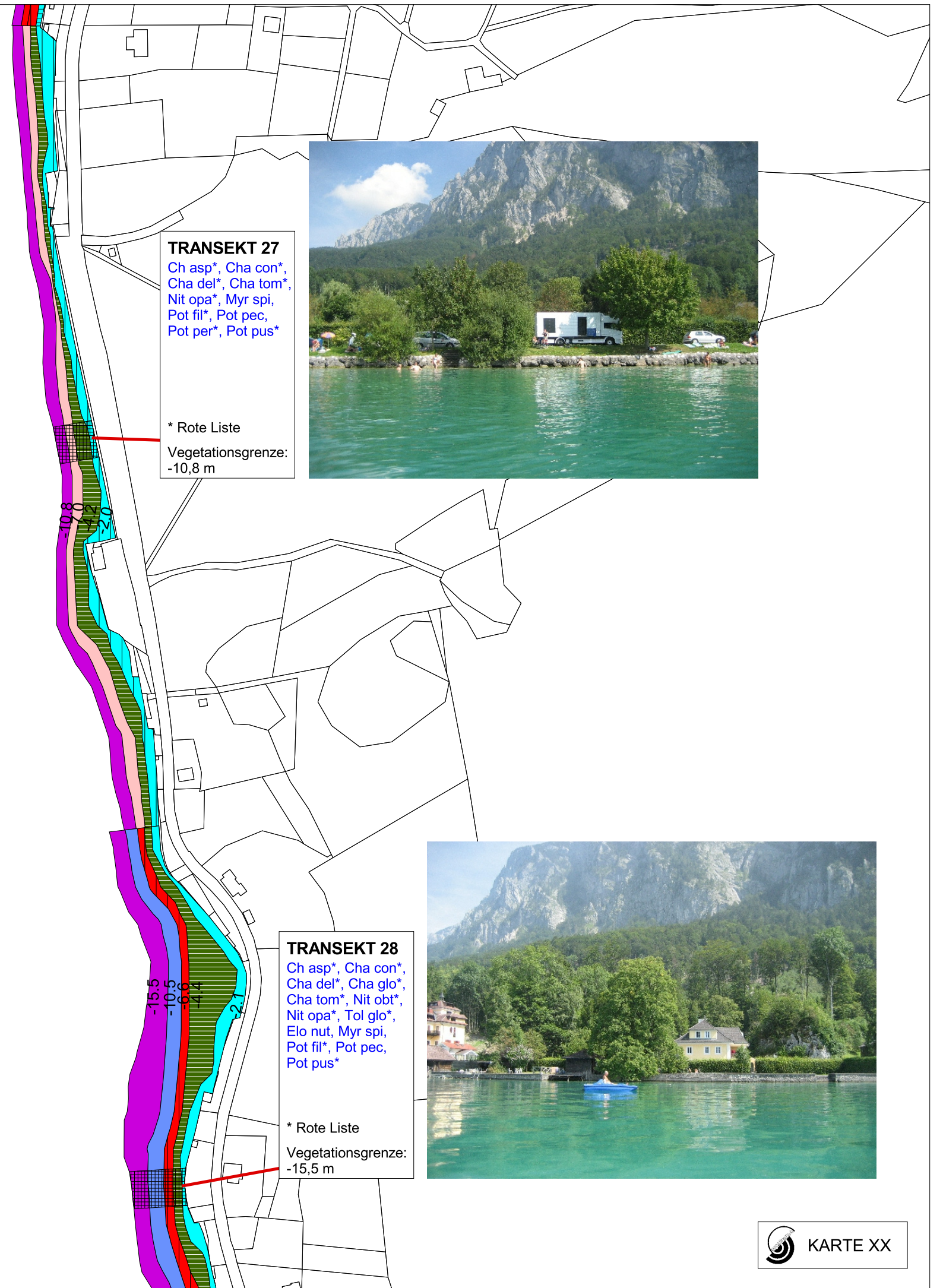




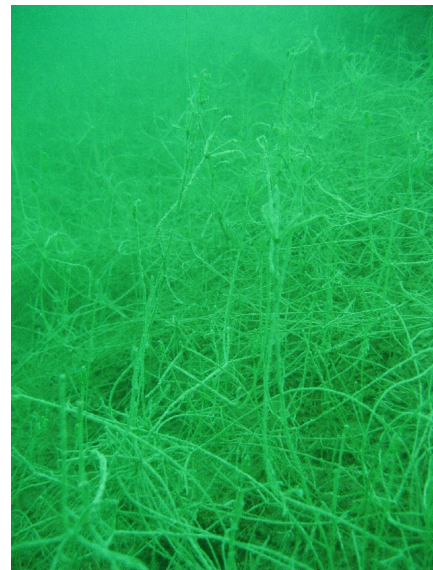
*Chara aspera & Chara tomentosa*



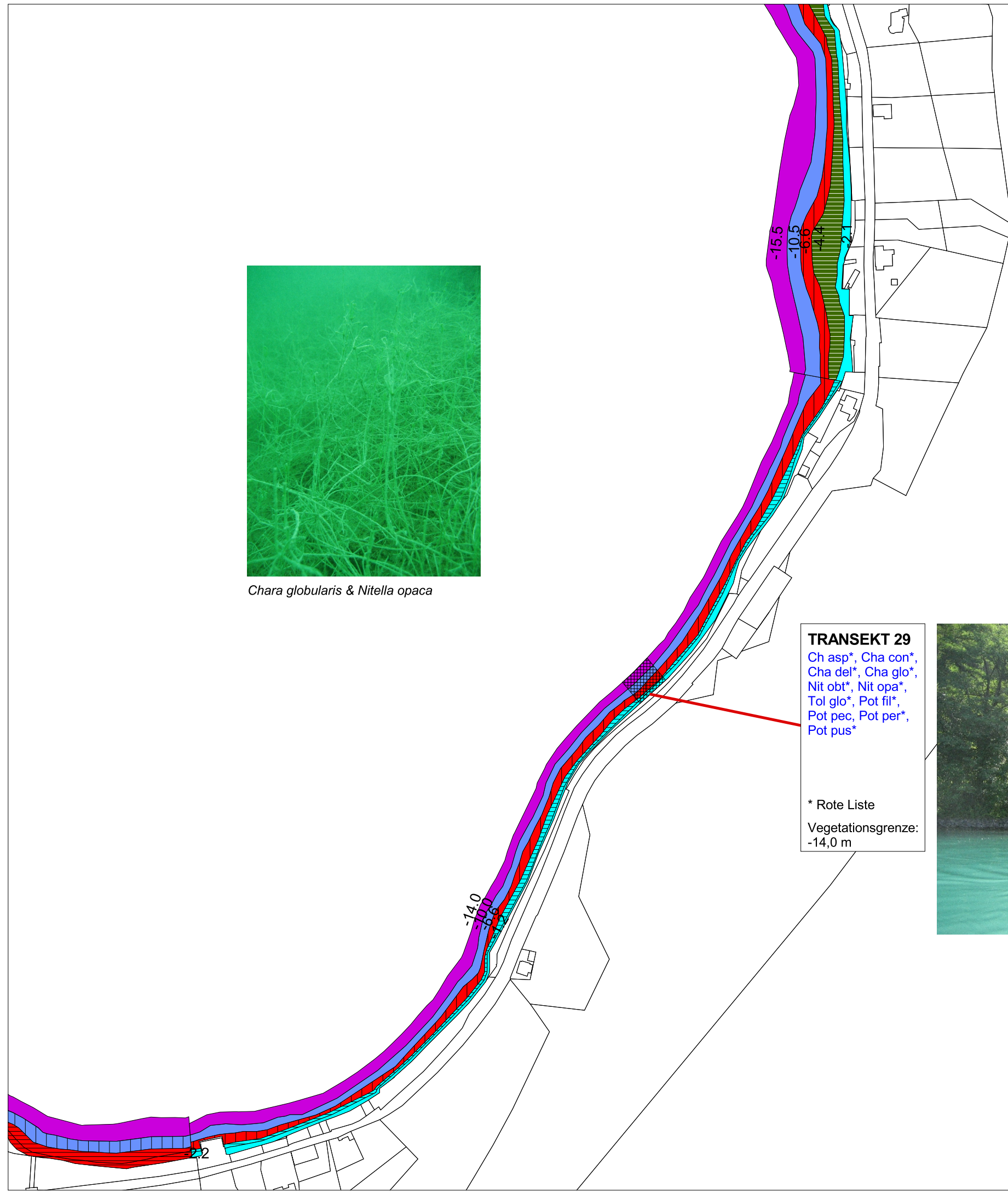
*Myriophyllum spicatum*







*Chara globularis* & *Nitella opaca*



**TRANSEKT 29**

- Ch asp\*, Cha con\*,
- Cha del\*, Cha glo\*,
- Nit obt\*, Nit opa\*,
- Tol glo\*, Pot fil\*,
- Pot pec, Pot per\*,
- Pot pus\*

\* Rote Liste

Vegetationsgrenze:  
-14,0 m



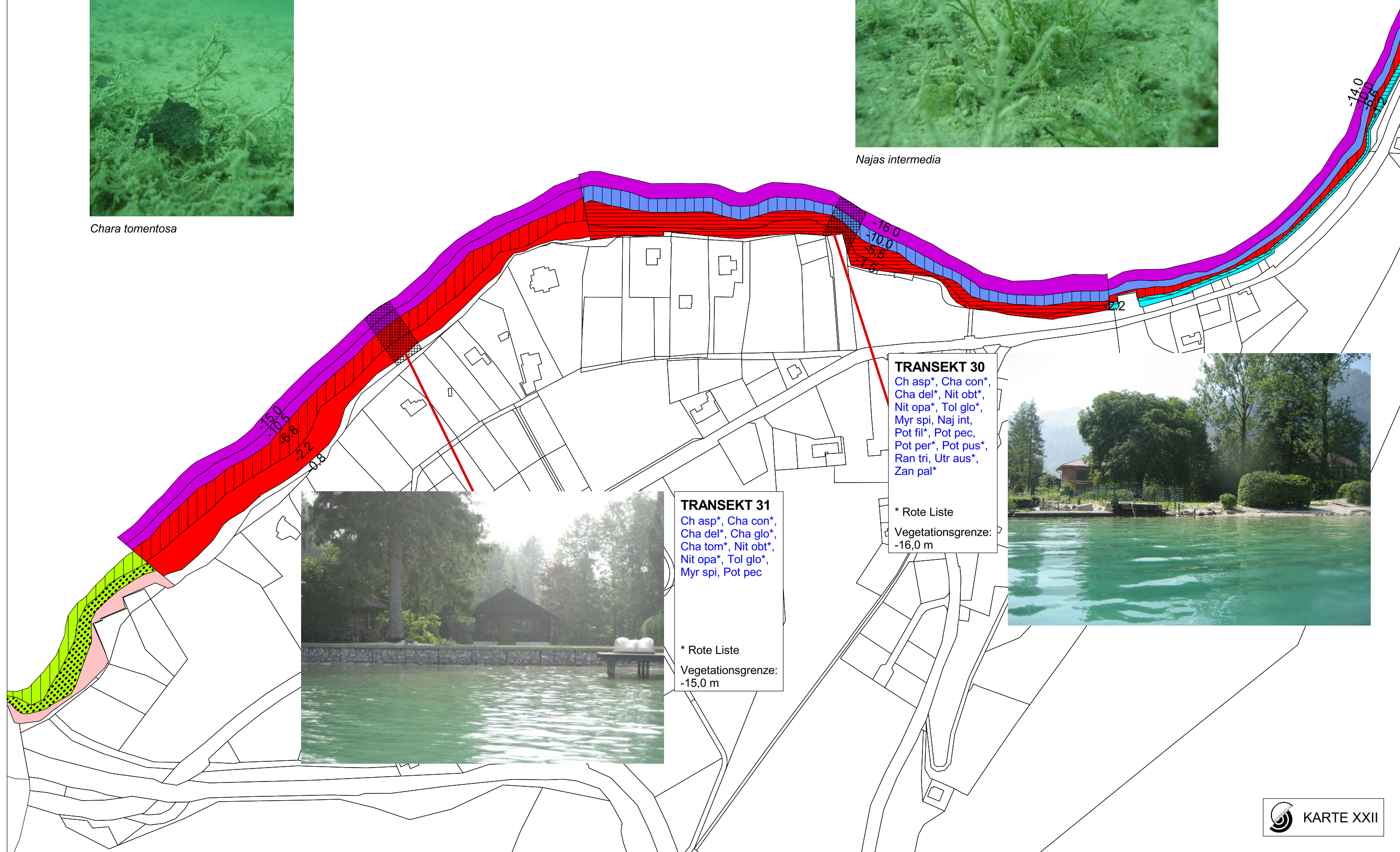




*Chara tomentosa*



*Najas intermedia*



**TRANSEKT 31**  
 Ch asp\*, Cha con\*,  
 Cha del\*, Cha glo\*,  
 Cha tom\*, Nit obt\*,  
 Nit opa\*, Tol glo\*,  
 Myr spi, Pot pec

\* Rote Liste  
 Vegetationsgrenze:  
 -15,0 m



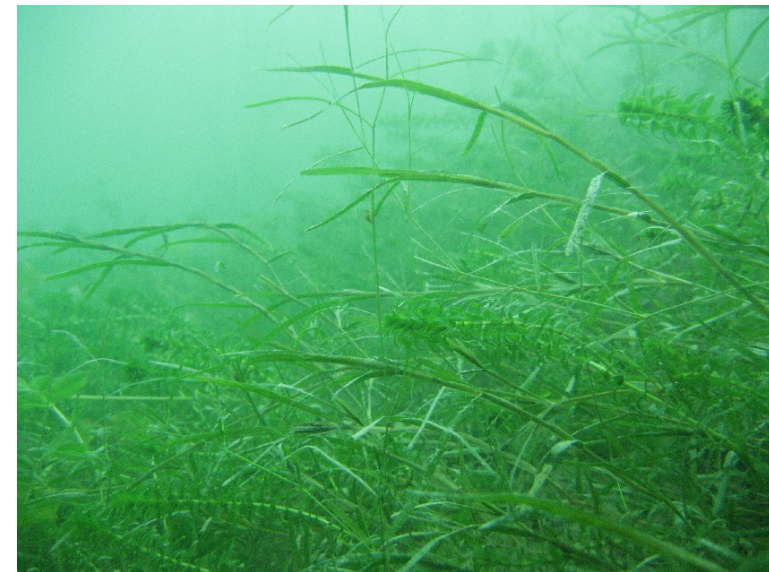
**TRANSEKT 30**  
 Ch asp\*, Cha con\*,  
 Cha del\*, Nit obt\*,  
 Nit opa\*, Tol glo\*,  
 Myr spi, Naj int,  
 Pot fil\*, Pot pec,  
 Pot per\*, Pot pus\*,  
 Ran tri, Utr aus\*,  
 Zan pal\*

\* Rote Liste  
 Vegetationsgrenze:  
 -16,0 m

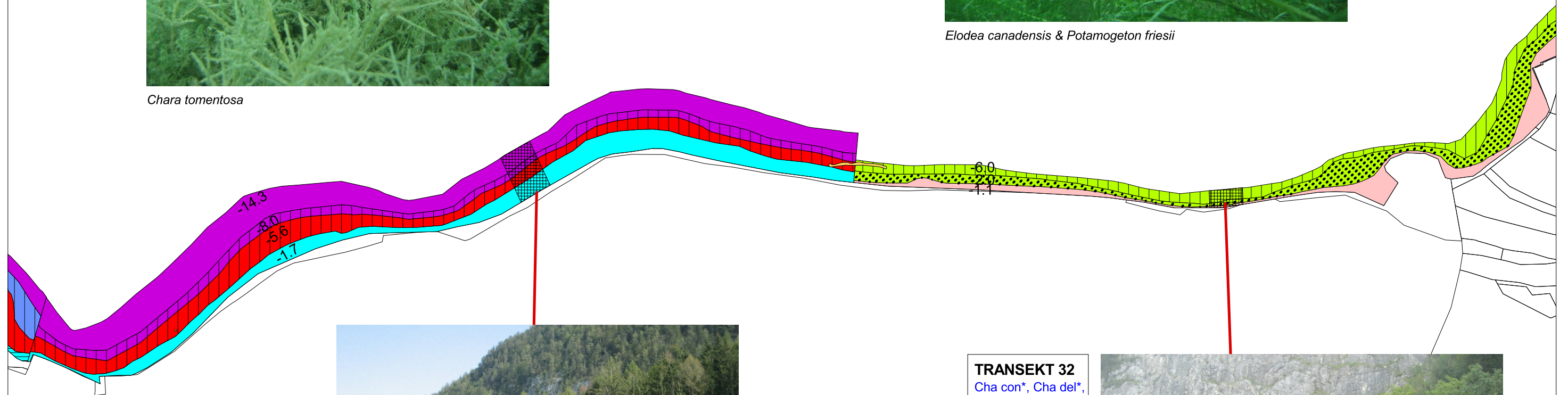




*Chara tomentosa*



*Elodea canadensis & Potamogeton friesii*



**TRANSEKT 33**  
 Ch asp\*, Cha con\*,  
 Cha del\*, Cha tom\*,  
 Nit opa\*, Myr spi,  
 Pot pec, Pot pus\*

\* Rote Liste  
 Vegetationsgrenze:  
 -14,3 m



**TRANSEKT 32**  
 Cha con\*, Cha del\*,  
 Cha glo\*, Nit fle\*,  
 Nit obt\*, Elo can,  
 Myr spi, Pot fri\*,  
 Pot pec, Pot per\*,  
 Pot pus\*, Zan pal\*

\* Rote Liste  
 Vegetationsgrenze:  
 -6,0 m



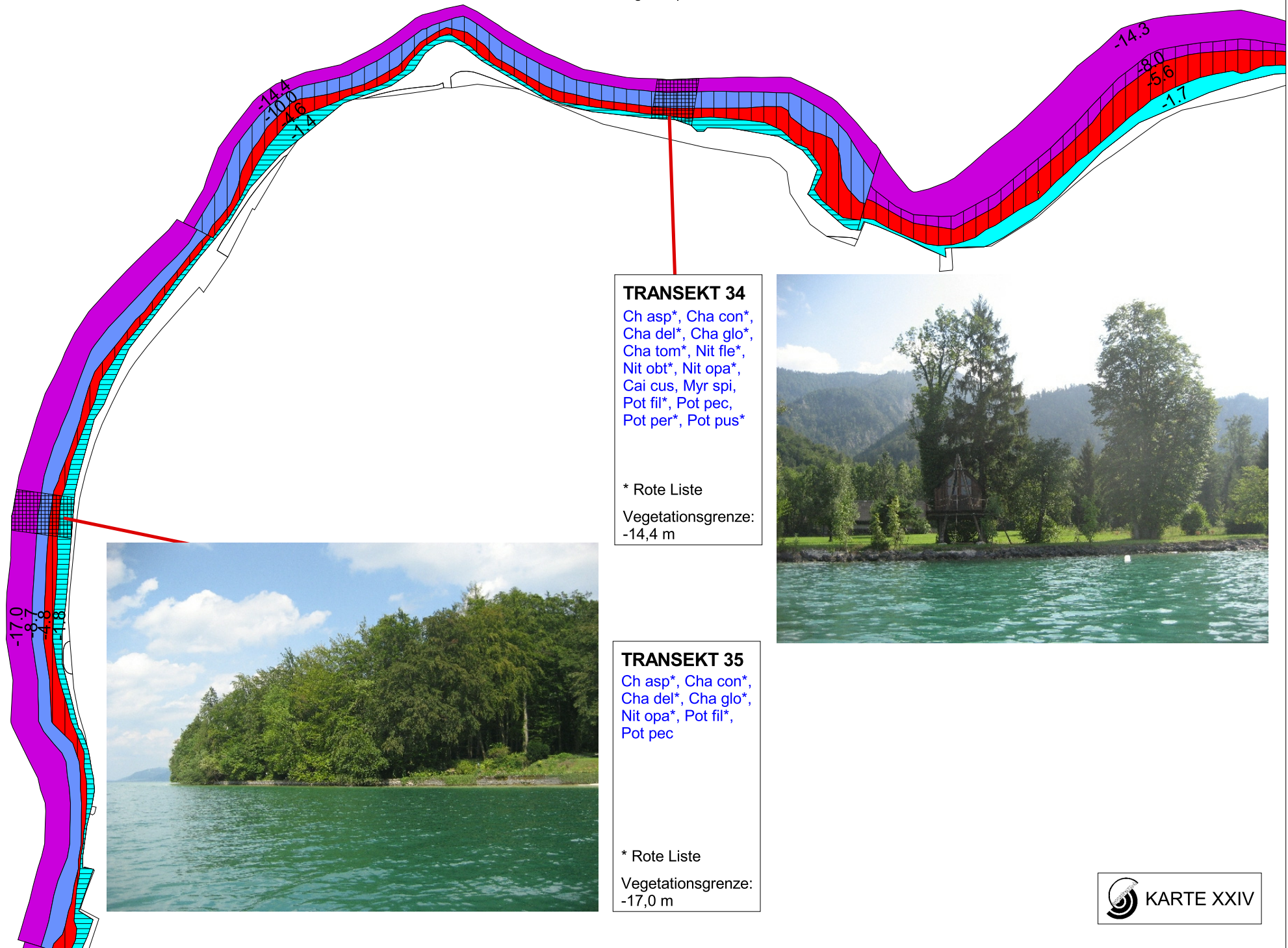




*Potamogeton perfoliatus & Chara contraria*



*Chara contraria & Chara globularis*



**TRANSEKT 34**

- Ch asp\*, Cha con\*,
- Cha del\*, Cha glo\*,
- Cha tom\*, Nit fle\*,
- Nit obt\*, Nit opa\*,
- Cai cus, Myr spi,
- Pot fil\*, Pot pec,
- Pot per\*, Pot pus\*

\* Rote Liste

Vegetationsgrenze:  
-14,4 m



**TRANSEKT 35**

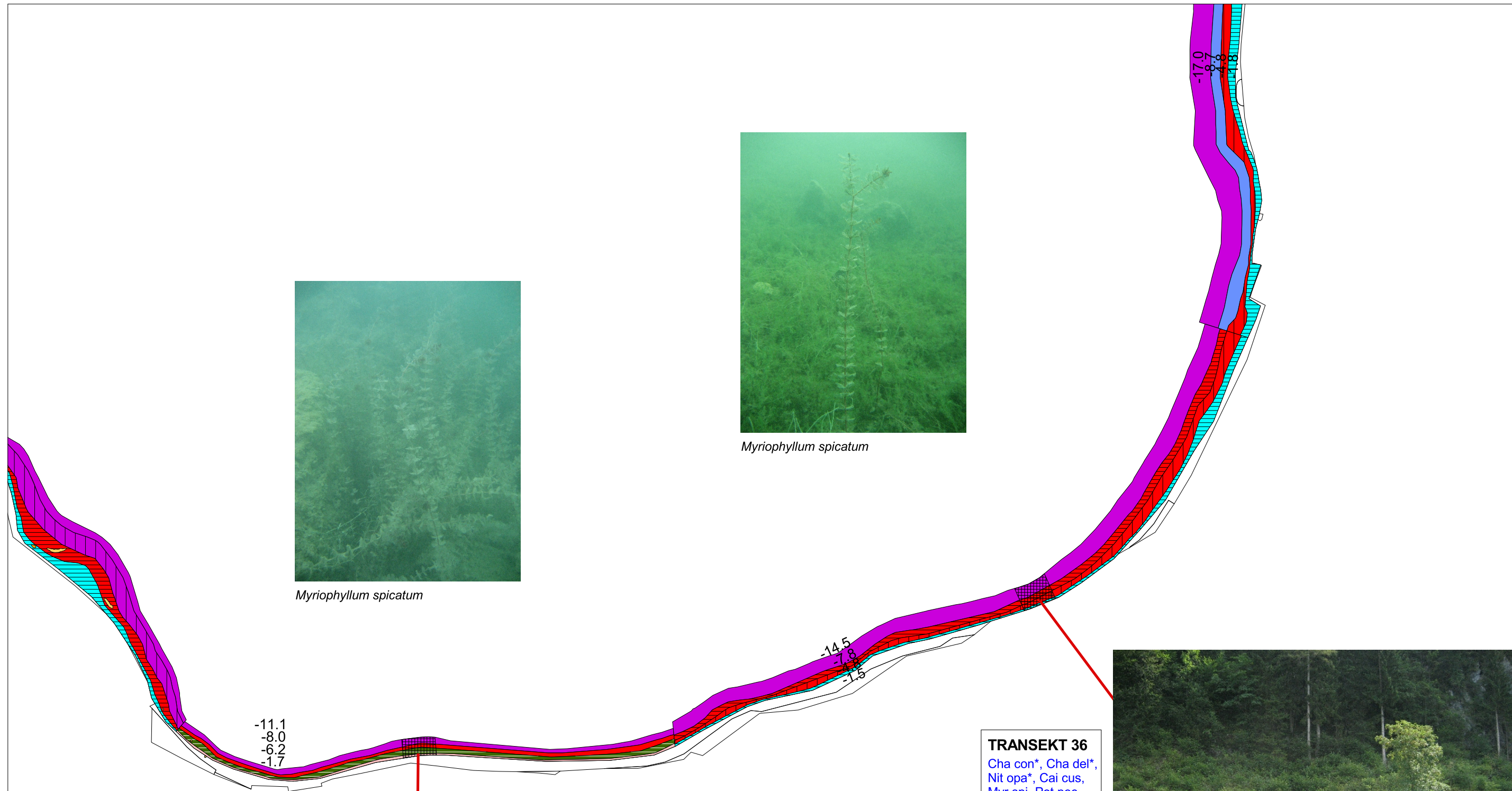
- Ch asp\*, Cha con\*,
- Cha del\*, Cha glo\*,
- Nit opa\*, Pot fil\*,
- Pot pec

\* Rote Liste

Vegetationsgrenze:  
-17,0 m







*Myriophyllum spicatum*



*Myriophyllum spicatum*



**TRANSEKT 37**

Cha con\*, Cha del\*,  
Cha glo\*, Nit obt\*,  
Nit opa\*, Elo nut,  
Myr spi, Pot pec,  
Pot per\*, Pot pus\*

\* Rote Liste  
Vegetationsgrenze:  
-11,1 m

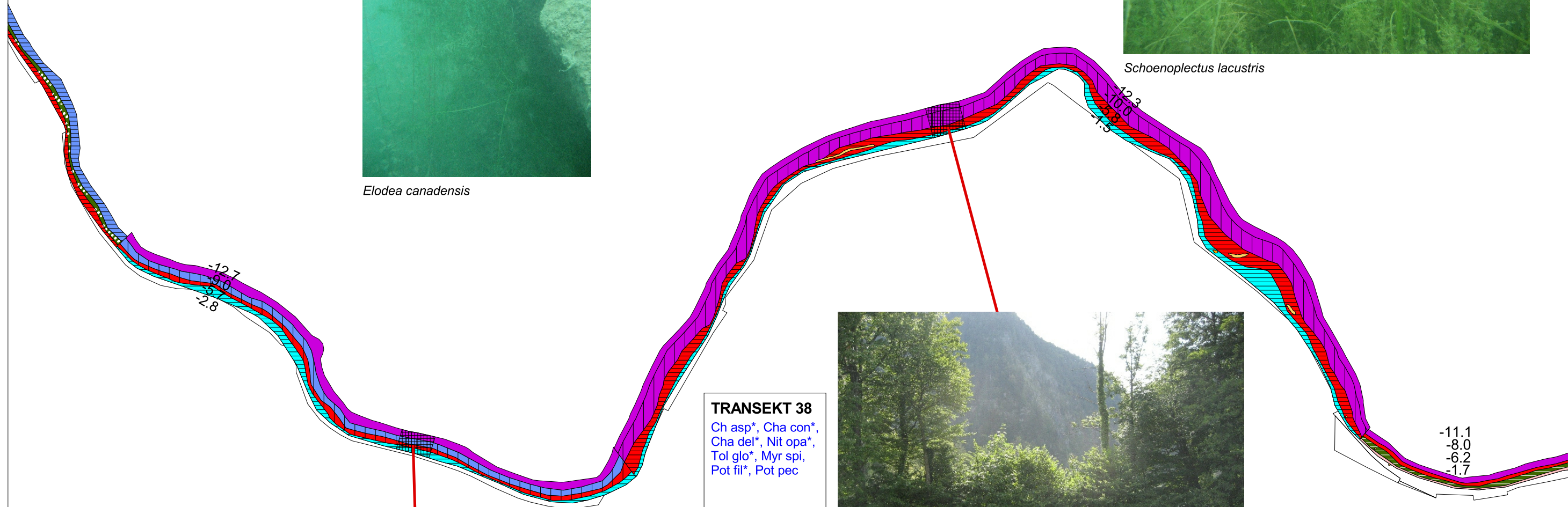


**TRANSEKT 36**

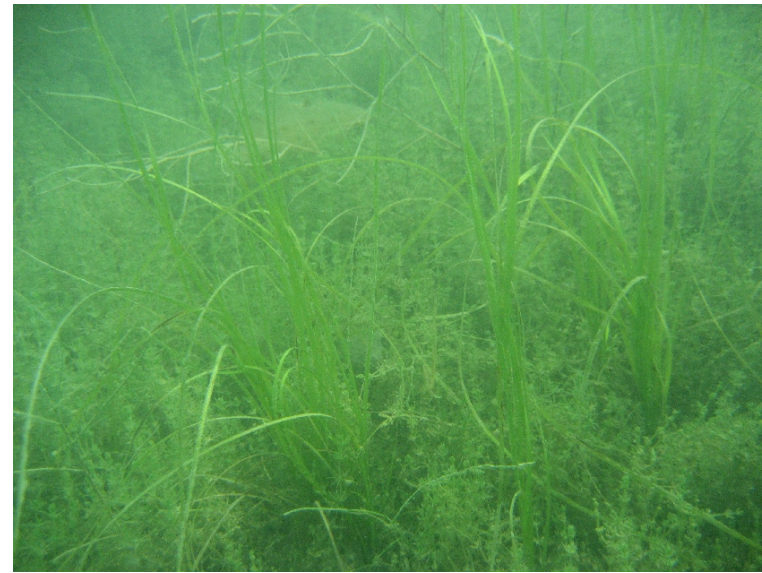
Cha con\*, Cha del\*,  
Nit opa\*, Cai cus,  
Myr spi, Pot pec,  
Pot per\*, Pot pus\*

\* Rote Liste  
Vegetationsgrenze:  
-14,5 m

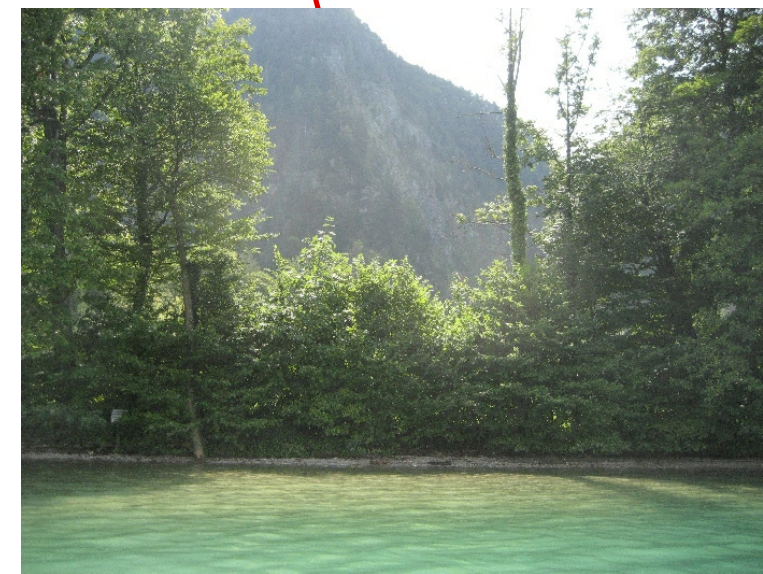




*Elodea canadensis*



*Schoenoplectus lacustris*



**TRANSEKT 38**  
 Ch asp\*, Cha con\*,  
 Cha del\*, Nit opa\*,  
 Tol glo\*, Myr spi,  
 Pot fil\*, Pot pec

Sch lac\*  
 \* Rote Liste

Vegetationsgrenze:  
 -12,3 m



**TRANSEKT 39**  
 Ch asp\*, Cha con\*,  
 Cha del\*, Cha glo\*,  
 Nit obt\*, Nit opa\*,  
 Elo can, Myr spi,  
 Pot pec, Pot per\*,  
 Pot pus\*

\* Rote Liste

Vegetationsgrenze:  
 -12,7 m





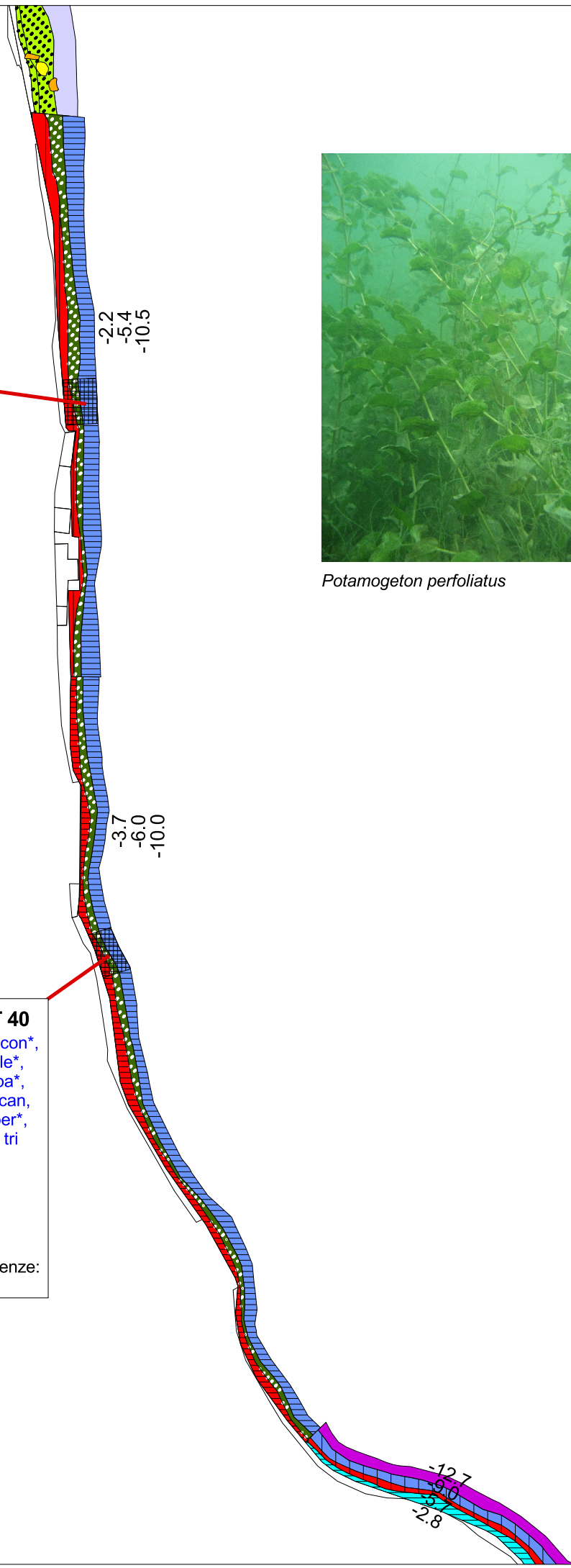
**TRANSEKT 41**

Ch asp\*, Cha con\*,  
 Cha del\*, Nit obt\*,  
 Nit opa\*, Fis tax,  
 Elo can, Myr spi,  
 Pot pec, Pot per\*,  
 Pot pus\*, Ran cir\*

Nym alb\*

\* Rote Liste

Vegetationsgrenze:  
 -10,5 m



*Potamogeton perfoliatus*



**TRANSEKT 40**

Ch asp\*, Cha con\*,  
 Cha del\*, Nit fle\*,  
 Nit obt\*, Nit opa\*,  
 Eur spe\*, Elo can,  
 Pot pec, Pot per\*,  
 Pot pus\*, Ran tri

Nym alb\*

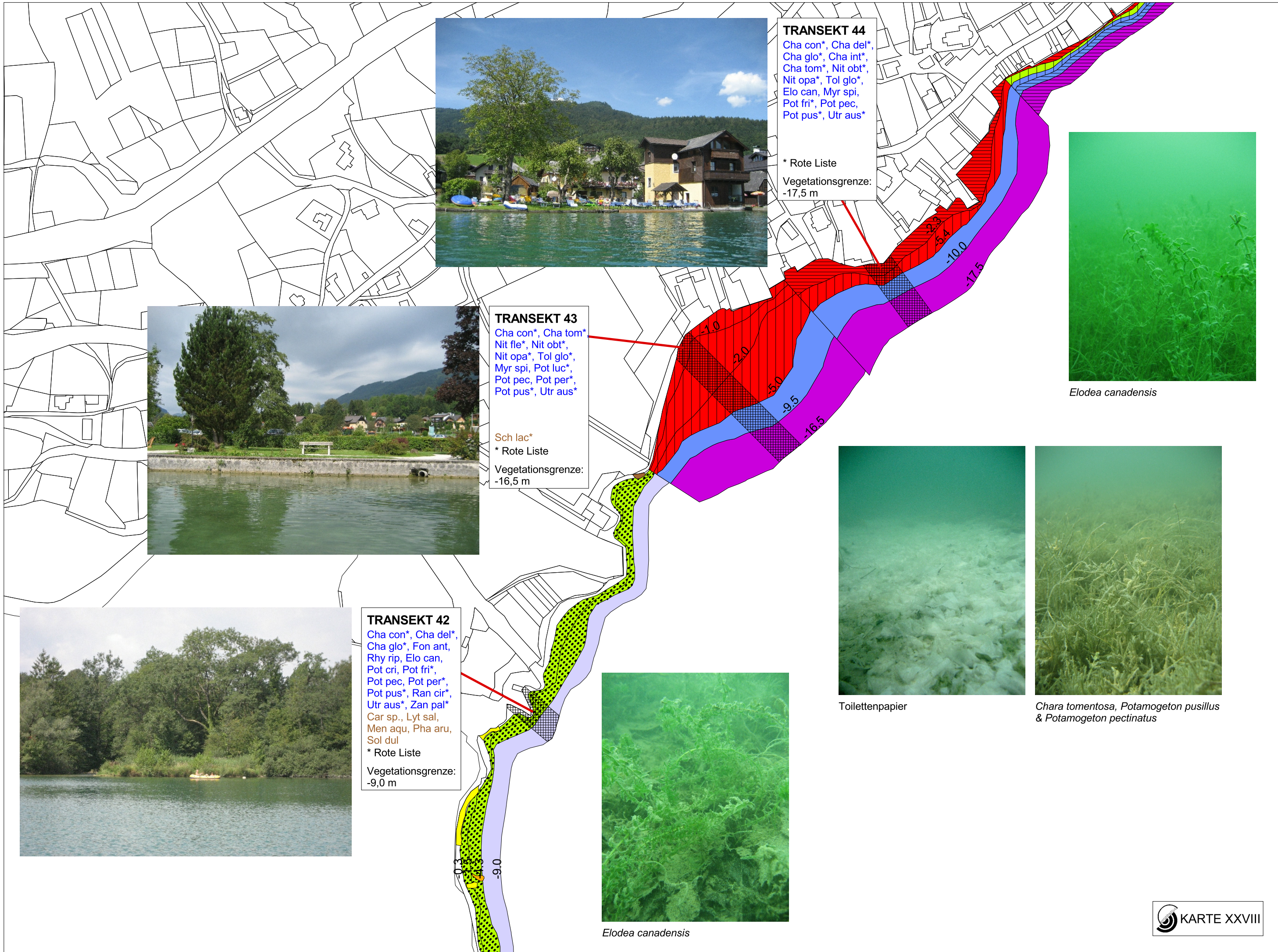
\* Rote Liste

Vegetationsgrenze:  
 -10,0 m



*Ranunculus trichophyllus*





**TRANSEKT 44**

Cha con\*, Cha del\*,  
 Cha glo\*, Cha int\*,  
 Cha tom\*, Nit obt\*,  
 Nit opa\*, Tol glo\*,  
 Elo can, Myr spi,  
 Pot fri\*, Pot pec,  
 Pot pus\*, Utr aus\*

\* Rote Liste  
 Vegetationsgrenze:  
 -17,5 m

**TRANSEKT 43**

Cha con\*, Cha tom\*  
 Nit fle\*, Nit obt\*,  
 Nit opa\*, Tol glo\*,  
 Myr spi, Pot luc\*,  
 Pot pec, Pot per\*,  
 Pot pus\*, Utr aus\*

Sch lac\*  
 \* Rote Liste  
 Vegetationsgrenze:  
 -16,5 m

**TRANSEKT 42**

Cha con\*, Cha del\*,  
 Cha glo\*, Fon ant,  
 Rhy rip, Elo can,  
 Pot cri, Pot fri\*,  
 Pot pec, Pot per\*,  
 Pot pus\*, Ran cir\*,  
 Utr aus\*, Zan pal\*

Car sp., Lyt sal,  
 Men aqu, Pha aru,  
 Sol dul  
 \* Rote Liste  
 Vegetationsgrenze:  
 -9,0 m



*Elodea canadensis*



Toilettenpapier



*Chara tomentosa, Potamogeton pusillus & Potamogeton pectinatus*



*Elodea canadensis*





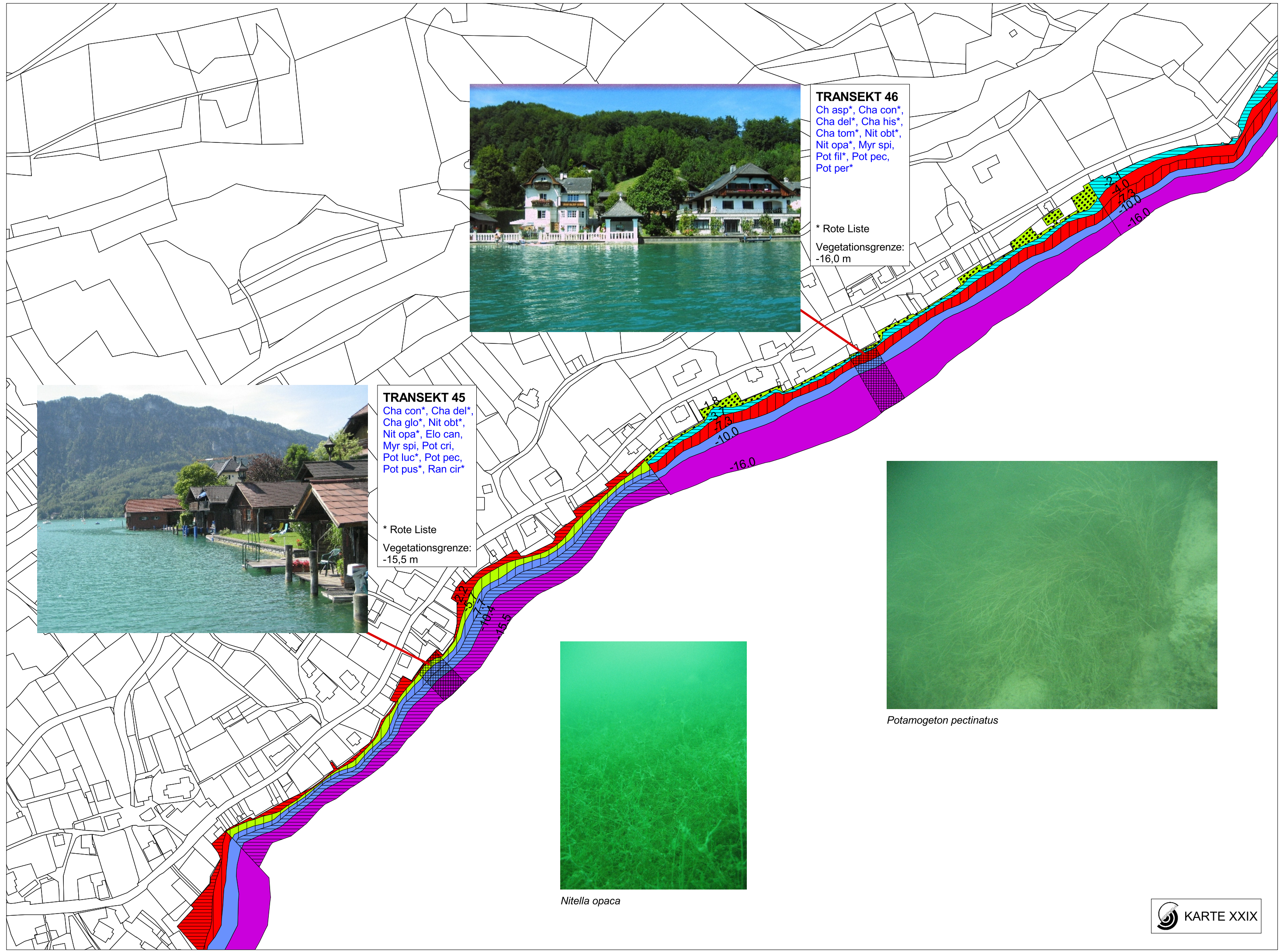
**TRANSEKT 46**  
 Ch asp\*, Cha con\*,  
 Cha del\*, Cha his\*,  
 Cha tom\*, Nit obt\*,  
 Nit opa\*, Myr spi,  
 Pot fil\*, Pot pec,  
 Pot per\*

\* Rote Liste  
 Vegetationsgrenze:  
 -16,0 m

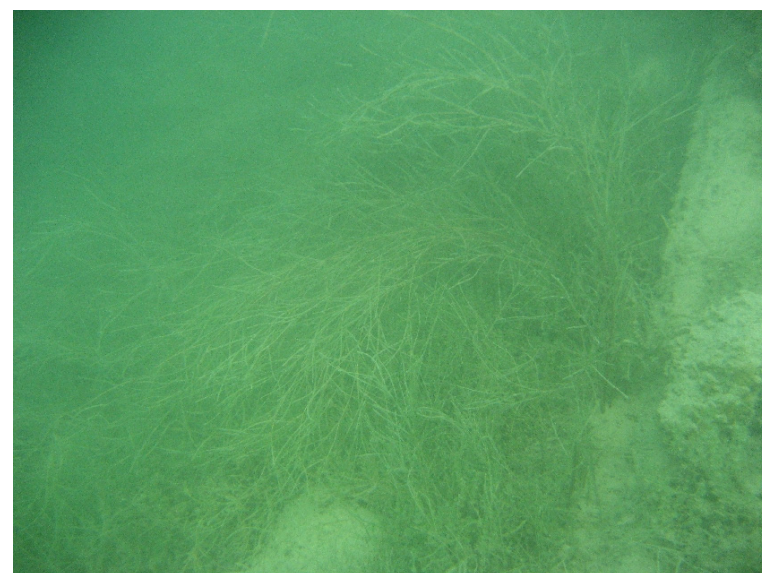


**TRANSEKT 45**  
 Cha con\*, Cha del\*,  
 Cha glo\*, Nit obt\*,  
 Nit opa\*, Elo can,  
 Myr spi, Pot cri,  
 Pot luc\*, Pot pec,  
 Pot pus\*, Ran cir\*

\* Rote Liste  
 Vegetationsgrenze:  
 -15,5 m



*Nitella opaca*



*Potamogeton pectinatus*



**TRANSEKT 48**

Ch asp\*, Cha con\*,  
Cha del\*, Cha glo\*,  
Cha his\*, Cha tom\*,  
Nit obt\*, Nit opa\*,  
Pot fil\*, Pot pec,  
Pot per\*, Pot pus\*,  
Utr aus\*

\* Rote Liste

Vegetationsgrenze:  
-16,4 m



*Potamogeton pectinatus* & *Chara tomentosa*

**TRANSEKT 47**

Ch asp\*, Cha con\*,  
Cha del\*, Cha his\*,  
Nit obt\*, Nit opa\*,  
Elo can, Myr spi,  
Pot fil\*, Pot pec,  
Pot pus\*, Utr aus\*

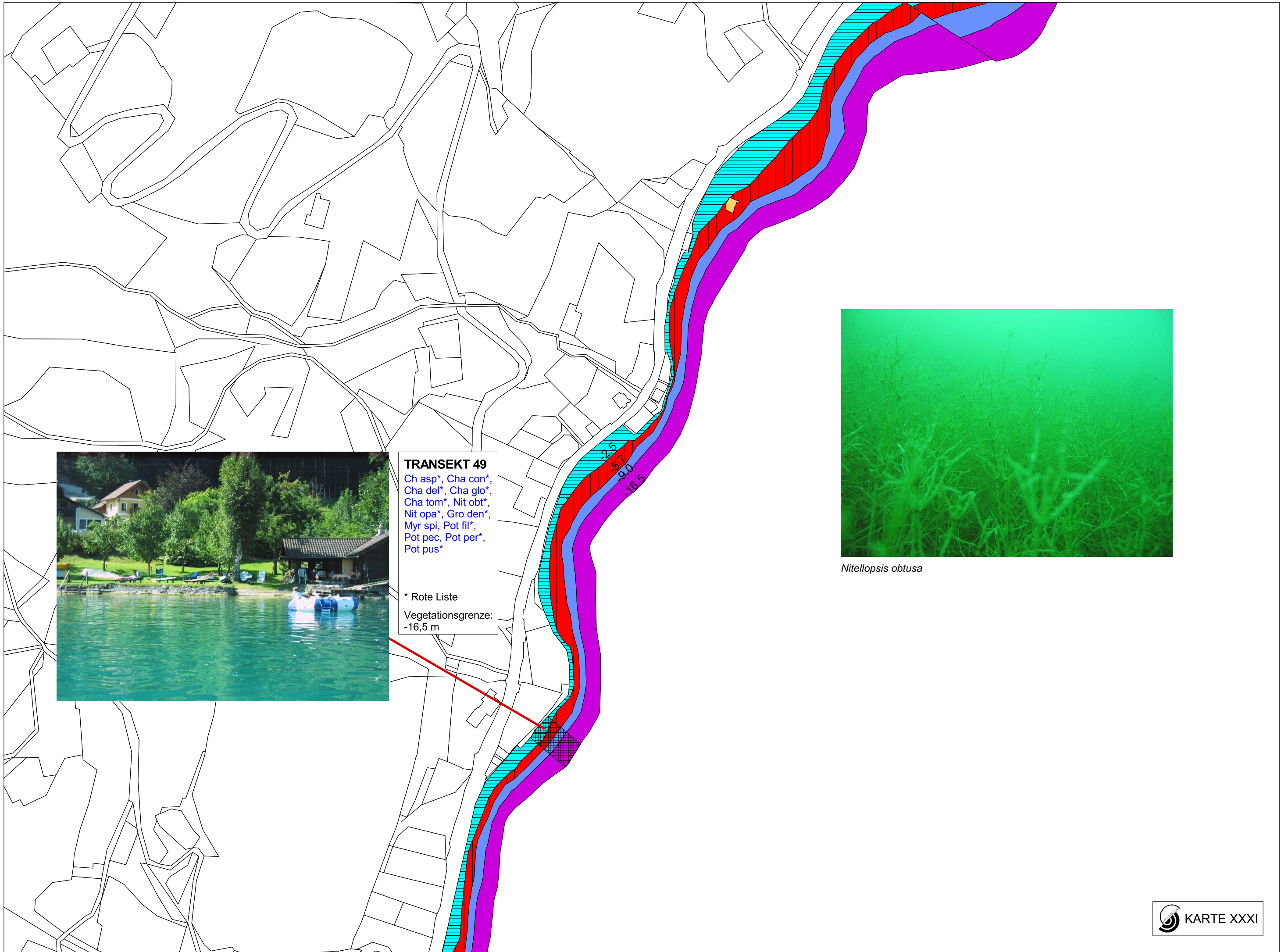
\* Rote Liste

Vegetationsgrenze:  
-16,0 m



*Nitella opaca*



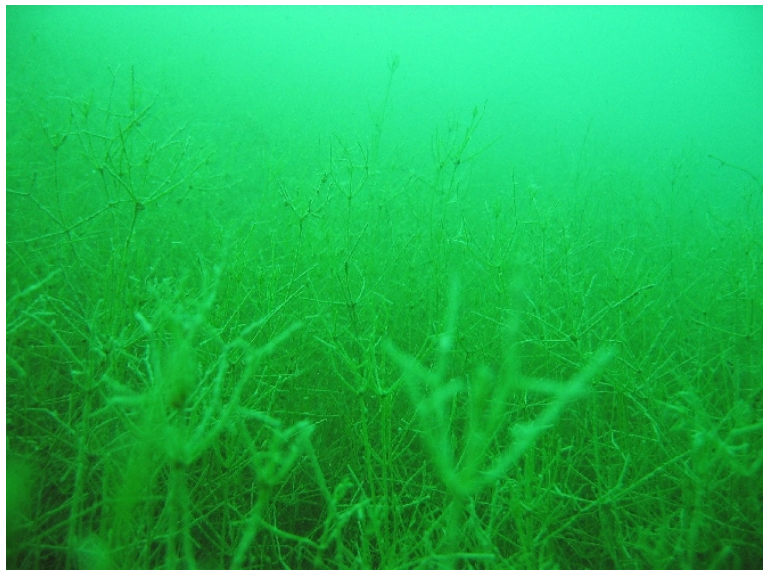


**TRANSEKT 49**

Ch asp\*, Cha con\*,  
Cha del\*, Cha glo\*,  
Cha tom\*, Nit obt\*,  
Nit opa\*, Gro den\*,  
Myr spi, Pot fil\*,  
Pot pec, Pot per\*,  
Pot pus\*

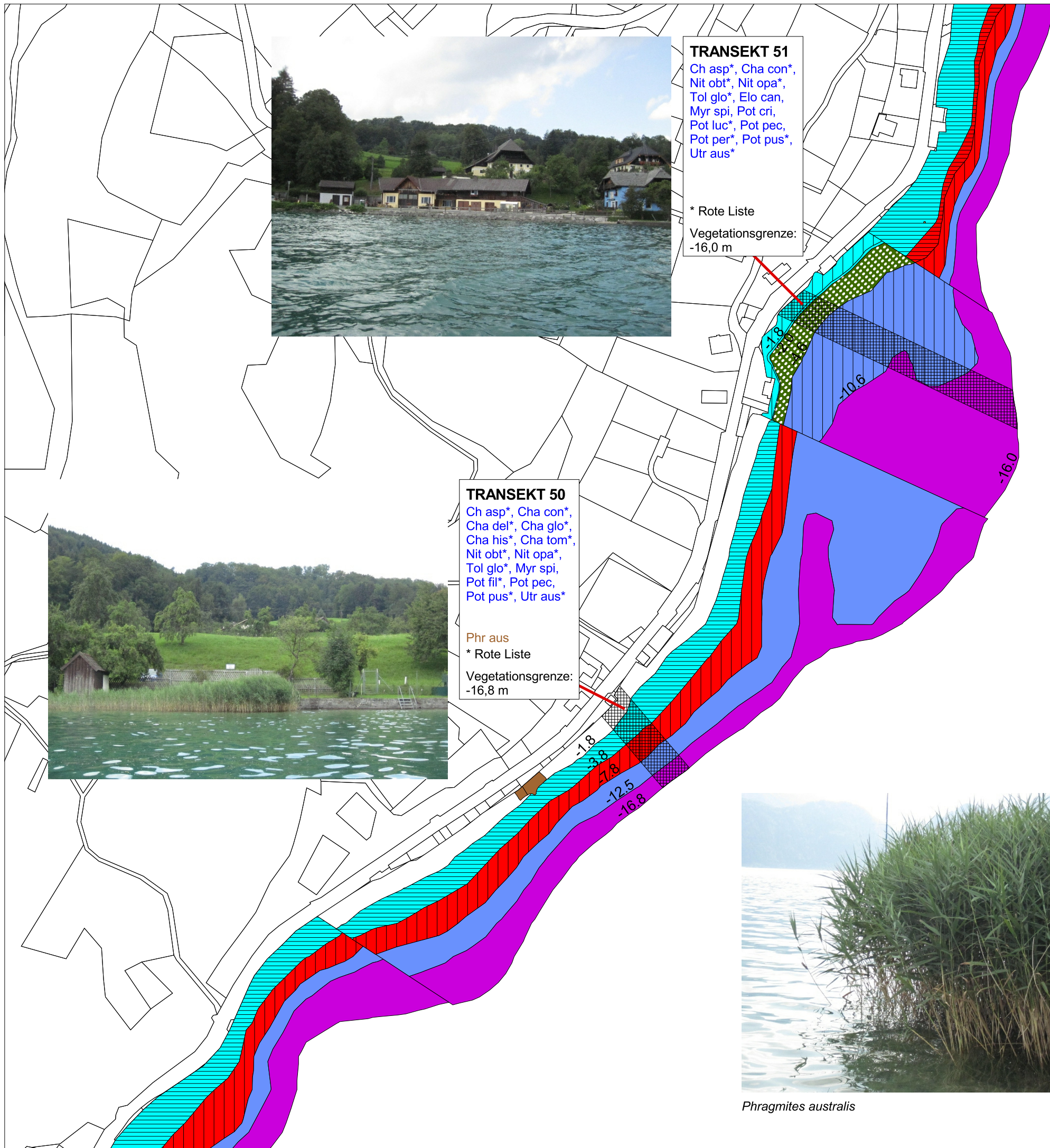
\* Rote Liste

Vegetationsgrenze:  
-16,5 m



*Nitellopsis obtusa*





**TRANSEKT 51**  
 Ch asp\*, Cha con\*,  
 Nit obt\*, Nit opa\*,  
 Tol glo\*, Elo can,  
 Myr spi, Pot cri,  
 Pot luc\*, Pot pec,  
 Pot per\*, Pot pus\*,  
 Utr aus\*

\* Rote Liste  
 Vegetationsgrenze:  
 -16,0 m



**TRANSEKT 50**  
 Ch asp\*, Cha con\*,  
 Cha del\*, Cha glo\*,  
 Cha his\*, Cha tom\*,  
 Nit obt\*, Nit opa\*,  
 Tol glo\*, Myr spi,  
 Pot fil\*, Pot pec,  
 Pot pus\*, Utr aus\*

Phr aus  
 \* Rote Liste  
 Vegetationsgrenze:  
 -16,8 m



Algenwatten



Potamogeton lucens



Phragmites australis



**TRANSEKT 53**

Ch asp\*, Cha con\*,  
 Cha del\*, Cha glo\*,  
 Cha his\*, Cha int\*,  
 Cha tom\*, Nit obt\*,  
 Nit opa\*, Pot pec,  
 Pot pus\*

Sch lac\*

\* Rote Liste

Vegetationsgrenze:  
 -15,8m



**TRANSEKT 52**

Ch asp\*, Cha con\*,  
 Cha del\*, Cha glo\*,  
 Cha his\*, Cha tom\*,  
 Nit obt\*, Nit opa\*,  
 Tol glo\*, Myr spi,  
 Pot nit, Pot pec,  
 Pot pus\*, Utr aus\*

\* Rote Liste

Vegetationsgrenze:  
 -15,6 m



*Chara hispida & Nitellopsis obtusa*



*Potamogeton pectinatus*





**TRANSEKT 56**

Ch asp\*, Cha con\*,  
Cha del\*, Cha glo\*,  
Cha tom\*, Nit opa\*,  
Myr spi, Pot pec,  
Pot per\*, Utr aus\*,  
Zan pal\*

Sch lac\*

\* Rote Liste

Vegetationsgrenze:  
-16,4 m



*Zannichellia palustris*



**TRANSEKT 55**

Cha con\*, Cha del\*,  
Cha int\*, Cha tom\*,  
Nit obt\*, Nit opa\*,  
Elo can, Myr spi,  
Pot pec, Pot per\*,  
Utr aus\*

Sch lac\*

\* Rote Liste

Vegetationsgrenze:  
-16,6 m



*Elodea canadensis* & *Chara tomentosa*



**TRANSEKT 54**

Cha con\*, Cha del\*,  
Cha glo\*, Cha tom\*,  
Nit opa\*, Myr spi,  
Pot pec, Pot per\*,  
Pot pus\*, Utr aus\*,  
Zan pal\*

Sch lac\*

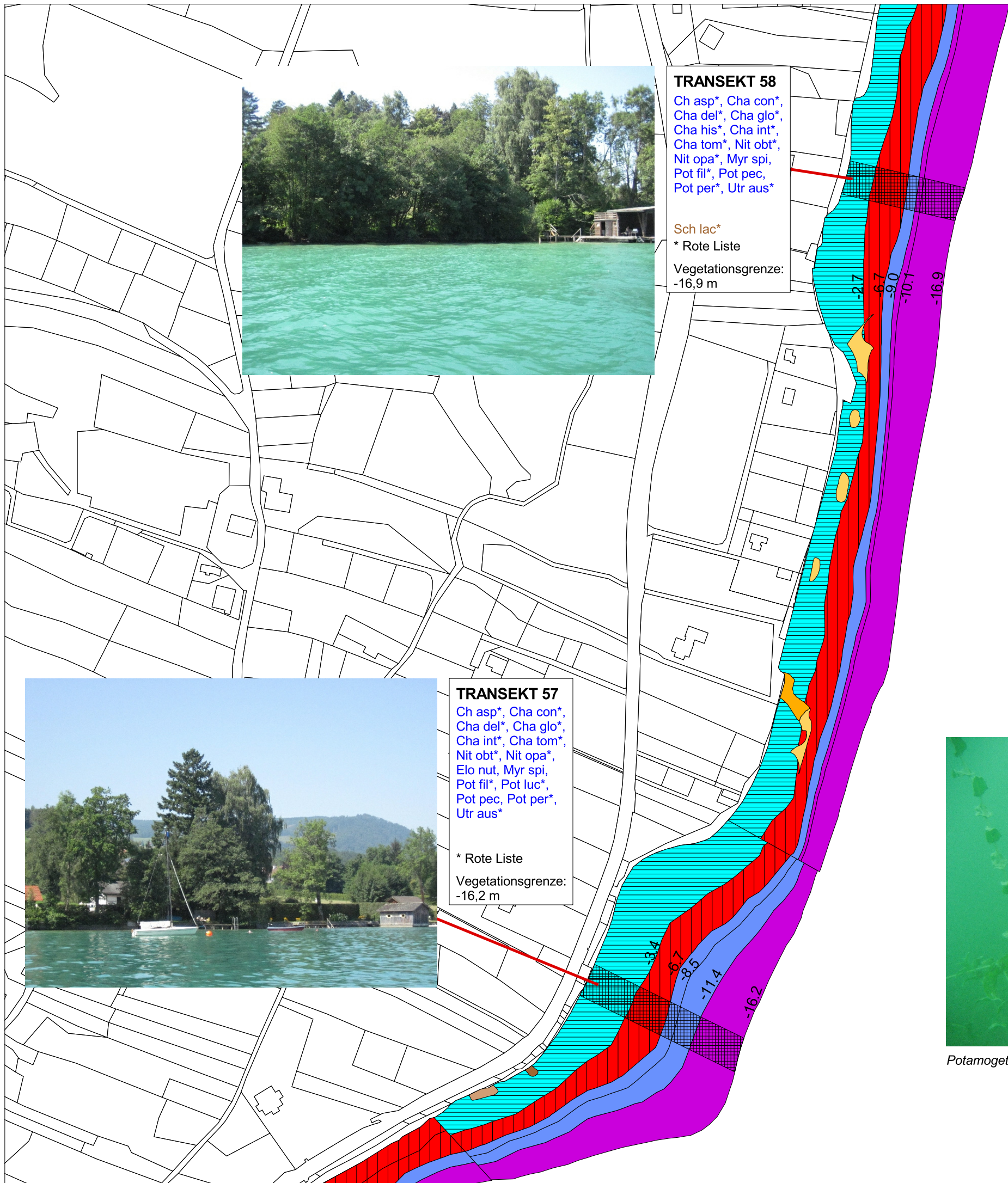
\* Rote Liste

Vegetationsgrenze:  
-14,7 m



*Potamogeton perfoliatus* & *Myriophyllum spicatum*





**TRANSEKT 58**

Ch asp\*, Cha con\*,  
 Cha del\*, Cha glo\*,  
 Cha his\*, Cha int\*,  
 Cha tom\*, Nit obt\*,  
 Nit opa\*, Myr spi,  
 Pot fil\*, Pot pec,  
 Pot per\*, Utr aus\*

Sch lac\*  
 \* Rote Liste

Vegetationsgrenze:  
 -16,9 m

**TRANSEKT 57**

Ch asp\*, Cha con\*,  
 Cha del\*, Cha glo\*,  
 Cha int\*, Cha tom\*,  
 Nit obt\*, Nit opa\*,  
 Elo nut, Myr spi,  
 Pot fil\*, Pot luc\*,  
 Pot pec, Pot per\*,  
 Utr aus\*

\* Rote Liste

Vegetationsgrenze:  
 -16,2 m

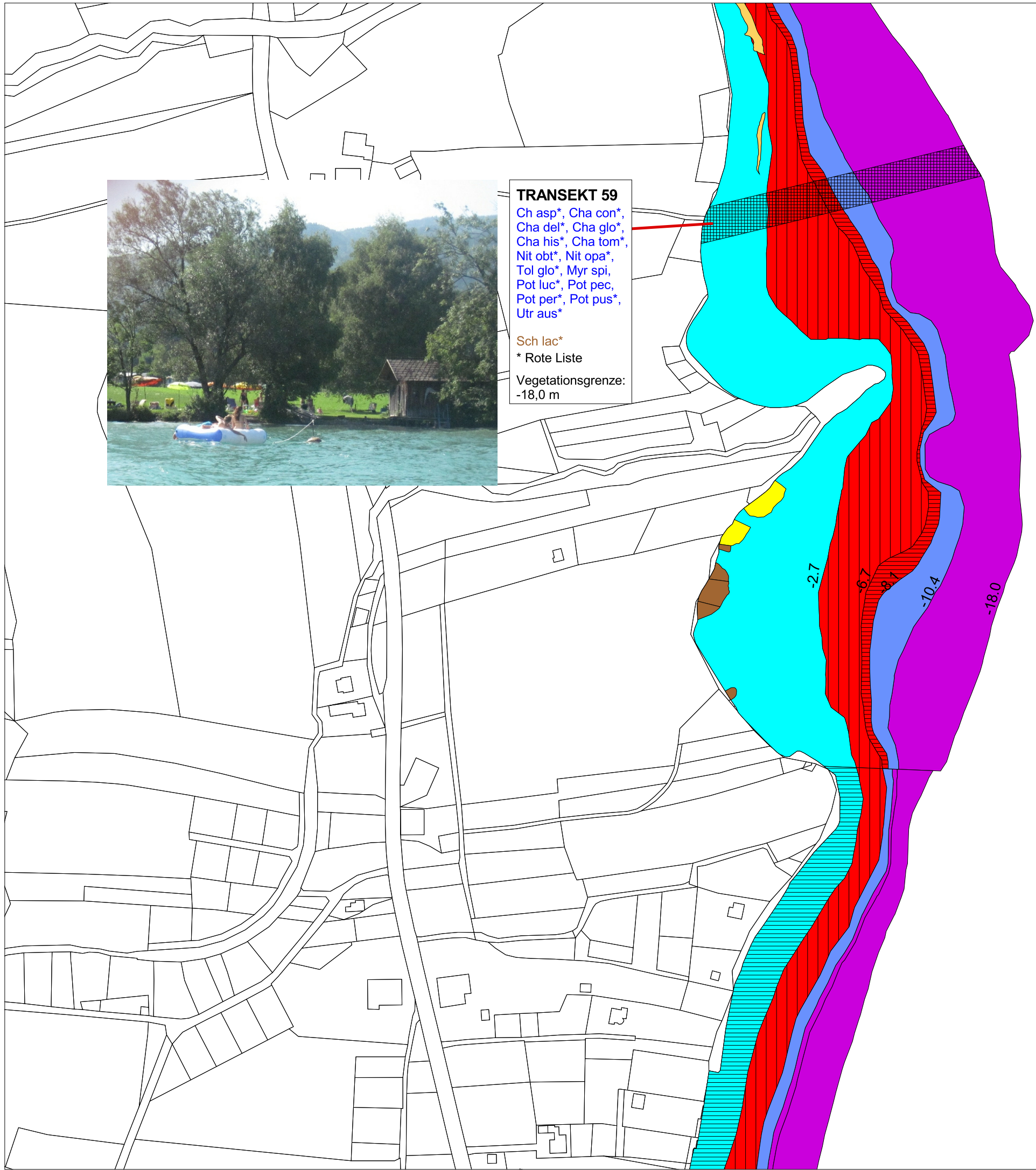


*Schoenoplectus lacustris & Chara aspera*



*Potamogeton perfoliatus & Myriophyllum spicatum*





*Chara contraria*



**TRANSEKT 62**

Ch asp\*, Cha con\*,  
Cha del\*, Cha glo\*,  
Nit obt\*, Nit opa\*,  
Elo can, Myr spi,  
Pot fil\*, Pot pec,  
Pot per\*, Pot pus\*,  
Utr aus\*

Sch lac\*  
\* Rote Liste

Vegetationsgrenze:  
-16,0 m



*Schoenoplectus lacustris*



*Potamogeton pusillus*

**TRANSEKT 61**

Ch asp\*, Cha con\*,  
Cha del\*, Cha glo\*,  
Nit obt\*, Nit opa\*,  
Pot fil\*, Pot fri\*,  
Pot luc\*, Pot pec,  
Pot pus\*

Sch lac\*  
\* Rote Liste

Vegetationsgrenze:  
-17,0 m



**TRANSEKT 60**

Cha glo\*, Nit obt\*,  
Nit opa\*, Elo can,  
Myr spi, Pot fri\*,  
Pot luc\*, Pot pec,  
Pot per\*, Pot pus\*

Nup lut\*

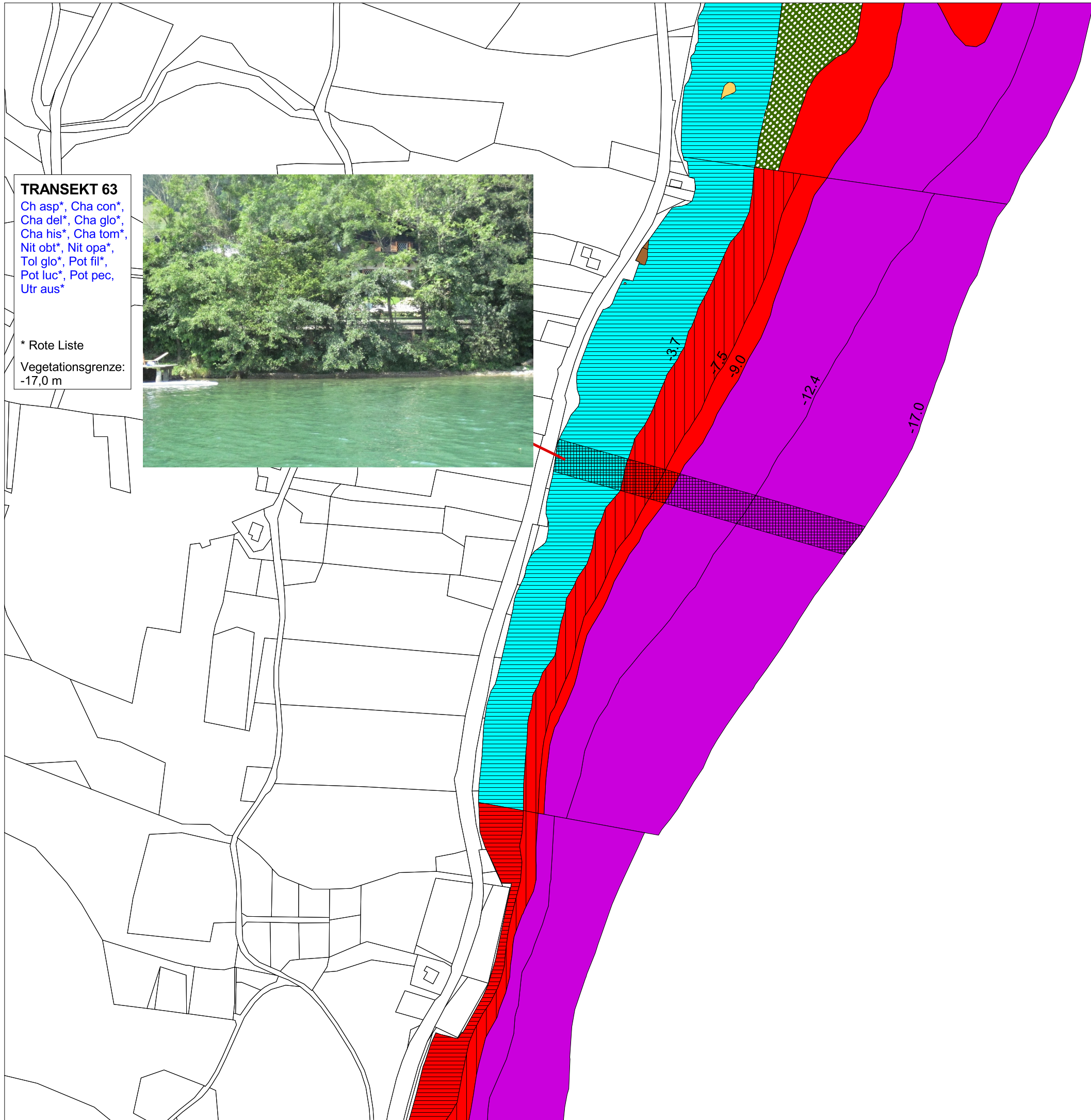
Sch lac\*  
\* Rote Liste

Vegetationsgrenze:  
-17,0 m



*Potamogeton friesii*





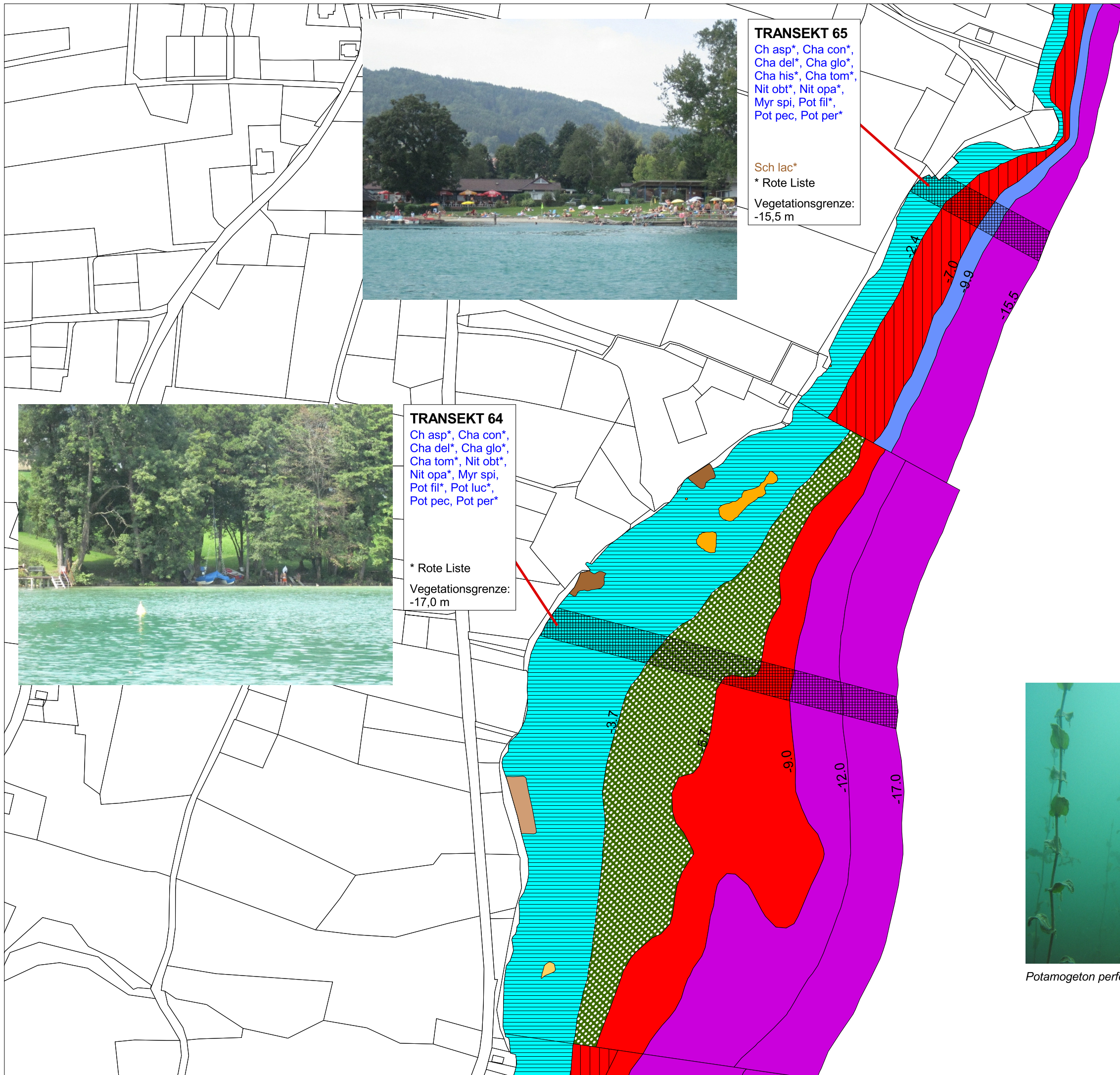
**TRANSEKT 63**  
 Ch asp\*, Cha con\*,  
 Cha del\*, Cha glo\*,  
 Cha his\*, Cha tom\*,  
 Nit obt\*, Nit opa\*,  
 Tol glo\*, Pot fil\*,  
 Pot luc\*, Pot pec,  
 Utr aus\*

\* Rote Liste  
 Vegetationsgrenze:  
 -17,0 m



*Chara hispida*





**TRANSEKT 65**  
 Ch asp\*, Cha con\*,  
 Cha del\*, Cha glo\*,  
 Cha his\*, Cha tom\*,  
 Nit obt\*, Nit opa\*,  
 Myr spi, Pot fil\*,  
 Pot pec, Pot per\*

Sch lac\*

\* Rote Liste

Vegetationsgrenze:  
 -15,5 m

**TRANSEKT 64**  
 Ch asp\*, Cha con\*,  
 Cha del\*, Cha glo\*,  
 Cha tom\*, Nit obt\*,  
 Nit opa\*, Myr spi,  
 Pot fil\*, Pot luc\*,  
 Pot pec, Pot per\*

\* Rote Liste

Vegetationsgrenze:  
 -17,0 m



*Myriophyllum spicatum*



*Potamogeton perfoliatus*





**TRANSEKT 68**

Ch asp\*, Cha con\*,  
 Cha glo\*, Cha his\*,  
 Cha int\*, Cha tom\*,  
 Nit obt\*, Nit opa\*,  
 Tol glo\*, Elo can,  
 Pot fil\*, Pot pec,  
 Pot per\*

Sch lac\*  
 \* Rote Liste

Vegetationsgrenze:  
 -16,5 m



**TRANSEKT 67**

Ch asp\*, Cha con\*,  
 Cha del\*, Cha glo\*,  
 Cha tom\*, Nit obt\*,  
 Nit opa\*, Pot fil\*,  
 Pot pec, Pot pus\*,  
 Utr aus\*

Sch lac\*  
 \* Rote Liste

Vegetationsgrenze:  
 -16,8 m



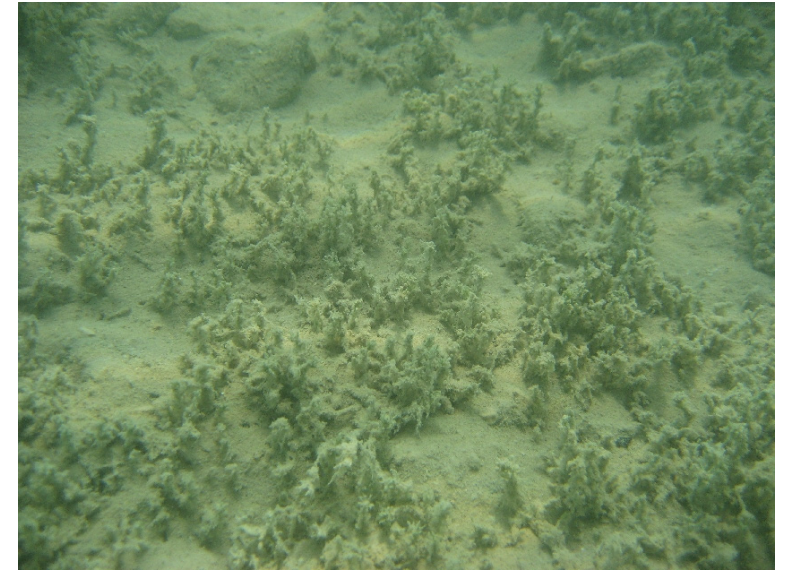
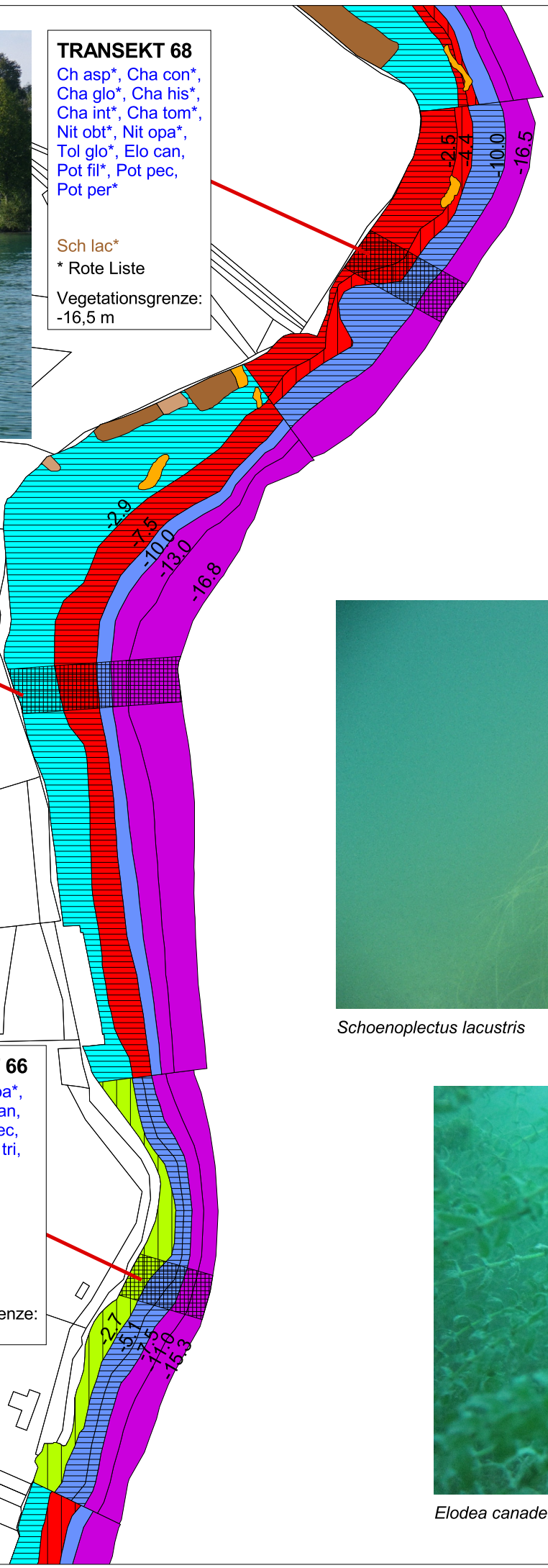
**TRANSEKT 66**

Nit obt\*, Nit opa\*,  
 Fon ant, Elo can,  
 Myr spi, Pot pec,  
 Pot pus\*, Ran tri,  
 Utr aus\*

Nup lut\*

Sch lac\*  
 \* Rote Liste

Vegetationsgrenze:  
 -15,3 m



*Chara aspera*

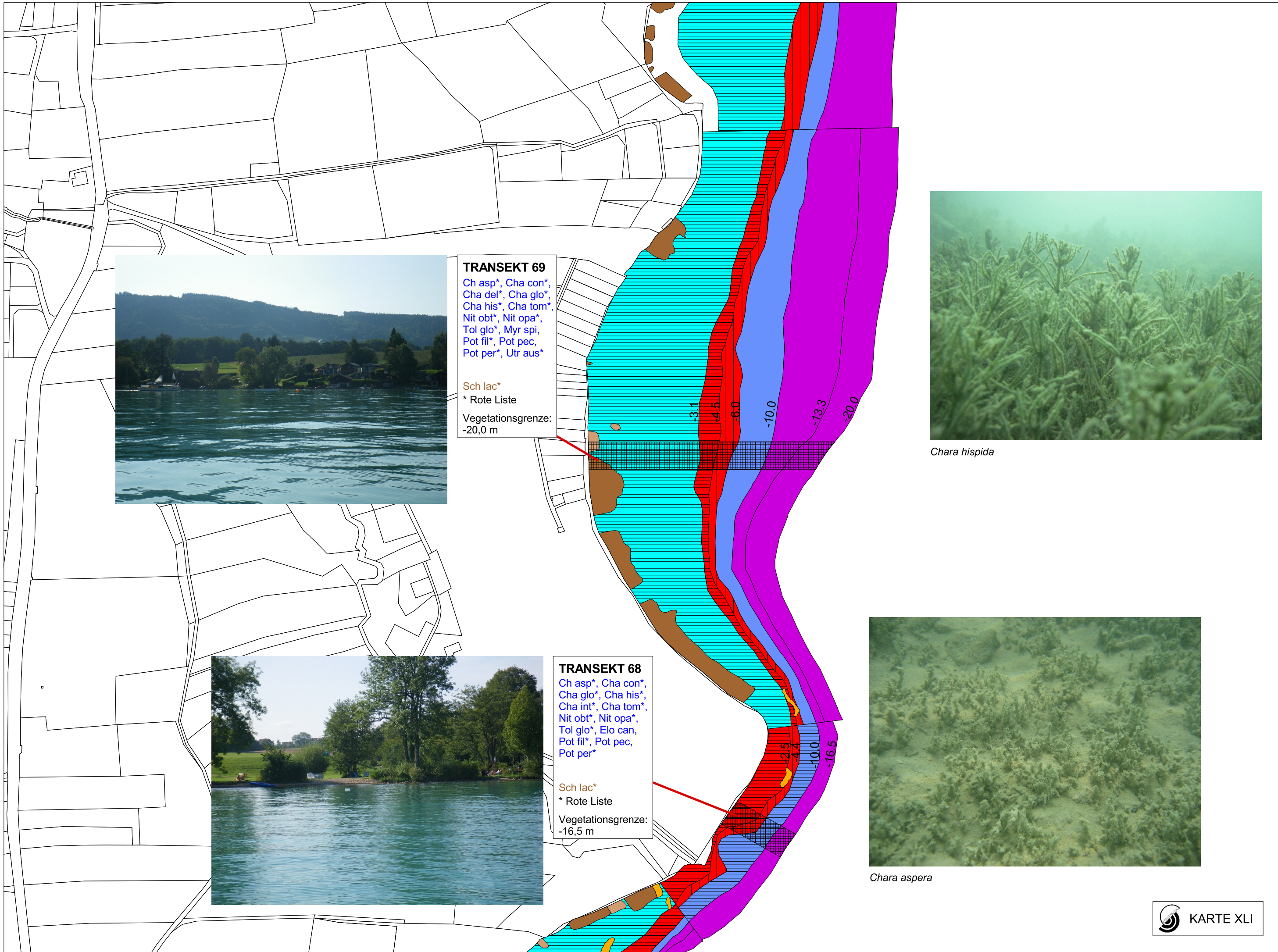


*Schoenoplectus lacustris*



*Elodea canadensis*





**TRANSEKT 69**

Ch asp\*, Cha con\*,  
 Cha del\*, Cha glo\*,  
 Cha his\*, Cha tom\*,  
 Nit obt\*, Nit opa\*,  
 Tol glo\*, Myr spi,  
 Pot fil\*, Pot pec,  
 Pot per\*, Utr aus\*

Sch lac\*

\* Rote Liste

Vegetationsgrenze:  
 -20,0 m



**TRANSEKT 68**

Ch asp\*, Cha con\*,  
 Cha glo\*, Cha his\*,  
 Cha int\*, Cha tom\*,  
 Nit obt\*, Nit opa\*,  
 Tol glo\*, Elo can,  
 Pot fil\*, Pot pec,  
 Pot per\*

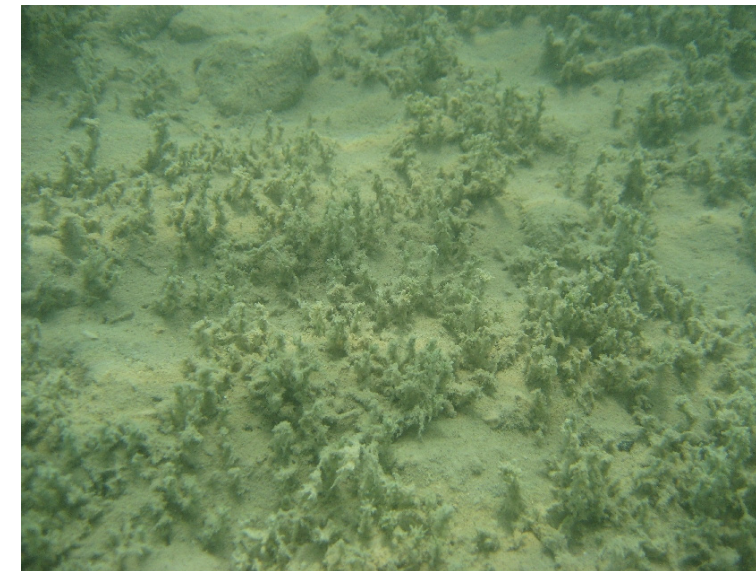
Sch lac\*

\* Rote Liste

Vegetationsgrenze:  
 -16,5 m

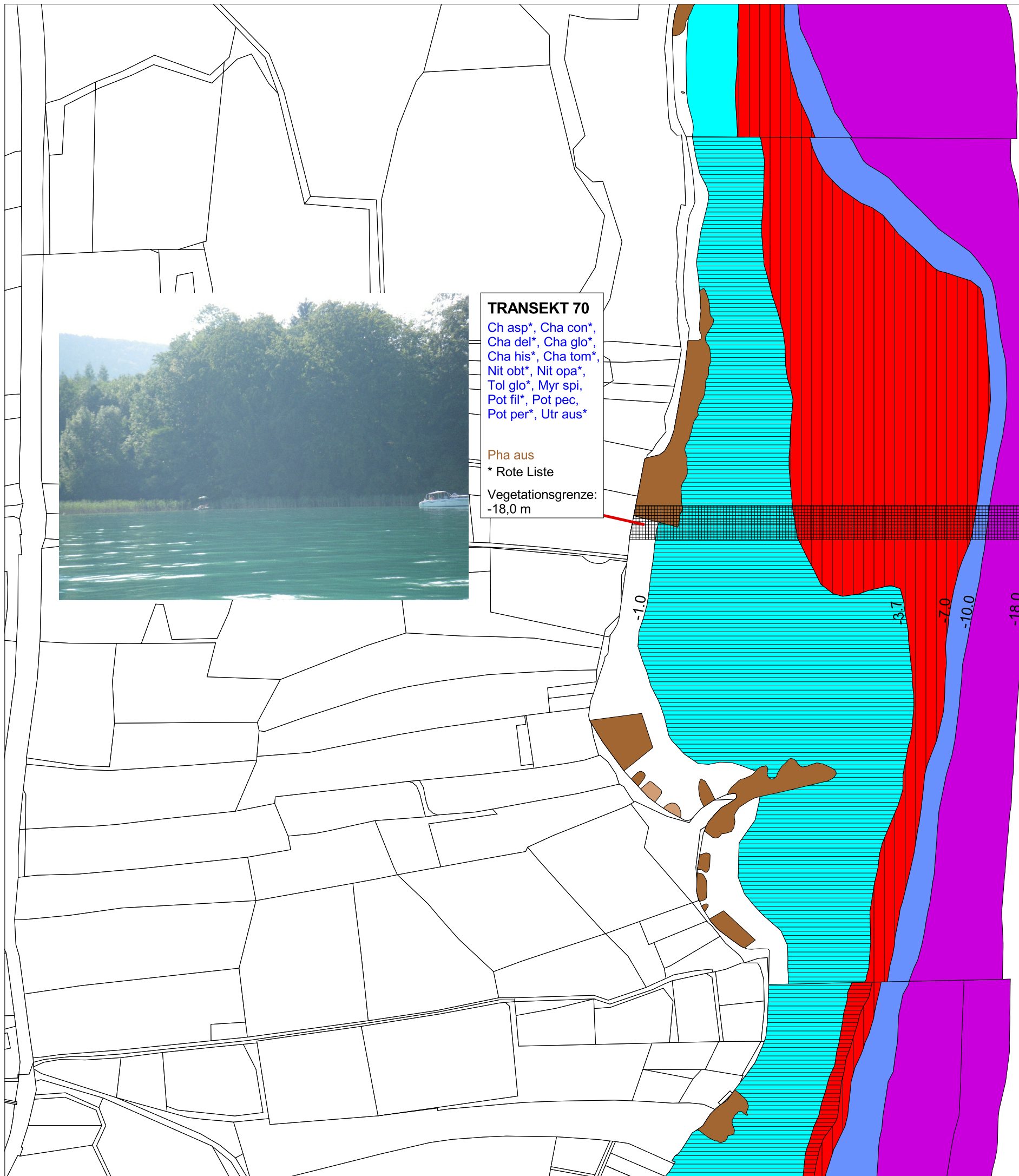


*Chara hispida*



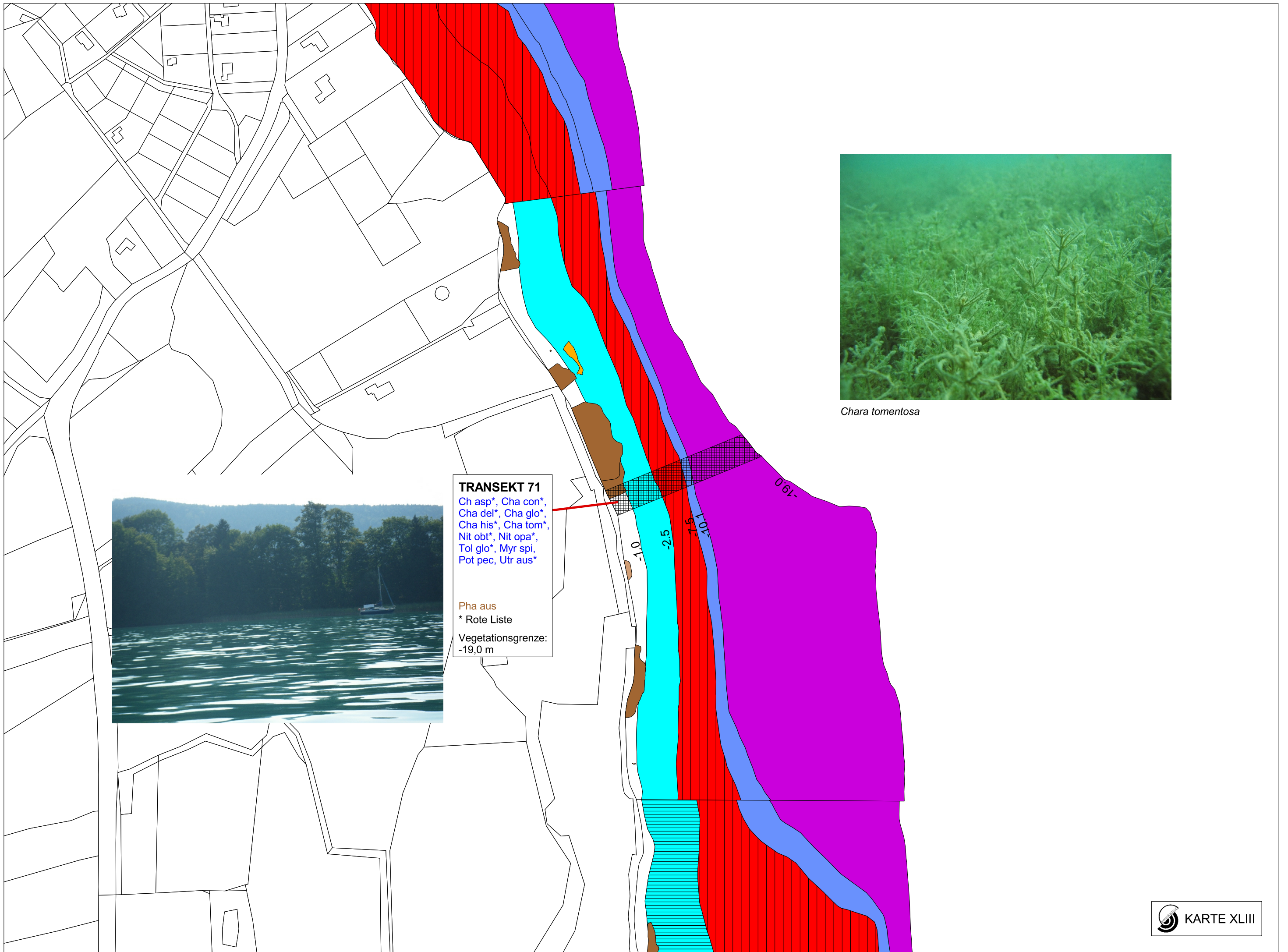
*Chara aspera*





*chara aspera*





*Chara tomentosa*

**TRANSEKT 71**  
 Ch asp\*, Cha con\*,  
 Cha del\*, Cha glo\*,  
 Cha his\*, Cha tom\*,  
 Nit obt\*, Nit opa\*,  
 Tol glo\*, Myr spi,  
 Pot pec, Utr aus\*

Pha aus  
 \* Rote Liste

Vegetationsgrenze:  
 -19,0 m







**TRANSEKT 74**

Ch asp\*, Cha con\*,  
Cha del\*, Cha glo\*,  
Cha tom\*, Nit obt\*,  
Nit opa\*, Myr spi,  
Pot luc\*, Pot pec,  
Pot per\*, Utr aus\*

\* Rote Liste

Vegetationsgrenze:  
-22,0 m



**TRANSEKT 73**

Ch asp\*, Cha con\*,  
Cha del\*, Cha glo\*,  
Cha tom\*, Nit obt\*,  
Nit opa\*, Elo can,  
Myr spi, Pot luc\*,  
Utr aus\*

\* Rote Liste

Vegetationsgrenze:  
-18,0 m

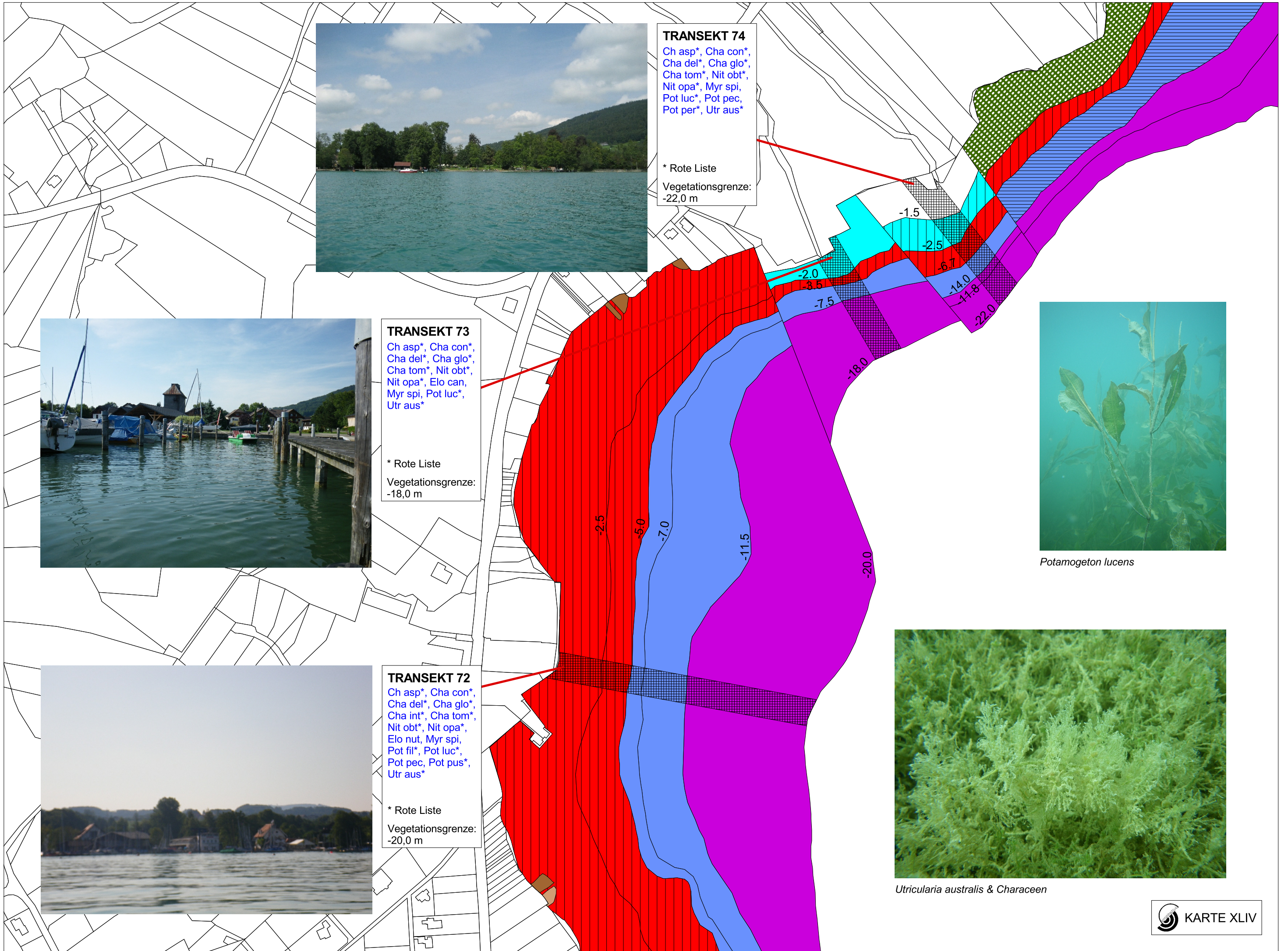


**TRANSEKT 72**

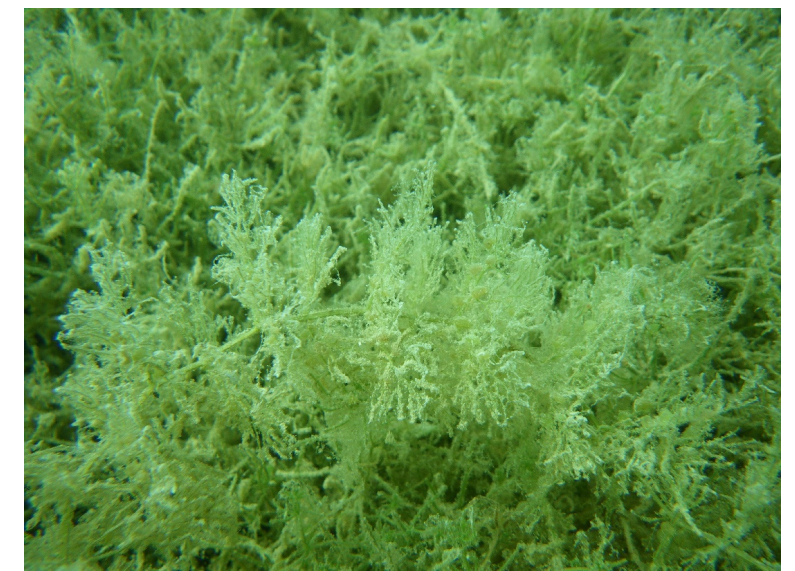
Ch asp\*, Cha con\*,  
Cha del\*, Cha glo\*,  
Cha int\*, Cha tom\*,  
Nit obt\*, Nit opa\*,  
Elo nut, Myr spi,  
Pot fil\*, Pot luc\*,  
Pot pec, Pot pus\*,  
Utr aus\*

\* Rote Liste

Vegetationsgrenze:  
-20,0 m



*Potamogeton lucens*



*Utricularia australis & Characeen*





**TRANSEKT 75**

Ch asp\*, Cha con\*,  
Cha tom\*, Nit obt\*,  
Nit opa\*, Myr spi,  
Pot pec, Pot per\*,  
Utr aus\*

\* Rote Liste

Vegetationsgrenze:  
-22,0 m



**TRANSEKT 74**

Ch asp\*, Cha con\*,  
Cha del\*, Cha glo\*,  
Cha tom\*, Nit obt\*,  
Nit opa\*, Myr spi,  
Pot luc\*, Pot pec,  
Pot per\*, Utr aus\*

\* Rote Liste

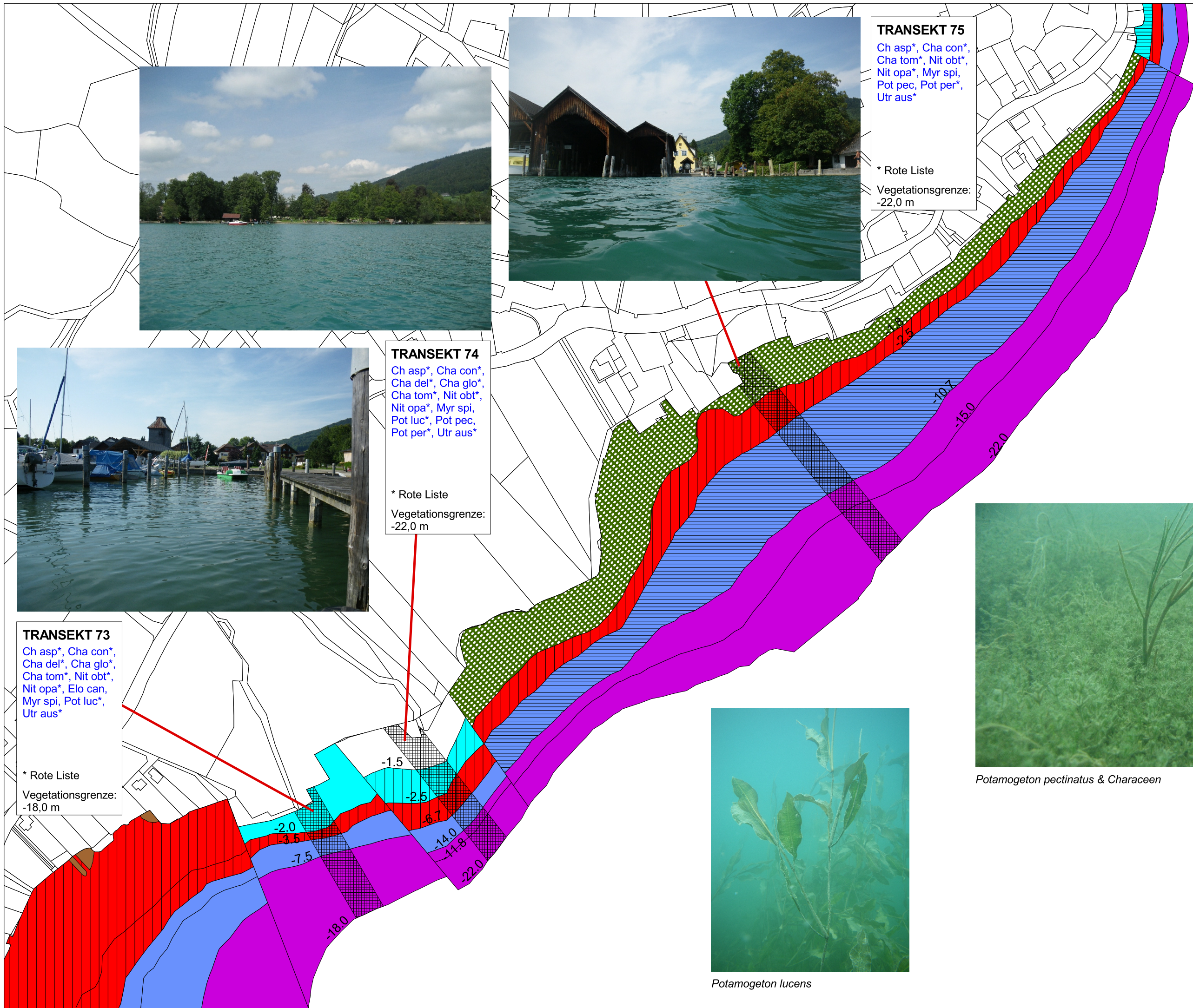
Vegetationsgrenze:  
-22,0 m

**TRANSEKT 73**

Ch asp\*, Cha con\*,  
Cha del\*, Cha glo\*,  
Cha tom\*, Nit obt\*,  
Nit opa\*, Elo can,  
Myr spi, Pot luc\*,  
Utr aus\*

\* Rote Liste

Vegetationsgrenze:  
-18,0 m



*Potamogeton pectinatus* & Characeen



*Potamogeton lucens*





**TRANSEKT 77**  
 Ch asp\*, Cha con\*,  
 Cha del\*, Cha glo\*,  
 Nit opa\*, Tol glo\*,  
 Myr spi, Pot fil\*,  
 Pot pec, Pot per\*

\* Rote Liste  
 Vegetationsgrenze:  
 -16,6 m



*Nitella opaca*



**TRANSEKT 76**  
 Ch asp\*, Cha con\*,  
 Cha del\*, Cha glo\*,  
 Cha tom\*, Nit fle\*,  
 Nit obt\*, Nit opa\*,  
 Myr spi, Pot fil\*,  
 Pot nit, Pot pec,  
 Pot per\*, Utr aus\*

\* Rote Liste  
 Vegetationsgrenze:  
 -16,0 m



*Potamogeton perfoliatus*





**TRANSEKT 78**

Ch asp\*, Cha con\*,  
Cha del\*, Cha glo\*,  
Nit fle\*, Nit obt\*,  
Nit opa\*, Elo can,  
Elo nut, Myr spi,  
Pot per\*, Pot pus\*

\* Rote Liste

Vegetationsgrenze:  
-15,5 m

-2.0  
-7.4  
-9.0  
-11.0  
-15.5



*Potamogeton perfoliatus* &  
*Myriophyllum spicatum*





**TRANSEKT 80**

Ch asp\*, Cha con\*,  
 Cha del\*, Cha glo\*,  
 Cha his\*, Cha tom\*,  
 Nit obt\*, Nit opa\*,  
 Tol glo\*, Elo can,  
 Myr spi, Pot luc\*,  
 Pot nit, Pot pec,  
 Pot per\*, Pot pus\*,  
 Utr aus\*, Zan pal\*

\* Rote Liste

Vegetationsgrenze:  
 -18,0 m

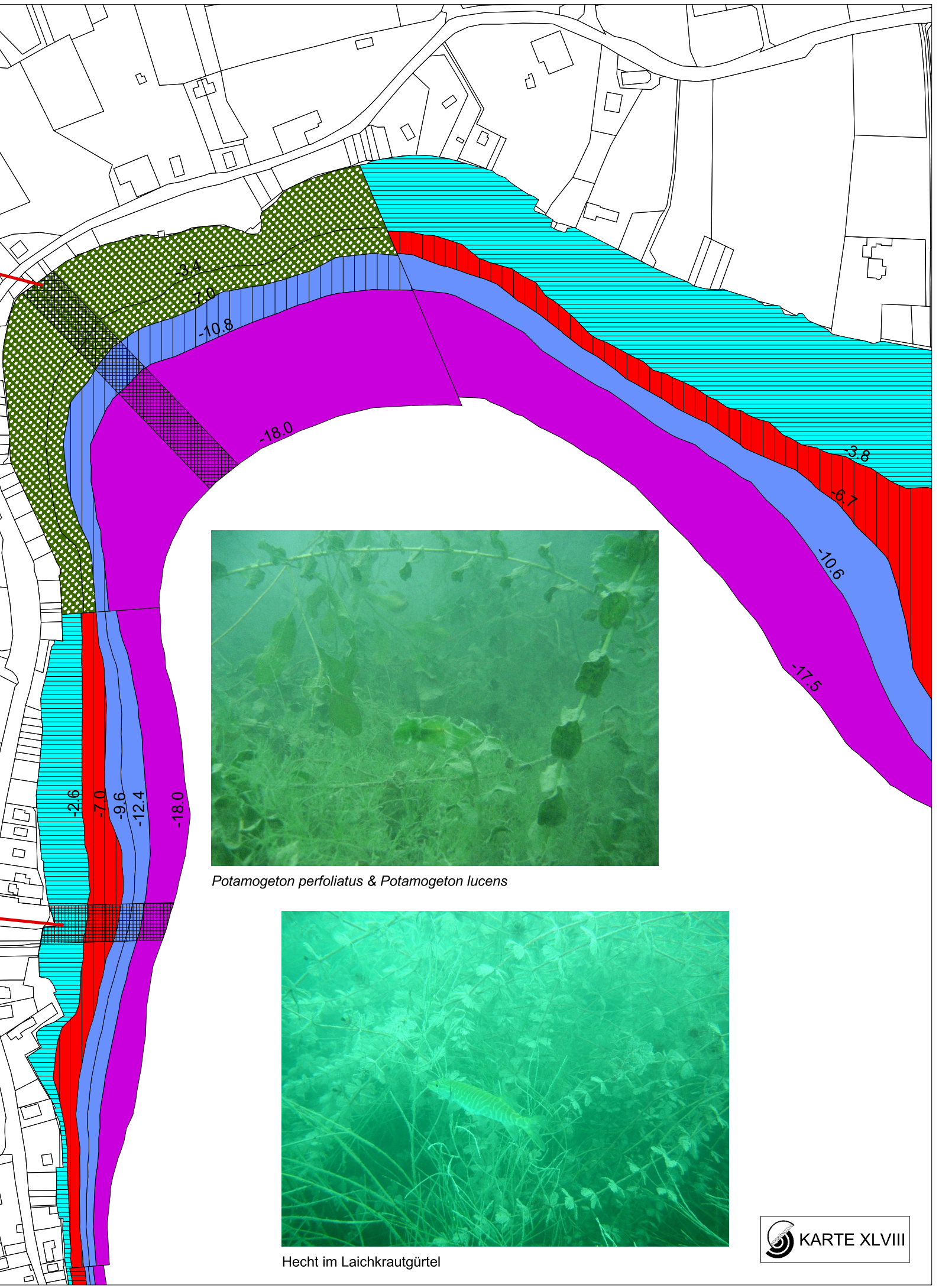


**TRANSEKT 79**

Ch asp\*, Cha con\*,  
 Cha del\*, Cha glo\*,  
 Cha his\*, Cha int\*,  
 Cha tom\*, Nit opa\*,  
 Myr spi, Pot fil\*,  
 Pot luc\*, Pot pec,  
 Utr aus\*

\* Rote Liste

Vegetationsgrenze:  
 -18,0 m



*Potamogeton perfoliatus & Potamogeton lucens*



Hecht im Laichkrautgürtel

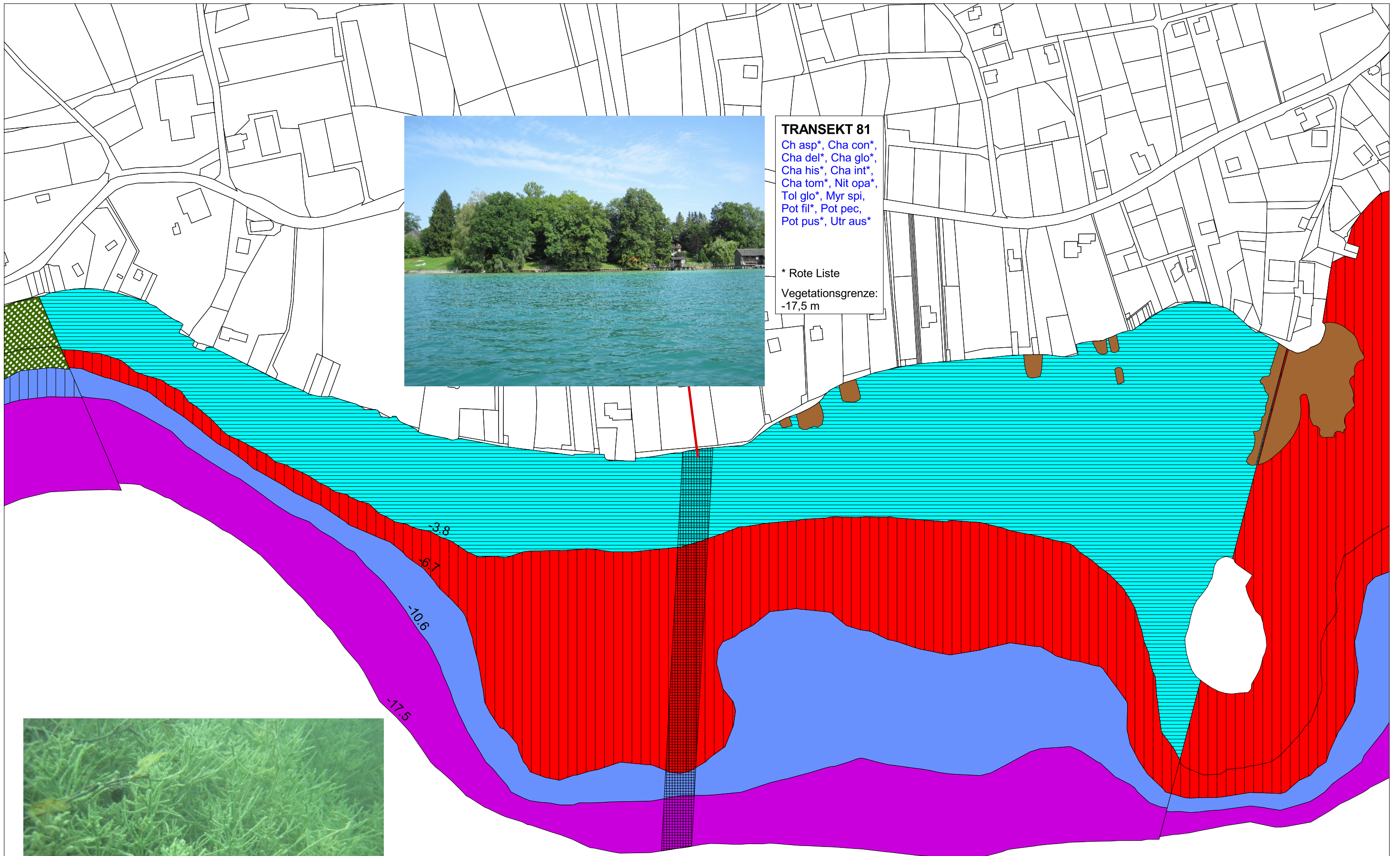


**TRANSEKT 81**

Ch asp\*, Cha con\*,  
Cha del\*, Cha glo\*,  
Cha his\*, Cha int\*,  
Cha tom\*, Nit opa\*,  
Tol glo\*, Myr spi,  
Pot fil\*, Pot pec,  
Pot pus\*, Utr aus\*

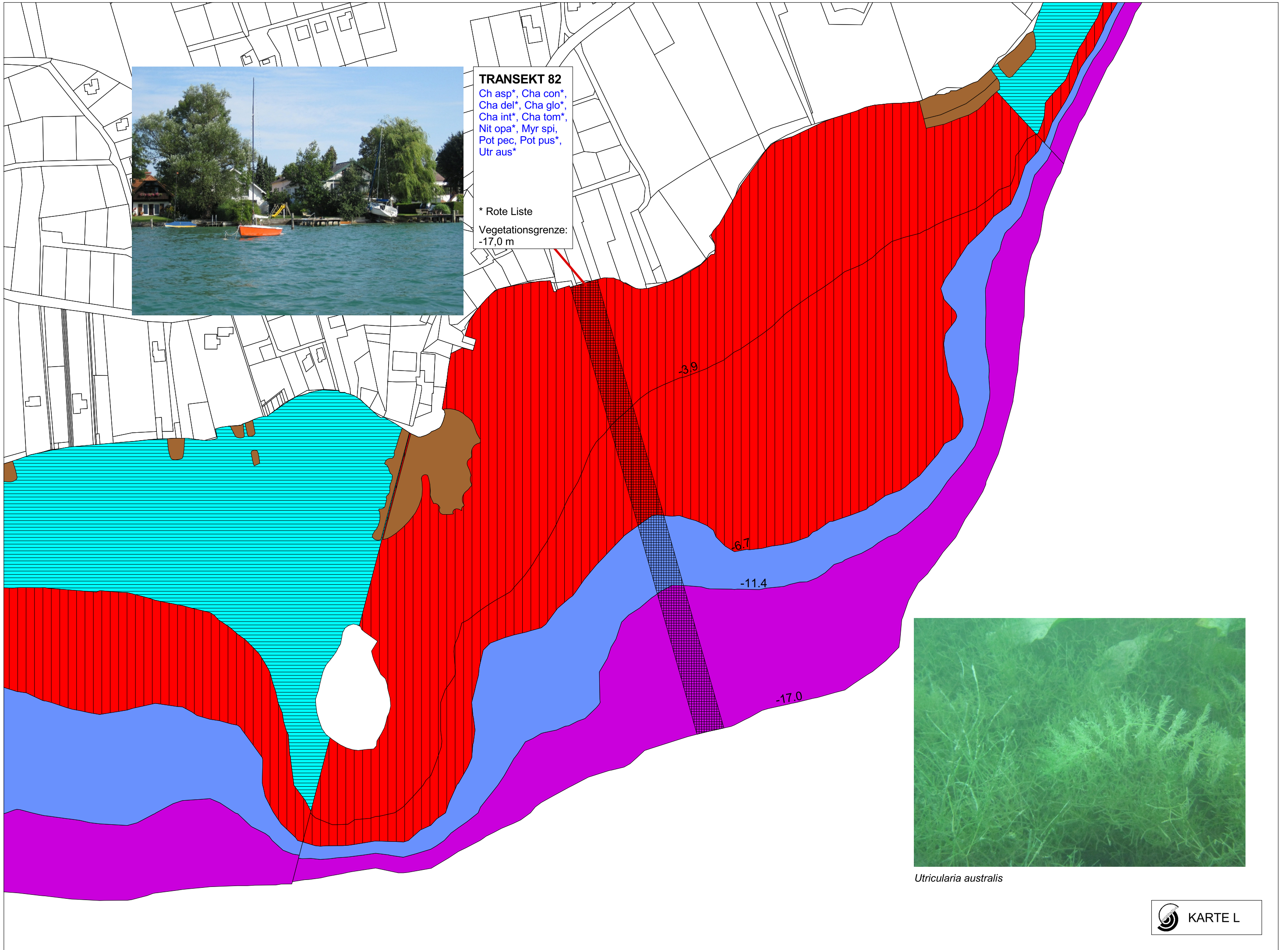
\* Rote Liste

Vegetationsgrenze:  
-17,5 m



*Chara hispida*





**TRANSEKT 82**

Ch asp\*, Cha con\*,  
 Cha del\*, Cha glo\*,  
 Cha int\*, Cha tom\*,  
 Nit opa\*, Myr spi,  
 Pot pec, Pot pus\*,  
 Utr aus\*

\* Rote Liste

Vegetationsgrenze:  
 -17,0 m



*Utricularia australis*





*Potamogeton perfoliatus* &  
*Myriophyllum spicatum*



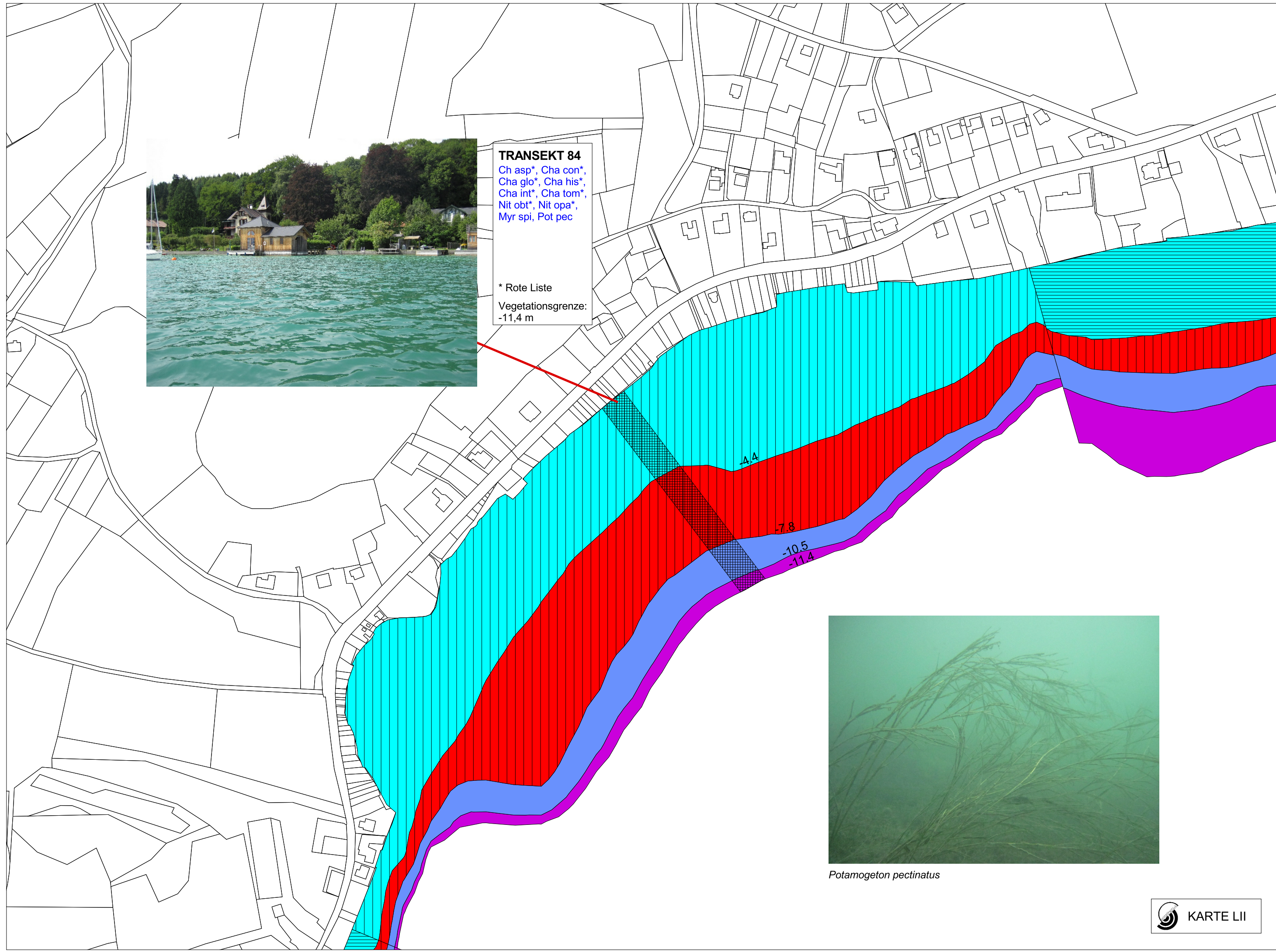


**TRANSEKT 84**

Ch asp\*, Cha con\*,  
Cha glo\*, Cha his\*,  
Cha int\*, Cha tom\*,  
Nit obt\*, Nit opa\*,  
Myr spi, Pot pec

\* Rote Liste

Vegetationsgrenze:  
-11,4 m



*Potamogeton pectinatus*





**TRANSEKT 85**

Ch asp\*, Cha con\*,  
 Cha del\*, Cha glo\*,  
 Cha his\*, Cha int\*,  
 Nit obt\*, Nit opa\*,  
 Myr spi, Pot fil\*,  
 Pot pec

\* Rote Liste

Vegetationsgrenze:  
 -15,0 m

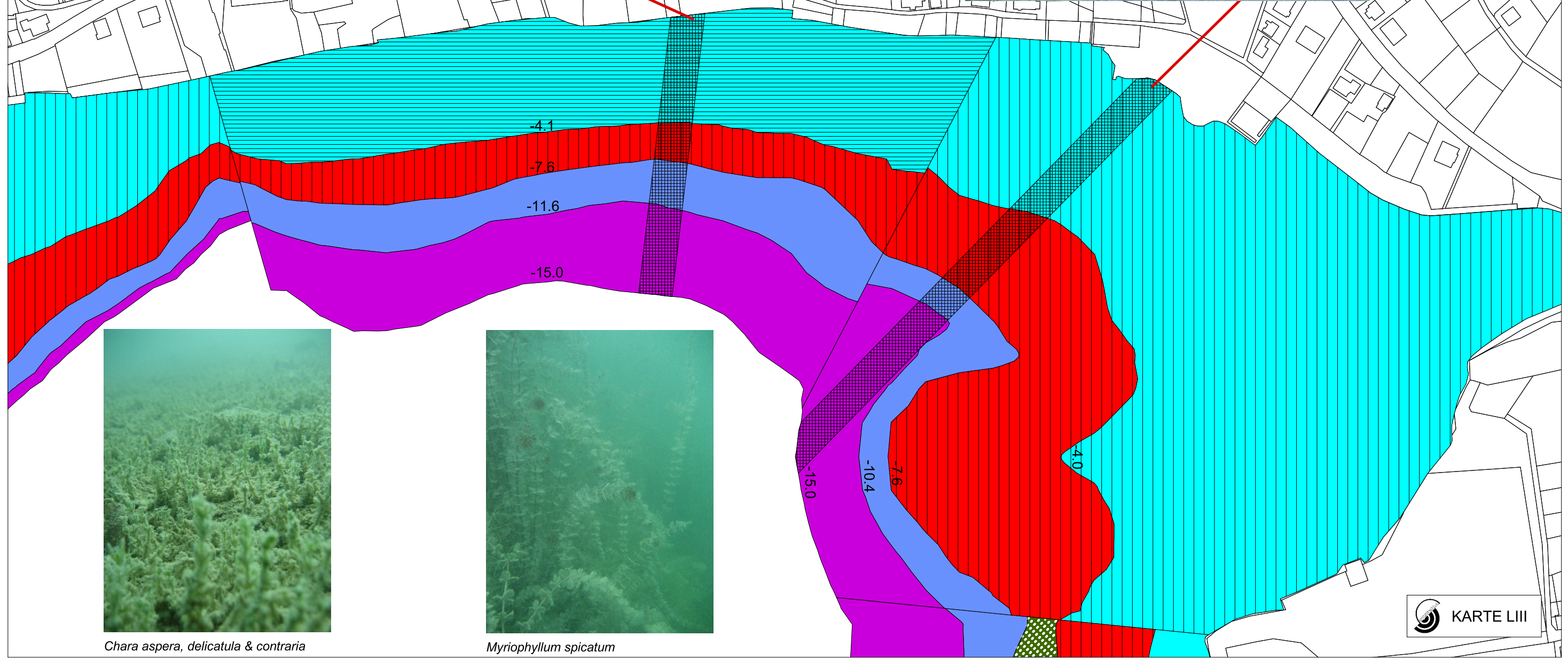


**TRANSEKT 86**

Ch asp\*, Cha con\*,  
 Cha glo\*, Cha his\*,  
 Cha int\*, Cha tom\*,  
 Nit opa\*, Myr spi,  
 Pot fil\*, Pot pec,  
 Ran cir\*

\* Rote Liste

Vegetationsgrenze:  
 -15,0 m

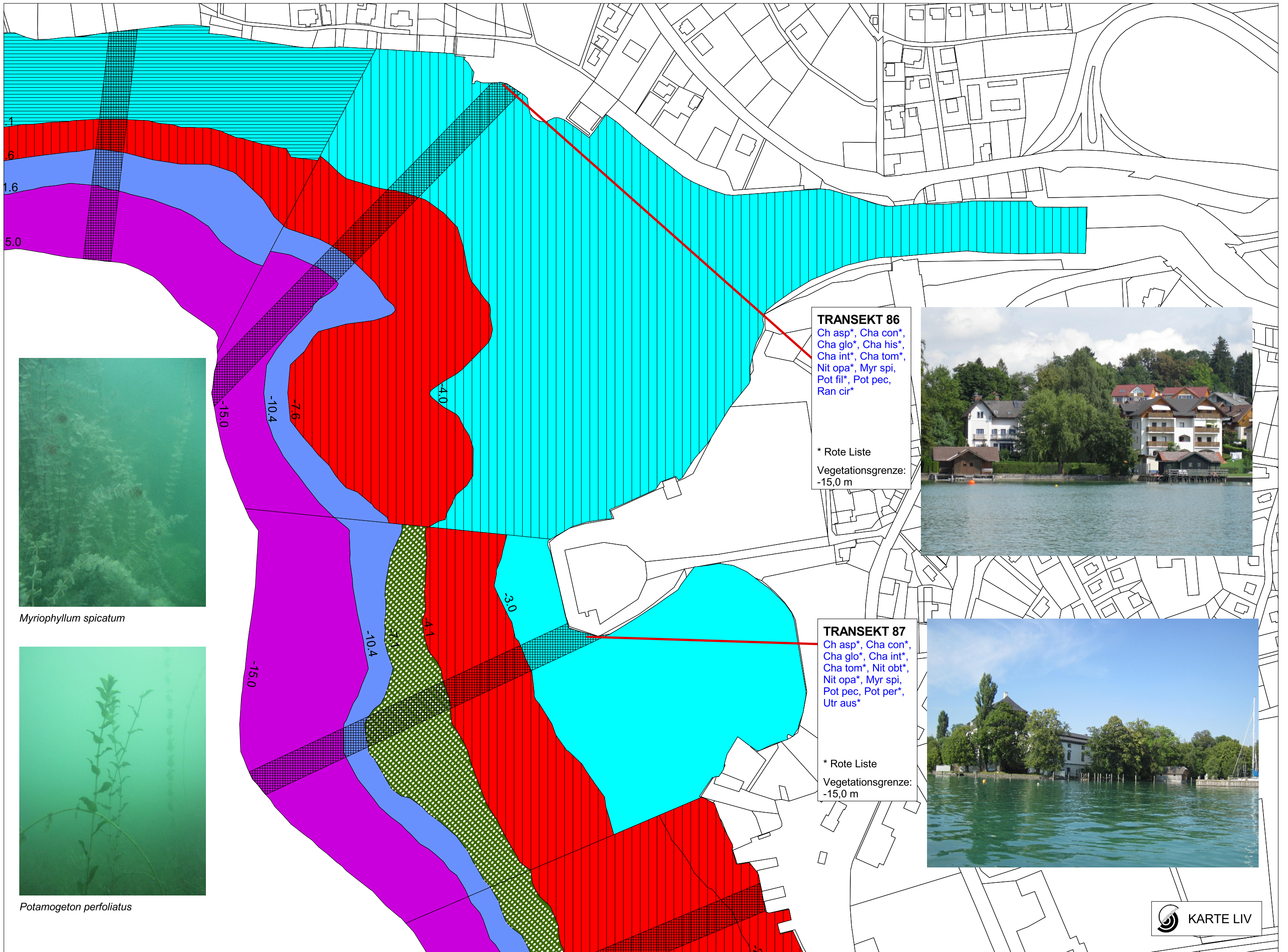


*Chara aspera, delicatula & contraria*



*Myriophyllum spicatum*





**TRANSEKT 86**

Ch asp\*, Cha con\*,  
 Cha glo\*, Cha his\*,  
 Cha int\*, Cha tom\*,  
 Nit opa\*, Myr spi,  
 Pot fil\*, Pot pec,  
 Ran cir\*

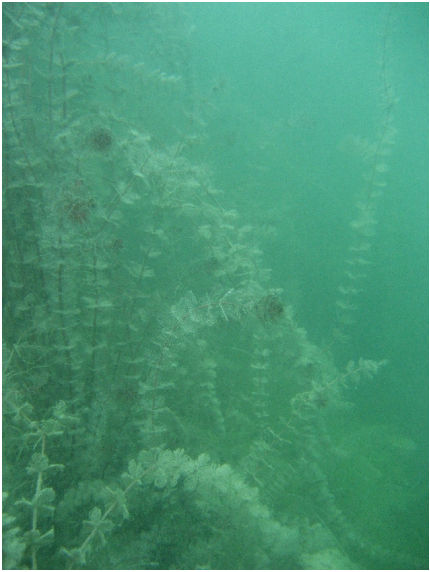
\* Rote Liste  
 Vegetationsgrenze:  
 -15,0 m



**TRANSEKT 87**

Ch asp\*, Cha con\*,  
 Cha glo\*, Cha int\*,  
 Cha tom\*, Nit obt\*,  
 Nit opa\*, Myr spi,  
 Pot pec, Pot per\*,  
 Utr aus\*

\* Rote Liste  
 Vegetationsgrenze:  
 -15,0 m



*Myriophyllum spicatum*



*Potamogeton perfoliatus*