

SITE NUMBER: B-R9-03
LOCAL NAME: Falcon Walrus
WRIA: 20.0250C

NORTH COAST OFF CHANNEL SITE INVENTORY DATA

RIVER SYSTEM: Bogachiel R. **DATE:** 8/30/89 **OBSERVER:** Nettnin

CHANNEL TYPE: Wall-based terrace trib.

TRIBUTARY TO: Bogachiel R. (20.0162)

SITE LOCATION: R.B. @ River Mile: 21.8 - 22.0 (WDF)

LEGAL DESCRIPTION:

	UPPER END	LOWER END	RIVER TEMP
<u>WATER TEMP:</u>	47 F	52 F	58 F
<u>FLOW (CFS):</u>	<0.25 (5-10 gpm)	1.0	

SUBSTRATE TYPE: Silty sand.

SITE SIZE: **Length-** 850 m above flood plain (See comments).
Width- Water surface = 2 - 6 ft
Channel = 10 - 20 ft
Depth- 2 - 8 in. (pools up to 2 ft)

WATER SOURCE: Springs

DIRECTIONS TO SITE: Head north from Grays Harbor on Hwy 101. Turn right at M.P. 186 onto Undie Rd. Proceed east for approx. 6.0 miles until coming to the Bogachiel trail head (at the Forest Service gate on Undie Rd). Park at the trail head and proceed down the trail to the valley floor. After crossing a small trib (B-R9-01) and then Morganroth Cr. the trail converges with an old grade. Continuing toward the Park, the trail (grade) crosses B-R9-02 at the first culvert. The second culvert crossing is the lower end of B-R9-03. The trail parallels B-R9-03 from this point upstream.

FISH ACCESS AND CURRENT USE: Fish appear to have good access into this channel. Coho fry were seen into the upper middle reaches.

FLOODING POTENTIAL: Low

LANDOWNER: Unknown

COMMENTS & RECOMMENDATIONS: B-R9-03 meanders though a stand of alder and along the base of a 20 ft high terrace wall. Some conifer are found on the terrace slope. The canopy is closed and restricts the growth of shrubs.

The middle and upper reaches of B-R9-03 run parallel to the Bogachiel Trail. The headwaters are formed by springs. The upper most springs emanate from the base of the terrace at the point where the trail switches back and climbs to the top of the terrace. The reach between the source and the uppermost RB trib. is narrow, shallow and does not appear to offer much habitat. It is also known to dry up in late summer.

The upper most RB trib appears to be the main source of spring water for B-R9-03. These springs appear to run all year long and provide the majority of the water in the present winter and summer habitat. Another RB trib downstream has been observed flowing only during heavy rains.

The reach of B-R9-03 between the upper RB trib. and the lower trail crossing appears to provide excellent rearing habitat. A good deal of pool habitat is present here as the channel widens. Some of this pooling is due to minor beaver activity. A little more instream cover is available from woody debris. This reach could

benefit from additional cover. Good numbers of Coho fry were seen through out this middle reach. A few coho were also observed half way up into the upper reach.

The lower 250 m reach of B-R9-03 runs across the active flood plain of the Bogachiel River. Approximately 550 m of additional perk/overflow channels enter in this lower reach. These channels contribute significant amounts of both summer and short term winter rearing habitat. B-R9-03 has a very good egress to the river.

B-R9-03 has been observed by fisheries personnel for several years. According to these observers, water flows in this channel throughout the year. There are few, if any, apparent habitat problems on B-R9-03. The channel appears, however, to be a very important coho rearing area.

GPS: (decimal degrees, Datum WGS84): 11/27/02

upper project - N47.88125, W124.25450

lower project - N47.87939, W124.26293

channel egress - N47.87812, W124.26314

DATE: 9/91

OBSERVER: King, Nettnin

Three controls were installed. Two were installed at the trail crossing near the lower end and one was installed in the upper end. These controls are the first phase in a multi phased project. Gauges were also installed with these flow control weirs.

DATE: 4/1/92

OBSERVER: King

Barely spilling at control at road. Record low precip. for March.

DATE: 6/15/92

OBSERVER: King

Still spilling at lower weir. No fish observed in lower 1000' of channel.

DATE: 7/92

OBSERVER: King, Nettnin, Locken

Thirteen pools were blasted along the channel to form a beaded channel. The blasting agent used was ANFO. After the blasting was completed the channel dried up below the seventh pool. Apparently the blasts opened up a gravel seam in one or more of the pools and the water is going subsurface during the low flow months. It has been decided to observe the project for awhile and see if it will seal by itself before we try seal it.

MATERIAL LIST

Blasting materials	ANFO	1995 lbs
"	DET cord	1119 ft
"	Caps	14
Power Primer	Dynamite	113 sticks

DATE: 9/30/92

OBSERVER: King

All but the 4th hole from bottom had water. Connecting flow down to 5th hole from bottom. 3-4" rain last week.

DATE: 10/28/92

OBSERVER: Young

All pools are full flow. There is about 20 - 40 gpm flow. Water is flowing about 1" deep over the notch in the weir.

Gauge = 0.1 Temp = 48° F

DATE: 10/30/92

OBSERVER: King

Looks good! Flow over lower weirs. Need to put L.O.D. in pools.

DATE: 11/18/92

OBSERVER: Nettnin

Lower gauge reading 0.06. Barley a sheet flow across the width of the low notch of the weir and intergravel below the controls.

Upper gauge reading 0.17. There is flow across the entire width of the weir.

DATE: 11/23/92

OBSERVER: Darrow

Lower gauge reading 0.20. There is sufficient flow to pass fish. Fish were observed in several of the pools.

Upper gauge reading 0.19. There is flow across the entire width of the weir.

Small conifer tops were added to the pools for cover.

DATE: 12/19/92 - 12/20/92

OBSERVER: Darrow

The minnow traps were baited with salmon roe that was acquired at the Solduck Hatchery. The Gauges were read on both days.

They are as follows: on the 19th upper - 0.16; lower - 0.18
on the 20th upper - 0.27; lower - 0.29

MINNOW TRAPPING REPORT

TRAP	DATE SET	TEMP	DATE PULLED	TEMP	COHO	CATCH			COTTID
						RBT	CUTT	0+	
1	12/19	5.0°C	12/20	6.0°C	6	0	0	0	4
2	12/19	5.0°C	12/20	6.0°C	3	0	0	0	9
3	12/19	5.0°C	12/20	6.0°C	1	0	0	0	13
4	12/19	5.0°C	12/20	6.0°C	0	0	2	0	1
TOTALS:					10	0	2	0	27
Avg. L (mm):					90	0	145		N/A

DATE: 1/12/93

OBSERVER: King/Nettnin

The pool area created by the blasting was measured and totaled 740 m². There was no flow over the lower control on this date. Water temps ranged from 2° to 5° C.

DATE: 4/7/93

OBSERVER: King

Still flowing. 1+ coho seen in holes. Holes need more woody debris. Upper guage was 0.15. Lower guage was 0.18.

DATE: 5/28/93

OBSERVER: King

Both guages at 0.16. Flow still spilling at all 3 weirs. 0+ coho seen below lower weirs. No fish were seen in the project area. All blasted pools are full and flowing. This has been a wetter than normal spring.

DATE: 10/94

OBSERVER: Nettnin

After the blasting project in 1992 this channel would go intermittent during the summer. This last year it finely sealed up and flowed to the lower control. However, there developed a hole about 3 meters above the control, presumably into the old punching culvert, which allowed it pipe under the weir and rendered the weir impassable.

At this time we plugged the hole. Covering the bed with filter cloth and then covering that with sand and silt to seal the weir, which then promptly allowed the pond to fill and flow over the weir.

Thirty - forty fry were observed in the pools above the weirs.

DATE: 11/22/94

OBSERVER: Powell

Channel had a moderate-low flow. Beaded pools appear to lack adequate cover. Conifer tops placed in pools in previous years have lost their needles. Close to upper control, a large snag has fallen across channel. It appeared to block the channel with debris off of the snag but coho were observed above this point. I cleared debris so the channel was flowing under the snag. Coho were observed in pools with adequate cover. At mid-reach, I observed ~15 coho and 1 lg trout in a pool. Upper reach (before downed snag), I observed ~50 coho in a pool. Above downed snag, ~50 more coho were observed in two pools.

DATE: 3/26/95

OBSERVER: Darrow

Fresh debris in ponded area above control due to recent wind storms. Also added debris to many of the man-made pools. Observed coho and trout in almost every pooled area. Observed them deep in the pools and surface feeding.

DATE: 9/3/03 - 9/15/03

OBSERVER: Nettnin

Replaced number one weir due to excessive leakage and deterioration. Backfilled with gravel and armored banks at ends of weir on weirs three, four, five, eight and nine. Extended the right bank end of weir six and rebuilt the upper portion, then backfilled. Added cover structures to several of the pools. Channel flowing, lower end across flood plain intermittent.

DATE: 8/22/95

OBSERVER: Nettnin

Sealed six of the thirteen pools that were blasted in 1992. Three of the pools were lined with a combination of plastic and geotextile cloth and covered with soil. Four of the pools were pumped down and then lined with flakes of hay and weighted down with soil.

Installed seven plank controls throughout the channel. The two lowest controls have cutouts with dam boards. These were installed because, during the summer the flows in the channel cannot keep up with the subsurface leakage out of these two pools.

Placed clean gravel above the riffle at about the center reach.

Materials used:

SEALING OF THE POOLS

1200 sq. Ft. of plastic
1200 sq. Ft. of geotextile cloth
150 sand bags
50 bales of grass hay

PLANK WEIRS

2000 sq. Ft. of geotextile cloth
600 ft. Of 2 X 6 cedar planks
150 ft. Of 1 X 6 cedar boards
20 T posts or 1½ in. Aluminum pipe
20 ¾ in. U-bolts and hardware
20 lbs. Of nails
20 sand bags

DATE: 12/6/95

OBSERVER: Powell

Many of the controls have developed plunge pools (as large as 5x6x3.5 ft) due to the soft substrate. Material has been displaced below pools and could be a potential barrier during very low flows. One control has some erosion around its left bank and some water pipes around it. River overflow channel (which follows main trail) appears to flow into project in one to two small areas. A possible redd was detected in the project which is associated with one of the low spots. Hay that was used in sealing pools has partially floated up and juveniles were observed using it as cover. Thirty plus coho juveniles were observed in one of the large pools.

DATE: 4/25/96

OBSERVER: Powell

Presently, we are experiencing a freshet and everything is pumped up. The first two lower, short controls are fine. Above this point where the channel is ~15 ft wide with water parsley growing on the bottom, the depths are ~5 to 8 inches. The first lower, long control is blown out under the left bank side. Water is only flowing under the control. The next control has some buckling in the mid section, and there is some water piping through the left bank side due to the fabric has pulled and some rocks have washed out. All other controls to the zig-zag are fine. There is some new windfall in some of the pools. No fish were observed due to rain.

DATE: July 96

OBSERVER: Nettnin

Repaired six weirs and added a lift of spawning gravel to the spawning pad. Weir repairs consisted mainly of replacing washed out fill and adding cobble to the ends.

DATE: 11/15/96

OBSERVER: Powell

All the controls appear fine. The second to the last straight control's (before zig-zag) top is flush with the water level below it. This deeper pool was due to some debris piled on the control but it was not enough to bring the water level up that much. Both trout and juvenile coho were observed in pools with debris. Bead pool appear to lack adequate cover (needles have fallen off the few conifers placed in them).

DATE: 3/26/97

OBSERVER: King

All weirs intact and flowing. Sand has built up in lower channel below narrow spot.

DATE: 9/19/97

OBSERVER: Nettnin

Project looks good.
Installed dam board in lower weir.

DATE: 1/20/99

OBSERVER: Darrow

Cleared out a small beaver dam on a control near the bottom end. Huge cottonwood recently blew down near the upper end - it is suspended across channel so it is not disrupting flow. Some of the bead pools are slowly silting in. Observed a few juvenile salmonids amongst the cover the upper end. There was a test dig where the hand placed cobble control is located - near the upper end.

DATE: 4/25/99

OBSERVER: Darrow

All controls were clear. No obstructions along the channel. Some minor stick accumulation in the zig-zag weir. Observed numerous fry from the confluence up to the 2nd control from the top. A few large trout were observed at the upper most end.

DATE: 10/21 - 11/16/99

OBSERVER: King

On 10/21, there was water throughout the channel but no water was flowing at the outlet weirs. Several weirs need maintenance work: The upper most weir has a hole under the left bank side, #3 (from upper most weir) is flowing around the right bank end, #4 needs rocks removed from the plunge pool, and #6 needs stop logs. Numerous fry were observed below weirs at the outlet.

On 11/6, reviewed weir problems with Dave Nettnin. Some had been alleviated with the higher flows. Flowing at the outlet on this date.

DATE: 4/29/00

OBSERVER: Darrow

Observed problems with some controls but everything is passable at this time. Smolts were seen in the lowest bead ponds and fry were seen near the trail crossing.

DATE: 11/14/00

OBSERVER: Darrow

Flow was low and the small amount of water exiting the system was going subsurface between the two bottom plank controls - at the trail confluence area. There were three small beaver dams upstream on other controls.

DATE: 3/25/01

OBSERVER: Darrow

Water was flowing over lower controls even with record low precipitation this winter and early spring. There was some minor beaver activity on a couple of the upper controls. The control at the mid-upper end is still leaking around the right bank side. Observed some salmonids along the lower half of the system.

DATE: 9/24/01

OBSERVER: Nettnin

The project has several problems that will be addressed in the summer of 2002. There is a leak on the right bank end of weir 1. This is not a problem on higher flows. Weirs 3 and 4 need to have gravel backfilled behind them. The original sandy soil has eroded away. Number 8 weir needs to be extended to a more upland point to prevent water from piping around the right bank end. The left bank end of the weir 11 is leaking and needs backfilling.

DATE: 4/3/02

OBSERVER: Nettnin

There was minor beaver activity. A snag had fallen across weir 7. It appears to be okay.

DATE: 11/27/02

OBSERVER: Nettnin

The project still has previous mentioned problems. The work will be scheduled for the summer of 03. The number 5 weir is blowing around the ends.

GPS: (decimal degrees, Datum WGS84):

upper project - N47.88125, W124.25450

lower project - N47.87939, W124.26293

channel egress - N47.87812, W124.26314

DATE: 5/8/03

OBSERVER: King

One weir is blown out underneath. Observed smolts upstream in the project and fry at the lower weirs.

DATE: 10/30/03

OBSERVER: Nettnin

Overall, the project looks good. Two streamside trees have uprooted and may cause some leakage. Appears channel was overtopped which resulted in moving woody debris around.

Bogachiel River

AREA: B-R9

SITE: B-R9-03

Local Name: falcon walrus

update: 7/92

Clallam Co.

Jefferson Co.

Kahkwa Cr

USFS

Trail

Side Channel

B-R9-03

13 pools blasted in substrate

plankton net (1991)

20'

300m 70m

170

160m

790m

385m

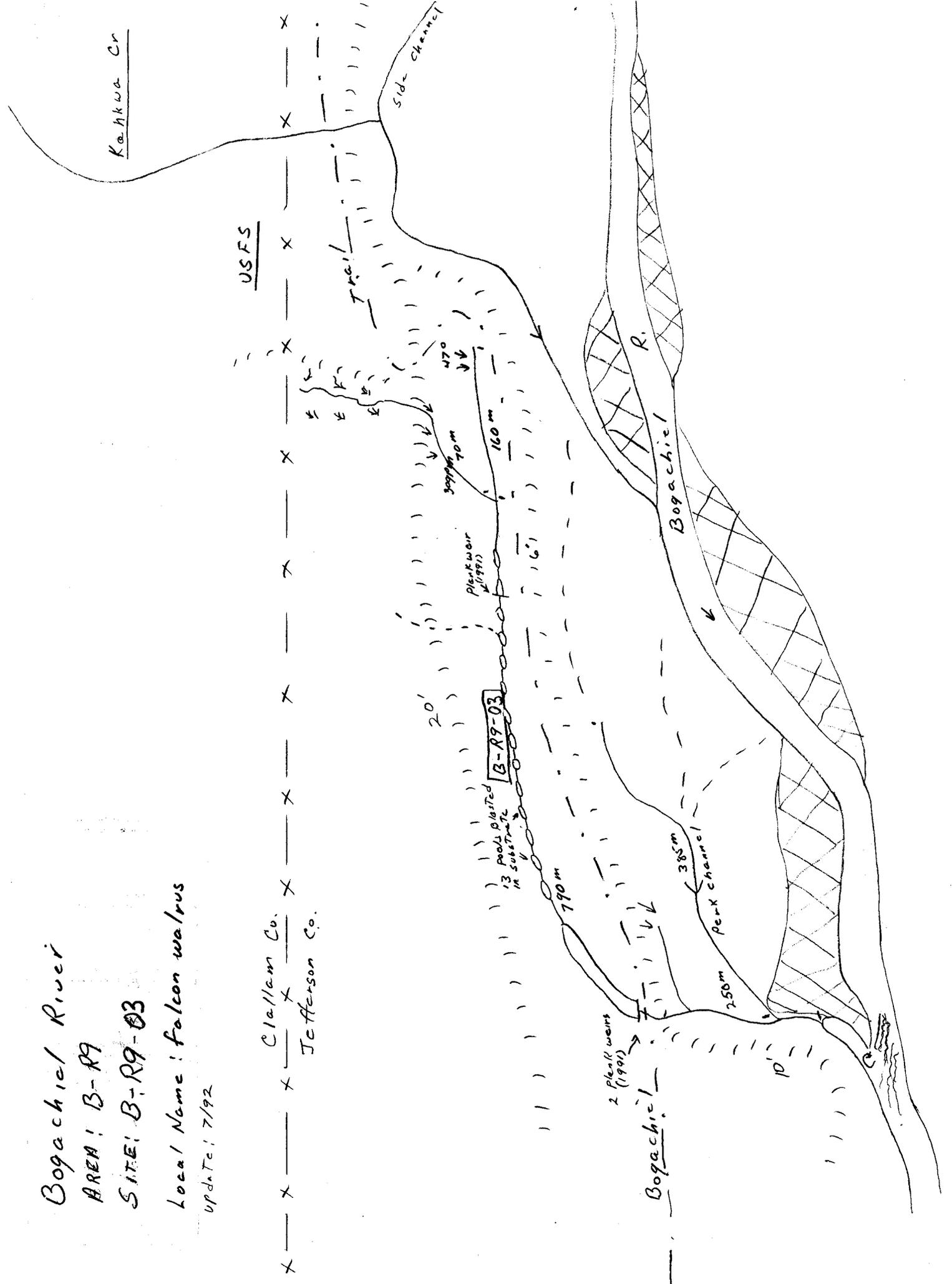
250m

2 Plankton weirs (1991)

Bogachiel

Bogachiel R.

10'



Bogachiel River

Over view map

AREA: B-R9

REV 4/97

